

BEFORE THE KANSAS DEPARTMENT OF HEALTH AND ENVIRONMENT
Charles Curtis Building
1000 SW Jackson, Suite 560
Topeka, Kansas 66612-1368

RECEIVED
FEB 24 2003
BUREAU OF
ENVIRONMENTAL REMEDIATION

IN THE MATTER OF:)
)
POLLUTION AT)
)
COASTAL REFINERY SITE,)
)
EL DORADO, BUTLER COUNTY.)

CONSENT ORDER
Case No. 03-E- 0021

PRELIMINARY STATEMENT

The parties hereto, the Kansas Department of Health and Environment ("KDHE"), and El Paso Merchant Energy-Petroleum Company (hereinafter "Respondent"), having agreed that settlement of this matter is in the best interests of all parties and the public, hereby represent and state as follows:

1. KDHE is a duly authorized agency of the State of Kansas, created by act of the legislature.
2. KDHE has general jurisdiction of matters involving hazardous substance and hazardous substance cleanups under the authority of the Kansas Environmental Response Act (K.S.A. 65-3452a. et seq.) and has general authority and responsibility to protect the waters and soils of the state under the authority of K.S.A. 65-161, et seq.
3. The Respondent agrees to undertake all actions required by the terms and conditions of this Consent Order. In any action by KDHE to enforce the terms of this Consent Order, the Respondent agrees not to contest the authority or

jurisdiction of the Secretary of Health and Environment to issue this Consent Order.

4. This Consent Order shall apply to and be binding upon KDHE and the Respondent, its agents, successors, and assigns. The signatories to this Consent Order certify that they are authorized to execute and legally bind the parties they represent to this Consent Order. No change in the ownership or corporate status of the Respondent shall alter its responsibilities under this Consent Order.
5. The Respondent shall provide a copy of this Consent Order to any subsequent owners or successors before ownership rights are transferred. The Respondent shall provide a copy of this Consent Order to all contractors, laboratories, and consultants which are retained to conduct any work performed under this Consent Order, within 14 days after the effective date of this Consent Order or the date of retaining their services. Notwithstanding the terms of any contract, Respondent is responsible for compliance with this Consent Order and for ensuring that its contractors and agents comply with this Consent Order.
6. While the Respondent to this Consent Order does not admit liability for the contamination at the Coastal Refinery El Dorado Site and the surrounding environment, nevertheless it agrees to enter into this Consent Order to prepare Work Plans as described below, to be attached hereto marked Exhibit 4 and incorporated herein upon approval by KDHE.

FINDINGS OF FACT

KDHE makes the following findings of fact:

7. The Coastal Refinery Site ("Site") is located immediately north of the City of El Dorado, Kansas. The "Site" is located in portions of Sections 27, 26, and 34, Township 25 South, Range 5 East, Butler County, Kansas (see Exhibit 2). The Site

includes the refinery facility and associated contiguous contaminated areas; however, it does not include the adjacent Pester Burn Pond Superfund Site.

8. Fina Oil and Chemical Company (Fina) owned and operated the current Coastal Refinery facility and surrounding property between 1958 and 1977. On February 15, 1977, Pester Refining Company (Pester) purchased the refinery facility and property from Fina and continued to operate it as a refinery. On April 10, 1986, Coastal Refining & Marketing, Inc. (now El Paso Merchant Energy-Petroleum Company) (Coastal) purchased the refinery facility and property, except the Pester Burn Pond Superfund Site. Coastal Refining & Marketing, Inc. became El Paso Merchant Energy-Petroleum Company following the merger of El Paso Corporation and Coastal Corporation in January 2001.
9. In 1987 a Site Investigation was conducted by Mid West Environmental Consultants that indicated the presence of contaminants in groundwater and soil at the refinery facility including benzene, ethylbenzene, toluene, xylenes, 1, 1, 1-trichlorethane, and 1,1-dichloroethane.
10. In 1994, groundwater monitoring conducted in the vicinity of the refinery has indicated the presence of benzene and carbon disulfide contamination in groundwater. Benzene has been detected in groundwater at levels above the EPA's Maximum Contaminant Level (MCL) of 5.0 micrograms per liter (ug/L) for that substance in drinking water supplies.
11. In 1995, sampling conducted by Coastal at the Site confirmed the presence of benzene and carbon disulfide in groundwater. Coastal continued to monitor fourteen (14) wells at the site for benzene, toluene, ethylbenzene, and total xylenes (BTEX), carbon disulfide and total petroleum hydrocarbons (TPH) as gasoline, as

- well as other organic compounds and metals. Carbon disulfide levels ranged from 6.3 to 64 ug/L, exceeding the Kansas Risk Based Standard (RSK) of 30 ug/L for that substance in groundwater. Benzene levels ranged from 8.4 to 360 ug/L.
12. In April 1997, Coastal began monitoring fourteen (14) wells for BTEX, TPH as gasoline, 1,2-dichloroethane, lead, arsenic, and chromium. Benzene levels ranged from 2.2 to 290 ug/L, exceeding the MCL of 5 ug/L for that substance in groundwater.
 13. In January 2002 and again in April 2002 sampling was conducted by Shaw Environmental & Infrastructure, Inc. (Shaw) on behalf of the El Paso Corporation. Current groundwater data indicate that benzene is present at levels ranging from non-detect to 260 ug/L. TPH as gasoline concentrations ranged from non-detect to 5.29 milligrams per liter (mg/L) exceeding the RSK of 0.5 mg/L for that substance in groundwater. Arsenic was also detected above the MCL for that substance in drinking water.
 14. KDHE believes groundwater at the site may discharge to surface water. There have been historical reports of seeps into the Walnut River.
 15. Coastal currently operates the facility as a wastewater treatment facility and asphalt blending facility.
 16. Based upon the data from the sampling event performed in 2002, KDHE believes that the groundwater contamination identified at the Coastal Refinery Site is causing or threatens to cause pollution of the waters of the State or is or threatens to become a hazard to persons, public health, or safety.

