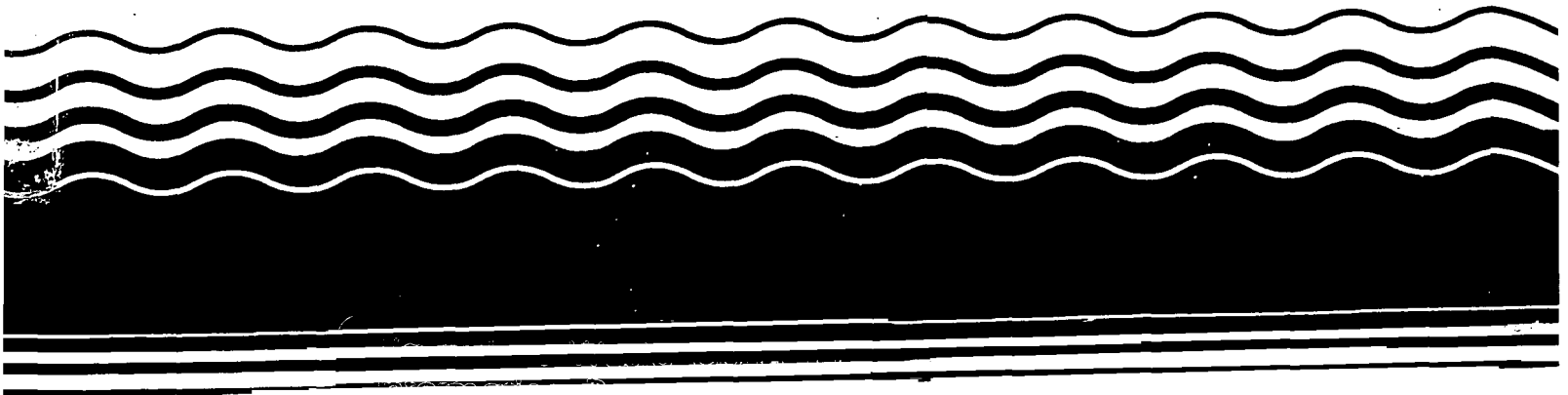


EPA/AMD/R02-95/251
September 1995

EPA Superfund
Record of Decision Amendment:

Caldwell Trucking Company
Fairfield Township, NJ
2/28/95



DECLARATION STATEMENT
RECORD OF DECISION AMENDMENT
CALDWELL TRUCKING COMPANY SITE

Site Name and Location

Caldwell Trucking Company
Fairfield Township, Essex County, New Jersey

Statement of Basis and Purpose

This Record of Decision (ROD) Amendment documents the U.S. Environmental Protection Agency's (EPA's) selection of a modified remedy for the Caldwell Trucking Company site. The modified remedy was selected in accordance with the requirements of the Comprehensive Environmental Response, Compensation and Liability Act of 1980, as amended (CERCLA), 42 U.S.C. §9601 et seq., and to the extent practicable, the National Oil and Hazardous Substances Pollution Contingency Plan (NCP), 40 CFR Part 300. This document explains the factual and legal basis for amending the remedy for the Caldwell Trucking Company site. An administrative record for the site, established pursuant to the NCP, 40 CFR 300.800, contains the documents that form the basis for EPA's selection of the remedial action.

The State of New Jersey concurs with the selected remedy only if institutional controls, which include but are not necessarily limited to deed restrictions, are established for the site.

Assessment of the Site

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

Description of the Selected Remedy


The remedial action described in this document addresses contaminated soils at the Caldwell Trucking Company site. It represents a modification of the remedy for contaminated soils selected in the initial ROD (September 1986) and subsequent Explanation of Significant Differences (February 1993) for the site. The previous remedy included the treatment of contaminated soils and placement of the treated soils in a landfill to be constructed at the site. The modified remedy, developed as a result of a study undertaken by a group of potentially responsible parties, eliminates the need for construction of the on-site landfill while providing a similar degree of protection to human health and the environment. The major components of the selected remedy are as follows:

- Excavation and off-site disposal of 1650 cubic yards of California List waste materials;
- Excavation and off-site treatment and disposal of all soils with concentrations of volatile organic compounds over 100 milligrams per kilogram;
- In-situ stabilization of 29,500 cubic yards and 5,200 cubic yards of contaminated soil in the central lagoon area and north lagoon area, respectively, forming a low permeability solidified mass;
- Placement of two feet of clean soil over the solidified mass to allow for revegetation of the areas; and
- Appropriate environmental monitoring to ensure the effectiveness of the remedy.

Declaration of Statutory Determinations

The selected remedy meets the requirements for remedial actions set forth in CERCLA §121, 42 U.S.C. §9621: (1) it is protective of human health and the environment; (2) it attains a level or standard of control of the hazardous substances, pollutants and contaminants, which at least attains the legally applicable or relevant and appropriate requirements under federal and state laws; (3) it is cost-effective; (4) it utilizes permanent solutions and alternative treatment (or resource recovery) technologies to the maximum extent practicable; and (5) it satisfies the statutory preference for treatment as a principal element.

Because this remedy will result in contaminants remaining on the site above health-based levels (although in a stabilized form), a review will be conducted within five years after the commencement of the remedial action to ensure that the remedy continues to provide adequate protection to human health and the environment.


 William J. Maszynski, P.E.
 Deputy Regional Administrator
 U.S. EPA, Region II

2/27/95
 Date

DECISION SUMMARY
RECORD OF DECISION AMENDMENT
CALDWELL TRUCKING COMPANY SITE

SITE BACKGROUND

Caldwell Trucking Company (Caldwell) was a sewage hauling and disposal firm located at 222 Passaic Avenue in Fairfield Township, New Jersey. The site consists of Lot 17 of Block 2201 and Lots 7, 18 and 20 of Block 2302 on the Fairfield Township tax map, in an area zoned for industrial use. The site also includes those areas affected by the plume of contaminated ground water. The West Essex Regional High School is located approximately 200 feet to the east. Approximately 45 small businesses are situated within one mile of the site, and the nearest major residential area is about 1000 feet to the northeast.

Caldwell disposed of residential and commercial septic waste, as well as industrial waste, in unlined lagoons on the site from the early 1950's until about 1973. When the lagoons were full, they were backfilled and a new series of lagoons were dug, sometimes over pre-existing lagoons. From 1973 to the early 1980s, wastes were consolidated in four underground storage tanks prior to disposal off the site.

1986 Remedial Investigation and Feasibility Study

In June 1986, EPA completed a Remedial Investigation and Feasibility Study (RI/FS) for the site. The RI/FS was conducted to identify the types, quantities, and locations of contaminants, and to develop ways of addressing the contamination problems. The RI delineated the horizontal and vertical extent of the contamination in the former lagoons, and confirmed the presence of a downgradient plume of contaminated ground water. Metals, primarily lead, cadmium and mercury, volatile organic compounds (VOCs), polynuclear aromatic hydrocarbons (PAHs), and polychlorinated biphenyls (PCBs) were detected in on-site subsurface soils. Lead, PCBs, and PAHs were also detected in on-site surface soils. Lead is the primary metal of concern in both the surface and subsurface soils. Ground water is contaminated with VOCs, including trichloroethylene and 1,1,1-trichloroethane.

A risk assessment was performed as part of the 1986 RI/FS. This information is available for review in the Administrative Record for the 1986 Record of Decision (ROD).

Based on the results of the RI/FS, site remediation was divided into four remedial phases or components. Remedies for the first three components were selected in the 1986 ROD. The fourth

component, which deals with the contaminated ground water, is being dealt with under a second ROD signed in 1989. This ground water component is not affected by the proposed ROD Amendment.

1986 ROD Remedy

The United States Environmental Protection Agency (EPA) selected the following remedial actions in the 1986 ROD:

First Component

- Restoration of the water quality in Municipal Well No. 7 to drinking water quality standards, through a treatment process known as "air-stripping".

Second Component

- Provision of an alternative water supply for residents potentially affected by ground water contamination associated with the site.

Third Component

- Excavation and treatment (by the addition of heat) of approximately 28,000 cubic yards of contaminated soils and waste materials; and
- Placement of the treated waste in a secure landfill to be constructed on the site in accordance with the requirements of the Resource Conservation and Recovery Act (RCRA).

The Township of Fairfield subsequently chose not to provide treatment for Municipal Well No. 7, but rather decided to utilize water provided by the Passaic Valley Water Commission as an alternative potable water supply for the entire community. EPA issued an ESD in May 1991, to explain the deletion of the Municipal Well No. 7 component of the remedy.

In the summer of 1989, EPA connected 55 residential properties and nine commercial establishments to the municipal water system. This fulfilled the second remedial component of the 1986 ROD.

Remedial Design for Contaminated Soils and Waste Materials

In 1987, EPA initiated a remedial design for the third component of the 1986 ROD involving the contaminated soils and waste materials at the site. Initial design activities focused on further characterization of the soils and waste materials, and restoration of the water quality in Municipal Well No. 7. In the summer of 1990, the U.S. Army Corps of Engineers conducted field

investigations designed to measure air emissions from on-site activities during test pit excavations, and to collect geotechnical data involving the subsurface soils.

At the time of the RI/FS, EPA believed that sludge waste at the site was limited to the existing surface lagoon, and that the waste remaining in this lagoon would be best treated by the same processes intended to be used for soil treatment. However, the results of the remedial design investigations indicated that the volume of sludge at the site was greater than originally estimated. In addition, new information about the levels and combinations of contaminants in the sludges, and also in some site soils, indicated that additional treatment would be required prior to disposal.

