

AP - 001

**STAGE 1 & 2  
REPORTS**

**DATE:**

Aug. 31, 1993



## ATTACHMENT A

### Site Chronology and Process Synopsis; Technical Documents Provided to NMOCD and Document Synopsis

The following synopsis of the chronology of events and processes at the Rexene Brickland Site, Sunland Park, New Mexico is excerpted from a previous report by Valda Terauds.

#### Chronology

From 1933 to 1956, the Brickland Refinery was owned and operated by the McNutt family. El Paso Natural Gas Products Co. operated the refinery from 1956 until 1958. Refinery products quality control laboratory operated at the site until 1964. The property was unused from 1959 to 1967. In 1967, the property was leased to a grocery products transportation company and an auto salvage company. From 1968 to 1989, the property was leased to a garage which serviced trucks on the site. The site was also used at that time to graze livestock and store used bricks.

In 1982, a Preliminary Assessment of the site was performed by USEPA Region VI; no further actions by the EPA have been performed on the site since that time.

In April of 1989, an NMED inspection of the site documented shallow subsurface and surface contamination attributed to former petroleum refining operations. In June and July of 1989, NMED and Rexene collected split samples of soil and groundwater at the site. The EID Draft Screening Site Inspection report was sent to EPA VI for review and contained a preliminary HRS. Compounds detected in samples from the site included: VOCs, SVOCs, Pb, Hg, Cu, As, Ag, Cd, Ni, Cr, and Zn.

In January 1990, a Work Plan was submitted to NMED by Eder and Associates. This included a compilation of background data on surface water, groundwater, soils, and refinery operations. Proposed field work included a soil-gas survey, soil borings, monitoring well installation, surficial soil samples, test pits, and sediment sampling of the Rio Grande. Proposed analyses of water and soil samples included oil and grease, VOCs, semi-VOCs, priority pollutant metals, and major anions and cations in groundwater.

On March 15, 1990, NMED approved the Eder Work Plan, and field work commenced on March 21, 1990. The initial field work included a magnetometer survey, a soil-gas survey, installation and sampling of 15 groundwater monitor wells, 24 soil borings, 91 backhoe test pits, and collection of 20 surface soil and sediment samples.

In July of 1990, the second round of groundwater samples were collected from the site. In August of 1990, the Phase I Site Investigation Report - Field Investigation (Part I) was submitted to NMED. In October of 1990, the Phase I Site Investigation Report - Analytical Findings (Part II) was submitted. The Phase I Site Investigation Report - Laboratory Data Sheets (Part IIA) was submitted in February 1991; the Phase I Site Investigation Report - EID-Requested Information (Part III) was submitted in March of 1991.

### **Refinery Operations:**

The Brickland refinery processed from 3,000 to 8,000 barrels per day of crude oil during its operation. Feedstock likely came from West Texas and New Mexico fields and was trucked to the site. It produced three products: leaded gasoline, kerosene, and platformate (a high octane gasoline).

A refinery of this vintage may have had: steam-heated crude stills, coal-fired boilers, a cooling tower, storage tanks, treatment tanks, oil-water separators, etc. However, the refinery probably lacked more modern facilities such as dissolved air flotation units and biological waste water treatment.

Kerosene was treated with a lead-caustic solution to remove sulfur. Waste oils from this operation were placed into a small pit (estimated 15' x 8' x 2'). This material was later excavated and processed to recover lead.

Tank bottoms and other refinery oily wastes were sold to processors in the local area; this seems consistent with general absence of accumulated waste sludges on-site. No waste materials are known to have been buried; However, aerial photographs of the site show impoundments in the southern portion of the facility.

Storage tanks are believed to have had steel bottoms and most, if not all, were horizontal tanks on concrete/brick saddle supports. Water was supplied from wells adjacent to the Rio Grande.

The following processes occurred at the site:

- Crude oil delivered to tanker truck unloading racks (central refinery area)
- Petreco de-salting unit used to remove salt & water from crude feedstock
- Single-column distillation unit used to distill crude
- Thermal cracking unit - crack the "heavy" (high B.P.) distillation products
- Polymerization unit - polymerize "light" (low B.P.) cracking products into gasoline boiling range fractions
- Platformer unit (early 1950s) - reform naphtha boiling range products into higher octane products
- Clay tower - filtering
- Treatment units - gasoline & kerosene
- Blending units - tetraethyl lead into gasoline

- Finished product stored on-site in tanks
- Process waters pumped from river (S. end of site) - used for cooling; stored in cooling towers and nearby holding ponds

**Additives:**

- Petreco de-salter: emulsion breaker
- Polymerization unit: clay impregnated with solid phosphoric acid (catalyst)
- Platformer unit: alumina impregnated with platinum (catalyst) and alumina beds as a feed pre-wash
- Gasoline treatment: copper, sulfuric acid, caustic soda solution; tetraethyl lead
- Kerosene treatment: caustic soda, lead, sulfur
- Diesel fuel: unspecified additives
- Cooling water: potassium dichromate (anti-slime agent), liquid phosphoric acid & other acids (inhibit scale & slime)

**Waste Disposal Practices:**

1. De-salting unit: waste water with brine and emulsifying agents; pumped through underground pipes to holding ponds at southernmost end of property.
2. Gasoline and Kerosene Treatment Wastes: Disposed of in holding ponds at southernmost property.
3. Free product recovered from pits; accumulated residuals shoveled out and disposed of off-site
4. Hard carbon "coke" - accumulated in heat exchange tubes - removed by drills and air chisels and left in a powder form on the ground
5. Polymerization and platformer unit catalysts periodically replaced. Platinum-impregnated alumina sold to recyclers; other catalysts and clays replaced and disposed off-site by truck.
6. Product spills: leaks in product tanks and in underground piping between refinery units. Recovered leaked product by excavating small pits and removing accumulated product with a vacuum pump. Recovered product reprocessed or returned to storage, depending on condition.

The following technical documents and a brief synopsis of each is being provided to the NMOCD:

- 1) NMED El Paso Products Screening Site Inspection, 9-22-89. This report is NMEDs initial inspection and sampling of the site. This brief report discusses the site history and describes sampling methods, locations, analyses

(VOCs, SVOCs, metals) and results. The highest site sampling results for mercury were obtained during this sampling event. This report contains color photographs of the site and sampling locations.

- 2) NMED El Paso Products Listing Site Inspection, 10-31-90. This more detailed report concerning the site reviews data collected from the site by both Eder and Associates and NMED. Brief descriptions of the site geology and hydrology are included. Potential migration of site contaminants to off-site receptors is discussed; groundwater, surface water, and air migration routes are analyzed.
- 3) Eder and Associates reports, Brickland Refinery Site, Parts I, II, IIa and III

Part I discusses site history and previous studies at the site (NMED field work). A moderately detailed discussion of the site geology and hydrology is included in this report. The report discusses the results of the site magnetometer and soil vapor survey, and the methods and results of site subsurface soil sampling of soils obtained from test pits and boreholes. Initial monitor well sampling results and Rio Grande surface water sampling results are described. Soil and water samples were analyzed for VOCs, SVOCs, and metals; groundwater analyses include water quality analyses.

Part II discusses site geology, and includes a geologic cross-section of the site. Both soil and water analytical data is presented in tabular and graphic formats. Background metals levels are discussed, and validated data from the initial round of sampling at the site is presented.

Part IIA presents all laboratory data sheets from site sampling performed by Eder.

Part III of this report is a response to comments by NMEID on the previous parts of the report. This report presents field parameters collected from on-site monitoring wells.

DEC 14 1992



BRUCE KING  
GOVERNOR

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**ENVIRONMENT DEPARTMENT**  
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JUDITH M. ESPINOSA  
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December 8, 1992

Michael P. Steindler, Esq.  
Vice President and General Counsel  
REXENE CORPORATION  
5005 LBJ Freeway  
Dallas, TEXAS 75244

Dear Mr. Steindler:

Re: IN RE REXENE PRODUCTS COMPANY, et al.  
U.S.Br.CT., D.DEL. NOS. 91-1057 through  
91-1059

I have enclosed our draft administrative order on consent for environmental remediation at the old Brickland Refinery site in Sunland Park, County of Doña Ana, New Mexico. The property belongs to Rexene.