CONCLUSIONS OF LAW

17. Respondent is a "person" within the meaning of K.S.A. 65-164, et seq., K.S.A. 65-

3430, et seq., and K.S.A. 65-3452a, et seq.

18. The presence of the contaminants identified in the groundwater underlying the site constitutes "pollution" as defined by K.S.A. 65-171d.
19. Some of the contaminants identified in the groundwater underlying the site are "hazardous substances" as defined by K.S.A. 65-3452a.
20. The area defined in paragraph 7 and identified as Coastal Refinery, El Dorado Site constitutes a "site" within the meaning of K.S.A. 65-3453.
21. The KDHE concludes that the facts above constitute:
 - a) the discharge, abandonment, or disposal of hazardous substances;
 - b) the pollution of the land or waters of the state or the threat of pollution of the land or waters of the state;
 - c) a hazard to persons, property or public health or threatens to become a hazard to persons, property or public health.
22. Under the facts as shown above, the Kansas Department of Health and Environment has concluded, and the Secretary has confirmed, that there is a need for a response action to prevent a continuing release or threat of release of hazardous substances.
23. The evaluation of such discharges is necessary to determine the potential threat to public health and safety and the environment. If a potential threat exists, the clean up of such discharges is necessary to remove the pollution or hazard and to protect the public health and safety and the environment, giving rise to the authority of the Kansas Department of Health and Environment to enter this Consent Order. A necessary part of this evaluation is an investigation of the nature and extent of the threat to the public health or welfare or the environment caused by the release or

threatened release of hazardous substances, pollutants, or contaminants on or from the site.

24. The Kansas Department of Health and Environment has authority to enter the Consent Order herein, and to make the findings of fact and conclusions of law herein stated.
25. The Secretary of Health and Environment is authorized by K.S.A. 65-3453, K.S.A. 65-164, et seq., K.S.A. 65-3430, et seq. and the regulations issued pursuant thereto to enter an order confirming the agreement of the parties, and ordering the actions and obligations required by the foregoing findings of fact and conclusions of law. The parties hereto agree to the following activities and the commitments.

ORDER

26. Within sixty (60) days of the effective date of this Consent Order, Respondent shall submit a draft CI/CAS Work Plan for KDHE approval which is consistent with the Scope of Work ("SOW") attached hereto, marked Exhibit 1. KDHE will provide comments on the draft CI/CAS Work Plan. Within sixty (60) days of receipt of KDHE's comments, Respondent shall submit for final approval a revised Work Plan that addresses KDHE's comments. Upon KDHE approval, the Work Plan shall become incorporated into this Consent Order and a part hereof as Exhibit 4.
27. Within sixty (60) days from date of KDHE approval of the CI/CAS Work Plan, Respondent shall commence the implementation of the tasks detailed in the CI/CAS Work Plan. The work shall be conducted in accordance with the standards and specifications contained in the Work Plan, and the implementation schedule.
28. Respondent shall provide preliminary and final reports to KDHE according to the implementation schedules contained in Exhibit 4 in a form responsive to KDHE's

comments.

29. After KDHE reviews the preliminary reports and after KDHE reviews the final reports, KDHE shall notify Respondent in writing, of KDHE's approval or disapproval of these reports or any part thereof. KDHE may also notify Respondent in writing of KDHE disapproval of Respondent's implementation of the approved Work Plan.
30. In the event of any KDHE disapproval of a submitted report or disapproval of Respondent's implementation of the approved Work Plan, KDHE shall send Respondent a Notice of Disapproval delineating the deficiencies, requiring revisions to the reports or modified work to cure the deficiencies in the work and setting a schedule for response by Respondent, provided however that any such requirements are consistent with the objectives of the Work Plan and Consent Order.
31. Thereafter, Respondent shall amend and submit to KDHE revised reports to cure the deficiencies in the reports in accordance with KDHE's requirements.
32. KDHE may determine that additional tasks consistent with the objectives of this Consent Order are necessary in addition to the approved Work Plan tasks including reports, which have been completed pursuant to this Consent Order. KDHE may require Respondent to implement any such additional tasks within a timeframe mutually agreeable by the parties. If the parties are unable to mutually agree to a timeframe, KDHE shall specify one. KDHE agrees to meet with Respondent upon request to discuss the basis for the request for such additional work. Subject to the dispute resolution provisions contained herein, the failure by Respondent to implement additional tasks as required by KDHE, shall be considered a violation of

this Consent Order.

33. All work performed pursuant to this Consent Order shall be under the direction and supervision of a professional engineer or geologist licensed in Kansas with expertise in hazardous waste site investigations and remediation. Within thirty (30) days of the effective date of this Consent Order, Respondent shall notify KDHE in writing of the name, title, and qualification of the engineer or geologist, and of any contractors or subcontractors and their personnel to be used in carrying out the terms of this Consent Order.
34. Any reports, plans, specifications, schedules and attachments required by this Consent Order are, upon approval by KDHE, incorporated into this Consent Order. Any noncompliance with such approved reports, plans, specifications, schedules, and attachments shall be considered a violation of this Consent Order.
35. No informal advice, guidance, suggestions, or comments by KDHE regarding reports, plans, specifications, and any other writing submitted to Respondent will be construed as relieving Respondent of its obligation to obtain written approval, if and when required by this Consent Order.