The remedial design investigations also provided additional information about the buried sludge lagoons. Some sludges have concentrations of lead over 100,000 milligrams per kilogram (mg/kg); others contain halogenated organic compounds (HOCs), such as trichloroethylene or perchloroethylene, at total concentrations greater than 1000 mg/kg, as well as high concentrations of lead. Under the RCRA regulations found at 40 C.F.R. § 268.32, any waste with this combination of contaminants is classified as a "California List" waste, and cannot be land disposed without treatment. 40 C.F.R. Part 268 prescribes incineration as the treatment method for all "California List" wastes.

In addition, the results of testing during the remedial design indicated that some of the other soil and waste materials also exhibited high lead levels; these were classified as RCRA characteristic hazardous wastes because of their toxicity. If these RCRA hazardous wastes are excavated, they must meet specific RCRA treatment standards, known as Land Disposal Restrictions, before being placed in a land disposal unit.

1993 Explanation of Significant Differences

In February 1993, as a result of the additional information gathered in the remedial design, EPA modified the remedy selected in the 1986 ROD for treatment and disposal of the contaminated soils and other waste materials, as follows:

- Excavation (as described in the 1986 ROD) of 35,000 cubic yards of contaminated soils and other waste materials (an increase of 7,000 cubic yards compared to the volume estimated in the 1986 ROD);

- Off-site disposal and treatment of approximately 1650 cubic yards of California List waste materials (a new component that replaced the on-site thermal treatment of high concentrations of VOC contaminated soils);
- Stabilization of the lead contaminated soils remaining on the site, prior to their placement in the RCRA landfill (an additional component needed to comply with RCRA land disposal restrictions);
- Treatment to reduce the VOCs in contaminated soils to acceptable levels (to be accomplished by off-site treatment and disposal of the high VOC content California List wastes, and by the reduction and treatment of the remaining VOCs in the soils during the stabilization process, rather than in a separate low temperature thermal treatment system as described in the 1986 ROD); and
- Placement of the treated soils in a secure on-site landfill, as described in the 1986 ROD (to be constructed in accordance with RCRA and Toxic Substances Control Act (TSCA) requirements).

The off-site treatment and disposal of California List waste materials with high levels of VOCs, and stabilization of the lead contaminated soils that would also reduce the VOCs remaining in the soils, were modifications of the remedy selected in the 1986 ROD. These VOC treatment methods replaced the low temperature thermal treatment method described in the ROD.

In September 1994, a group of eight potentially responsible parties (PRPs), under EPA oversight, completed the excavation and off-site treatment and disposal of the California List waste materials, and removed the underground storage tanks.

ENFORCEMENT HISTORY

In April 1993, EPA issued a unilateral Administrative Order (UAO), Index No. II-CERCLA-93-0102, to 11 potentially responsible parties to implement the existing remedy. In June 1993, EPA issued a second UAO, Index No. II-CERCLA-93-0104, to 15 PRPs to conduct a pre-design ground water investigation. Nine PRPs agreed to comply with both UAOs, and formed the Caldwell Trucking Company Site Trust (the Trust). On March 30, 1994, EPA, the New Jersey Department of Environmental Protection (NJDEP) and the U.S. Department of Interior lodged a consent agreement with the U.S. District Court, under which the Trust will perform the remedial work to contain the contaminated ground water plume, in addition to the site work which they are undertaking under both UAOs.

1994 FOCUSED FEASIBILITY STUDY

In October 1993, the Trust conducted bench-scale studies to evaluate the effectiveness of stabilization on site-specific contaminated soil. In January 1994, the Trust presented EPA and NJDEP with the results of the bench-scale studies. These studies indicated that, after the California List waste materials and other soils with high concentrations of VOCs were treated and disposed of off site, stabilization of the remaining wastes in place might be as effective in protecting human health and the environment as the existing stabilization and landfiling remedy. This would be accomplished by forming a solid and durable concrete mass (in-situ stabilization/solidification), with a low permeability of 1×10^{-5} (one in a hundred thousand) centimeters per second (cm/sec).

As a result, in March 1994, EPA approved the Trust's request that it be allowed to prepare a focused feasibility study (FFS), which is a feasibility study with a limited scope, to evaluate in-situ stabilization/solidification as an alternative remedy for the remaining soil contamination at the site. The purpose of the FFS was to demonstrate that an in-situ stabilization/ solidification technology would be effective at the Caldwell Trucking site, and to evaluate whether this technology would be protective of human health and the environment.

Two remedial alternatives were compared in the FFS. The first alternative consists of the remedy presented in the 1986 ROD, as modified by the 1993 ESD; this alternative includes stabilization of the non-California List waste material and placement in an on-site landfill. The second alternative consists of in-situ stabilization/solidification of the non-California List waste material and installation of a soil cover.

The information presented regarding Alternative 1, stabilization and landfiling, is based on an EPA design for this remedy that was prepared by the U.S. Army Corps of Engineers, and modified by the Trust pursuant to the UAO. The information presented regarding Alternative 2, in-situ stabilization/solidification, is based upon information gathered from current industry literature, the use of this technology at another Superfund site, and bench-scale testing conducted in October 1993 utilizing soils from the Caldwell Trucking site.

HIGHLIGHTS OF COMMUNITY PARTICIPATION

The FFS and Proposed Plan for this ROD Amendment were released to the public for comment on October 25, 1994. These documents were made available to the public in the administrative record file at information repositories located at the Town Clerk's Office,

Fairfield Township, New Jersey and EPA's Region II Office in New York City. A Notice for these documents was published in the Caldwell Progress on November 3, 1994. A public comment period was held from October 25, 1994 to November 25, 1994. In addition, a public meeting to discuss the proposed change to the remedy was held at the Town Hall in Fairfield on November 9, 1994. No comments were made by the public concerning the proposed change at this meeting. In addition, no comments were received by EPA during the public comment period. A summary of the public meeting is addressed in the Responsiveness Summary.

REMEDIAL ACTION OBJECTIVES

Remedial action objectives are specific goals to protect human health and the environment; they specify the contaminant(s) of concern, the exposure routes, receptors, and acceptable contaminant levels for each exposure route. For the Caldwell Tru-bing site, they are:

- Prevent exposure through dermal contact with and/or ingestion of California List waste materials.
- Prevent exposure through dermal contact with and/or ingestion of contaminated soil with VOCs greater than 100 mg/kg.
- Prevent exposure through dermal contact with and/or ingestion of contaminated soil containing heavy metals, such as lead, cadmium and mercury.
- Inhibit leaching of site contaminants from the soil into the ground water by stabilizing all contaminated soil with concentrations of lead greater than 1000 mg/kg, and cadmium greater than 3 mg/kg.
- Mitigate any unacceptable risks to human or ecological receptors from the inhalation of contaminants released from soil on the site to the air.

DESCRIPTION OF ALTERNATIVES

The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980, as amended, requires that selected site remedies be protective of human health and the environment, be cost effective, comply with other laws, and utilize permanent solutions and alternative treatment technologies and resource recovery alternatives to the maximum extent practicable. In addition, CERCLA includes a preference for the use of treatment as a principal element for the reduction of toxicity, mobility or volume of the hazardous substances.

This amended ROD evaluates two remedial alternatives for addressing soil contamination associated with the Caldwell Trucking site.

These alternatives are:

Alternative 1: Stabilization/Landfill

Capital Cost: \$13,194,000

Annual Operation and Maintenance (O & M) Cost: \$199,000

Present Worth Cost: \$15,539,000

Construction Time: 1.5 years

Alternative 1 is the existing remedy; it includes:

- Excavation, off-site treatment and disposal of approximately 1650 cubic yards of California List waste materials;
- Excavation and stabilization of about 29,500 cubic yards of non-California List waste material in the central lagoon area and 5,200 cubic yards of contaminated soil in the north lagoon area, which will immobilize the heavy metals and reduce the remaining VOCs in the contaminated soils to an acceptable level; and
- Placement of the treated wastes in an on-site RCRA/TSCA landfill, with a double liner and leachate collection system.

Because this alternative would result in contaminants remaining on the site, CERCLA requires that the site be reviewed every five years. If justified by the review, additional remedial actions may be implemented to remove or treat the wastes.

Alternative 2: Stabilization/Solidification

Capital Cost: \$8,384,000

Annual O & M Cost: \$93,000

Present Worth Cost: \$9,538,000

Construction Time: 0.75 year

Alternative 2 includes:

- Excavation, off-site treatment and disposal of approximately 1650 cubic yards of California List waste materials;
- Excavation, and off-site treatment and disposal of contaminated soils with concentrations of VOCs greater than 100 mg/kg;

- In-situ stabilization/solidification of about 29,500 cubic yards and 5,200 cubic yards in the central lagoon area and north lagoon area, respectively, forming a solid and durable low permeability concrete mass, referred to as "the solidified mass"; and
- Placement of two feet of clean soil over the solidified mass and revegetation of the areas.

Because this alternative would result in contaminants remaining on the site, CERCLA requires that the site be reviewed every five years. If justified by the review, additional remedial actions may be implemented to remove or treat the wastes.

SUMMARY OF THE COMPARATIVE ANALYSIS OF ALTERNATIVES

In selecting a remedy, EPA considered the factors set out in Section 121 of CERCLA, 42 U.S.C. §9621, by conducting a detailed analysis of the remedial alternatives pursuant to Section 300.430(e)(9) of the National Oil and Hazardous Substances Pollution Contingency Plan (NCP). EPA assessed the individual alternatives against each of nine evaluation criteria and compared the relative performance of each alternative against those criteria.