As you may know, the company and our department have been moving to an administrative order for clean up since before the bankruptcy. The process got delayed by our internal development of a standard form of order and by uncertainties related to the company's bankruptcy status. We are now satisfied with the form of order presented here.

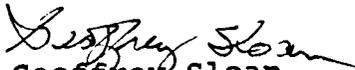
At the end of October, 1992, I was in touch with Robert Sutphen from Rexene about our administrative claim No. 1484 in the bankruptcy case. He asked that we execute a stipulation to delete the projected amount of our claim and, instead, retain unaltered our unquantified prepetition legal, equitable and contractual rights.

I told Mr. Sutphen that we were on the verge of a form of order for settling our claim and that we would prefer to exchange our stipulation in the bankruptcy court for your agreement on the consent order. Mr. Sutphen last indicated that Rexene may no longer need the department's stipulation in the bankruptcy case, but nothing has been served on us to indicate that our administrative claim has been challenged.

Michael P. Steindler, Esq.  
December 7, 1992  
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In any event, I believe you can agree that it will be in our mutual best interests to promptly negotiate and settle Rexene's clean up responsibilities at the Brickland Refinery site. The enclosed administrative order on consent is the vehicle we propose for that purpose. We shall appreciate the company's earliest attention and comment. Please let me know if you have any questions.

Sincerely,

  
Geoffrey Sloan

Assistant General Counsel  
Special Assistant Attorney General

505 827-2990

Enclosure

cc: Kathleen Sisneros, w/o encl.  
Steve Carey, w/o encl.  
Randy Merker, w/o encl.  
Dennis Slifer, w/ encl.  
Robert Sutphen, w/ encl.

NEW MEXICO ENVIRONMENT DEPARTMENT

IN THE MATTER OF: )  
REXENE CORPORATION )  
(formerly known as Rexene )  
Products Company), et al., )  
RESPONDENT. )

ADMINISTRATIVE ORDER ON CONSENT

DRAFT

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## ADMINISTRATIVE ORDER ON CONSENT

This Administrative Order on Consent ("Consent Order") is made and entered as of \_\_\_\_\_, 19\_\_, by and between Rexene Corporation ("Rexene"), a [name of state] corporation, owner of the El Paso Products Site (a/k/a Brickland Refinery) and the New Mexico Environment Department ("NMED"), an executive branch agency of New Mexico state government.

### I. BACKGROUND.

1. Rexene owns the El Paso Products Site ("the Site"), a former oil refinery located in Sunland Park, County of Doña Ana, New Mexico. The Site (approximately 42 acres in area, of which 30 acres were part of the refinery operation) is located adjacent to the Rio Grande, approximately two miles northwest of El Paso, Texas.

2. NMED is a constituent agency of the New Mexico Water Quality Control Commission ("NMWQCC") to which the NMWQCC has delegated authority to enforce the New Mexico Water Quality Act, Sections 74-6-1 through 74-6-12 NMSA 1978, and the regulations promulgated thereunder. NMED is the successor agency to the Environmental Improvement Division was the predecessor of the New Mexico Health and Environment Department. Section 9-7-A-3 NMSA 1978.

3. From the early 1930s until 1956, the Site, then known as Brickland Refinery, was operated as a crude oil refinery until El Paso Products Company ("EPC") purchased the property in 1956.

EPC operated the refinery until 1958. The property was unoccupied from 1959 until 1967. During 1967 2/3 of the property was leased by EPC to a grocery products transportation company, and the remaining property was leased to an auto salvage company.

4. Rexene purchased the outstanding shares of El Paso Products Company in 198\_\_\_. As of the date hereof, the only authorized operation on the Site is the dismantling of buildings. However, unauthorized dumping of construction debris occurs, and several years ago, Rexene authorized dredging from the Rio Grande to be deposited onto the Site.

5. In June and July, 1989, and April and July, 1990, the presence of high concentrations of heavy metals (Pb, Hg, Cu, As, Ag, Cd, Ni, Cr, Zn) and numerous volatile and semi-volatile organic compounds (VOCs and SVOCs) was discovered in groundwater and soil at and in the vicinity of the Site.

6. In June and July, 1989, NMED conducted a Screening Site Inspection ("SSI") at the Site. NMED prepared and delivered a draft report of the SSI to USEPA Region VI for review. Heavy metals and volatile and semi-volatile organic compounds were identified in sediment, tar and sludge samples collected on-site at concentrations significantly above background. Field investigations conducted in March, April, and July, 1990 by Rexene representatives under NMED supervision revealed the presence of lead, copper, arsenic, zinc, chromium, cadmium, silver, and mercury in soil and waste samples at concentrations significantly above background.

7. Rexene is continuing to investigate the Site in accordance with the Statement of Work which is made a part hereof as Appendix A. The Statement of Work identifies additional investigative and remedial undertakings that Rexene will complete under NMED's supervision.

II. JURISDICTION.

8. NMED has jurisdiction over Rexene and the subject matter of this Consent Order pursuant to and including without limitation the Federal Comprehensive Environmental Response, Compensation and Liability Act, §§ 107 and 310, 42 U.S.C. §§ 9607 and 9659 ("CERCLA"); the New Mexico Water Quality Act, §§ 74-6-1 through 74-6-12 NMSA 1978, and the regulations promulgated thereunder; the New Mexico Department of Environment Act, §§ 9-7A-1 through 9-7A-12 NMSA 1978; and New Mexico statutory and common law public nuisance. In any action by NMED to enforce the terms of this Consent Order, Rexene agrees not to contest the authority or jurisdiction of NMED to enter into or enforce this Consent Order.

III. PARTIES BOUND.

9. This Consent Order applies to and is binding upon NMED and upon Rexene and their successors and assigns. No change in ownership or corporate status of Rexene, including without limitation asset transfers, shall affect Rexene's responsibilities under this Consent Order.

10. All work performed pursuant to this Consent Order shall be performed under the direction and supervision of a qualified professional with appropriate experience to oversee the work.

Rexene shall provide a copy of this Consent Order to the Supervising Contractor (as defined below) hired to perform the work and shall condition all its contracts entered hereunder upon performance of the Work in conformity with the terms of this Consent Order.

11. By entering into this Consent Order, Rexene does not admit any liability relating to contamination on, or emanating from, the Site.

12. Nothing contained in this Consent Order shall affect any right, claim, cause of action or defense of any party hereto with respect to third parties.

IV. DEFINITIONS.

13. Terms listed below are used in this Consent Order and the appendices as follows:

Advisory Group shall be composed of the Secretary of NMED, or her designee, and Rexene, or Rexene's designee.

Consent Order shall mean this Order and all its appendices. In the event of conflict between this Order and any appendix, this Order shall control.

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

Future Response Costs shall mean all costs, including, without limitation, direct and indirect costs that NMED incurs in reviewing and developing plans, reports and other items pursuant to this Consent Order, and verifying the work, and otherwise implementing, overseeing, and enforcing this Consent Order, including without limitation, payroll costs, contractor costs,

travel costs, laboratory costs, attorneys' fees and the costs of implementing the Community Relations Plan that will be developed pursuant to the Statement of Work.

NMED shall mean the New Mexico Department of Environment and any successor department or agency of the State.

Parties shall mean the NMED and Rexene.

Past Response Costs shall include those costs, including direct and indirect costs, paid by the NMED in connection with the Site prior to the execution of this Consent Order, exclusive of U.S. EPA-reimbursed costs under U.S. EPA-NMED's Multisite Cooperative Agreement.

Site shall mean the Rexene facility, encompassing approximately 42 acres, located at Sunland, New Mexico.

Statement of Work or SOW shall mean the statement of work as set forth in Appendix A to this Consent Order and any modifications made in accordance with this Consent Order.

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

Technical Group shall be composed of a technical designee or designees of the Secretary of NMED, a technical representative designated by Rexene, and the Supervising Contractor or its designee.

Work shall mean all activities that Rexene is required to perform under this Consent Order, as described in the Statement of Work.

Working day shall mean a day other than a Saturday, Sunday, or Federal or State of New Mexico holiday.

V. GENERAL PROVISIONS.

14. Objectives of the Parties.

The objectives of the Parties in entering into this Consent Order are to protect public health, welfare and the environment at the Site through the investigation, design and implementation of appropriate response actions at the Site by Rexene and to reimburse response costs of NMED, and community relations and public participation costs relating to this Consent Order.