QUALITY ASSURANCE

36. All samples analyzed pursuant to this Consent Order shall be analyzed using laboratory methodologies approved by KDHE.
37. All sample collection and analysis shall be performed in compliance with the approved Work Plans, including scheduling of analyses, documentation of sample collection, handling and analysis.
38. Laboratory analytical report forms shall be submitted to KDHE for all analytical work performed pursuant to this Consent Order. Any deviations from the procedures and

methods set forth in these documents must be approved in writing by KDHE prior to use. Respondent will notify KDHE in writing within five (5) working days of notice or knowledge of a potential deviation from prescribed procedures or methods. Such notice shall provide information as to the nature of the deviation, if known, and outline a proposed investigation to determine whether the sample or results are potentially representative or should not be considered valid. If the results cannot be validated by evaluation of the Quality Assurance/Quality Control procedures, historical data, or laboratory protocol, Respondent will resample upon KDHE's approval and discretion. Respondent will notify KDHE at least seven (7) days before conducting resampling. Failure to follow the above procedure for notification of deviations will be considered violations of this Consent Order, and may, upon written notice by the KDHE, be subject to an administrative penalty of up to \$1,000 per violation and the data resulting therefrom may be deemed invalid by KDHE.

39. Respondent shall use the quality assurance, quality control, and chain of custody procedures specified in the Quality Assurance Project Plan, which is part of the Work Plans, for all sample collection and analysis performed pursuant to this Consent Order, unless otherwise agreed to in writing by KDHE.
40. All contracts for field work shall provide that KDHE representatives are allowed access, for auditing and evaluation purposes, at reasonable times upon reasonable request, to all personnel utilized by Respondent for sample collection and analysis and other field work. Upon request by KDHE, the laboratories shall perform analysis of a reasonable number of known samples provided by KDHE to demonstrate the quality of the analytical data.

REPORTING

41. Respondent shall provide KDHE with written progress reports quarterly, pursuant to the effective date of the Consent Order. At a minimum, these progress reports shall: (1) describe the actions, progress, and status of projects which have been taken toward achieving compliance with this Consent Order, as well as the actions which are scheduled for the next quarter; (2) identify any requirements under this Consent Order that were not completed as provided and any problem areas and anticipated problem areas in complying with this Consent Order; and (3) include all results of sampling, tests, data, and conclusions drawn from data generated pursuant to the Work Plan(s).

ACCESS

42. KDHE and any of its agents or contractors are authorized by Respondent to enter and freely move about all property at the site during normal business hours or during other hours upon mutual agreement or in emergency circumstances for the purposes of, *inter alia*; interviewing site personnel and contractors; inspecting records, operating logs, and contracts related to the activities set out in the Work Plans; reviewing the progress of Respondent in carrying out the terms of this Consent Order; conducting such sampling and tests as KDHE deems necessary; using a camera, sound recording, or other documentary type equipment; and verifying the reports and data submitted to KDHE by Respondent. KDHE and its contractors shall comply with all applicable and reasonable safety regulations and protocol, however, such requirements shall not include the signature of any release, waiver or other document. Respondent shall permit such persons to inspect and copy all records, files, photographs, documents, and other writings, including all sampling and monitoring data, that pertain to work undertaken pursuant to this

paragraph. KDHE shall not have access to any privileged documents or materials, including those covered by the attorney-client privilege or the attorney work product doctrine.

43. To the extent that work required by the Work Plans must be done on property not owned or controlled by Respondent, Respondent shall use its best efforts to obtain access agreements from the present owner(s) of such property within sixty (60) days of the effective date of this Consent Order. Best efforts include, but are not limited to, the offer of reasonable consideration. Any such access agreement shall be incorporated by reference into this Consent Order. In the event that agreements for site access are not obtained within sixty (60) days of the effective date of this Consent Order, Respondent shall notify KDHE regarding both the lack of and its failure to obtain such agreements within seven (7) days thereafter. Upon receiving such notice KDHE will meet with Respondent to determine an appropriate course of action. In the event that KDHE obtains access for Respondent, all costs incurred by KDHE shall be reimbursed by Respondent. Upon KDHE's obtaining access for Respondent, Respondent shall undertake approved work on such property. KDHE shall not be responsible for any injury or damage to persons or property caused by the negligent or willful acts or omissions of Respondent, its officers, employees, agents, successors, assigns, contractors, or any other person acting on Respondent's behalf in carrying out any activities pursuant to the terms of this Consent Order.

SAMPLING AND DATA/DOCUMENT AVAILABILITY

44. Respondent shall make available to KDHE all results of sampling, tests, or other data generated by or on its behalf with respect to the implementation of this

Consent Order. Respondent shall submit these results in the progress reports described in the "Reporting" section of this Consent Order. KDHE will make sampling results and other data available to Respondent.

45. Respondent shall notify KDHE at least seven (7) days before conducting any well drilling, installation of equipment, or sampling. At the request of KDHE, Respondent shall provide or allow KDHE or its authorized representatives to take split samples of all samples collected by Respondent pursuant to this Consent Order. Similarly, at the request of Respondent KDHE shall allow Respondent or its authorized representatives to take split or duplicate samples of all samples collected by KDHE under this Consent Order. KDHE shall notify Respondent at least seven (7) days before conducting any sampling under this Consent Order, provided, however, that if seven (7) days notice of sample collection activity is not possible, KDHE and Respondent shall give such advance notice to enable each party to have a representative present during said sample collection activity.

