PB99-963106
EPA541-R99-032
1999

EPA Superfund
Record of Decision Amendment:

United Creosoting Company
Conroe, TX
10/14/1998

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

UNITED CREOSOTING COMPANY SUPERFUND SITE RECORD OF DECISION AMENDMENT NO. 1

September 1998

DECLARATION
FOR THE UNITED CREOSOTING COMPANY
SUPERFUND SITE
RECORD OF DECISION
AMENDMENT NO. 1

SITE NAME AND LOCATION

United Creosoting Company, Conroe, Montgomery County, TX

STATEMENT OF BASIS AND PURPOSE

This decision document presents an amendment to the previously selected remedial action for the United Creosoting Company Superfund Site. The new remedy was chosen in accordance with the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA), as amended by the Superfund Amendments and Reauthorization Act of 1986 (SARA) (42 U.S. Code, Section 9601, et seq.), and, to the extent practicable, the National Contingency Plan (NCP) (40 CFR Part 300). This decision is based on the Administrative Record for this site.

The State of Texas does not object to the selected remedy.

ASSESSMENT OF THE SITE

Actual or threatened releases of hazardous substances from this site, if not addressed by implementing the response action selected in this amendment, may present an imminent and substantial endangerment to public health or welfare or the environment.

DESCRIPTION OF THE REMEDY

This amendment changes the method of contaminated soil remediation described in the Record of Decision (ROD) executed by the Regional Administrator on September 29, 1989. The selected soil remedy is changed from on-site remediation by Critical Fluid Extraction to off-site treatment, if required, and disposal. Monitoring the natural attenuation of the shallow ground water is still required. This amended remedy does not alter the Target Soil Action Levels for either the residential soils or the industrial soils contained in the 1989 ROD. This amended remedy does not alter the Applicable or Relevant and Appropriate Requirements listed in the 1989 ROD.

STATUTORY DETERMINATION

The selected remedy is protective of human health and the environment. It complies with Federal and State requirements that are legally applicable or relevant and appropriate to the remedial action, and is cost-effective. This remedy utilizes a permanent solution and alternative treatment technologies to the maximum extent practicable. The community's objection to Critical Fluid Extraction or any other on-site treatment system and the closeness of the contamination to occupied residences precludes selecting another remedy which could treat on-site the contaminants of concern. Thus, the selected remedy does not satisfy the statutory preference for on-site treatment for principal threat wastes. However, only small, isolated areas of principal threat wastes exist at this site. Excavation and disposal off-site of the contaminated soil and the placement of clean backfill in the excavations will sever the exposure pathway, and thus protect human health and the environment. Because this remedy will allow for unrestricted use of the residential area for residential use and the unrestricted use of the industrial area for industrial use and does not alter the extent of excavation of contaminated soil required by the 1989 ROD, a five-year review will not be required for this remedial action.

DATA CERTIFICATION CHECKLIST

The following information is included in the Amendment:

- cleanup levels established for the Chemicals of Concern;
- current and future land use assumptions;
- land use that will be available at the site as a result of the selected remedy;
- estimated capital and Operation and Maintenance costs and the duration of the implementation of the remedy; and,
- decisive factors that lead to selecting the remedy.

The following information is included in the two previous Records of Decision and other documents in the Administrative Record file:

- Chemicals of Concern and their respective concentrations;
- baseline risk represented by the Chemicals of Concern;
- basis for the cleanup levels; and,
- current and future ground water uses.

Greg A. Cooke
Regional Administrator (6RA)

10-14-98
Date

UNITED CREOSOTING COMPANY
SUPERFUND SITE
RECORD OF DECISION
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UNITED CREOSOTING COMPANY SUPERFUND SITE

CONROE, TEXAS

AMENDMENT TO THE RECORD OF DECISION

September 1998

Summary

The U. S. Environmental Protection Agency (EPA) has prepared an Amendment (Amendment) to the 1989 Record of Decision (ROD) for the remedial action to be taken on the industrial area and the residential area of the United Creosoting Company Superfund Site (Site) in Conroe, Texas. This Amendment:

- modifies the method of remediation of soil from on-site Critical Fluid Extraction treatment to excavation, removal off-site for any treatment required by the Resource Conservation and Recovery Act (RCRA), and disposal in a permitted, secure hazardous waste disposal facility;
- uses soil successfully treated previously, soil removed from the residential area that is below the Industrial Target Action Levels, and other clean soil as backfill for the excavations in the industrial area;
- uses only soil below the Residential Action Levels as backfill for the excavations in the residential area;
- addresses the statements and expressed wishes regarding remediation activities from both residents and city government officials of Conroe; and,
- completes the new remedial action within twelve months and at an estimated cost of eight to twelve million dollars.

Introduction

This Amendment presents the change to the remedy for the United Creosoting Company Superfund Site located in Conroe, Montgomery County, Texas.

The Texas Natural Resource Conservation Commission (TNRCC) is the lead agency for implementing the remedial action at this Site.