The following "threshold" criteria must be satisfied by any alternative in order to be eligible for selection:

1. Overall protection of human health and the environment addresses whether or not a remedy provides adequate protection and describes how risks posed through each exposure pathway are eliminated, reduced or controlled through treatment, engineering controls or institutional controls.
2. Compliance with applicable or relevant and appropriate requirements addresses whether or not a remedy will meet all of the applicable or relevant and appropriate requirements of federal and state environmental statutes and requirements, or provide grounds for invoking a waiver.

The following "primary balancing" criteria are used to make comparisons and to identify the major trade-offs between alternatives.

3. Long-term effectiveness and permanence refers to the ability of a remedy to maintain reliable protection of human health and the environment over time, once cleanup goals have been met. It also addresses the magnitude and effectiveness of the measures that may be required to manage the risk posed by treatment residuals and/or untreated wastes.

4. Reduction of toxicity, mobility, or volume through treatment refers to a remedial technology's expected ability to reduce the toxicity, mobility or volume of hazardous substances, pollutants or contaminants at the site.
5. Short-term effectiveness addresses the period of time needed to achieve protection, and any adverse impacts on human health and the environment that may be posed during the construction and implementation period until cleanup goals are achieved.
6. Implementability is the technical and administrative feasibility of a remedy, including the availability of materials and services needed to implement a particular option.
7. Cost includes estimated capital and operation and maintenance costs, and the present worth costs.

The following "modifying" criteria are considered fully after the formal public comment period on the Proposed Plan is complete:

8. State acceptance indicates whether, based on its review of the FFS report and Proposed Plan, the state supports, opposes, and/or has identified any reservations with the preferred alternative.
9. Community acceptance refers to the public's general response to the alternatives described in the Proposed Plan and the FFS.

A comparative analysis of these alternatives based upon the evaluation criteria noted above follows.

Threshold Criteria

Overall Protection of Human Health and the Environment

Alternative 1 provides protection of human health and the environment through removal and off-site disposal of the California List waste materials, a major source of the ground water contamination. In addition, the remaining contaminated materials in the central lagoon area and the contaminated soils in the north lagoon area would be excavated and stabilized prior to placement in a RCRA/TSCA landfill to be constructed on the site. The landfill would encapsulate and isolate the stabilized material to prevent infiltration of rain, surface water runoff, and ground water. The landfill cap would prevent exposure through direct contact with the stabilized material.

Alternative 2 provides the same level of protection of human health and the environment as Alternative 1. The California List

waste materials, a major source of the ground water contamination, would be sent off site for treatment and disposal. Similarly, all soils with concentrations of VOCs over 100 mg/kg would be sent off site for treatment and disposal. The remaining contaminated soils in the central lagoon area and in the north lagoon area would be stabilized in place, forming a low permeability solidified mass. This stabilization method creates a solid and durable mass which would practically eliminate the flow of water through the treated soil. Two feet of clean soil would be added to cover the solidified mass. This will allow revegetation of the area, reduce the potential for direct contact with the solidified mass, and prevent erosion.

Compliance with ARARs

Applicable or relevant and appropriate requirements (ARARs) are those federal and State environmental and public health regulations that apply to remedial activities at the site. There are three types of ARARs: chemical-specific, which are health- or risk-based concentration limits; location-specific, which are based on the geographical location of the site and its surroundings; and action-specific, which are controls on particular types of remedial activities.

Chemical-Specific ARARs

There are no federal or state chemical-specific cleanup standards promulgated for the cleanup of the contaminated surface and subsurface soils at the Caldwell Trucking site. However, EPA and NJDEP agreed upon objectives for the cleanup of the contaminated soil based on a future industrial use of the site. These objectives are shown in Table 1. Both Alternative 1 and Alternative 2 will achieve these cleanup objectives.

Action-Specific ARARs

Both alternatives are expected to attain the following action-specific ARARs: the Clean Air Act National Emissions Standards for Hazardous Air Pollutants (40 C.F.R. Part 61), New Jersey Air Permit Requirements (NJAC 7:27-8), New Jersey Control and Prohibition of Air Pollution by Toxic Substances (NJAC 7:27-17), and New Jersey Regulations for Volatile Organic Substances (NJAC 7:27-16).

Alternative 1 requires a waiver of the NJDEP Hazardous Waste Regulations found at NJAC 7:26-10.8e-7, because the landfill would not be located a sufficient distance from a neighboring property to comply with the siting criteria. As part of the remedial design for the existing remedy, EPA and NJDEP agreed to waive this ARAR. Alternative 2 would not trigger these siting criteria; therefore, no waivers are necessary.

Alternative 1 would comply with RCRA land disposal restrictions (LDRs) for the placement of the stabilized soil into an on-site landfill. Stabilization would comply with the treatment requirements that specify that a RCRA hazardous waste must be treated prior to placement at a disposal facility. Alternative 2 would not invoke LDRs because these activity-based limitations do not apply when the waste material is treated in place. Nonetheless, stabilization of the contaminated soils under Alternative 2 would achieve standards equivalent to the LDRs for the treated soils.

Both alternatives would comply with the action-specific requirements of RCRA, the U.S. Department of Transportation regulations, and the New Jersey Solid and Hazardous Waste Regulations regarding the handling and shipment of California List wastes and other contaminated soils which would be sent off site for treatment and disposal. In addition, both alternatives would meet the RCRA LDR treatment standards for the proper off-site treatment and disposal of the California List wastes and the soils contaminated with high levels of VOCs.

Location-Specific ARARs

Both alternatives are expected to meet the requirements of the Executive Order on Wetlands Protection (EO 11980), Section 404 of the Clean Water Act, and Section 7:7A of the New Jersey Freshwater Wetlands Protection Act.

Primary Balancing Criteria

Long-Term Effectiveness and Permanence

Both alternatives would equally reduce the magnitude of residual risk through the off-site treatment and disposal of California List wastes and soils contaminated with high amounts of VOCs, and stabilization of the remaining contaminated soils. The containment of stabilized soils in an on-site hazardous waste landfill (Alternative 1) or via in-situ stabilization/solidification (Alternative 2) would provide comparable reductions in the baseline risk estimates developed as part of the 1986 RI/FS.

As required by CERCLA, both alternatives would require a five-year review to evaluate site conditions. If justified by the review, additional remedial actions may be implemented to remove or treat the wastes.

The isolation of the treated waste materials in either a capped hazardous waste landfill (Alternative 1) or a solidified mass with a two foot clean soil cover (Alternative 2) would limit potential exposure of human or ecological receptors to treated waste materials to a similar degree. Because of concerns that

organic constituents could adversely affect the permanence of the solidified mass associated with Alternative 2, sampling would be performed during the remedial design to verify that the selected reagent mix used for stabilization would create a solidified mass with long-term durability.

Both alternatives would reduce leachate generation to an acceptable level. Both alternatives would reduce migration of contaminants to ground water underlying the Caldwell Trucking site. Alternative 1 would rely on stabilization to immobilize the contaminants, then placement of the treated wastes into an on-site landfill with a double liner, leachate collection system, and a hazardous waste cap. This landfill cap would have a low permeability of 1×10^{-6} cm/sec, which would isolate these materials from water that might infiltrate through the cap material. Alternative 2 would encapsulate the treated materials in a low permeability (1×10^{-5} cm/sec) solidified mass located above the water table. Leachate would not be generated from the solidified mass, and infiltration of rain and surface water runoff through the mass would be practically eliminated because of its low permeability.

Reduction in Toxicity, Mobility, or Volume

The alternatives would each achieve essentially equivalent reductions in toxicity, mobility or volume of the soils to be treated. Both alternatives would reduce the toxicity, mobility and volume of the California List wastes through the off-site incineration of these materials. Alternative 2 would further reduce the toxicity and volume of the contaminated soils at the site by the off-site treatment and disposal of those soils with VOCs greater than 100 mg/kg. Alternative 1 would not directly reduce the intrinsic toxicity or volume of the contaminated soils. Stabilization, under both alternatives, would increase the volume of treated waste material at the site; however, the mobility of these constituents would be initially reduced by chemical stabilization. Secondary reduction in mobility would be obtained either by containment in a hazardous waste landfill (Alternative 1) or encapsulation in a subsurface concrete-like solidified mass (Alternative 2). Both alternatives would be expected to effectively immobilize the hazardous constituents remaining in the soil.

Short-Term Effectiveness

For either alternative, an air monitoring program and engineering controls will be used to limit any airborne dust and emissions from the site during construction. Both alternatives would require the implementation of a health and safety plan to minimize any risks to on-site workers, employees in nearby industrial and commercial facilities, and other members of the public. Alternative 2 would generate somewhat less VOCs, odor

and dust emissions than Alternative 1, by eliminating soil excavation, aboveground handling and treatment, and overland transport of treated residual materials to an on-site landfill. Construction time would also be reduced under Alternative 2, because the action may be completed in nine months, as compared to 18 months for Alternative 1.

Under Alternative 1, construction of an on-site hazardous waste landfill and backfilling of the central lagoon area excavation would require approximately 5,000 trucks carrying 100,000 cubic yards of construction materials. Alternative 2 would require 250 truckloads of construction materials. This reduction in truck traffic would result in significant reductions in noise and odor impacts to the surrounding community.