15. Commitments by Rexene.

Rexene shall finance and perform the Work in accordance with this Consent Order and all plans, standards, specifications, and schedules set forth in or developed pursuant to the Statement of Work. Rexene also shall reimburse NMED for Past Response Costs and Future Response Costs, and community relations and public participation costs, relating to this Consent Order.

16. Compliance With Applicable Law.

All activities required by this Consent Order shall be undertaken in compliance with the requirements of all applicable federal, state, and local laws and regulations. Nothing contained in this Consent Order shall be construed as relieving Rexene of any liability from, or obligation to comply with, applicable laws. NMED specifically retains the right to conduct other environmental studies, investigations, monitoring,

or emergency activities at the Site and Site vicinity and to enforce all laws, statutes and regulations NMED is authorized to enforce.

17. Permits.

a. Where any portion of the Work requires a federal, state or local permit or approval, Rexene shall submit timely and complete applications and take all other actions necessary to obtain all such permits or approvals.

b. Rexene may seek relief under the provisions of Section XXII (Force Majeure) of this Consent Order for any delay in the performance of the work resulting from a failure to obtain, or delay in obtaining, any permit required for the Work, so long as Rexene has complied in all material respects with the requirements contained in Subparagraph 17a of this section.

c. This Consent Order is not, and shall not be construed to be, a permit issued pursuant to any federal, state or local statute, regulation or ordinance.

d. NMED shall provide Rexene with assistance in obtaining permits, releases and other types of permission or authorization from governmental agencies and political subdivisions. At a minimum, NMED shall provide a formal statement that the work for which a permit or other type of permission is required is consistent with the terms of this Consent Order. NMED agrees not to hinder or interfere with any negotiations by or between Rexene and the State Engineer, the City of Sunland Park, the County of Doña Ana, or any federal,

state, local or private entity or agency which are required by the terms of this Consent Order.

e. This Consent Order does not waive or reduce any requirements which might otherwise apply to actions taken by Rexene, including local, state, or federal permits for particular activities taken pursuant to this Consent Order.

18. Good Faith Performance.

The Parties agree that they will act reasonably and in good faith at all times to accomplish the objectives of this Consent Order, and shall perform all evaluations and actions required by this Consent Order using sound scientific judgment.

19. Technical Group.

a. Rexene and NMED shall establish a Technical Group to meet periodically and as necessary to review and discuss issues of a scientific or engineering nature concerning direction and implementation of the Work called for by this Consent Order, and as provided in Section XIV (Resolution of Technical Disputes).

b. Meetings of the Technical Group shall be considered informal working sessions and statements made during such sessions by NMED or Rexene personnel and their contractors shall not be construed as representing official NMED or Rexene policy unless confirmed in writing by the Secretary of NMED or the Rexene's duly appointed representative.

20. Advisory Group.

a. Rexene and NMED shall establish an Advisory Group to meet as necessary to resolve disputes in accordance with Section XIV (Resolution of Technical Disputes).

b. Meetings of the Advisory Group shall be informal working sessions and statements made during such sessions by NMED or Rexene personnel shall not be construed as representing official NMED or Rexene policy unless confirmed in writing by the Secretary of NMED or Rexene's duly appointed representative.

VI. EXCHANGE OF INFORMATION.

21. Rexene and NMED agree to cooperate fully in reporting and in exchanging information developed pursuant to this Consent Order. Routine communications may be exchanged between the Parties and their contractors to facilitate the orderly conduct of the work, but no such communication shall alter or waive any rights or obligations of the Parties under this Consent Order. No guidance, suggestions or comments by NMED will be construed as relieving Rexene of its obligation to obtain formal approval required by this Consent Order. The Parties agree to routinely exchange technical data developed pursuant to this Consent Order or which is in possession of the Parties upon execution of this Consent Order and upon request by one party to the other, unless the Party asserts that such data are legally privileged from disclosure. Rexene may confer with NMED at any time prior to submittal of any proposals, plans, studies, reports or other documents required by this Consent Order.

VII. LEGAL PRIVILEGES.

22. The Parties expressly reserve any and all privileges, such as the attorney-client and attorney work product, to which they are entitled. Nothing in this Consent Order shall be construed as a waiver by either party of any of these privileges. No exchange of information for which privileged non-disclosure may be available shall be construed to be a waiver of such privilege as to any other information to which such privilege may attach. All provisions in the Consent Order regarding information sharing are subject to these privileges. Except as expressly provided herein, the Parties reserve all other legal privileges and rights.

VIII. PERFORMANCE OF THE WORK BY REXENE.

23. All aspects of the work to be performed by Rexene pursuant to Paragraph 15 (Commitments by Rexene) and Section IX (Quality Assurance, Sampling and Data Analysis) of this Consent Order shall be under the direction and supervision of the Supervising Contractor. Within ten (10) days after execution of this Consent Order, Rexene, shall notify NMED in writing for NMED approval, which approval shall not be unreasonably withheld, the name, title and qualifications of the contractor proposed to be the Supervising Contractor. If at any time Rexene proposes to change a Supervising Contractor, Rexene shall give at least seven (7) days notice to NMED during which time NMED may approve or disapprove such proposed Supervising Contractor. Rexene shall identify to NMED the Supervising Contractor's key project manager(s).

IX. QUALITY ASSURANCE, SAMPLING, AND DATA ANALYSIS.

24. Rexene shall use quality assurance, quality control, and chain of custody procedures for all samples collected pursuant to this Consent Order. Rexene shall submit to NMED Quality Assurance Project Plans ("QAPPs") for NMED approval in accordance with the SOW. Rexene shall ensure that NMED personnel and authorized representatives have access at reasonable times to all laboratories utilized by Rexene in implementing this Consent Order. In addition, Rexene shall ensure that such laboratories shall analyze all samples submitted by either party pursuant to the QAPP for quality assurance monitoring.

25. Upon request, both Parties shall allow each other to take split or duplicate samples of any samples collected pursuant to this Consent Order. In order to facilitate such efforts, the Parties shall, to the maximum extent possible, provide at least seven (7) days advance notice of any sample collection dates that may differ from the dates set forth in the NMED-approved workplans. When it is not possible to provide the full 7-day notice, the Parties agree to provide as much advance notice as possible, but in no event less than twenty-four (24) hours' telephonic or facsimile transmission notice prior to collection of samples.

26. In its sole discretion, NMED may request that Rexene perform, at Rexene's expense, analysis of blind, blank, spike, and duplicate samples to demonstrate the quality of the analytical data produced by laboratories utilized to implement

the work requirements included in the SOW. NMED shall request no more than one such sample per analytical method per sampling day.

X. REPORTING REQUIREMENTS.

27. Throughout the course of work performed pursuant to this Consent Order, Rexene shall submit to NMED quarterly written progress reports by January 15, April 15, July 15, October 15, respectively, covering the previous quarter's work. These progress reports shall include, at a minimum, the following:

- a. a brief description of activities completed during the reporting period to implement the requirements of this Consent Order;
- b. a brief description of activities scheduled for the following reporting period;
- c. a description of any personnel changes which occurred during the reporting period;
- d. a description of any problems encountered during the reporting period and mechanisms used or proposed for resolving the problems;
- e. copies of all data, sampling, and test results and all other laboratory deliverables received by Rexene during the reporting period; and
- f. tables and figures summarizing all data.

XI. REXENE'S WORK PRODUCTS.

28. Rexene shall submit two (2) copies of the progress reports described in Section X (Reporting Requirements) above as well as the deliverables set forth in Appendix B (hereinafter collectively referred to as "Work Products") to [PROGRAM CONTACT]

or his successor at the address listed in Section XXVI (Notification) of this Consent Order. Rexene shall simultaneously provide one (1) copy of the Work Products to the repository designated in the Community Relations Plan as specified in Appendix A (Statement of Work).

XII. COST REIMBURSEMENT.

29. Within thirty (30) days after execution of this Consent Order, Rexene shall pay to NMED Past Response Costs of \$\_\_\_\_\_. [Amount to be negotiated prior to execution.]