The EPA is issuing this Amendment as part of its public participation responsibilities as required by the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), Section 117 and the National Oil and Hazardous Substances Contingency Plan (NCP), 40 Code of Federal Regulations (CFR), Section 300.435(c)(2)(ii). The purposes of the Amendment are the following:

- to identify the preferred alternative and explain the rationale for preference;
- to describe other remedial options considered; and,
- to serve as a companion to the Site Investigation/Feasibility Study (SI/FS) Report and Administrative Record File.

This Amendment was developed from data collected during the Site Investigation (SI); the Feasibility Study (FS); the 1986 ROD, signed on September 30, 1986; and the 1989 ROD, signed on September 29, 1989. The Amendment also is based on data collected by supplemental investigations conducted from December 1995 to December 19, 1997, during remedial activities.

The 1989 ROD, signed by the EPA Region 6 Regional Administrator on September 29, 1989, specified that Critical Fluid Extraction - an innovative technology - be used on-site to treat the soil contaminated above the Industrial Action Levels. During the implementation of the innovative technology, the performance rate of the technology could not meet the contract requirements. In February 1998, after the Contractor had treated contaminated soil for ten months, the TNRCC terminated the contract. This action required the EPA to select another remedy for this Site.

This Amendment replaces portions of the 1989 ROD and refers to applicable information that can be found in greater detail in documents contained in the Administrative Record file for the United Creosoting Company Superfund Site. Additionally, this Amendment will become part of the Administrative Record file as required by the NCP300.825(a)(2). The Administrative Record is available at the information repositories listed in Appendix A.

Site Description and Background

The United Creosoting Company operated a wood preserving facility from 1946 to 1972 on the Site located in Conroe, Texas. The map on Page 3 shows the location of the Site. The EPA proposed the Site for listing on the National Priorities List in 1983, based on the hazards posed by the creosote contaminated soil.

1986 ROD Remedy

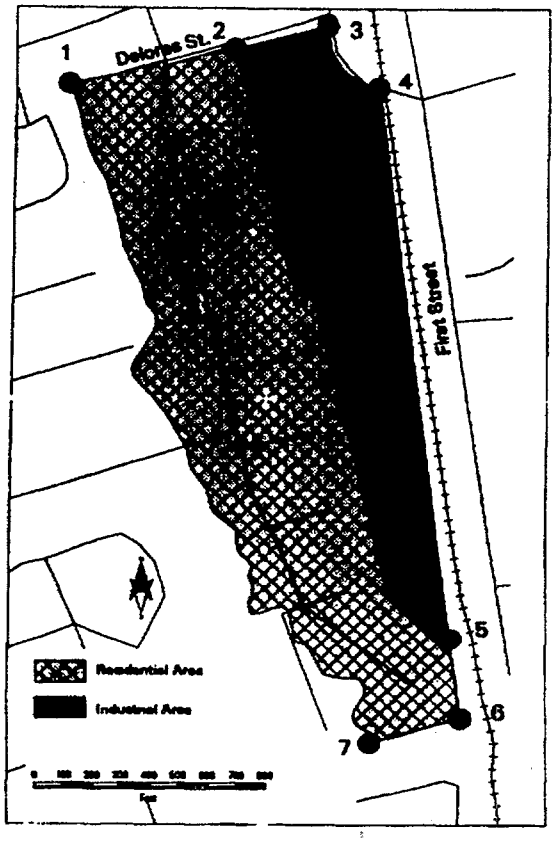
The remedy the EPA selected in 1986 required the following major activities:

- purchase of seven properties located above and adjacent to the former creosote ponds (later an eighth property was purchased) and relocation of the residents;
- ground water attenuation through natural processes of dilution and adsorption; periodic ground water monitoring; and,
- periodic evaluation of off-site disposal facilities availability and alternative technologies.

UNITED CREOSOTING Co.

Montgomery County

Conroe, Texas

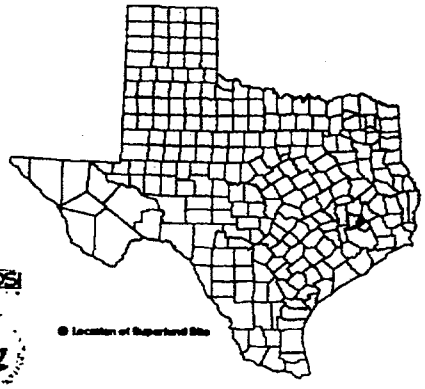


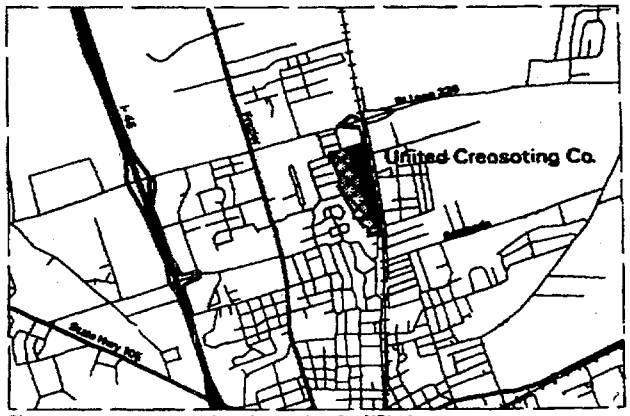
NPL Site Coordinates

1.	N	29°	58′	14.52″	W	95°	09′	06.41″
2.	N	29°	58′	25.29″	W	95°	08′	00.89″
3.	N	29°	58′	32.58″	W	95°	07′	24.07″
4.	N	29°	58′	09.86″	W	95°	07′	04.07″
5.	N	29°	54′	54.66″	W	95°	08′	42.56″
6.	N	29°	54′	26.35″	W	95°	06′	39.51″
7.	N	29°	54′	18.39″	W	95°	07′	15.00″