RECORD PRESERVATION

46. Respondent agrees that it shall preserve, during the pendency of this Consent Order and for a minimum of six (6) years after its termination, all records and documents which have not previously been provided to KDHE in its possession or in the possession of divisions, employees, agents or consultants or contractors which relate in any way to this Consent Order or to hazardous substance and hazardous waste management and disposal at the site. At the conclusion of six (6) years, Respondent shall then make such records available to KDHE for inspection or KDHE's retention or shall provide copies of any such records to KDHE upon request by KDHE.

STIPULATED PENALTIES

47. For each period of time that Respondent fails to submit reports or deliverables at the times set out in Exhibit 3 which is part of this Consent Order, Respondent shall pay as stipulated penalties the following: \$1,000 for the first week of delay or part thereof; \$1,000 per day for any day of delay from the 8th through 14th day; and \$2,000 per day of delay thereafter.
48. Any stipulated penalties shall be payable within twenty-one (21) days after Respondent's receipt of demand by KDHE and shall be paid by certified check to:

Secretary of Health and Environment
Attn: Bureau of Environmental Remediation
Administration
1000 SW Jackson Suite 410
Topeka, Kansas 6612-1367

A copy of the check and a transmittal letter shall be sent to the KDHE contact specified herein. Respondent shall remit a check for the full amount of penalty stated in the demand.

49. Should Respondent fail to comply with a time requirement of any tasks required by this Consent Order, the period of noncompliance shall terminate upon Respondent's performance of said requirement.

OTHER CLAIMS AND PARTIES

50. Nothing in this Consent Order shall constitute or be construed as a release for any claim, cause of action or demand in law or equity against any person, firm, partnership, or corporation not a signatory to this Consent Order for any liability it may have arising out of or relating in any way to the generation, storage, treatment, handling, transportation, release, or disposal of any hazardous constituents, hazardous substances, hazardous wastes, pollutants, or contaminants found at,

taken to, or taken from the facility.

OTHER APPLICABLE LAWS

51. All actions required to be taken pursuant to this Consent Order shall be undertaken in accordance with the substantive requirements of all applicable local, state, and federal laws and regulations.

PROJECT COORDINATORS

52. On or before the effective date of this Consent Order, KDHE and Respondent shall each designate a Project Coordinator. Each Project Coordinator shall be responsible for overseeing the implementation of this Consent Order. The KDHE Project Coordinator will be KDHE's designated representative. To the maximum extent possible, all communications between Respondent and KDHE and all documents, reports, approvals, and other correspondence concerning the activities performed pursuant to the terms and conditions of this Consent Order, shall be directed through the Project Coordinators. The parties agree to provide at least seven (7) days written notice prior to changing Project Coordinators. The absence of the KDHE Project Coordinator from the Site shall not be cause for the stoppage of work.

NOTIFICATION

53. Unless otherwise specified, reports, notice or other submissions required under this Consent Order shall be in writing and shall be sent to:

- a. **For KDHE:**
Kurt Limesand PG
Bureau of Environmental Remediation
Kansas Department of Health and Environment
1000 SW Jackson Suite 410
Topeka, Kansas 66612-1367

b. **For Respondent:**

Deborah A. Harris PG
Principal Environmental Scientist
Environmental Remediation
El Paso Corporation
Two North Nevada Avenue
Colorado Springs, Colorado 80903

REIMBURSEMENT OF COSTS

54. Three (3) months after the effective date of this Consent Order and quarterly thereafter, KDHE shall submit to Respondent an accounting of all oversight costs incurred by KDHE with respect to this Consent Order during the previous three (3) month period.
55. If KDHE determines a Baseline Risk Assessment is appropriate, Respondent may, at its option, perform such assessment for submittal to KDHE for approval. In this event the Respondent shall pay KDHE's contractor to review the assessment on behalf of KDHE. In the event the Respondent elects not to perform the assessment, KDHE shall submit to Respondent an accounting for the cost of performing the Baseline Risk Assessment. Upon receipt of such accounting, Respondent agrees to reimburse KDHE for such amount. KDHE agrees to use a qualified contractor to perform such Risk Assessment.
56. If KDHE determines that a Community Relations Plan is appropriate, it shall submit to Respondent an accounting for the cost of development of a Plan for Community Relations, and implementation of such Plan. KDHE agrees to perform such work itself or use a qualified contractor to develop and implement such Plan. If KDHE determines that a Community Relations Plan is unnecessary, KDHE will draft and

implement a Public Information Plan for which KDHE will submit to Respondent an accounting for the cost of development and implementation. Upon receipt of such accounting, Respondent agrees to reimburse KDHE for such amount.

57. KDHE shall submit to Respondent the cost of preparing and maintaining the Administrative Record, including but not limited to photocopying, assembling, mailing, updating, storage and other maintenance services. Upon receipt of such accounting, Respondent agrees to reimburse KDHE for such amount.

58. KDHE shall submit to Respondent an accounting of those costs described above which have been incurred by KDHE with respect to this Consent Order during the previous fiscal year. Respondent shall, within thirty (30) calendar days from receipt of said accounting, remit a check for the amount of those costs made payable to the Secretary of Health and Environment. Checks should specifically reference the identity of this site, and should be addressed to:

Kansas Department of Health and Environment
Attn: Bureau of Environmental Remediation
Administration
1000 SW Jackson Suite 410
Topeka, Kansas 66612-1367

A copy of the check and transmittal letter shall be sent to the KDHE contact specified herein. Respondent shall remit a check for the full amount of those costs.