30. Rexene shall pay to NMED Future Response Costs on an annual basis according to the following procedure:

- a. On or before December 1st of each calendar year that this Consent Order is in effect, NMED and Rexene shall agree upon an estimated amount of Future Response Costs (the "Estimated Future Response Costs") that NMED will incur during the next calendar year; and
- b. On or before January 1st of each calendar year that this Consent Order is in effect, Rexene shall pay to NMED, in advance, one hundred (100) percent of the amount of Estimated Future Response Costs for the succeeding year. NMED shall expend such funds only to pay Future Response Costs.
- c. If the amount of Estimated Future Response Costs for a given calendar year exceeds the amount of

Future Response Costs actually expended by NMED during such year, NMED shall reimburse to Rexene any funds not expended by NMED on Future Response Costs.

- d. If the amount of Estimated Future Response Costs for a given calendar year falls short of the amount of Future Response Costs actually expended by NMED during such year, Rexene shall reimburse to NMED any funds reasonably expended by NMED in connection with the terms of the Consent Order.

XIII. ACCESS.

31. To the extent access to the areas is controlled by Rexene, Rexene shall, at all reasonable times, provide NMED and its employees, contractors and agents access to the Site and any other areas upon which work pursuant to this Consent Order is done for the purposes of conducting any activity related to this Consent Order including without limitation the following: (a) reviewing the progress of Rexene in carrying out the provisions of this Consent Order; (b) conducting such tests and taking such samples as NMED deems necessary; (c) verifying the data submitted to NMED by Rexene; and (d) overseeing activities and work undertaken pursuant to this Consent Order.

32. In connection with the NMED's access to the Site, Rexene shall permit NMED and its employees, contractors and agents to inspect and copy all records, files, photographs, documents, and other writings, including sampling and monitoring data for work undertaken pursuant to this Consent Order, provided

however, that Rexene shall expressly reserve any and all privileges under Paragraph VII (Legal Privileges).

33. NMED and its employees, contractors and agents shall give Rexene at least twenty-four (24) hours' oral or written notice prior to entering the Site. Upon such notice, Rexene shall provide an authorized representative to accompany NMED's employees or contractors while at the Site. Rexene shall permit such persons to be present and move freely at the Site at all times during which work is being conducted pursuant to this Consent Order. In the event of an emergency, NMED, its employees, contractors and agents need not give notice of entry, but may act in accordance with NMED's statutory authority.

34. NMED's employees, contractors and agents shall abide by Rexene's reasonable safety requirements and procedures while at the Site.

35. To the extent that access to property owned or controlled by persons other than Rexene may be required to carry out the terms of this Consent Order, Rexene shall use best efforts to obtain from such persons access for itself, its contractors and agents, and NMED and NMED's employees, contractors and agents.

36. In the event that Rexene is unable to gain needed off-site access on its own and no other suitable alternatives are available, NMED shall assist Rexene, when requested to do so in writing, to gain access to such property pursuant to NMED's statutory authority. At a minimum, NMED shall encourage off-site

property owners in writing to grant access to Rexene to accomplish the purposes of this Consent Order.

37. NMED shall assist Rexene in obtaining municipal, county, or other administrative approval for access when so requested in writing by Rexene pursuant to NMED's statutory authority.

XIV. RESOLUTION OF TECHNICAL DISPUTES.

38. Unless otherwise expressly provided for in this Consent Order, the dispute resolution procedures of this Section shall be the exclusive mechanism to resolve technical disputes between the Parties arising under or with respect to this Consent Order.

39. Disputes shall in the first instance be the subject of informal negotiations between the Parties. The period for informal negotiations shall not exceed twenty (20) days from the time the dispute arises, unless the time for informal negotiation is modified by written agreement between the Parties. The dispute shall be considered to have arisen when one Party sends a written Notice of Dispute to the other Party.

40. In the event that the Parties cannot resolve a dispute by informal negotiations under the preceding Paragraph, the disputing Party may invoke the formal dispute resolution procedures of this Section:

a. By serving pursuant to Section XXVII (Notification) on the non-disputing Party and the Technical Group a written Statement of Position on the matter in dispute, including without limitation factual data, analyses, opinions and documentation supporting that position.

b. Within fourteen (14) days after receipt of the disputing Party's Statement of Position, the non-disputing Party shall serve pursuant to Section XXVII (Notification) on the disputing Party and the Technical Group its Statement of Position, including without limitation factual data, analyses, opinions and documentation supporting that position.

c. Within thirty (30) days after receipt of the disputing Party's and the non-disputing Party's Statements of Position, the Technical Group shall meet to resolve the dispute.

d. If the dispute remains unresolved thirty (30) days after the Technical Group meeting, the disputing Party may forward copies of the disputing Party's Statement of Dispute and the non-disputing Party's Statement of Dispute to the Advisory Group.

e. Within thirty (30) days after receipt of the Statements of Position from the disputing Party, the Advisory Group shall meet to resolve the dispute.

f. If the dispute remains unresolved thirty (30) days after the Advisory Group meeting, NMED shall issue a final decision, including a statement of the reasons for its decision, and serve it on ATSF pursuant to Section XXVII (Notification). This final decision is considered final action for purposes of this Consent Order. Final action by NMED shall be binding upon the Parties unless ATSF invokes the binding arbitration procedure set forth in Paragraph 40.g.

g. ATSF may invoke binding arbitration from a final decision of NMED under this Section in accordance with the New

Mexico Uniform Arbitration Act, §§ 44-7-1 to 44-7-22 NMSA 1978, and under the Rules of the American Arbitration Association within thirty (30) days after NMED's issuance of its final decision. Judgment upon the award rendered by the arbitrator may be entered in the District Court for the First Judicial District in Santa Fe. The Parties shall share equally in the costs of arbitration. However, any Party requesting recordation and/or transcription of the proceedings, or any portion thereof, shall assume the costs of such recordation and/or transcription. Final decisions of NMED which are not subject to binding arbitration under this Section may be appealed to the District Court for Valencia County. Such decisions include decisions involving questions of law and the authority to enforce law, including without limitation NMED's decision of whether termination pursuant to Section XXVIII is appropriate.

h. Notwithstanding the above, in any arbitration conducted in connection with this Consent Order, at the request of either Party, the arbitrator shall conclude, in addition to the issues presented at the arbitration, whether either Party invoked the arbitration clause in bad faith for purposes of delay or any other reason. Where the arbitrator concludes one Party has acted in bad faith, the arbitrator shall award to the Party acting in good faith, all of its costs, including attorney's fees, reasonably expended in connection with the arbitration.

41. If ATSF invokes arbitration, the Parties' related obligations under this Consent Order may be suspended until

conclusion of arbitration. All undisputed Work shall continue as scheduled, to the extent practicable.

XV. ENFORCEMENT.

42. The Parties agree that this Consent Order shall be enforceable by either Party by the filing of a civil action in the District Court for the First Judicial District in Santa Fe. The Parties agree that such court has jurisdiction over the subject matter of this Consent Order and the Parties. The Parties shall not challenge such jurisdiction and hereby waive any right they may have to do so.

XVI. STIPULATED PENALTIES FOR NON-COMPLIANCE.

43. If Rexene fails to timely satisfy the requirements of this Consent Order, Rexene shall pay penalties in the amounts set forth in Paragraphs 44 and 45, unless excused under Section XXI (Force Majeure).

44. The following stipulated penalties shall be payable per violation per day to NMED for failure to timely submit any proposals, plans or reports required by this Consent Order, including without stipulation quarterly progress reports: \$1,000 per day for the first week of violation; and \$4,000 per day thereafter.

45. The following stipulated penalties shall be payable per violation per day to NMED for failure to commence or complete on time the investigation or remediation activities as described in the NMED-approved work plans: \$2,500 per day for the first week

of violation; \$5,000 per day for the second week of violation; and \$10,000 per day thereafter.

46. Payment for any violations of this Consent Order shall be made by certified check payable to the State of New Mexico, c/o NMED, and shall be mailed to the New Mexico Environment Department, Office of General Counsel, P.O. Box 26110, Santa Fe, New Mexico 87502.

47. Penalties shall accrue from the close of business on the day such requirements is due and shall cease to accrue on the day NMED receives the required submittal or Rexene commences or completes the required activity, as applicable. Penalties shall be due and payable on or before the twentieth (20) day following the date NMED mails notice to Rexene of the imposition of such penalty[s]. Any disagreement over the factual basis for accrual of penalties under this Section shall be resolved pursuant to the procedures set forth in Section XIV (Resolution of Technical Disputes).