On-site disturbance of wetlands and habitat alteration or loss would be less under Alternative 2. Alternative 1 would affect 1.8 acres of wetlands, while Alternative 2 would affect 0.5 acre of wetlands. Both alternatives require access agreements for the use of adjacent properties during design and remedial action activities.

Implementability

The necessary technical equipment and skilled workers are available to implement either alternative. Both alternatives involve well-established, common construction methods. Numerous hazardous waste sites have been remediated by stabilization and containment methods similar to those developed for Alternative 1 and Alternative 2. Provisions would have to be made in the Alternative 2 remedial design for the handling of large debris and boulders during the solidification process.

Alternative 1 would require a wetlands mitigation plan, and compliance with federal and state air emissions regulations. In addition, Alternative 1 would require either compliance with NJPDES regulations for discharge of stormwater runoff or permission to discharge to the local sewer authority. Alternative 2 would also require compliance with federal and state air emissions regulations, and a mitigation plan for wetlands lost during construction.

Cost

The cost evaluation of each alternative includes consideration of capital costs and annual O&M costs. The estimated capital cost of Alternative 1 is \$13.2 million, with an estimated O&M cost of \$189,000 per year. The estimated capital cost of Alternative 2, the less expensive alternative, is \$8.4 million, with an estimated O&M cost of \$93,000 per year. A detailed breakdown of the O&M costs can be found in the FFS.

Modifying Criteria

State Acceptance

The State of New Jersey concurs with the selected remedy only if institutional controls, which include but are not necessarily limited to deed restrictions, are established for the site.

Community Acceptance

EPA solicited comments from the community regarding the two remedial alternatives, and on whether to amend the 1986 ROD remedy. There were no comments from the community at the public meeting concerning the proposed remedy change. In addition, no written comments were received during the public comment period. The attached responsiveness summary describes the community relations activities for this ROD Amendment.

SELECTED REMEDY

After evaluating the two alternatives, EPA has selected Alternative 2 as the remedy for the site because it best satisfies the requirements of Section 121 of CERCLA, and the NCP's nine evaluation criteria for remedial alternatives. The remedy was based on continued use of the property for commercial or industrial purposes.

The major components of the remedy are as follows:

- excavation and off-site disposal of 1650 cubic yards of California List waste materials;
- excavation and off-site treatment and disposal of all soils with concentrations of VOCs over 100 mg/kg;
- in-situ stabilization of 29,500 cubic yards and 5,200 cubic yards of contaminated soil in the central lagoon area and north lagoon area respectively, to form a low permeability concrete solidified mass; and
- placement of two feet of clean soil over the solidified mass followed by revegetation of the areas to limit contact with the treated materials and erosion of the soil cover.

STATUTORY DETERMINATIONS

As previously noted, Section 121 of CERCLA mandates that a remedial action must be protective of human health and the environment, cost effective, and utilize permanent solutions and

alternative treatment technologies or resource recovery technologies to the maximum extent practicable. Section 121(b)(1) also establishes a preference for remedial actions which employ treatment to permanently and significantly reduce the volume, toxicity, or mobility of the hazardous substances, pollutants, or contaminants at a site. Section 121 of CERCLA further specifies that a remedial action must attain a degree of cleanup that satisfies ARARs under federal and state laws, unless a waiver can be justified.

For the reasons discussed below, EPA has determined that the selected remedy for the Caldwell Trucking Company site meets the requirements of Section 121 of CERCLA.

The selected remedy will adequately control potential exposure of human or ecological receptors to treated waste materials. In addition, because of concerns that organic constituents could adversely affect the permanence of the stabilized mass, sampling will be performed during the remedial design to verify that the selected reagent mix used for stabilization will provide a solidified mass with long-term durability.

Protection of Human Health and the Environment

The selected remedy will practically eliminate migration of contaminants to the ground water underlying the Caldwell Trucking site by excavation and off-site disposal of the contaminated soils with concentrations of VOCs over 100 mg/kg, in addition to the excavation and off-site disposal of the California List wastes. Lead and the remaining low levels of VOCs in the soil will be stabilized and encapsulated in a solidified mass with a maximum permeability of 1×10^{-5} cm/sec, thus providing long-term protection to human health and the environment.

Compliance with ARARs

The selected remedy will be designed to meet the soil cleanup criteria, as well as all action-specific and location-specific ARARs discussed under the "Summary of Comparative Analysis of Alternatives", above.

Cost Effectiveness

The cost effectiveness of an alternative is determined by weighing the cost against the alternative's ability to achieve ARARs and remedial action objectives. The selected remedy is the most cost-effective remedy. The capital costs of the selected remedy are almost \$5 million less than Alternative 1, and the yearly O&M costs are one half of those for Alternative 1.

Utilization of Permanent Solutions and Alternative Treatment Technologies to the Maximum Extent Practicable

The selected remedy utilizes permanent solutions and treatment technologies to the maximum extent practicable and provides the best balance of trade-offs with respect to the nine evaluation criteria previously discussed.

The selected remedy will reduce the toxicity and volume of the contaminated soil at the site by the off-site treatment and disposal of California List wastes, and the off-site treatment and disposal of soils with VOCs greater than 100 mg/kg. This will significantly reduce the toxicity, mobility and volume of the contaminants at the site, and offers a permanent solution to the risks posed by these wastes.

In addition, the selected remedy will immobilize the hazardous constituents remaining in the soil through chemical stabilization. A secondary reduction in mobility will be obtained by encapsulation of the treated wastes in a subsurface concrete solidified mass. As a result, the mobility of the remaining contaminants at the site will be significantly reduced.

Preference for Treatment as a Principal Element

The selected remedy will also meet the statutory preference for remedies that employ treatment as a principal element. The California List waste materials will be incinerated in accordance with 40 CFR Part 268, and the remaining site soils will be stabilized in situ, thereby reducing the risk to human health.

DOCUMENTATION OF SIGNIFICANT CHANGES

The Proposed Plan for the Caldwell Trucking Company site was released for public comment on October 25, 1994. The Proposed Plan identified Alternative 2 as the preferred remedy for the site. No written or verbal comments were received concerning the proposed remedy change. As a result, EPA has determined that no significant changes to the remedy, as it was originally defined in the Proposed Plan, are necessary.

**RESPONSIVENESS SUMMARY
FOR THE
CALDWELL TRUCKING COMPANY SITE
FAIRFIELD, NEW JERSEY**

I. INTRODUCTION

This Responsiveness Summary provides a summary of the public meeting concerning a modification in the remedy for the contaminated soils at the Caldwell Trucking Company Superfund site. The United States Environmental Protection Agency (EPA) has amended the remedy for the contaminated soils at the site, after taking into consideration that there were no comments from the public in regard to the remedy change.

EPA held a public comment period from October 25, 1994 through November 25, 1994 to provide interested parties with the opportunity to comment on the focused feasibility study (FFS) report and the Proposed Plan. In addition, EPA held a public meeting to discuss the two remedial alternatives described in the FFS report and to present EPA's preferred remedial alternative for cleaning up the contaminated soil at the site. The meeting was held at the Fairfield Town Hall, located at 230 Fairfield Road, Fairfield, New Jersey, on November 9, 1994, at 7:00 pm.

At the public meeting, there were no comments on the proposed remedy change. The only question regarded the California List wastes, and when they had been excavated. No written comments were received during the public comment period.

II. ORAL COMMENT RECEIVED DURING THE PUBLIC MEETING

Comment: A member of the Two Bridges Sewer Authority wanted to know the time period for the excavation of the California List wastes, and if it took place during this past summer.

Response: The cleanup started in mid-August and concluded Labor Day week.

III. LIST OF APPENDICES

The following appendices document the public participation in the remedy selection process for the site.

Appendix A contains the Proposed Plan that was distributed to the public for review and comment;

Appendix B contains the public notice which appeared in the Caldwell Progress;

Appendix C contains the public meeting transcript;

Appendix D contains the index to the administrative record developed for the site.

APPENDIX A

Superfund Proposed Plan

Caldwell Trucking Company Site



Fairfield Township
Essex County
New Jersey

EPA
Region 2

October 1994

PURPOSE OF PROPOSED PLAN

This Proposed Plan describes remedial alternatives being considered to amend the 1986 Record of Decision (1986 ROD) for the Caldwell Trucking Superfund site, Fairfield Township, New Jersey. In addition, this Proposed Plan identifies the preferred remedial alternative, along with the rationale for this preference.

This Proposed Plan was developed by the U.S. Environmental Protection Agency (EPA), as lead agency, with support from the New Jersey Department of Environmental Protection (NJDEP). EPA is issuing this Proposed Plan as part of its public participation responsibilities under Section 117(a) of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980, as amended, and Section 300.430(f) of the National Contingency Plan (NCP).

During the design of the remedy, EPA received new information about the site. As a result, EPA issued an Explanation of Significant Differences (ESD) in February 1993, modifying the remedy selected in the 1986 ROD for the soils contamination operable unit. This modified remedy includes excavation and off-site disposal of some highly contaminated waste, stabilization of the remaining waste materials, and placement of the treated wastes into a landfill to be constructed on the site.

On February 3, 1994, a group of eight potentially responsible parties (PRPs), who are performing the cleanup activities at the Caldwell Trucking site, formally requested permission to prepare a focused feasibility study (FFS) to evaluate an alternative remedy to deal with the soil contamination at the site. The FFS compares the existing remedy with this alternate remedy. The two alternatives, which are summarized in this Proposed Plan, are described in the FFS report; that report should be consulted for a more detailed description of the alternatives.