LAT/LONG coordinates were gathered from EPA's G.I.S. using 1992 Census TIGER/Line files as a base map.
Projection:Geographic, Units:degrees,minutes,seconds, Datum:NAD27

Source: Site plan via Earl Hendrick, Project Manager, EPA Region 6 Dallas, Tx 30 April 1997





3 mile area surrounding United Creosoting Co. NPL site

Created by Computer Data Systems, Inc. for EPA Region 6 Superfund Division 30 June 1998 / cw

In April 1992, the TNRCC awarded a contract for the remediation of the residential area. The required remedial activities for 38 residential properties and five vacant lots are now complete. One owner refused remediation (the property later was sold and the new owners have requested remediation) and six of the residential properties purchased by the Federal government are not remediated. These seven residential properties will be remediated during the implementation of this ROD amendment. No other residential properties require remedial action.

1989 ROD Remedy

The remedy the EPA selected in 1989 required the following major activities:

- sampling the residential area, excavation of soils above ROD established Residential Action Levels, relocation of the excavated soil to the industrial area, backfilling of the excavations with clean dirt, and landscaping the disturbed area;
- excavation of soil in the industrial area contaminated above the 1989 ROD established Industrial Action Levels, treatment of the excavated soil on-site by the Critical Fluid Extraction process, and backfilling the treated soil in the industrial area; and,
- disposal of the organic extract from the Critical Fluid Extraction process by off-site incineration.

In 1995, the TNRCC awarded a contract for the remediation of the contaminated soil in the industrial area based on the Critical Fluid Extraction process. During the implementation of the Critical Fluid Extraction treatment process, the Critical Fluid Extraction Contractor successfully remediated at a rate of only about 30 tons per day versus the contracted rate of about 225 tons per day.

Basis for This Document

Reason for Issuing Amended Proposed Plan

Based on ten months of operation of the on-site Critical Fluid Extraction system, the State determined that the performance rate of the system could not satisfy the contract requirements. At a January 13, 1998, public meeting, the State presented the residents with several options including continuing with the existing process, capping the wastes, and off-site disposal. The residents expressed anger with the remedial activity odors and noise and requested the remaining contaminated soil be taken off the Site. In February 1998, the TNRCC terminated its contract with this Contractor. To continue with the remedy would have added significant time to the project.

The primary reason for issuing the Amended Proposed Plan was to identify and describe the rationale for the modification to the remedy at this Site. Included in the Amended Proposed Plan was a comparison of the new remedy versus the remedy specified in the 1989 ROD. Because of strong community opinion against any on-site remediation, the EPA gave preference to the off-site remedy. Because of the reduced volume of contaminated soil at the site, off-site disposal is less costly than estimated in the earlier RODs.

The following major portions of the 1989 ROD's remedy remain unchanged:

- the established site risks and remediation goals;
- the established Target Soil Action Levels;
- the description of the alternative remedies;
- the Applicable or Relevant and Appropriate Requirements (ARARs) for ground water; and,
- the method of remediating the contaminated soil in the residential area.

Site characterization and evaluation of the alternative remedies are updated in this amendment. After discussions with Conroe city officials, the EPA is satisfied that the current and reasonably anticipated land use remains the same - the residential area is expected to remain residential and the industrial area is expected to remain industrial.

All contaminated soil that was treated on-site by the Critical Fluid Extraction process was remediated to below the Industrial Target Soil Action Levels. This treated soil now is located in the industrial area and additional treatment is not required. The remaining contaminated soil in the residential area will, as specified in the 1989 ROD, be excavated and transferred to the industrial area. This amendment alters only the location and type of treatment of soil in the industrial area that is contaminated above the Industrial Action Levels.

The Amendment uses information that can be found in greater detail in documents contained in the SI Report, the FS Report, and the Administrative Record for the United Creosoting Company Site. The development and evaluation of the remedial alternative are based on data presented in the original Site Investigation, Feasibility Study Report, the 1986 ROD, and the 1989 ROD, modified to benefit from the reduced quantity of contaminated soil still requiring treatment. Since this amendment alters only the method of remediation, no additional institutional controls are required. This Amendment will become part of the Administrative Record as required by the NCP.

Performance Standards

The Performance Standards specified in the 1986 and 1989 RODs remain unchanged. These standards include remediation goals, clean up levels, remedial action objectives, standards of control, and other substantive requirements (*e.g.*, Applicable or Relevant and Appropriate Requirements - ARARS), criteria, and limitations set forth in the 1989 ROD, and the Amendment to the ROD.