FORCE MAJEURE

59. Delays that result from causes not foreseeable and beyond the Respondent's control and which cannot be overcome by due diligence shall not be a violation of the Respondent's obligations under this Consent Order. The Respondent shall notify KDHE orally as soon as possible, but no later than five (5) business days after the Respondent knows of any delay or anticipated delay in compliance with

the requirements of this Consent Order, and in writing no later than five (5) business days after the oral notification of the delay. The written notice shall describe the nature of the delay, whether and why the delay was unforeseeable and beyond the control of the Respondent, the actions taken and/or that will be taken to mitigate, prevent and/or minimize further delay, and the anticipated length of the delay. The Respondent shall adopt all measures to avoid or minimize such delay. To the extent a delay is caused by circumstances beyond the control of the Respondent, or those resulting from delays caused by KDHE or any third party not under the control or employment of any of the signatories hereto, the schedule shall be extended for a period equal to the delay resulting from such circumstances. Such an extension does not alter the schedule for performance or completion of other tasks required by this Consent Order unless also specifically altered by amendment of this Consent Order. Failure to comply with the notice provision of this section may be grounds for KDHE to deny the Respondent an extension of time for performance. Unexpected delay events do not include unanticipated or increased costs of performance, changed economic circumstances, or normal precipitation events. If KDHE determines that the delay as stated in the Respondent's written notice to KDHE was not due to unexpected delay events, an administrative penalty may be assessed as provided in paragraph 47.

DISPUTE RESOLUTION

60. If Respondent disagrees, in whole or in part, with any decision by KDHE pursuant to this Consent Order, Respondent shall notify KDHE within thirty (30) days of receipt of the decision. The parties shall then have an additional thirty (30) working days to attempt to resolve the dispute. If an agreement is reached, the resolution

shall be reduced to writing, signed by each Party and incorporated thereupon into this Consent Order. If agreement is not reached, KDHE shall issue a final written decision on the dispute.

61. Respondent reserves its right to appeal any decision of the KDHE, which is not consistent with law or which is arbitrary or capricious concerning a dispute under this Consent Order, to an administrative body with applicable jurisdiction and thereafter in compliance with the Kansas Administrative Procedures Act. The final decision or resolution of the applicable authority or court shall be incorporated as a part of this Consent Order. For purposes of this Consent Order, final order or decision shall mean an order or decision from which no appeal may be taken.
62. In the event that Respondent seeks dispute resolution concerning a date for performance of an act set out in the Work Plans, the date for performance of such act shall be extended for a period equal to the delay resulting from the invocation of the dispute resolution provision. However, such extension does not alter the schedule for performance of completion of other tasks required by this Consent Order unless also specifically altered by the amendment of this Consent Order.
63. However, in the event that it is determined that dispute resolution was not sought in good faith, administrative penalties may be assessed at the rate of \$1,000 per day for each day of delay caused by such invocation of the dispute resolution provisions.

EFFECTIVE DATE AND SUBSEQUENT MODIFICATION

64. This Consent Order shall become effective when signed by the Secretary of the Department of Health and Environment.
65. This Consent Order may be amended by mutual agreement of KDHE and

Respondent. Such amendments shall be in writing, shall have as their effective date the date on which they are signed by both parties, and shall be incorporated into this Consent Order. Nothing herein shall limit KDHE's ability to require additional tasks as set forth in paragraph 32 herein.

TERMINATION

66. The provisions of this Consent Order shall terminate upon Respondent's receipt of written notice from KDHE that Respondent has demonstrated that the terms of this Consent Order, including any additional tasks which KDHE has determined to be necessary have been satisfactorily completed.

IN WITNESS WHEREOF, the parties have affixed their signatures below:

RESPONDENT:


By: J. Reed Cleveland
Title: VP / General Manager

Date: 2/7/03

STATE OF KANSAS:


Roderick L. Bremby, Secretary
Kansas Department of Health &
Environment

Date: 2.20.03

CERTIFICATE OF MAILING

I hereby certify that on this 21st day of February, 2003, a true and correct copy of the above and foregoing Consent Order was deposited in the United States Mail, postage prepaid, and addressed to:

Peter T. Gregg
Senior Counsel
Environmental
El Paso Corporation
P.O. Box 2511
Houston, Texas 77252-2511

Kama J. Maruska
KDHE Staff Person

BUREAU OF ENVIRONMENTAL REMEDIATION/REMEDIAL SECTION
GUIDANCE
SCOPE OF WORK (SOW)
FOR A
COMPREHENSIVE INVESTIGATION (CI)/CORRECTIVE
ACTION STUDY (CAS)

BER POLICY # BER-RS-20

DATE: 1991

Revised: May 23, 1996

Revised: March 29, 2001

PAGES: 6

The Comprehensive Investigation and Corrective Action Study (CI/CAS) Scope of Work (SOW) provides an outline that should be employed to characterize the nature and extent of risks posed by contaminated sites and to evaluate potential remedial options. This SOW is a flexible process that can be tailored to specific characteristics and needs of individual sites.

The goals of the Comprehensive Investigation are to determine the nature and extent of environmental contamination at the site, assess potential human health and environmental risks posed by the site, and develop a preliminary list of remedial action objectives and corresponding potential corrective action alternatives that will be evaluated in detail during the subsequent Corrective Action Study process. The primary objectives of the Comprehensive Investigation are to:

- 1) Identify and characterize all potential source areas, including identifying all chemicals of concern, determining the mechanisms of release, estimating the quantities of release, and determining whether these releases are ongoing or inactive;
- 2) Delineate and characterize the full lateral and vertical extent of contamination for each of the impacted environmental media at the site;
- 3) Characterize the environmental setting, including regional and local geology, hydrogeology, and hydrology; particularly as those site physical characteristics may pertain to contaminant transport and fate mechanisms for the site or may affect the evaluation, selection and design of cleanup alternatives for the site;
- 4) Characterize the physicochemical properties of the contaminants, their mobility and persistence in the environment, and their important fate and transport mechanisms as they relate to the site physical characteristics;
- 5) Identify human and environmental targets that may be threatened or affected by the site;
- 6) Perform a quantitative human health risk assessment to determine whether and the extent to which the

site requires remediation;

- 7) Perform bench or pilot treatability tests as necessary to support the development of potential corrective action alternatives; and,
- 8) Develop a preliminary list of remedial action objectives and corresponding potential corrective action alternatives.