The remedy described in this Proposed Plan is now the preferred remedy for the site. The preferred remedy includes excavation and off-site disposal of highly contaminated wastes, as described in the existing remedy. Soils

with volatile organic compound (VOC) concentrations greater than 100 milligrams per kilogram (mg/kg) will be excavated and disposed of off-site, and the remaining contaminated waste will be stabilized or solidified in place. As a result, a hazardous waste landfill is no longer needed, because the off-site disposal of highly contaminated wastes together with on-site stabilization/solidification of the remaining contaminated wastes will be protective of human health and the environment.

This Proposed Plan is being provided as a supplement to the FFS report to inform the public of the EPA and NJDEP preferred remedy, and to solicit public comments pertaining to the modification of the existing remedy.

Changes to the preferred remedy may be made, or no change to the existing remedy may be considered, if public comments or additional data indicate that such a change, or no change, will result in a more appropriate remedial action. The final decision regarding the selected remedy will be made after EPA has taken all public comments into consideration. We are soliciting public comment on the alternatives considered in the detailed analysis of the FFS because EPA and NJDEP may select a remedy other than the preferred remedy.

Dates to remember: MARK YOUR CALENDAR

October 25, 1994 - November 25, 1994
Public comment period on the FFS report, Proposed Plan, and remedies considered

November 9, 1994, at 7:00pm
Public meeting at the Fairfield Town Hall,
230 Fairfield Avenue, Fairfield, New Jersey

COMMUNITY ROLE IN SELECTION PROCESS

EPA and NJDEP rely on public input to ensure that the concerns of the community are considered in selecting an effective remedy for each Superfund site. To this end, the FFS report, Proposed Plan, and supporting documentation have been made available to the public for a public comment period which begins on October 25, 1994 and concludes on November 25, 1994.

Copies of the FFS report, Proposed Plan, and supporting documentation are available at the following repositories:

Town Clerk's Office
Township of Fairfield
230 Fairfield Road
Fairfield, New Jersey 07004
(201) 882-2700

and

Superfund Records Center
EPA Region II
26 Federal Plaza, Room 2900
New York, New York 10278
(212) 264-8770

A public meeting will be held during the public comment period at the Fairfield Town Hall located at 230 Fairfield Road, Fairfield Township, New Jersey, on November 9, 1994, at 7:00 pm to present the conclusions of the FFS, to elaborate further on the reasons for recommending the preferred remedial alternative, and to receive public comments.

Comments received at the public meeting, as well as written comments, will be documented in the Responsiveness Summary Section of the ROD Amendment, which formalizes the selection of the remedy.

All written comments should be addressed to:

Richard J. Robinson, Project Manager
Central New Jersey Superfund Section I
U.S. Environmental Protection Agency
26 Federal Plaza, Room 711
New York, NY 10278

SITE BACKGROUND

Caldwell Trucking Company (Caldwell) was a sewage hauling firm located at 222 Passaic Avenue in Fairfield Township, New Jersey. The site consists of Lot 17 of Block 2201 and Lots 7, 18 and 20 of Block 2302 on the Fairfield Township tax map, and also those areas affected by the plume of contaminated ground water. The West Essex Regional High School is located approximately 200 feet to the east. Approximately 45 small businesses are situated within one mile of the site, and the nearest major residential area is approximately 1000 feet to the north-east.

Caldwell disposed of residential and commercial septic waste, as well as industrial waste, in unlined lagoons on the site from the early 1950's until about 1973. When the lagoons were full, Caldwell backfilled them and dug a new series of lagoons, sometimes over pre-existing lagoons.

1986 Remedial Investigation and Feasibility Study

In June 1986, EPA completed a Remedial Investigation and Feasibility Study (RI/FS) for the site. The RI/FS was conducted to identify the types, quantities, and locations of contaminants, and to develop ways of addressing the contamination problems. The RI delineated the horizontal and vertical extent of the contamination in the former lagoons, and confirmed the presence of a downgradient plume of contaminated ground water. Metals, primarily lead, cadmium and mercury, VOCs, polynuclear aromatic hydrocarbons (PAHs), and polychlorinated biphenyls (PCBs) were detected in on-site subsurface soils. Lead, PCBs, and PAHs were also detected in on-site surface soils. Lead is the primary metal of concern in both the surface and subsurface soils. Ground water is contaminated with VOCs, including trichloroethylene and 1,1,1-trichloroethane.

A risk assessment was performed as part of the 1986 RI/FS. This information is available for review in the Administrative Record for the 1986 ROD, at the repositories listed above.

Based on the results of the RI/FS, site remediation was divided into four remedial components. Remedies for the first three components were selected in the 1986 ROD. The fourth component, which deals with the contaminated ground water, is being dealt with under a second ROD that was signed in 1989. That component is not affected by this proposed ROD amendment.

1986 ROD Remedy

EPA selected the following remedial actions in the 1986 ROD:

First Component

- Restoration of the water quality in Municipal Well No. 7 to drinking water quality standards, through a treatment process known as "air-stripping".

Second Component

- Provision of an alternative water supply for residents potentially affected by ground water contamination associated with the site.

Third Component

- Excavation and treatment (by the addition of heat) of approximately 28,000 cubic yards of contaminated soils and waste materials; and
- Placement of the treated waste in a secure landfill to be constructed on-site in accordance with the requirements of the Resource Conservation and Recovery Act (RCRA).

The Township of Fairfield subsequently chose not to provide treatment for Municipal Well No. 7, but rather decided to use the Passaic Valley Water Commission as an alternative potable water supply for the entire community. EPA issued an ESD in May 1991, to explain the deletion of the Municipal Well No. 7 component of the remedy.

In the summer of 1989, EPA hooked up 55 residential properties and nine commercial establishments to the municipal water system. This fulfilled the second remedial component of the 1986 ROD.

Remedial Design for Contaminated Soils and Waste Materials

In 1987, EPA initiated a remedial design for the contaminated soils and waste materials component of the 1986 ROD. Initial design activities focused on further characterization of the soils and waste materials at the site, and restoration of water quality in Municipal Well No. 7. In the summer of 1990, the U.S. Army Corps of Engineers conducted field investigations designed to measure air

emissions from on-site activities during test pit excavations, and to collect geotechnical data involving the subsurface soils.

At the time of the RI/FS, EPA believed that sludge waste at the site was limited to the existing surface lagoon, and that the waste remaining in this lagoon would be best treated by the same processes intended to be used for soil treatment. However, the results of the remedial design investigations indicated that the volume of sludge at the site was greater than originally estimated. In addition, new information about the levels and combinations of contaminants in the sludges, and also in some site soils, indicated that additional treatment before disposal would be required.

The remedial design investigations also provided additional information about the buried sludge lagoons. Some sludges have concentrations of lead over 100,000 mg/kg; others contain halogenated organic compounds (HOCs), such as trichloroethylene or perchloroethylene, at total concentrations greater than 1000 mg/kg, as well as high concentrations of lead. Under RCRA regulations, 40 C.F.R. § 268.32, any waste with this combination of contaminants is classified as a California List waste, and cannot be land disposed without treatment. 40 C.F.R. Part 268 prescribes incineration as the treatment method for all California List wastes.

In addition, the results of testing during the remedial design indicated that some of the other soil and waste materials also had high lead levels; these were classified as RCRA characteristic hazardous wastes because of their toxicity. As RCRA hazardous wastes, they must meet specific treatment standards before they can be placed in a land disposal unit.

1993 Explanation of Significant Differences

In February 1993, as a result of the additional information gathered in the remedial design, EPA modified the remedy selected in the 1986 ROD for treatment and disposal of the contaminated soils and other waste materials, as follows:

- Excavation (as described in the 1986 ROD) of 35,000 cubic yards of contaminated soils and other waste materials (an increase of 7,000 cubic yards compared to the volume estimated in the 1986 ROD);

- Off-site disposal and treatment of approximately 1650 cubic yards of California List waste materials (a new component that replaced the on-site thermal treatment of high concentrations of VOC contaminated soils);
- Stabilization of the lead contaminated soils remaining on the site, prior to their placement in the RCRA landfill (an additional component needed to comply with RCRA land disposal restrictions);
- Treatment that will reduce the VOCs in contaminated soils to acceptable levels (this will be accomplished by off-site treatment and disposal of the high VOC content California List wastes, and by the reduction and treatment of the remaining VOCs in the soils during the stabilization process, rather than in a separate low temperature thermal treatment system as described in the 1986 ROD); and
- Placement of the treated soils in a secure on-site landfill, as described in the 1986 ROD. This landfill will be constructed in accordance with RCRA and Toxic Substances Control Act (TSCA) requirements.

The off-site treatment and disposal of California List waste materials with high levels of VOCs, and stabilization of the lead contaminated soils that would also reduce the VOCs remaining in the soils, were modifications of the remedy selected in the 1986 ROD. These VOC treatment methods replaced the low temperature thermal treatment method described in the ROD.

In September 1994, the PRPs, under EPA oversight, completed the excavation and off-site treatment and disposal of the California List waste materials, and removed the underground storage tanks.