The Target Action Levels are listed in Table 4 of the 1989 ROD. They are repeated here for completeness. Abbreviations and descriptions are explained in Section VI. SUMMARY OF SITE RISKS AND REMEDIATION GOALS in the 1989 ROD:

Residential Soils Target Action Levels	**Industrial Soils Target Action Levels**
1 ppb total 2,3,7,8-TCDD Equivalents	20 ppb total 2,3,7,8-TCDD Equivalents
330 ppb total BAP Equivalents	40 ppm total BAP Equivalents
150 ppm total Pentachlorophenol	150 ppm total Pentachlorophenol
2,000 ppm total non-carcinogenic PAHs	2,000 ppm total non-carcinogenic PAHs

As in the earlier RODs, remediation of the shallow aquifer ground water remains natural attenuation. Therefore, excavation of contaminated soil continues to be, as in the previous remedy, to a depth approximately equal to the upper surface of the shallow ground water.

Description of the New Remedy

The remedies selected in the 1986 and 1989 RODs included a component to treat contaminated soil that poses a threat or potential threat to human health and the environment. The new remedy continues any treatment required by RCRA of contaminated soil that poses a threat or potential threat to human health and the environment. The new remedy pertains to the remaining contaminated soil in both the residential and industrial areas, and specifies soil excavation and replacement. Only soil below the Residential Action Levels will be used to backfill the resulting excavations in the residential area. Soil that has been successfully treated by Critical Fluid Extraction, soil removed from the residential area that is below the Industrial Target Action Levels, and other clean soil will be used to backfill the resulting excavations in the industrial area.

The specific modification to Alternative 6 described in the 1989 ROD is that the remaining contaminated soil will be excavated and transported to a permitted, secure hazardous waste disposal facility. The F032 wastes and F034 wastes that are identified as the principal soil contaminants at the site are allowed to be disposed at a permitted landfill. RCRA treatment requirements will be satisfied prior to land disposal.

In addition, other benefits of the amended new plan are as follows:

- remedy implementation should be about eight months from contractor mobilization; and,
- this remedial action should cost from eight to twelve million dollars in net present worth dollars to remediate the remaining estimated 22,000 tons of contaminated soil.

Maintenance and monitoring of the Site, as specified in the 1989 ROD, would be necessary for the following year to insure effectiveness of the remedy. Since contaminants will be removed to below risk-based levels, 5-year reviews of the soil remedy would not be required.

Classification of Contaminated Soil

The EPA uses the Hazardous Waste Listing of materials to determine the requirements for the disposal of waste contaminated with hazardous materials. When the EPA prepared the 1986 ROD and the 1989 ROD, 40 CFR 261.31 did not have a listing for any creosote material. In 40 CFR 261.32, K001 is listed as the Industry and EPA Hazardous Waste Listing related to wood preservation wastes. That Listing was described as bottoms sediment sludge from the treatment of waste waters from wood preserving processes that use creosote and/or Pentachlorophenol. In 40 CFR 261.33, U051 is listed as the Hazardous Waste Listing for creosote. This paragraph applied to off-specification, discarded, or residues from commercial creosote products.

The July 1, 1991 versions of 40 CFR 261.32 and 261.33 continued to list K001 and U051 respectively. However, the July 1, 1991 versions of 40 CFR 261.31 listed for the first time F032 and F034 for creosote. The description of the F032 hazardous waste follows: Wastewaters, process residues, preservative drippage, and spent formulations from wood preserving processes

generated at plants that currently use or have used chlorophenolic formulations. This listing does not include K001 bottom sediment sludge from the treatment of wastewater. The description of the F034 hazardous waste is the same as that for F032, except that it applies to industrial plants using creosoting formulations.

The July 1, 1997 versions of 40 CFR 261.31 continue to list F032 and F034; the July 1, 1997 versions of 40 CFR 261.32 and 261.33 continue to list K001 and U051 respectively. The location of the contaminated soil and concentrations of contaminants do support the rationale that the soil was contaminated with waste as described for F032 and F034 and not K001. Therefore, for purposes of transportation and disposal of contaminated soil and debris, the K001 listing is deleted and FO32 and F034 listings are added. Both F032 and F034 listings are specified because the soil is contaminated with chlorophenolic formulations and creosote formulations.

Evaluation of the Original Remedy and the New Remedy

The EPA uses nine criteria, or standards, to evaluate alternatives for a hazardous waste site. The following is a comparison of the new remedy and the remedy selected in the 1989 ROD with respect to the nine criteria.

Based on the information currently available and reviewed, the EPA believes the new remedy provides the best balance among the other alternatives with respect to these evaluation criteria.

Overall Protection of Human Health and the Environment

This criterion addresses the way in which a potential remedy would reduce, eliminate, or control the risks posed by the site to human health and the environment. The method used to achieve an adequate level of protection may be through engineering controls, treatment techniques, or other controls such as restrictions on the future use of the site. The total elimination of the risk is often impossible to achieve; however, any remedy must minimize risk to assure that human health and the environment would be protected.

Both the 1989 remedy and new remedy provide equal and adequate protection of human health and the environment by eliminating and preventing risk of exposure, the 1989 remedy through on-site treatment of the contaminants at the Site and the new remedy through removal of the contaminants from the Site.