XVII. INDEMNIFICATION.

48. NMED, its employees, contractors and agents shall not be liable for any injuries or damages to persons or property resulting from the acts or omissions of Rexene and its employees, agents and contractors in any work pursuant to this Consent Order. Neither NMED nor its employees, contractors and agents shall be held out as a party to any contract entered into by Rexene in carrying out activities pursuant to this Consent Order.

49. Rexene agrees to indemnify and hold harmless NMED and its employees, agents and contractors from any and all third-

party claims or causes of action arising from, or on account of, the acts or omissions of Rexene, its officers, agents, assigns and employees pursuant to this Consent Order.

**XVIII. SECURITY FOR PERFORMANCE.**

50. On or before the effective date of this Consent Order, Rexene shall provide NMED with financial assurance satisfactory to NMED to guarantee performance of the requirements of this Consent Order.

**XIX. TRANSFER OF PROPERTY.**

51. No conveyance of title, easement or other interest in the Site on which any containment system, treatment system, monitoring system or other response action(s) is installed or implemented pursuant to this Consent Order shall be consummated by Rexene without provision for continued maintenance for any such system or other response action(s). At least thirty (30) days prior to any conveyance, Rexene shall notify NMED in writing of the provision made for the continued operation and maintenance of such system or response action(s) installed or implemented pursuant to this Consent Order.

52. So long as this Consent Order remains in effect, Rexene shall provide a copy of this Consent Order to each subsequent owner and successor at least thirty (30) days prior to transfer of ownership rights held by Rexene and shall simultaneously notify NMED that such notice to a successor has been given.

**XX. NOTICE OF EQUITABLE SERVITUDE.**

53. Within five (5) days after the effective date of this Consent Order, Rexene shall record a Notice of Equitable

Servitude, in the form attached hereto as Appendix B, in the appropriate registry of deeds for Dona Ana County, New Mexico, that Rexene and subsequent property owners are subject to continuing terms of this Consent Order. Rexene shall promptly provide NMED with a copy of the notice so recorded. Rexene may file a second notice signed by NMED in the appropriate registry of deeds for Dona Ana County, New Mexico evidencing Rexene's satisfaction of the terms of this Consent Order upon termination pursuant to Section XXVII (Termination).

XXI. FORCE MAJEURE.

54. The Parties shall perform the requirements of this Consent Order within the time limits set forth herein, unless performance is prevented or delayed by events which constitute a force majeure. A force majeure is defined as any event arising from causes not foreseeable and beyond the control of the party which could not be overcome by due diligence and which delays or prevents performance by a date required by this Consent Order. Such events do not include unanticipated or increased costs of performance or changed economic circumstances.

55. The Party claiming force majeure shall give telephonic or facsimile transmission notice to the other Party pursuant to Section XXVI (Notification) within forty-eight (48) hours after the event which the claiming Party knows or should know constitutes a force majeure, and shall follow up in writing within seven (7) days after the event. The written notice shall contain an estimate of the anticipated length of delay, a description of the cause of delay, a plan for implementing

measures to address the problem and avoid such delays in the future, and an estimated schedule for implementation of these measures. The claiming Party shall adopt all reasonable measures to avoid and minimize the delay. Failure to comply with the notice provisions of this Section shall constitute a waiver of the claiming Party's right to assert force majeure as a defense to violating this Consent Order.

**XXII. COVENANT NOT TO SUE.**

56. NMED agrees not to pursue any other relief, civil or administrative, to seek or recover damages or penalties against Rexene, its successors, assigns and employees, for past actions related to any environmental contamination of the Site under the facts of this Consent Order and the subject of this Consent Order; except that NMED expressly retains the right to (a) seek enforcement of this Consent Order pursuant to Section XV (Enforcement) including collecting stipulated penalties for violations of this Consent Order as provided by Section XVI (Stipulated Penalties for Non-Compliance); and (b) pursue civil or administrative relief for future violations of law.

**XXIII. AMENDMENTS.**

57. This Consent Order may be amended only by mutual agreement of the Parties. All amendments shall be in writing, signed by Rexene and the Secretary of NMED, shall become effective upon execution by all Parties, and shall be incorporated automatically into this Consent Order by reference.

**XXIV. ADDITIONAL WORK.**

58. During the course of the work performed by Rexene pursuant to this Consent Order NMED may determine that sampling, analysis, reporting or other tasks in addition to those specifically set forth herein are necessary to satisfy the purposes of this Consent Order. If NMED so determines in its sole discretion, it will advise Rexene in writing of the nature of the additional tasks and the basis for NMED's determination subject to the dispute resolution provision of Section XIV (Resolution of Technical Disputes).

Unless contested as provided in Section XIV (Resolution of Technical Disputes), Rexene shall undertake, perform, and complete all such additional tasks and provide such documents and reports required by NMED in addition to those otherwise required by this Consent Order. The additional work shall be completed in accordance with the standards, specifications and schedules set forth by NMED.

**XXV. COMPUTATION OF TIME.**

59. In computing any period of time prescribed in this Consent Order, the day of the act, event, requirement or default from which the designated period of time begins to run shall not be included. The last day of the period so computed shall be included, unless it is a Saturday, Sunday or federal or state of New Mexico holiday, in which event the period runs until the end of the next day which not a Saturday, Sunday or holiday.

**XXVI. NOTIFICATION.**

60. Whenever the terms of this Consent Order require notification by one Party to another, it shall be directed to the individuals at the addresses below, unless those individuals or their successors give notice in writing to the other Parties of other individuals designated to receive such communications. Unless expressly provided otherwise, notification required under this Consent Order shall be perfected upon the certified mailing of such notice.

For NMED:

[Program Person]  
NMED Ground Water Protection  
and Remediation Bureau  
1190 St. Francis Drive  
P.O. Box 26110  
Santa Fe, NM 87502  
(505) 827-\_\_\_\_\_

GOEFFREY SLOAN  
NMED Office of General Counsel  
1190 St. Francis Dr.  
P.O. Box 26110  
Santa Fe, NM 87502  
(505) 827-2854

For Rexene:

[corporate person]  
[NAME OF PARTY], Inc.

[attorney]

**XXVII. TERMINATION.**

61. The requirements of this Consent Order shall be deemed satisfied upon written notice from the Secretary of NMED that Rexene has demonstrated that all of the terms of this Consent Order and additional requirements developed pursuant to Section XXIV (Additional Work) have been completed. Such notice shall not be unreasonably withheld by NMED, and the failure to issue

such notice shall be subject to the dispute resolution procedures of Section XIV (Resolution of Technical Disputes).

62. Rexene may provide NMED with a Notification of Completeness at any time. Within thirty (30) days after NMED receives a Notification of Completeness from Rexene, NMED shall determine whether Rexene has demonstrated, to the satisfaction of NMED, that all of the terms of this Consent Order and additional requirements developed pursuant to Section XXIV (Additional Work) have been completed and provide a written copy of such determination to Rexene.

63. The Parties further agree that their obligations under this Consent Order may be terminated by mutual written agreement signed by the Secretary of NMED and Rexene.

64. Upon termination of Rexene's obligations under this Consent Order as specifically provided under this Section, NMED shall thereafter be barred from pursuing any civil or administrative action against Rexene arising out of or relating in any way to the subject matter of this Consent Order.

**XXVIII. MERGER.**

65. This Consent Order contains all the terms of the settlement agreement between the Parties, there being no oral agreements not contained herein.

**XXIX. SEVERABILITY.**

66. If any part or application of this Consent Order is held invalid, the remainder, or its application to other situations or persons, shall not be affected.

XXX. ADVICE OF COUNSEL.

67. The parties hereto acknowledge that they each enter into this Consent Order after thorough review by, and on advice of, their respective legal counsel.

XXXI. EFFECTIVE DATE.

68. This Consent Order is effective on the day on which the last party executes this document.

[Signature Pages]

APPENDIX A

REXENE STATEMENT OF WORK

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1. SCOPE OF INVESTIGATION AND REMEDIATION.

1.1. Objectives. Environmental issues at the Site to be addressed include, but are not necessarily limited to:

- o impacts to soil, sediment, bedrock, ground water, surface water, human health, animal or plant life, property, public welfare, and use of property associated with past or present contaminant discharges on the Site;
- o impacts from any leaks from lines, tanks or other underground utilities on the Site, including the leaching of existing subsurface contaminants by such leaks;
- o impacts to sensitive environments including Federal Wild and Scenic Rivers and wetlands;
- o impacts or potential impacts of contaminants originating at the Site to public and private water supply wells in the Site vicinity.