The Corrective Action Study (CAS) provides an objective and standardized process for evaluating, comparing, and contrasting potential corrective action alternatives. The primary objectives of the CAS are described as follows:

- 1) to evaluate the feasibility, effectiveness, and cost of at least two (2) potential remedial actions based on the findings of the Comprehensive Investigation (CI), and to compare and contrast those alternatives to each other and the "no action" alternative;
- 2) to recommend and justify a specific corrective action for the site; and
- 3) to determine the health and environmental effects of the remedial action.

This Scope of Work outlines activities necessary to satisfy these objectives. A CI/CAS Work Plan describing in detail all activities proposed to satisfy the CI/CAS objectives shall be developed and submitted to KDHE for approval. The CI/CAS Work Plan must include an implementation schedule defining the dates for initiating and completing the various tasks associated with this Scope of Work and for submitting work plans and reports defined as deliverable documents within the Consent Order. In addition, the CI/CAS Work Plan must include the following site-specific supporting documents: 1) quality assurance project plan; 2) field sampling plan; and 3) health and safety plan. A quality assurance project plan describes the policy, organization, functional activities, and quality assurance and quality control protocols necessary to achieve the data quality objectives dictated by the intended use of the data. A field sampling plan provides the guidance for all field work by defining in detail the sampling and data-gathering methods to be used on a project. The field sampling plan should be written so that a field sampling team unfamiliar with the site would be able to gather the samples and field information required. A health and safety plan prepared to support the field effort must conform to the firm's or agency's health and safety program which must, in turn, be in compliance with requirements of the Occupational Safety and Health Administration.

The Scope of Work for the performance of a CI/CAS shall, at a minimum, include the following components:

1.0 HISTORICAL EVALUATION AND SITE DESCRIPTION

A description of the site location should be generated, including a legal description of the site, facility address, and facility layout, as appropriate. An ownership history for the source facility and the ownership status of other affected properties should be documented. A description of all past and present activities or operations conducted at the site must be included in the CI Report including: the nature of business operations conducted at the site, chemicals used at the facility, wastes generated by facility operations, chemical and waste disposal methods, and records or descriptions of all known spills or leaks. Environmental permits issued relative to past or present business operations should be identified. Descriptions of any previous environmental investigations conducted at the site and summaries of the significant findings of those investigations should be included. The historical evaluation and site description component of the Comprehensive Investigation may be excluded if a

KDHE-approved Preliminary Investigation was conducted at the site or if sufficient background information about the site has been previously documented and submitted to KDHE.

2.0 STUDY AREA INVESTIGATION

A description of the physical characteristics of the study area must be provided including, but not limited to: geology, soils, hydrogeology, surface water hydrology, and meteorology. Past and present land use on and adjacent to the site must be described. Current city and/or county land use zoning classifications that may affect any potential remedy for the site must be documented. The physical characteristics of the study area should be determined to the extent necessary to facilitate the evaluation of appropriate remedial responses.

3.0 SOURCE CHARACTERIZATION

A detailed description of all field activities completed to identify the source(s), extent, and release mechanisms for environmental contamination and the findings of those activities must be provided. This may include several components: review of facility records; personnel interviews; waste and/or soil sampling; equipment testing (tank, pipeline, or sewer line testing, etc.), geophysical surveys, aerial photograph review, and land elevation surveys, among others.

4.0 NATURE AND EXTENT CHARACTERIZATION

A study to determine the full horizontal and vertical extent of environmental contamination must be performed. Potential media to be investigated include surface and subsurface soils, ground water, surface water, sediment, air, and biota. An evaluation of the significant contaminant fate and transport mechanisms should be performed. This component of the CI may include monitoring well or piezometer installation, soil borings, soil or ground water probing, field and laboratory analyses, geophysical surveys, hydrogeological evaluations, surveying, computer modeling, and biota studies, among others. Analytical data should be collected of appropriate data quality and quantity to support the completion of a Risk Assessment, if one is to be performed, and to support the evaluation of potential remedial alternatives. All data should be validated at the appropriate field or laboratory quality control level to determine whether it is appropriate for its intended use.

5.0 RISK ASSESSMENT (Optional)

Information and environmental data collected and validated as representative of site conditions may be used to qualitatively or quantitatively describe the potential excess human health risk and/or ecological risk posed by the site in the absence of remediation. This Risk Assessment process is used to characterize the risk posed to human health or the environment by environmental conditions at a contaminated site. In lieu of performing a site-specific Risk Assessment to evaluate risk and arrive at cleanup goals for a site, the participating party may elect, with the concurrence of the KDHE project manager, to use the risk-based cleanup goals for soil and ground water under Tier 2 of the Risk-Based Standards for Kansas manual (RSK manual). If KDHE determines that the completion of a quantitative Risk Assessment is appropriate, the participating party may, at their option, perform such risk assessment for submittal to KDHE for approval. Prior to performing the risk assessment, the participating party must submit a baseline risk assessment work plan that, among other items, provides a site-specific exposure conceptual model, which either graphically illustrates or states the impacted media and all the primary and secondary exposure pathways, lists all contaminants of concern, standard exposure parameters, land use, methodologies for determining reasonable maximum exposure point

concentrations, proxy determinations, and other statistical considerations. The quantitative baseline risk assessment should be performed in accordance with "Risk Assessment Guidance for Superfund" EPA/540/1-89/002 and other associated guidance such as "Dermal Exposure Factors Handbook" and OSWER Directive, "Standard Exposure Factors". The work plan must be approved by KDHE prior to commencing the Baseline Risk Assessment. Alternatively, the participating party may elect to have KDHE's contractor perform the Risk Assessment at the party's expense. Coordination with KDHE is required throughout the risk characterization and cleanup goal determination process.