Applicable or Relevant and Appropriate Requirements

Compliance with the Applicable or Relevant and Appropriate Requirements (ARARs) assures that a selected remedy will meet all the related Federal, State, and local requirements per Section 121(d) of CERCLA. The requirements may specify maximum concentrations of contaminants that can remain at the site; design or performance requirements for treatment technologies; and, restrictions that may limit potential remedial activities at a site because of its location.

All ARARs contained in the 1989 ROD remain unchanged other than the use of the current 40 CFR 261 and 40 CFR 268 regarding the classification of contaminated soil. Both remedies satisfy the ARARs requirements.

Long-term Effectiveness and Permanence
This criterion refers to expected residual risk and the ability of a potential remedy to reliably protect human health and the environment over time, after the cleanup levels have been met.

Both remedies achieve long-term effectiveness and permanence by ultimately removing the contaminants of concern from the Site. The initial remedy used on-site extraction to remove the contaminants from the soil. The new remedy accomplishes the same ends by removing the soil contaminated above the Target Action Levels from the Site to a licensed landfill for disposal. This latter remedial method comports with RCRA requirements for soil contaminated with the listed F032 and F034 wastes and with the ROD ARARS.

Reduction in Toxicity, Mobility, or Volume through Treatment
This criterion refers to the anticipated performance of the treatment technologies for the remedy. Factors considered include the nature of the treatment process; the amount of hazardous material destroyed by the treatment process; how effectively the process reduces the toxicity, mobility, or volume of waste through treatment; and, the type and quantity of contamination that will remain after treatment.

The 1989 remedy specified that the Critical Fluid Extraction process extract containing the contaminants be incinerated off-site at a permitted facility. The new remedy merely requires that the contaminated soil be removed to a permitted landfill for disposal. Although removal is the only RCRA requirement currently necessary for the identified wastes on the site, should other soil contaminants be discovered that do require treatment under RCRA requirements, this treatment will be specifically pursued in addition to the new remedy. The 1989 remedy would specifically reduce toxicity, mobility or volume of contaminants at the Site, while the other will reduce mobility by depositing the contaminated soil into a permitted, secured landfill.

Short-term Effectiveness
This criterion addresses the time factor during implementation of the remedy. A potential remedy is evaluated for the time needed to implement and complete the remedy and any adverse impact on human health and the environment during the construction and implementation of the remedy until cleanup levels are achieved.

Only the new remedy satisfies the short-term effectiveness requirement. Because many contractors can bid and implement the new remedy, a new contractor can be in the field in a few weeks after a contract award and complete the remedy within an estimated eight months. To continue with the previous contractor or locate a competent contractor to implement the old remedy is estimated to take at least another two years.

In addition, the new remedy would require fewer engineering controls to minimize short-term risks to workers and the public than did the old process. The new process does not present as much of a risk in transporting because, although a larger volume, the contaminants are diluted in the soil but were concentrated in the extract transported off-site in the old remedy.

Implementability
Implementability addresses the ease with which a potential remedy can be put in place. Factors such as availability of material and services are considered.

The new remedy is readily implementable. Numerous vendors can accomplish this remedial action and have the facilities that can receive the contaminated soil. The Critical Fluid Extraction process was a sole source procurement and required the design, fabrication and erection of new equipment.

Cost
Costs include capital costs required for design and construction, operation and maintenance costs as present worth costs. Present worth cost is the total cost of an alternative over time in terms of today's dollar value. Costs are considered and compared to the benefit that will result from implementing the remedy.

Until the TNRCC completes its negotiations with the contractors, the final costs of the failed remedy are not available.

Because of the availability of competent vendors able to implement the new remedy, the EPA estimates the new remedy to cost eight to twelve million dollars, less than the estimated eighteen million to twenty million dollars to complete the original remedy. Both of these costs would increase proportionally if the TNRCC and the selected contractor determine that significant additional soil contaminated below the Target Action Levels must be excavated and removed to obtain access to the contaminated soil, or if the volume of contamination is larger than indicated by the existing field data. During the preparation of the bid package, the TNRCC is collecting additional field data to more accurately determine the volume of contaminated soil to be removed.

Total Operation and Maintenance costs should not exceed two hundred thousand dollars for either remedy.

State Agency Acceptance
State Acceptance indicates whether, based on its review of documents in the Administrative Record and the Amended Proposed Plan, the State concurs with, opposes, or has no comment on the preferred alternative.

The EPA Region 6 provided the TNRCC an opportunity to review the Amended Proposed Plan. The TNRCC response is in Appendix B.

Community Acceptance
The EPA recognizes that the community in which a Superfund site is located is the principal beneficiary of all remedial actions taken. The EPA also recognizes that it is responsible for informing interested citizens of the nature of Superfund environmental problems and solutions, and to learn from the community what it desires regarding these sites.

The modified remedy is consistent with the unanimous opinion expressed by residents attending the public meeting in Conroe conducted by the TNRCC in January 1998. Additionally, the EPA conducted a Public Meeting on June 29. All comments received at the public meeting are addressed in the Responsiveness Summary in Appendix C.