Rexene shall investigate the above-listed issues and, if deemed necessary by NMED, take appropriate corrective actions.

1.2. Investigation Area. The investigation shall include, but not necessarily be limited to, the following geographic area:

all of that area within the territorial boundaries of the United States located within a four mile radius extending from the center of the El Paso Products Site (formerly the "Old Brickland Refinery"), approximately 42 acres, located in Sunland Park, Doña Ana County, New Mexico, on the border of Texas and New Mexico, and adjacent to the Rio Grande, including the surface water of the Rio Grande adjacent to and extending downstream from the Site for a distance of fifteen (15) miles.

The Investigation Area shall be extended beyond the above-described area if NMED determines that contaminants originating from the Site have caused or have significant potential to cause adverse environmental or health effects beyond the area described above with respect to one or more of the Media to be Investigated, as defined in Section 1.3 of this Appendix. At any time during the term of the Consent Order, Rexene may propose to divide the Investigation Area into separate operable units, each of which will be subject, in parallel manner, to the procedures specified below.

1.3. Media to be Investigated. The investigation shall include, but not necessarily be limited to, the following media:

- o the uppermost aquifer and any deeper aquifers hydraulically connected to and potentially impacted by the uppermost aquifer in the Investigation Area;
- o the vadose zone, vadose-zone moisture, perched ground water, and vadose-zone vapor in the Investigation Area;
- o all perennial, ephemeral or intermittent surface water and stream sediment in the Investigation Area;
- o sensitive environments and wetlands in the Investigation Area;
- o edible fish tissue in the Investigation Area; and
- o other plant or animal life in the Investigation Area if determined to be necessary by NMED.

1.4. Investigation Parameters. Rexene shall identify and define the extent and health and environmental consequences of all contamination by petroleum hydrocarbons, solvents, metals, sulfate, chloride, other dissolved or suspended solids, pH, Eh and any other hazardous or toxic substances, pollutants or contaminants that may have been released in the Investigation Area.

1.5. Remediation Standards. The following constitute preliminary lists of Remediation Standards that will apply to the Site. A complete and final list of Remediation Standards will be developed during the Remediation Proposal in accordance with Section 2.4 (Remediation Proposal) below.

1.5.1. Vadose Zone Remediation Standards. Rexene shall remediate vadose-zone contamination to conform to the following standards:

1. Vadose-zone contaminants shall not be capable of contaminating ground water in excess of the standards listed in Section 1.5.2 below, through percolation or as the water table rises and falls with seasonal or pumping-induced fluctuations; and

2. Vadose-zone contaminants shall not injure human health, animal or plant life or property, or unreasonably interfere with the public welfare or the use of property through inhalation, ingestion, direct contact, or the accumulation of potentially explosive vapor in surface or subsurface structures.

**1.5.2. Ground-Water Remediation Standards.** For contaminants posing a risk to human health, Rexene shall remediate ground water to the more stringent of New Mexico Water Quality Control Commission (N.M. WQCC) Regulations Section 3-103.A Ground-Water Standards, and U.S. Environmental Protection Agency (U.S. EPA) Primary Maximum Contaminant Levels (MCLs) for public water supply systems, or to a level representing an increased lifetime cancer risk of 1 in 1,000,000 ( $10^{-6}$ ) for any contaminant or combination of contaminants.

For contaminants that are not of human health concern, Rexene shall remediate ground water to the less stringent of N.M. WQCC Regulations Sections 3-103.B and C Ground-Water Standards and U.S. EPA MCLs.

Rexene shall remove any toxic pollutants, as defined in Section 1-101.UU of N.M. WQCC Regulations, and any non-aqueous phase liquids from the surface and subsurface.

**1.5.3. Surface-Water Remediation Standards.** Rexene shall remediate surface water to the standards contained in N.M. WQCC Water Quality Standards for Interstate and Intrastate Streams in New Mexico, or to Ambient Water Quality Criteria established by the U.S. EPA, whichever are more stringent.

**1.5.4. Fish-Tissue Remediation Standards.** Rexene shall perform all remedial actions necessary to ensure that concentrations of metals in edible fish tissue comply with action limits established by the U.S. Fish and Wildlife Service.

**1.5.5. Other Standards.** All activities conducted pursuant to the Consent Order shall comply with all laws, rules, regulations and ordinances of NMED, the N.M. State Engineer, the Historic Preservation Division of the N.M. Office of Cultural Affairs, the N.M. Department of Game and Fish, the U.S. Army Corps of Engineers, the U.S. Bureau of Reclamation, the U.S. Department of Transportation, the U.S. Nuclear Regulatory Commission, the U.S. Occupational Safety and Health Administration, the U.S. Environmental Protection Agency, the City of Sunland Park, and the County of Doña Ana.

**2. WORK TO BE PERFORMED.** The principal objectives of the work to be performed under this Consent Order are: (1) to assess present Site conditions, including associated risks to human health and the environment; (2) to evaluate alternative remedial technologies to the extent necessary to select a remedy, or remedies, appropriate for the Site; and (3) to implement the selected remedy or remedies.

All work performed and all work products submitted to NMED by Rexene are subject to NMED approval and, if disapproved by NMED, to the dispute resolution procedure specified in Section XIV of the Consent Order.

The parties shall conduct the work in accordance with the Consent Order including this Work Plan.

NMED also acknowledges the effort that has been put forth and the progress that has been made to date by Rexene toward the above objectives and the ultimate resolution of this matter.

A listing of the major activities and documents submitted by Rexene and/or NMED follows:

- o Preliminary Assessment, June 17, 1982, Martha McKee USEPA, Region VI F.I.T.
- o El Paso Products, Screening Site Inspection, Amy Lewis, September 19, 1989.
- o Listing Site Inspection Start Report and Hazard Ranking System Prescore Evaluation, Dennis Slifer, NMEID, October 31, 1990.
- o Part I: Phase I, Site Investigation Field Investigation for Old Brickland Refinery Site, Sunland Park, New Mexico, August 1990, Eder & Assoc. (for Rexene Corp.).
- o Part II: Phase I, Site Investigation Field Investigation for Old Brickland Refinery Site, Sunland Park, New Mexico, August 1990, Eder & Assoc. (for Rexene Corp.), Analytical Data, submitted to NMEID October 1990.

In light of the above progress, future activities to be conducted by Rexene and NMED shall include:

- 2.1 Interim Remedial Action (if needed);
- 2.2 Additional Site Investigation (if needed);
- 2.3 Community Relations and Public Participation;
- 2.4 Remediation Proposal;
- 2.5 Technical Infeasibility Demonstration (if needed);
- 2.6 Decision Document (issued by NMED); and
- 2.7 Remedial Design and Remedial Action.

2.1. Interim Remedial Action. If the need for source control, removal, containment, public or private water-supply treatment, provision of an alternate water supply, or other interim remedial action is identified in writing by NMED or Rexene at any time during the term of this Consent Order, and prior to the Decision Document, Rexene shall submit a proposed interim remedial action plan, for NMED approval, within forty-five (45) days of such identification.

NMED shall either approve, or present any objections to, the interim remedial action plan in writing to Rexene within thirty (30) days after the plan is submitted.

Rexene shall implement the interim remedial action in accordance with the plan approved by NMED.

**2.2. Site Investigation.** Rexene shall complete the following tasks and document preparations for NMED approval during the Site Investigation (SI):

- 2.2.1 Project Planning;
- 2.2.2 Background Report;
- 2.2.3 Site Investigation Proposal;
- 2.2.4 Quality Assurance Plan;
- 2.2.5 Site Health and Safety Plan;
- 2.2.6 Site Investigation; and
- 2.2.7 Final SI Report.

**2.2.1. Project Planning Meeting.** An initial meeting between staff of NMED and Rexene shall be held within thirty (30) days of the effective date of the Consent Order to assist Rexene's preparation of, for NMED approval, a Background Report, a Site Investigation Proposal, a Quality Assurance Plan, and a Site Health and Safety Plan.