ENFORCEMENT HISTORY

In April 1993, EPA issued a unilateral Administrative Order (UAO), Index No. II-CERCLA-93-0102, to 11 potentially responsible parties to implement the existing remedy. In June 1993, EPA issued a second UAO, Index No. II-CERCLA-93-0104, to 15 PRPs to conduct a pre-design ground water investigation. Nine PRPs agreed to comply with both UAOs, and formed the Caldwell Trucking Company Site Trust (the Trust). On March 30, 1994,

EPA, the NJDEP and the U.S. Department of Interior lodged a consent agreement with the U.S. District Court, under which the Trust will perform the remedial work to contain the contaminated ground water plume, in addition to the site work which they are undertaking under both UAOs.

1993 FOCUSED FEASIBILITY STUDY

In October 1993, the Trust conducted bench-scale studies to evaluate the effectiveness of stabilization on site-specific soil and contaminants. In January 1994, the Trust presented EPA and NJDEP with the results of the bench-scale studies. These studies indicated that, after the California List waste materials and other soils with high concentrations of VOCs were treated and disposed of off-site, stabilization of the remaining wastes in place might be as effective in protecting human health and the environment as the existing remedy. This would be accomplished by forming a solid and durable concrete mass (in-situ stabilization/solidification), with a minimum permeability of 1×10^{-6} centimeters/second.

As a result, on February 3, 1994, the Trust formally requested permission to prepare an FFS to evaluate this in-situ stabilization/solidification as an alternative remedy for the source of contamination. The purpose of the FFS was to demonstrate that an in-situ stabilization/solidification technology would be applicable to the Caldwell Trucking site, and to evaluate whether this technology would be protective of human health and the environment.

Two remedial alternatives were compared in the FFS. The first alternative consists of the remedy presented in the 1986 ROD, as modified by the 1993 ESD; this alternative includes stabilization of the non-California List waste material and placement in an on-site landfill. The second alternative consists of in-situ stabilization/solidification of the non-California List waste material and installation of a soil cover.

The information presented regarding Alternative 1, stabilization and landfilling, is based on an EPA design for this remedy that was prepared by the U.S. Army Corps of Engineers, and modified by the Trust pursuant to their UAO. The information presented regarding the stabilization/solidification portion of each of these alternatives is based upon information gathered from current industry literature, and from bench-scale testing conducted in October 1993 utilizing soils from the Caldwell Trucking

site. The Trust presented additional information relative to the in-situ stabilization/solidification alternative based on the use of this technology at another Superfund site.

SCOPE AND ROLE OF ACTION

This Proposed Plan describes a remedial alternative being considered to amend the existing remedy at the Caldwell Trucking site. This alternative remedy and the existing remedy are described in more detail in the FFS.

REMEDIAL ACTION OBJECTIVES

Remedial action objectives are specific goals to protect human health and the environment. For the Caldwell Trucking site, they are:

- Mitigate any unacceptable risks to human and ecological receptors from dermal contact with and/or incidental ingestion of soil contaminants.
- Mitigate any unacceptable risks to human or ecological receptors from inhalation of contaminants released from soil on the site to the air.
- Inhibit the leaching of contaminants from soil on the site and their possible migration to ground water.

SUMMARY OF REMEDIAL ALTERNATIVES

CERCLA requires that each selected site remedy be protective of human health and the environment, be cost effective, comply with other laws, and utilize permanent solutions and alternative treatment technologies and resource recovery alternatives to the maximum extent practicable. In addition, CERCLA includes a preference for the use of treatment as a principal element for the reduction of toxicity, mobility or volume of the hazardous substances.

The FFS report evaluates two remedial alternatives for addressing the contamination associated with the Caldwell Trucking site.

These alternatives are:

Alternative 1: Stabilization/Landfill

Capital Cost: \$13,194,000

Operation and Maintenance (O & M) Cost: \$189,000

Present Worth Cost: \$15,539,000

Construction Time: 1.5 years

Alternative 1 is the existing remedy; it includes:

- Excavation, off-site treatment and disposal of approximately 1650 cubic yards of California List waste materials;
- Excavation of approximately 35,000 cubic yards of contaminated soils and other waste materials; and
- Stabilization of about 29,500 cubic yards of non-California List waste material in the central lagoon area and 5,200 cubic yards of contaminated soil in the north lagoon area, which will immobilize the heavy metals and reduce the remaining VOCs in contaminated soils to an acceptable level prior to placement of the treated wastes in an on-site RCRA/TSCA landfill.

Because this alternative would result in contaminants remaining on the site, CERCLA requires that the site be reviewed every five years. If justified by the review, additional remedial actions may be implemented to remove or treat the wastes.

Alternative 2: Stabilization/Solidification

Capital Cost: \$8,384,000

O & M Cost: \$93,000

Present Worth Cost: \$9,538,000

Construction Time: 0.75 years

Alternative 2 includes:

- Excavation, off-site treatment and disposal of approximately 1650 cubic yards of California List waste materials;
- Excavation, and off-site treatment and disposal of contaminated soils with concentrations of VOCs greater than 100 mg/kg;

- In-situ stabilization/solidification of about 29,500 cubic yards and 5,200 cubic yards in the central lagoon area and north lagoon area respectively, forming a solid and durable low permeability concrete mass, referred to as "the solidified mass"; and
- Placement of two feet of clean soil over the solidified mass areas to prevent direct contact with the solidified mass.

Because this alternative would result in contaminants remaining on the site, CERCLA requires that the site be reviewed every five years. If justified by the review, additional remedial actions may be implemented to remove or treat the wastes.

EVALUATION OF ALTERNATIVES

During the detailed evaluation of remedial alternatives, each alternative is assessed against nine evaluation criteria, which are described below.

- o Overall protection of human health and the environment addresses whether or not a remedy provides adequate protection and describes how risks posed through each pathway are eliminated, reduced, or controlled through treatment, engineering controls, or institutional controls.
- o Compliance with applicable or relevant and appropriate requirements (ARARs) addresses whether or not a remedy will meet all of the applicable or relevant and appropriate requirements of federal and state environmental statutes and requirements, or provide grounds for invoking a waiver.
- o Long-term effectiveness and permanence refers to the ability of a remedy to maintain reliable protection of human health and the environment over time, once cleanup goals have been met.
- o Reduction of toxicity, mobility, or volume through treatment is the anticipated performance of the treatment technologies that a remedy may employ.
- o Short-term effectiveness addresses the period of time needed to achieve protection, and any adverse impacts on human health and the environment that may be posed during the construction and im-

plementation period until cleanup goals are achieved.

- o Implementability is the technical and administrative feasibility of a remedy, including the availability of materials and services needed to implement a particular option.
- o Cost includes estimated capital and operation and maintenance costs, and net present worth cost.
- o State acceptance indicates whether, based on its review of the FFS report and Proposed Plan, the state concurs, opposes, or has no comment on the preferred alternative at the present time.
- o Community acceptance refers to the reaction of the community and will be assessed in the amended ROD following a review of the public comments received on the FFS report and the Proposed Plan.

A comparative analysis of these alternatives based upon the evaluation criteria noted above follows.

- o Overall Protection of Human Health and the Environment

Alternative 1 provides protection of human health and the environment through removal and off-site disposal of the California List waste materials, a major source of the ground water contamination. In addition, the remaining contaminated materials in the central lagoon area and the contaminated soils in the north lagoon area would be excavated and stabilized prior to placement in a RCRA/TSCA landfill to be constructed on the site. The landfill would encapsulate or isolate the stabilized material to prevent infiltration of rain, surface water runoff, and ground water. The landfill cap would prevent exposure through direct contact with the treated material.

As in Alternative 1, Alternative 2 provides protection of human health and the environment through removal and off-site disposal of the California List waste materials, a major source of the ground water contamination. However, Alternative 2 provides additional protection through the excavation and off-site disposal of all soils with concentrations of VOCs over 100 mg/kg, and stabilization in place of the remaining contamination in the central lagoon area and in the north lagoon area forming a low permeability solidified mass. This stabilization creates a solid and durable mass which would practically eliminate the flow of

water through the contaminated soil. Two feet of clean soil would be added to cover the solidified mass. This will allow revegetation of the area, reduce the potential for direct contact with the solidified mass, and prevent erosion.

o Compliance with ARARs

Applicable or relevant and appropriate requirements (ARARs) are those federal and State environmental and public health regulations that apply to remedial activities at the site. There are three types of ARARs: chemical-specific, which are health- or risk-based concentration limits; location-specific, which are based on the geographical location of the site and its surroundings; and action-specific, which are controls on particular types of remedial activities.

There are no federal or State chemical-specific cleanup standards promulgated for the cleanup of the contaminated surface and subsurface soils at the Caldwell Trucking site. However, during the 1986 ROD remedial design, EPA and NJDEP agreed upon objectives for the cleanup of the contaminated soil. Both Alternative 1 and Alternative 2 will achieve these cleanup objectives.

Both alternatives are expected to attain the following action-specific ARARs: the Clean Air Act National Emissions Standards for Hazardous Air Pollutants (40 CFR Part 61), New Jersey Air Permit Requirements (NJAC 7:27-8), New Jersey Control and Prohibition of Air Pollution by Toxic Substances (NJAC 7:27-17), and New Jersey Regulations for Volatile Organic Substances (NJAC 7:27-16).

Alternative 1 requires a waiver of the NJDEP Hazardous Waste Facility Siting Criteria (NJAC 7:26-10.8e-7) action-specific ARAR, since the landfill would not be located at a sufficient distance from a neighboring property to comply with the siting criteria. As part of the remedial design for the existing remedy, EPA and NJDEP agreed to waive this ARAR. Alternative 2 would not trigger these siting criteria; therefore, no waivers are necessary.