Statutory Determinations

Under CERCLA Section 121, the EPA must select remedies that are protective of human health and the environment, comply with all applicable or relevant and appropriate requirements, are cost effective, and utilize permanent solutions and alternative treatment technologies or resource recovery technologies to the maximum extent possible. In addition, CERCLA includes a preference for remedies that employ treatment that permanently and significantly reduce volume, toxicity, or mobility of hazardous wastes as a principal element. The following sections document how the selected remedy meets these statutory requirements.

The selected remedy, excavation and disposal in a permitted, secure hazardous waste disposal facility will eliminate the potential of direct contact or ingestion of contaminated soil. The remedy will also reduce the source of contaminants entering the ground water.

The selected remedy inclusive of the *Classification of Contaminated Soil* section of this Amendment satisfies all of the ARARs contained in the 1989 ROD.

The EPA believes the selected remedy is cost effective for mitigating the direct contact, ingestion, and continued ground water contamination from the site contaminants. Section 300.430(f)(II)(D) of the National Contingency Plan requires the EPA to determine cost-effectiveness by evaluating the cost of an alternative relative to its overall effectiveness. Effectiveness is defined by three of the five balancing criteria: long-term effectiveness, short-term effectiveness, and reduction of toxicity, mobility, or volume of the wastes through treatment. The overall effectiveness is then compared to the cost to ensure that the selected remedy is cost-effective.

The EPA estimates the cost of the selected remedy to be eight to twelve million dollars based on the estimated 22,000 tons of soil contaminated above the Target Action Levels. As explained in the *Evaluation of the Original Remedy and the New Remedy* section of this Amendment, this cost could increase if contaminated soil volumes are greater. Any changes in the volume would alter the costs of either remedy proportionally. The EPA believes the selected remedy is the more cost effective of the two remedies and is the only remedy acceptable to the community.

Public Participation Compliance

On June 19, 1998, the EPA issued a notice of the Amended Proposed Plan and established the Public Comment Period to be from June 19 to July 20. The EPA conducted a Public Meeting on June 29. All comments received during the thirty-day public comment period and at the public meeting are addressed in the Responsiveness Summary in Appendix C.

Documentation of No Significant Change

The EPA reviewed all comments on the proposed remedy obtained during the public comment period and determined that no changes to the remedy selection, as it was originally identified in the Amendment to the Proposed Plan, were necessary.

APPENDIX A

UNITED CREOSOTING COMPANY SUPERFUND SITE

LOCATIONS OF REPOSITORIES

Montgomery County Library
104 Interstate 45 North
Conroe, Texas 77301
(409) 539-7814
Hours of Operation: Monday through Thursday 9:00 a.m. - 9:00 p.m.
Friday and Saturday 9:00 a.m. - 5:00 p.m.

U.S. EPA, Region 6
Library, 12th Floor (6MD-II)
1445 Ross Avenue
Dallas, Texas 75202-2733
(214) 665-6424 or 665-6427, (214) 665-2146 (FAX)
Hours of Operation: Monday through Friday 7:30 a.m. - 4:30 p.m.

Texas Natural Resource Conservation Commission
12100 Park 35 Circle
Room 190, Building D
Austin, Texas 78753
(512) 239-2920
Hours of Operation: Monday through Friday 8:00 a.m. - 5:00 p.m.

APPENDIX B

UNITED CREOSOTING COMPANY SUPERFUND SITE

STATE/SUPPORT AGENCY ACCEPTANCE

Barry R. McBee, *Chairman*
R. B. "Ralph" Marquez, *Commissioner*
John M. Baker, *Commissioner*
Jeffrey A. Saitas, *Executive Director*

TEXAS NATURAL RESOURCE CONSERVATION COMMISSION

Protecting Texas by Reducing and Preventing Pollution

September 9,1998

VIA OVERNIGHT MAIL

Mr. Gregg A. Cooke, Regional Administrator
U.S. Environmental Protection Agency
Region 6
1445 Ross Avenue
Dallas, TX 75202-2733

Re: United Creosoting Company Federal Superfund Site
Operable Unit Three
Record of Decision Amendment No. 1

Dear Mr. Cooke:

The Texas Natural Resource Conservation Commission (TNRCC) has reviewed the August 27, 1998 Draft Record of Decision Amendment No. 1 for the United Creosoting Company Superfund Site - Operable Unit Three. The TNRCC does not object to the provisions of the proposed amendment.

Sincerely,

Jeffrey A. Saitas, P.E.
Executive Director

P.O. Box 13087 • Austin, Texas 78711-3087 • 512/239-1000 • Internet address: www.tnrcc.state.tx.us

The pages were misnumbered in the production of this document. Page 15 does not exist. The document is complete and in order.

APPENDIX C

UNITED CREOSOTING COMPANY
SUPERFUND SITE
RESPONSIVENESS SUMMARY

1. The city of Conroe is concerned about storm water runoff from the site. The city contends that all storm water runoff has the potential to come in direct contact with the pollutants of concern. Therefore, we request the EPA and the TNRCC obtain an Individual Industrial Construction Stormwater Permit.