**2.2.2 Background Report.** Within thirty (30) after the Project Planning Meeting, Rexene shall submit, for NMED approval, a Background Report that shall include the following:

- o a Site description including geology, hydrology, geographic and cultural features;
- o an interpretative description of Site history, including all operations, known releases, and previous investigations; and
- o a determination of additional data and sampling needs.

NMED shall either approve, or present any objections to, the Background Report in writing to Rexene within thirty (30) days after it is submitted.

**2.2.3 Site Investigation Proposal.** Within thirty (30) after the Project Planning Meeting, Rexene shall submit for NMED approval a Site Investigation Proposal that will define project approach, project rationale, and activities to be

undertaken during the SI. The Site Investigation Proposal will specify data to be collected, methods to be employed, and product(s) to result from each activity. The Site Investigation Proposal shall include a proposed monitoring program for all media listed in Section 1.3 above for the entire term of the Consent Order. Rexene may propose, subject to NMED approval, a phased SI based upon media, contaminant or location. The Site Investigation Proposal will include a schedule for each activity and the entire project unless a phased SI is approved by NMED, in which case an Investigation Proposal will be submitted for NMED approval for each separate phase.

Rexene shall design the Site Investigation to generate data necessary to evaluate actual and potential risks to health and to the environment and to evaluate alternative remedial actions. Activities anticipated for the Site include, but are not limited to:

- o preparation of a base map;
- o geologic mapping;
- o definition of the nature, extent and magnitude of contamination;
- o subsurface hydrogeologic and surface-water hydrologic characterization;
- o initiation of monitoring of all media listed in Section 1.3 above that will continue for the entire term of this Consent Order.

Rexene shall prepare a base map for the Site and surrounding area at a scale of 1:2,000 or greater. The map will exhibit topographic contours, cultural features, drainages, and vegetation. A permanent survey monument will be set on the Site if one does not already exist on or near the site, and all well heads will be surveyed to within 0.01 foot above mean sea level. Available geologic maps and subsurface geologic data will be reviewed and summarized to characterize the surface and subsurface geology of the Site and surrounding areas. A geologic map and cross-sections will be prepared for the Site, if they are not already available at a suitable scale or with sufficient detail.

Rexene shall perform hydrogeologic investigations to determine whether contaminants on-Site are impacting ground water, the horizontal and vertical extent of vadose-zone and ground-water contamination including isopleth diagrams, the location and number of wells actually or potentially being affected by such contamination, the rate and direction of contaminant migration, subsurface hydraulic parameters including hydraulic conductivity, transmissivity and storativity, and an inventory of public and

private supply wells which are located within four (4) miles of the Site.

Rexene shall define surface-water hydrology, seasonal stream-flow characteristics, ground water-surface water relationships, the species of benthic macroinvertebrate populations, and the extent and magnitude of contamination of surface water, stream sediment, edible fish and other wildlife.

Rexene shall propose sampling stations and a sampling frequency for all media listed in Section 1.3 above for the entire term of this Consent Order.

NMED shall either approve, or present any objections to, the Site Investigation Proposal in writing to Rexene within thirty (30) days after it is submitted.

**2.2.4 Quality Assurance Project Plan.** By a date to be determined at the Project Planning Meeting, Rexene shall submit a Quality Assurance Project Plan (QAPP), for NMED approval, in accordance with established U.S. EPA guidance, Section 3-107.B of N.M. WQCC regulations, Section 1-103 of N.M. WQCC Water Quality Standards for Interstate and Intrastate Streams in New Mexico, or other appropriate guidance approved by NMED. The QAPP shall address all field and laboratory activities and procedures for the entire SI.

The QAPP shall propose a data management system, including field logs, sample management and tracking procedures, and document control and inventory procedures for both laboratory data and field measurements to be used to ensure data collected are of adequate quality.

NMED shall either approve, or present any objections to, the QAPP in writing to Rexene within thirty (30) days after it is submitted.

**2.2.5 Site Health and Safety Plan.** Within thirty (30) after the Project Planning Meeting, Rexene shall submit a Site Health and Safety Plan (SHSP), for NMED approval, prior to the continuation of work for the SI. The Plan shall address all activities conducted pursuant to the Consent Order, on- or off-Site, and shall be consistent with 29 CFR § 1910.120. The plan will be available at the Site during all field activities and all workers shall be made familiar with its provisions. The plan will contain, at a minimum, the following:

- o the name of the Site Health and Safety Officer and alternates, and a description of his or her authority and responsibility;
- o type and character of hazardous substances which may be encountered;
- o plans and requirements for the use of personnel protective equipment, including respiratory protection;

- o use of surveillance equipment;
- o construction and use of decontamination station(s);
- o training, physical examinations, and other requirements for on-site personnel; and
- o information concerning emergency services.

NMED shall either approve, or present any objections to, the SHSP in writing to Rexene within thirty (30) days after it is submitted.

2.2.6. Site Investigation. Within fifteen (15) days of NMED's approval of the Site Investigation Proposal, Rexene shall commence the investigation in accordance with the Site Investigation Proposal, QAPP and SHSP approved by NMED.

2.2.7. Final Site Investigation Report. Within one hundred eighty (180) days of the effective date of the Consent Order, Rexene shall submit, for NMED approval, a written SI Report documenting all activities conducted and conclusions drawn during the SI. The report may incorporate earlier submittals, by reference, and will provide, at a minimum, the following:

- o a list of preliminary remedial action objectives and alternatives;
- o a proposed list of Remediation Standards;
- o an evaluation of the quality and usefulness of existing data;
- o a summary of history of Site operations;
- o a summary of meteorologic conditions at the Site;
- o a series of topographic base maps at a scale of 1:2,000 or greater showing: (1) the location and distribution of historical operations; (2) the location of all historical investigations and sampling points; (3) the location of all SI activities and sampling points; (4) a combination of 1, 2, and 3, above; (5) water-level elevations at the Site; (6) soil, soil gas, ground-water, surface-water and stream sediment geochemistry and contaminant distribution on-Site;
- o maps at a scale of 1:24,000 showing geology and ground-water elevations within four (4) miles of the Site;

- o geologic cross-sections incorporating lithologic information for existing well borings and monitor well borings or test holes completed during the SI;
- o completion diagrams for monitor wells installed during the SI, if any;
- o analytical data;
- o results of the water-well inventory;
- o interpretation of vadose-zone and ground-water hydraulics including quantification of the rate and direction of contaminant migration, and potential impacts to down-gradient users;
- o interpretation of surface-water hydrology as it affects contaminant transport;
- o effects of contaminants on edible fish, benthic macroinvertebrates and other wildlife; and
- o any other technical information requested by NMED that is reasonably necessary to meet the requirements of this Order and Appendix.

NMED shall either approve, or present any objections to, the SI Report in writing to Rexene within thirty (30) days after it is submitted.

### 2.3. Community Relations and Public Participation.

Within thirty (30) after the Project Planning Meeting, NMED shall prepare a draft community relations plan (CRP) specifying community relations activities NMED expects to undertake during the course of activities undertaken pursuant to this Consent Order. Rexene shall either approve, or present any objections to the draft CRP in writing to NMED within fifteen (15) days after it is submitted.

The purposes of the CRP are: (1) to provide opportunities for the community to learn about the Site; and (2) to ensure appropriate opportunity for official public comment on the draft Decision Document.

The CRP shall designate a local information repository near the Site. The parties shall provide the repository with copies of all documents generated pursuant to this Consent Order.

Within thirty (30) days of NMED's issuance of the final CRP, Rexene shall prepare, for NMED approval, a Fact Sheet describing site history, remedial investigation plans, and opportunities for public participation. The Fact Sheet shall be written in both Spanish and English. NMED shall either approve, or present any objections to, the Fact Sheet in writing to Rexene within fifteen

(15) days after it is submitted. After NMED approval, Rexene will arrange and pay for printing and distribution of the Fact Sheet.

Within fifteen (15) days following completion of the draft Decision Document (Section 2.6 below), NMED shall publish notice in an Albuquerque newspaper of general circulation of the availability of the draft Decision Document at NMED's offices in Albuquerque and at the local information repository, and of the opportunity for the public to submit written comments on the draft Decision Document for a thirty (30) day period commencing on the notice's publication date. If NMED determines there is significant public interest in the Decision Document, NMED may hold a public meeting to explain the Decision Document and to receive additional public input. NMED shall attach any written public comments to the final Decision Document. NMED shall not be obligated to respond to every comment received, but will take such comments into consideration when issuing the final Decision Document.