6.0 IDENTIFICATION OF CORRECTIVE ACTION ALTERNATIVES

Information and data generated during the Comprehensive Investigation, including the Risk Assessment, if performed, should be evaluated to develop a preliminary list of remedial action objectives and to identify applicable or relevant and appropriate cleanup standards or cleanup goals. In addition, an initial list of general response actions or potential corrective action alternatives to be evaluated in detail during the Corrective Action Study (CAS) should be developed.

7.0 PILOT TREATABILITY STUDIES/DATA GATHERING

To keep the CI/CAS process on schedule, it may be appropriate to identify and initiate any pilot testing necessary to evaluate corrective action alternatives early in the CI process. Treatability studies are conducted to provide sufficient data to allow treatment alternatives to be fully developed and evaluated during the CAS process and to support the subsequent remedial design of the corrective action alternative ultimately selected by KDHE. Treatability investigations also serve to reduce cost and performance uncertainties for treatment alternatives to acceptable levels to permit a more reliable remedy selection process. Examples of treatability data gathering activities that might be performed during the CI include aquifer pumping tests, soil vapor extraction pilot tests, or pilot-scale applications of innovative technologies to evaluate their applicability to site wastes. Pilot treatability studies and other treatability data gathering activities should be completed consistent with a KDHE-approved work plan.

8.0 CI REPORT

Upon completion of all Comprehensive Investigation activities necessary to achieve the objectives of the CI Scope of Work, a Comprehensive Investigation Report must be submitted to KDHE, in a time frame consistent with the implementation schedule in the approved CI Work Plan, for review and approval. The CI Report should include all information and data collected from during the investigation and describe in detail the work performed to accomplish the objectives as set forth within this SOW. The CI Report format shall be consistent with this Scope of Work and include appropriate tables, figures, well logs, laboratory analytical data, references, appendices, etc. to effectively portray the data generated during the investigation and to support any conclusions drawn in the CI Report.

* *Submission of a CAS Work Plan may be necessary if additional data gathering is necessary following completion of the CI in order to evaluate potential corrective action alternatives.*

9.0 EVALUATION OF CORRECTIVE ACTIONS

The Corrective Action Study is the process through which detailed assessments of at least two plausible corrective action alternatives and the "no action" alternative are performed. The evaluation must include: 1) a description of the contaminants of concern within each environmental media; 2) an

identification of all real and potential human and environmental targets and an evaluation of all direct and indirect exposure pathways; 3) a description of the site-specific corrective action goals; 4) treatability studies for corrective actions considered innovative or unproven; and 5) a detailed individual and comparative analysis of each of the proposed corrective actions, and the "no action" alternative, to evaluate their ability to satisfy the following criteria:

- a) overall protection of human health and environment;
- b) compliance with Federal and State applicable, or relevant and appropriate requirements (ARARs);
- c) long-term effectiveness and permanence;
- d) reduction of toxicity, mobility and volume of contamination through treatment;
- e) short-term effectiveness;
- f) implementability;
- g) cost; and
- h) community acceptance.

For potential corrective action alternatives that would not result in short-term restoration of the site, the evaluation of those alternatives should also address the time frame in which the alternative might reasonably be expected to achieve the corrective action goals for the site.

10.0 RECOMMENDATION OF A CORRECTIVE ACTION

The detailed evaluation of potential corrective action alternatives shall provide the basis for recommending and supporting a specific corrective action or group of corrective actions for the site, which satisfies the requirements as defined in Section 2.0.

11.0 CAS REPORT

The Corrective Action Study Report shall include: 1) a brief summary of the findings of previous environmental investigations, including a risk assessment, if performed; 2) a description of the site-specific corrective action goals; 3) a detailed description of each corrective action alternative evaluated, including the "no action" alternative; 4) a detailed discussion of each corrective action alternative evaluated in the context of satisfying the criteria defined in Section 2.0; 5) a recommendation for corrective action at the site; and 6) an Appendix containing any background information or literature which was used to evaluate each corrective action alternative.

KDHE/BER strongly recommends that any persons performing Comprehensive Investigation and/or Corrective Action Study activities with State of Kansas oversight obtain and familiarize themselves with the following documents. These documents provide guidance for the preparation, implementation, and reporting of CI/CAS activities, and constitute much of the technical basis on which KDHE/BER reviews work plans, reports, and other submittals related to the CI/CAS process. Information on obtaining the EPA documents is available on-line at <http://www.epa.gov/epahome/publications.htm>. Information on the State Cooperative Program administered by the Remedial Section of the Bureau of Environmental Remediation can be found on-line at the KDHE web site, <http://www.kdhe.state.ks.us/ber/remedial/sru.html>.

EPA/600/R-98/018 February 1998; "EPA Guidance for Quality Assurance Project Plans (EPA QA/G-5)."

EPA/540/G-89/004 (OSWER Directive 9355.3-01) October 1988; "Guidance for Conducting Remedial Investigations and Feasibility Studies Under CERCLA."

EPA/600/R-96/055 August 2000; "Guidance for the Data Quality Objectives Process (EPA QA/G-4)."

EPA/540/1-89/002 December 1989; "Risk Assessment Guidance for Superfund: Volume I - Human Health Evaluation Manual (Part A)."