Response: Neither the EPA nor the TNRCC will apply for this permit. In 42 U.S.C. § 9621, Subsection 121(e)(1), it is stated that no permits are required for remedial action conducted entirely onsite. The excavation and removal activities on-site are protected by this statement. However, the disposal of the contaminated soil offsite must comply with Federal, State, and local permits. For the concern about storm water runoff, the State will require that its contractor comply with the substantive but not the administrative requirements of the Storm Water General Permit for Construction Activities, published in the Federal Register, Volume 63, No.128 on July 6, 1998.

2. Why is the EPA working on the United Creosoting site, the Conroe Creosote plant was started long before United was?

Response: The Conroe Creosote plant is currently being addressed through the TNRCC enforcement process.

3. I was made ill by the odors from this site during the remediation. I want to be relocated during any other work at the site.

Response: The NCP § 300.415(e) allows for relocation to protect human health or welfare. The EPA would consult with the Agency for Toxic Substance and Disease Registry and the Texas Department of Health to decide if temporary relocation is appropriate. If, as the result of this consultation, EPA determines that relocation is appropriate, you will be relocated.

4. Is the EPA committed to the removal of the contaminated soil from the site?

Response: Yes, the EPA supports the excavation and removal of the contaminated soil for disposal at a secured, permitted landfill required by this Amendment.

5. I understand that the EPA has reclassified the waste from K to F, what's the difference?

Response: Both listings are considered hazardous. K001 identifies the sludge from a creosote waste water treatment system. F032 and F034 identify wastes resulting from creosote spills, drippings, and disposals. The F description describes the source of the contaminants at this site. The F listings did not exist when the previous Records of Decision were prepared.

6. Why wait until August to issue this Amendment?

Response: Regulations require the EPA to provide the public at least 30 days to comment on the proposed remedy and require the EPA to prepare and issue responses to all comments. The time required to accomplish these actions necessarily delays the issuance of the actual Amendment until August or September. The TNRCC will be meeting with the residents monthly and the EPA will inform the residents as to the progress of issuing the Amendment.

7. Will additional sampling be conducted at the site?

Response: Yes, more data will improve the estimation of the contaminated soil to be removed. The TNRCC will collect these data before requesting bids for the Site remediation.

8. Will the EPA change the remedy if additional contamination is found?

Response: No. Based on the results of recent sampling activities by TNRCC, the EPA has determined, the EPA expects the proposed remedy is appropriate.

9. Because of the change in the estimated quantity of contaminated soil, from 114,000 to down to 23,000 to 25,000 tons, a higher level of comfort in the community is required with the future test results.

Response: The TNRCC has, prior to requesting bids, conducted sufficiently sampling of the site to determine the actual remaining extent and volume of contaminated soil.

10. Why has the quantity of contaminated soil decreased from 114,000 to 23,000 tons?

Response: Fortunately, much of the contaminated residential soil, although contaminated above acceptable residential levels, was contaminated below acceptable industrial levels. Treatment of this soil is not required for its use as backfill in excavations where highly contaminated soil is removed from the industrial area for disposal offsite. Also, less industrial area contaminated soil is being found than previously predicted. Because of this occurrence, the TNRCC is conducting extensive sampling activities to more accurately determine the extent of contamination in the industrial area and residential areas yet to be remediated.

11. How much testing for dioxins and furans was done in the residential area and what were the detection limits?

Response: More than 200 dioxins and furans analyses were made of residential soil for the preparation of the Site Investigation Report dated December 1985. Ninety analyses were made for the final confirmation sampling at the completion of the residential properties remediation. During recent sampling of the residential area, the detection limits for all isomers of dioxins and furans ranged from 0.2 parts per trillion up to 0.9 parts per trillion. The detection limits satisfy the ability to report the detection of 0.01 parts per billion of total 2,3,7,8-TCDD equivalents.

12. In the industrial area, what is the area that is used for composite samples?

Response: The State's sampling plan requires the compositing of five samples from an area not to exceed 2,500 square feet.

13. Is there any investigation that is ongoing into the innovative process and particularly the criteria for screening innovative processes?

Response: The EPA's Technology Innovation Office and Office of Inspector General have been notified about problems encountered at this site. Follow-up is up to each of those groups.

14. Will the contractors that had prior contracts at this site be allowed to be considered for contracting in the future at this site in spite of violations that occurred with regard to storm water runoff and issues associated with odors?

Response: Yes, as long as neither is the subject of suspension nor debarment by the Federal or State government. Please also see the response to #1.

15. What is the basis for debarring?

Response: A person or organization may be debarred if there has been a conviction of, or civil judgement for, specific offenses, including fraud, embezzlement, theft, forgery, bribery, making false claims, and violation of Federal or State antitrust statutes. Please refer to the Code of Federal Regulations 40 CFR, Part 32, Subpart C - Debarment (32.300 to 32.335) for complete information.

16. Has there been any investigation of the taking or occupation of private property associated with the work performed so far at this site?

Response: No.

17. Has there been any consideration of compensation for health-related problems, specifically nausea associated with the odors at the site during the previous remediation?