**2.4. Remediation Proposal.** Within ninety (90) days of NMED approval of the final Site Investigation Report, Rexene shall submit, for NMED approval, a Remediation Proposal, designed to achieve Remediation Standards compliance, that includes the following minimum elements:

- 2.4.1. description of current situation;
- 2.4.2. a complete and final list of remediation standards;
- 2.4.3. identification and screening of potentially applicable technologies;
- 2.4.4. development and assessment of remediation alternatives;
- 2.4.5. evaluation of remediation alternatives; and
- 2.4.6. a description and justification of Rexene's preferred alternative.

NMED shall either approve, or present any objections to, the Remediation Proposal in writing to Rexene within thirty (30) days after it is submitted.

**2.4.1. Description of Current Situation.** Rexene shall develop a summary of the current understanding of the Site, incorporating by reference earlier submittals, as appropriate, based on historical information as well as information obtained during the SI. This summary will include information concerning contamination characteristics, exposure routes, human and environmental targets, risks posed by contaminants on-Site, and, if applicable, off-Site risks posed by the migration of contaminants from the Site.

2.4.2. Complete and Final List of Remediation Standards. Rexene shall develop a complete and final list of Remediation Standards that are applicable or relevant and appropriate at the time the Remediation Proposal is submitted to NMED.

2.4.3. Identification and Screening of Potentially Applicable Technologies. Rexene shall identify treatment technologies potentially appropriate for remediation of contaminants originating from or occurring at the Site through literature review and bench or pilot studies. If necessary, Rexene shall design treatability studies for the most promising treatment technologies identified.

2.4.4. Development and Assessment of Alternatives. Rexene shall develop potentially applicable technologies identified in Section 2.4.3 above into remedial alternatives which will achieve Remediation Standards.

Rexene shall assess the alternatives to determine:

- o overall protection of human health and the environment;
- o compliance with Remediation Standards;
- o long-term effectiveness and permanence;
- o reduction of toxicity, mobility, and volume through treatment;
- o short-term effectiveness;
- o ability to be implemented;
- o cost-effectiveness [including the present value of costs of implementation and extended Remedial Action (operation and maintenance)];
- o State acceptance; and
- o community acceptance.

2.4.5. Description and Justification of Preferred Alternative. Rexene shall describe and justify its preferred alternative based on the criteria listed in Section 2.4.4 (Development and Assessment of Alternatives) above.

2.5. Technical Infeasibility Demonstration. Rexene may propose, either in the Remediation Proposal or during remediation, that Remediation Standards compliance is technically infeasible.

Technical infeasibility may be proposed in the Remediation Proposal by a demonstration that a Remediation Standard cannot be

met by using best reasonably proven remediation technology. The proposal shall include projected reductions in contaminant concentration.

Technical infeasibility may be proposed during remediation by a statistically valid extrapolation of the decrease in concentration of any constituent over the remainder of a twenty (20) year period, such that projected future reductions during that time would be less than 20% of the concentration at the time the technical infeasibility proposal is prepared. A statistically valid decrease cannot be demonstrated by fewer than eight (8) consecutive quarters.

In no event shall technical infeasibility be proposed unless the contamination level at the time of the proposal is 200% or less of the Remediation Standard. Rexene shall include in its proposal alternate cleanup criteria which are technically feasible, and shall meet Remediation Standards for all other constituents not demonstrated to be technically infeasible. If NMED approves the proposal, Rexene's obligation shall be terminated pursuant to Section 33 of the Consent Order when it has met those alternate cleanup criteria as well as Remediation Standards for all other constituents not approved by NMED as technically infeasible.

Within thirty (30) days after submission of the technical infeasibility proposal to NMED, NMED shall either approve, or present any objections to, the proposal, including the preferred remedial action option, to Rexene in writing.

If technical infeasibility cannot be proposed because the contaminant level is greater than 200% of the Remediation Standard for that contaminant, and if all other requirements of this section are met, Rexene may seek a variance from the N.M. WQCC pursuant to Section 1-210 of N.M. WQCC regulations.

**2.6. Decision Document.** Within sixty (60) days of approval of the Remediation Proposal, NMED shall issue a draft Decision Document (Decision Document) stating NMED's preferred remedial action alternative. NMED shall issue a public notice of the availability of the draft Decision Document and of the acceptance of written comments for a thirty (30) day period following publication of the notice. If the NMED Secretary determines that there is significant public interest in the Decision Document, she may conduct a public meeting. Within thirty (30) days after public participation is complete, NMED shall issue a final Decision Document.

**2.7. Remedial Design and Remedial Action.** Within sixty (60) days after the final Decision Document is issued, Rexene shall submit a proposed Remedial Action Plan (RAP) for NMED approval. The RAP shall be designed to achieve remediation to Remediation Standards unless technical infeasibility was demonstrated in the approved Remediation Proposal. The RAP also shall provide for monitoring to assess the effectiveness of remediation and to verify that remediation is complete for two years after Remediation Standards are met.

NMED shall either approve, or present any objections to, the RAP in writing to Rexene within thirty (30) days after the RAP is submitted.

Rexene shall commence implementation of the Remedial Action in accordance with the RAP approved by NMED within thirty (30) days of RAP approval. Rexene shall provide quarterly progress reports during the remediation period.

2.7.1. Remediation Standards Compliance. Rexene shall propose, during the course of remediation, sampling stations to demonstrate Remediation Standards compliance. Rexene may make phased proposals for different media or geographic areas.

NMED shall either approve, or present any objections to, the proposed compliance stations in writing to Rexene within thirty (30) days after the proposal is submitted.

Vadose-zone remediation shall be complete after all samples, other than vapor, from NMED approved compliance stations meet Remediation Standards.

Ground-water, vadose-zone vapor, surface-water, and stream-sediment remediation shall be complete after eight (8) consecutive quarterly samples from the NMED approved ground-water compliance stations meet Remediation Standards.

3. DEADLINES FOR TECHNICAL WORK PRODUCTS AND ACTIONS. The following constitutes a summary of deadlines for technical work products and actions:

- o Rexene shall submit the Investigation Proposal, QAPP and SHSP within thirty (30) days after the Project Planning Meeting.
- o Rexene shall commence the SI or SI phase within fifteen (15) days after the Investigation Proposal is approved.
- o If a phased SI is conducted, Rexene shall submit each supplemental SI investigation proposal within fifteen (15) days after the previous SI phase report is submitted.
- o Rexene shall submit the first quarterly progress report 105 days after the effective date of the Consent Order, and quarterly thereafter for the entire term of the Consent Order.
- o Rexene shall submit the Background Report within thirty (30) days of the effective date of the Consent Order.
- o Rexene shall submit the final SI report within one hundred eighty (180) days of the effective date of the Consent Order.
- o Rexene shall commence the FS within fifteen (15) days after the final SI report is approved.
- o Rexene shall submit the final FS report within one hundred eighty (180) days of the effective date of the Consent Order.
- o Rexene shall submit the RAP within sixty (60) days after NMED issues the final Decision Document.
- o Rexene shall commence remediation within thirty (30) days after the RAP is approved.
- o If NMED or Rexene identify in writing the need for interim remedial action, Rexene shall submit a proposed interim RAP within forty-five (45) days of such identification.
- o Rexene shall implement the interim remedial action within fifteen (15) days of interim RAP approval.

APPENDIX B  
NOTICE OF EQUITABLE SERVITUDE

Rexene, Corporation (Rexene) and the New Mexico Environment Department (NMED) have entered into an Administrative Order on Consent (Consent Order) for the investigation and remediation of [particular types of contamination] soil and/or ground-water contamination on land presently owned by Rexene in Dona Ana county, New Mexico, more specifically described as:

[LEGAL DESCRIPTION]

The Consent Order requires continuing obligations from Rexene, its successors, agents, and assigns. The continuing obligations include [general obligations, e.g., treatment of contaminated soils/groundwater, etc.] investigation, remediation and monitoring of the contamination. The operations are located on the above-described property, and may only be terminated in accordance with the provision of the Consent Order. The Consent Order resolves disputed claims of the parties, none of which involved any questions of title to the above-described property.

This Notice is filed, as required by the Consent Order, to give notice to subsequent purchasers or grantees of the existence of the Consent Order, a copy of which is attached hereto.