EPA/540/R-92/003 December 1991; "Risk Assessment Guidance for Superfund: Volume I - Human Health Evaluation Manual (Part B, Development of Risk-Based Preliminary Remediation Goals)."

"Risk-Based Standards for Kansas (RSK Manual)", March 24, 1999 (available from KDHE/BER).

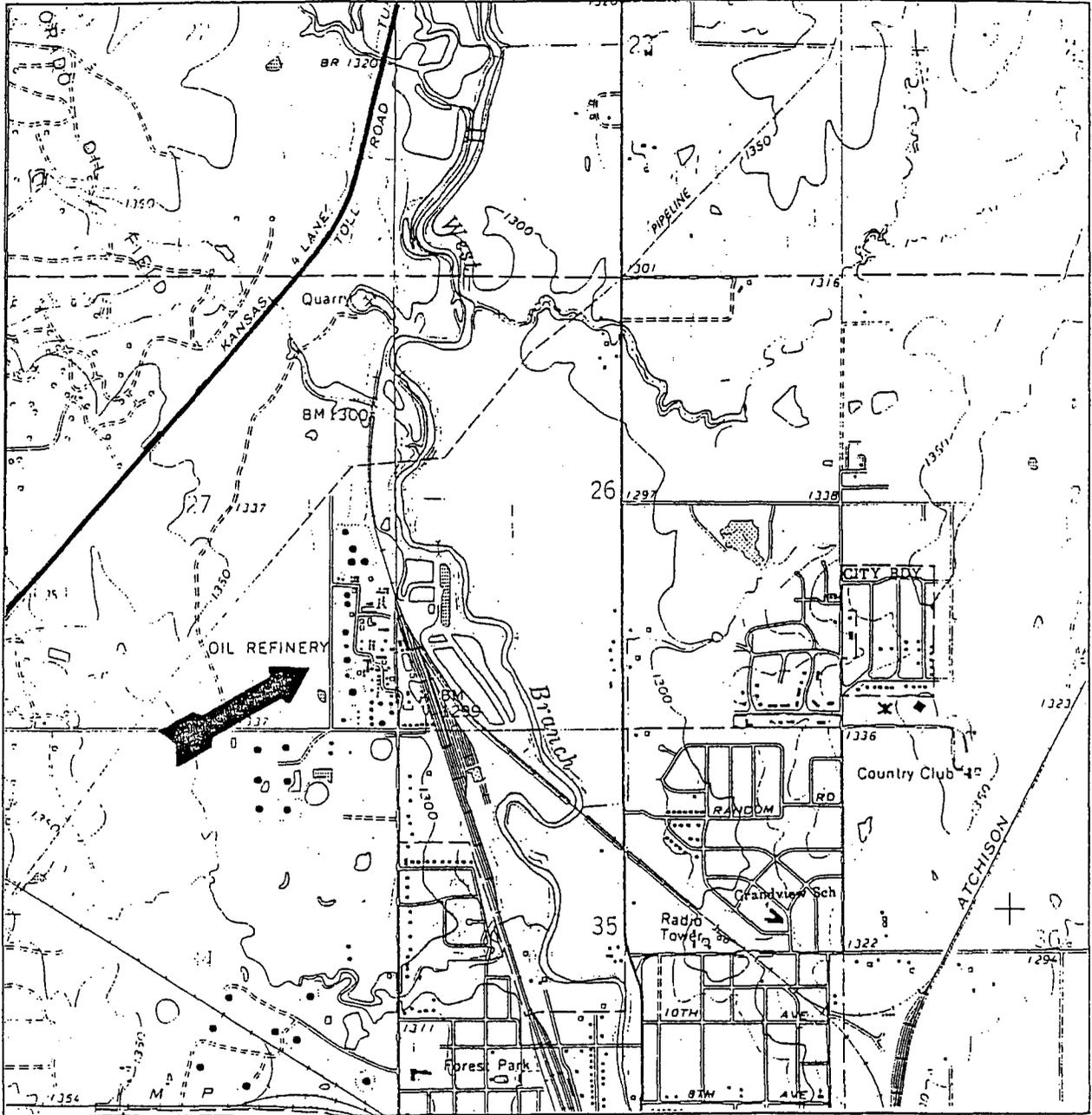


Exhibit 2
Site Location
Coastal Refinery, El Dorado

Exhibit 3
Schedule of Deliverables
for the
Remedial Investigation (RI)/Feasibility Study (FS)

Deliverable	Due Date
Draft RI/FS Work Plan including: Draft Field Sampling Plan Draft Quality Assurance Project Plan Draft Health and Safety Plan	Due 60 days after effective date of the Consent Order
Final RI/FS Work Plan including: Final Field Sampling Plan Final Quality Assurance Project Plan Final Health and Safety Plan	Due 30 days after receipt of KDHE comments on the draft RI/FS Work Plan and associated documents
Community Relations Plan	KDHE will be responsible for preparing the Community Relations Plan.
Draft RI Report	The deliverable date will be set as part of the Implementation Schedule, which is an element of the approved RI/FS Work Plan
Final RI Report	Due 30 days after receipt of KDHE's comments on the draft RI Report
Draft FS Report	The deliverable date will be set as part of the Implementation Schedule, which is an element of the approved RI/FS Work Plan
Final FS Report	Due 30 days after receipt of KDHE's comments on the draft FS Report
Baseline Risk Assessment (BRA)	The deliverable date for the Baseline Risk Assessment will be set as part of the Implementation Schedule, which is an element of the approved RI/FS Work Plan.
Quarterly Progress Reports	Due quarter-annually upon or before the anniversary of the effective date of the Consent Order