Response: No. The odors, from the failed process, are not expected to occur during the new remedy because excavation will occur inside specially designed building. As explained in Response #3, the NCP § 300.415(e) allows for relocation to protect human health or welfare. The EPA would consult with the Agency for Toxic Substance and Disease Registry and the Texas Department of Health to decide if temporary relocation is appropriate if nauseous odors do occur during the remediation.

18. Will there be an opportunity for residents to express their desires relating to site working hours?

Response: Yes, the TNRCC has requested comments regarding working hours and work days.

19. Is there a contaminated ground water plume at this site?

Response: Yes, one of the purposes of remediating this site is to remove the source of contaminants that might feed this plume and, thus, reduce its threat. The State will continue to monitor the quality of the ground water to determine the progress of natural attenuation of this shallow ground water plume. No contaminants have been detected in the lower ground water aquifer.

20. Why has it taken so long to remediate this site?

Response: Remediation of the residential area except for the areas purchased by the Federal government and one lot whose owner refused remediation was completed several years ago. The contaminated soil in the residential area was removed to eliminate threats to human health there. Previously, the EPA had no suitable remedy for the industrial portion of this site because of the very close proximity of the residential properties. The cap on the industrial area provides protection to workers there until a final remedy is completed.

21. The EPA's clean up standards for the industrial area are not as severe as those for the adjoining residential properties. I'm concerned that the residual contaminants from the industrial area will migrate and pollute the adjoining residential properties.

Response: Surface contaminants can be transported by surface water from the industrial area to the residential area. After the remedy is completed however, both the surface of the residential area and the industrial areas that are remediated will have 6 inches of clean, imported top soil in place. Beneath the top soil, the direction of mobile contaminant migration is mostly downward - carried by rain water. Contaminant migration in the shallow aquifer (about twenty-three feet below the surface) follows the movement of the water in the aquifer. To provide additional protection against contaminants migrating to the residential properties, the backfill placed to a depth of five feet in the industrial area immediately adjoining the residential area will satisfy the Residential Soils Target Action Levels specified in this Amendment.

22. Will the trucks contain the excavated contaminated soil pass through the subdivision?

Response: No. The trucks leaving the site will leave only by the Clark Center exit onto Cartwright Street. The TNRCC will discuss with the city the route for the trucks to take through Conroe.

23. What are the health risks for the residents as this contaminated soil is being excavated and removed?

Response: Health risks could be caused by contaminated air borne dust or contaminated water. Consequently, all excavations of contaminated soil, except for one area requiring a shallow excavation, will be under cover to prevent the possible spread of contaminated soil. The cover will also prevent rain water from contacting the contaminated soil. Trucks transporting contaminated soil will be covered. The shallow area will be excavated quickly and dust control systems and air monitoring will be in place. Whenever excavation activities are occurring, perimeter air monitors will be in operation near the residential boundary.

24. Will there be odors?

Response: Odors are difficult to control. Because the site work will not involve the process that created the odors previously experienced at this site, we do not expect a repeat of the previous situation. Soil treated by the previous process is stored in the treatment building and will be used as backfill in the industrial area excavations. This soil will be transported from the treatment building by covered trucks into the covered buildings for disposal. No significant odors should be present. If additional controls are required, the TNRCC will institute them.

25. I would like for there to be no work done on the weekends and holidays.

Response: Comment is noted. The TNRCC will provide the residents an opportunity to put such comments in writing.

26. Does the EPA plan to sample any of the residential areas where there was surface water runoff from the industrial area?

Response: The TNRCC and the city recently sampled one residential lot that received surface water runoff. The levels of all detected site contaminants were below the limits set for the residential area. Additional sampling is not planned but could occur if there is justification.

27. Because of storm water run off, odors, and dust problems with the previous remedy, what precautions will be taken during this remedy to prevent the problems?

Response: The plans for storm water abatement are discussed in the response to Question #1. The plans for odor control are discussed in the response to Question #24. The plans for dust control are discussed in the response to Question #23. Also, the TNRCC will have a person at the site assigned to be available to the residents to receive and address any problems that occur.

28. Do you have any idea where this contaminated soil is going?

Response: Although the specific receiving facility is not known at this time, it will be a permitted facility that satisfies the CERCLA off-site rule. The specific receiving facility will be selected through the bidding and contracting process and must satisfy all of the RCRA and State regulations.

29. I saw the big pile of toxic waste that was collected spread under the waste treatment building. I saw strange, blue, slimy water that came from the buildings. Who is going to police what goes on during the next remediation?

Response: As explained in the response to Question 10, much of the contaminated soil from the residential area is suitable for use in the industrial area and was used as backfill under the foundation of the Treatment Building. Neither the TNRCC nor its Engineer could verify that the strange, blue, slimy water seen in the creek came from the buildings. In any case, the buildings will not contain any treatment equipment. Also, please see the response to Question #1.

30. Is it safe to raise and to eat vegetables raised in the residential back yards?

Response: Yes, the Residential Soils Target Action Levels satisfy the health risk criteria explained in the previous RODs when applied to eating vegetables grown in a resident's yard.

CONCURRENCE FOR
UNITED CREOSOTING COMPANY
SUPERFUND SITE
RECORD OF DECISION
AMENDMENT NO. 1

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