Alternative 1 would meet RCRA land disposal restrictions (LDRs) for the placement of the stabilized soil into an on-site landfill. Stabilization would meet the treatment requirements that specify that a RCRA hazardous waste must be treated prior to placement at a disposal facility. Alternative 2 would not invoke LDRs because these activity-based limitations do not apply when the waste material is treated in place. Nonetheless, the stabiliza-

tion/solidification component of Alternative 2 is the same treatment process required to meet RCRA LDRs under Alternative 1.

Both alternatives would comply with the action-specific requirements of RCRA, U.S. Department of Transportation regulations, and the New Jersey Solid and Hazardous Waste Regulations regarding the handling and shipment of California List wastes and other contaminated soils which would be sent off-site for treatment and disposal. In addition, both alternatives would meet the RCRA LDR treatment standards for the proper off-site treatment and disposal of the California List wastes and the soils contaminated with high levels of VOCs.

Both alternatives are expected to meet the requirements of the Executive Order on Wetlands Protection (EO 11980), Section 404 of the Clean Water Act, and Section 7:7A of the New Jersey Freshwater Wetlands Protection Act.

o Long-Term Effectiveness and Permanence

Both alternatives would reduce the magnitude of residual risk through the off-site treatment and disposal of the California List wastes and soils contaminated with high amounts of VOCs, and stabilization of the remaining contaminated soils. The containment of stabilized soils in an on-site hazardous waste landfill (Alternative 1) or via in-situ stabilization/solidification (Alternative 2) would provide comparable reductions in the baseline risk estimates developed as part of the 1986 RI/FS.

As required by CERCLA, both Alternatives would require a five-year review to evaluate site conditions. If justified by the review, additional remedial actions may be implemented to remove or treat the wastes.

The isolation of the treated waste materials in a capped hazardous waste landfill (Alternative 1) or a solidified mass with a two foot clean soil cover (Alternative 2) would adequately control potential exposure of human or ecological receptors to treated waste materials. Because of concerns that organic constituents could impact the permanence of Alternative 2, sampling would be performed during the remedial design to verify that the selected reagent mix used for stabilization would create a solidified mass with long-term durability.

Both alternatives would reduce leachate generation and migration to ground water underlying the Caldwell Trucking site. Alternative 1 would rely on stabilization to immobilize the contaminants, followed by landfilling of the

treated soil to isolate these materials from water that might infiltrate through the cap material. Alternative 2 would encapsulate treated materials in a low permeability solidified mass located above the water table. Leachate would not be generated from the solidified mass, and infiltration of rain and surface water runoff through the mass would be practically eliminated because of its low permeability.

o Reduction in Toxicity, Mobility, or Volume

The alternatives would each achieve essentially equivalent reductions in toxicity, mobility or volume of the soils to be treated. Both alternatives would reduce the toxicity, mobility and volume of the California List waste through the off-site incineration of this waste. Neither alternative would directly affect the intrinsic toxicity or volume of the soil constituents. The mobility of these constituents would be initially reduced under both alternatives by chemical stabilization. Secondary reduction in mobility would be obtained either by containment in a hazardous waste landfill (Alternative 1) or encapsulation in a subsurface concrete solidified mass (Alternative 2). Both alternatives would be expected to immobilize the hazardous constituents remaining in the soil.

o Short-Term Effectiveness

For either alternative, an air monitoring program and engineering controls will be used to control any airborne dust and emissions from the site. Both alternatives would require the implementation of a health and safety plan to minimize any risks to on-site workers, employees in nearby industrial and commercial facilities, and other members of the public. Alternative 2 would generate somewhat less VOCs, odor and dust emissions than Alternative 1, by eliminating soil excavation, aboveground handling and treatment, and overland transport of treated residual materials to an on-site landfill. Construction time would also be reduced under Alternative 2, because the action may be completed in nine months, as compared to 18 months for Alternative 1.

Under Alternative 1, construction of an on-site hazardous waste landfill and backfilling of the central lagoon area excavation would require approximately 5,000 trucks carrying 100,000 cubic yards of construction materials. Alternative 2 would require 250 truckloads of construction materials. This reduction in truck traffic would result in significant reductions in noise and odor impacts to the surrounding community.

On-site disturbance of wetlands and habitat alteration or loss would be less under Alternative 2. Alternative 1 would affect 1.8 acres of wetlands, while Alternative 2 would affect 0.5 acre of wetlands. Both alternatives require access agreements for the use of adjacent properties during design and remedial action activities.

o Implementability

The necessary technical equipment and skilled workers are available to implement either alternative. Both alternatives involve well-established, common construction methods. Numerous hazardous waste sites have been remediated by stabilization and containment methods similar to those developed for Alternative 1 and Alternative 2. Provisions would have to be made in the Alternative 2 remedial design for the handling of large debris and boulders during the solidification process.

Alternative 1 would require a wetlands mitigation plan, and compliance with federal and state air emissions regulations. In addition, Alternative 1 would require either compliance with NJPDES regulations for discharge of stormwater runoff or permission to discharge to the local sewer authority. Alternative 2 would also require compliance with federal and state air emissions regulations, and a mitigation plan for wetlands lost during construction.

o Cost

The cost evaluation of each alternative includes consideration of capital costs and annual O&M costs. The estimated capital cost of Alternative 1 is \$13.2 million, and the estimated O&M cost is \$189,000 per year. The estimated capital cost of Alternative 2 is \$8.4 million and the estimated O&M cost is \$93,000 per year.

o State Acceptance

The State of New Jersey concurs with the proposal to amend the 1986 ROD, and supports the preferred remedial alternative.

o Community Acceptance

Community acceptance of the preferred alternative will be assessed in the ROD following review of the public comments received on the FFS report and the Proposed Plan.

PREFERRED ALTERNATIVE

Based upon an evaluation of the various alternatives, EPA and NJDEP recommend Alternative 2, in-situ stabilization/solidification, as the preferred alternative for the site remedy.

Alternative 2 includes excavation and off-site disposal of 1650 cubic yards of California List waste materials, excavation and off-site treatment and disposal of all soils with concentrations of VOCs over 100 mg/kg, and in-situ stabilization of 29,500 cubic yards and 5,200 cubic yards in the central lagoon area and north lagoon area respectively, forming a low permeability concrete solidified mass. Two feet of clean soil will be placed over the solidified mass to allow for revegetation of the area.

The preferred alternative would adequately control potential exposure of human or ecological receptors to treated waste materials. In addition, because of concerns that organic constituents could adversely affect the permanence of the stabilized mass, sampling would be performed during the remedial design to verify that the selected reagent mix used for stabilization would provide a solidified mass with long-term durability.

The preferred alternative would practically eliminate migration of contaminants to the ground water underlying the Caldwell Trucking site by excavation and off-site disposal of the contaminated soils with concentrations of VOCs over 100 mg/kg, in addition to the excavation and off-site disposal of the California List wastes. Lead and the remaining low levels of VOCs in the soil will be stabilized and encapsulated in a solidified mass that will have a minimum permeability of 1×10^{-6} centimeters per second, thus providing long-term protection to human health and the environment.

The preferred alternative would have fewer short-term impacts than Alternative 1 because it eliminates soil excavation, aboveground handling and treatment, and overland transport of treated waste materials to an on-site landfill. The preferred alternative could be completed in nine months as compared to 18 months for Alternative 1. There would be less truck traffic under the preferred alternative. About 5,000 truckloads (or 10,000 truck trips) would be required for Alternative 1, as compared to 250 truckloads (or 500 truck trips) for the preferred alternative. This reduction in truck traffic would result in significant reductions in noise and odor impacts on the surrounding community.

The preferred remedy is the most cost-effective remedy. The capital costs of the preferred remedy are almost \$5 million less than Alternative 1, and the yearly O&M costs are one half of those for Alternative 1.

Future land use at the site is also an important consideration. Under Alternative 1, a four acre hazardous waste landfill would be constructed in the north lagoon area. This landfill would occupy the entire north lagoon area, and make it unavailable for other land use. The preferred remedy may allow some development in the north lagoon area, since the solidified mass would occupy only a small portion of this area. Land use restrictions would be required to protect the integrity of the solidified mass in both the central lagoon area and north lagoon area.

The preferred alternative would provide the best balance of trade-offs among alternatives with respect to the evaluating criteria. EPA and NJDEP believe that the preferred alternative will be protective of human health and the environment, will comply with ARARs, will be cost effective, and will utilize permanent solutions and alternative treatment technologies or resource recovery technologies to the maximum extent practicable. The remedy also will meet the statutory preference for the use of treatment as a principal element.

APPENDIX B

UNITED STATES ENVIRONMENTAL
PROTECTION AGENCY
ANNOUNCES PROPOSAL TO AMEND
REMEDIAL ALTERNATIVE FOR THE
CALDWELL TRUCKING COMPANY
SUPERFUND SITE

FAIRFIELD TOWNSHIP, NEW JERSEY

The United States Environmental Protection Agency (EPA) has issued a Proposed Plan which explains an alternative to the remedy selected in the 1986 Record of Decision (ROD) for the remaining soil contamination at the Caldwell Trucking Company Superfund Site (the Site).

The 1986 ROD provided that the 35,000 cubic yards of remaining contaminated soil at the Site be stabilized and placed in a hazardous waste landfill to be constructed on site (Alternative 1).

EPA is recommending that the remedy be changed to excavation, off-site treatment and disposal of contaminated soils with concentrations of volatile organic compounds greater than 100 parts per million; in-situ stabilization/solidification of about 35,000 cubic yards of contaminated soil to form a solid, durable, low permeability concrete mass, and placement of two feet of clean soil over the solidified mass (Alternative 2).

Before selecting a final remedy, EPA will consider all written and oral comments on the preferred alternative. All comments must be postmarked on or before November 25, 1994. The final decision document will include a summary of public comments and EPA responses.

EPA will hold an informational public meeting on Wednesday, November 9, 1994, at 7:00 p.m., at the Fairfield Town Hall at 230 Fairfield Road to discuss the proposed alternative to the 1986 ROD.

The preferred alternative is outlined and discussed in the Proposed Plan. The Focused Feasibility Study (FFS) report, Proposed Plan, and other site-related documents can be consulted at the information repositories listed before during regular business hours:

Township of Fairfield
Town Clerk's Office
230 Fairfield Road
Fairfield, NJ 07004
(201) 882-2700
EPA Region 2
25 Federal Plaza, Rm. 2900
New York, NY 10278
(212) 264-8770
9:00 a.m. to 5:00 p.m.

Written comments on the preferred alternative, should be sent to:

Richard Robinson, Project Manager, U.S.
Environmental Protection Agency, 25 Federal
Plaza, Room 711, New York, New York 10278.
THE PROGRESS
Nov. 3, 1994
\$46.92

Caldwell
Progress

5-8-0063-NASA

Richard
Robinson
Rm. 711



6 Brookside Avenue, Caldwell, N.J. 07006

State of New Jersey,
County of Essex.

ss:

Mary Carroll

of full age.

being duly sworn according to law, on her oath, saith that she is

a clerk in the office of "THE PROGRESS" and that a notice, of which the

annexed is a true copy, was published on the 3rd day of

November

A.D. 1994

in said "THE

PROGRESS," a public newspaper printed and published at Caldwell, in this

State, in the English language, and continued therein for weeks

successively thereafter, at least once in every week, the last publication being

on the 3rd day of November, 1994

making one insertions in all.

Mary Carroll

Sworn and subscribed this

3rd

day of

November, 1994

before me

Notary Public of New Jersey
Lyle B. Liel

APPENDIX C

CALDWELL TRUCKING COMPANY SITE
FAIRFIELD MUNICIPAL BUILDING

IN THE MATTER OF:

CALDWELL TRUCKING COMPANY

TRANSCRIPT OF
PROCEEDINGS

November 9, 1994
7:15 p.m.
Fairfield, New Jersey

B E F O R E:

John P. McBurney, Senior Project Director
Andrew S. Johnson, P.E., Vice President
Richard J. Robsinson, Remedial Project Manager

LISA ARGENTIERI
SHORTHAND REPORTER

BRODY & GEISER
CERTIFIED SHORTHAND REPORTERS
77 Hamilton Avenue
Fords, New Jersey 08863
(908) 738-8555

JOB #411094

A P P E A R A N C E S:

PITNEY, HARDIN, KIPP & SZUCH, ESQS.
BY: PETER J. HERZBERG, ESQ.
ATTORNEY FOR CALDWELL TRUCKING

STEVEN KATZ, ESQ.
ATTORNEY FOR THE EPA

1 MR. ROBINSON: Good evening. My name
2 is Rick Robinson. I'm the project manager
3 with EPA, with the Caldwell Trucking site.
4 Tonight there are two things we'd like to
5 talk to you about. The first thing I'd
6 like to talk to you about is removal of the
7 most hazardous wastes at the site which was
8 completed in September and the second is
9 the post change and a remedy for the
10 remaining wastes at the Caldwell Trucking
11 Site. We think this new remedy has merits.

12 First, I'd like to remind everybody
13 to sign in, those of you who are here
14 tonight, if you're not on our mailing
15 list. I would like to go over tonight the
16 1994 construction activities which were
17 presented by de maximis, Jack McBurney and
18 John Alonzo. They're the group hired by
19 the Environmental Protection Agency, the
20 EPA's who are doing work at the site and
21 their contractor they've hired, the
22 engineering contractor is Blasland, Bouck &
23 Lee, Andy Johnson and Mike McNally. One
24 other thing, from the State of New Jersey,
25 Riche Outlaw and Trish Conti from EPA and

1 also Charlie Tenerella, section chief.

2 After the talk about the
3 construction activities we will then go
4 back and talk about the repositories'
5 overview of the remedy change followed by
6 focused feasibility study results which are
7 represented by Blasland, Bouck & Lee and
8 then I will evaluate and go over the
9 evaluation criteria for change remedy and
10 then we'll open it up to questions and
11 answers. Now I'd like to turn it over to
12 Jack, who will go over the results of the
13 1994 fieldwork.

14 MR. MCBURNEY: Thank you, Rick. We
15 use lots of acronyms in Superfund. The
16 first thing I'll acquaint you with tonight
17 is the one called OU1 which is an operable
18 unit. One, this project is divided into
19 pieces. These pieces of the project we're
20 talking to you about tonight deals with the
21 handling of on-site contaminated soils.
22 Phase one activities we completed this
23 summer. We excavated and removed for
24 off-site disposal the most highly
25 contaminated wastes and soils that existed

1 on the Fairfield or the Caldwell Trucking
2 property. Those materials were either
3 incinerator or landfilled in federally
4 approved facilities for disposal of
5 hazardous wastes.

6 Phase two is what we're going to
7 talk to you about tonight. It is our
8 approach to dealing with the remaining
9 treatment for the soils that will remain
10 on-site after the California List waste
11 soils were removed this summer.

12 I just want to highlight for you
13 what was involved in the work that we've
14 done. To date we put in a fence to
15 completely enclose the site and protect it
16 from the public. We removed four
17 underground storage tanks. We monitored
18 around controlled air emissions at the
19 site. We established a hotline for
20 concerned citizens for use of access to
21 call in the event that they were concerned
22 about emissions or odors or activities on
23 the site during removal of the California
24 List wastes. We really received no
25 concerned calls on the hotline. We

1 completed the work on schedule. We
2 completed the work without incident. In
3 toto we removed about 2500 tons of the
4 so-called California List waste soil
5 without incident.

6 There are some pictures over here
7 that show some of the work involved in
8 removing the tanks and then excavating and
9 removing the soils and that work is
10 finished. The worst part of the hazards
11 are behind us and we want to talk tonight
12 about the balance of the project to deal
13 with on-site soil.

14 Just to help you frame your
15 reference, we have a map of the site up
16 over there. This is kind of a blowup of
17 the site. This is supposed to be green,
18 but it looks dark to you now. That area of
19 the site is the part of the site known as
20 the central lagoon area. It was the place
21 where the California List wastes were
22 removed. There are four tanks which show
23 in outline. There are the four underground
24 storage tanks which have been removed,
25 destroyed and their tanks have been cut

1 apart. That work is finished now. That
2 kind of summarizes the work that has been
3 done today.

4 MR. ROBINSON: I'd like now to go
5 over and explain some irregularity
6 overviews. The existing remedy for
7 contaminated soils at this site includes
8 excavation and treatment of the remaining
9 soils, contaminated soils and its placement
10 into on-site hazardous waste landfills to
11 be constructed and this aircraft photo of
12 the site in the north lagoon area.

13 In its 1986 record of decision EPA
14 selected a remedy at the time. It called
15 for treatment of the most contaminated
16 soils by low temperature unit. In 1993 EPA
17 modified the remedy because of the
18 additional information developed during
19 remedial design which indicated high levels
20 of volatile organic compounds. Wastes were
21 concentrated in certain areas of the site
22 and once these wastes were removed, thermal
23 treatment was no longer needed. That's
24 what was removed in some of the California
25 List wastes earlier this year. The PRP

1 Group formerly approached EPA and the State
2 of New Jersey about an alternate remedy
3 which would eliminate the need for the
4 landfill and would still be protective. As
5 a result, the EPA authorized the PRP Group
6 to prepare a focused feasibility study.
7 That is a detailed engineering report to
8 evaluate the remedies. In this case it's
9 called focused because it compares two
10 alternatives.

11 The purpose of this study is to
12 evaluate the alternative remedy, overall
13 protection to human health in the
14 environment. The ESD compares the focused
15 feasibility study and compares the existing
16 remedy with this alternate remedy, as
17 previously indicated by Jack, the first
18 phase of the soil cleanup at the site, the
19 excavation and the off-site. The
20 California List waste, which was the most
21 hazardous wastes at the site, was completed
22 earlier this year. This proposed remedy
23 deals with the remaining soil contamination
24 at the site. Proposed remedy change would
25 include excavation and off-site disposal of

1 some hot spots, remaining hot spots of
2 volatile organic compounds contaminated
3 soils.

4 These are not the remaining soils.
5 These high concentrations of volatile
6 organics are not as hazardous as the
7 California List wastes that were removed
8 and sent off-site for treatment and
9 disposal.

10 The second component of the remedy
11 is stabilization of the remaining
12 contaminated soils in place forming a
13 solidified concrete mass and then placement
14 of two feet of clean soil over the
15 solidified mass. The final decision
16 guarding the selected remedy will be made
17 after the EPA has taken all the public
18 comments into consideration and tonight we
19 are letting the public comment on this
20 proposed remedy change.

21 To this end the FFS report, the
22 Proposed Plan and supporting documentation
23 have been made available to the public for
24 a public comment period which began on
25 October 25th and concludes on November 25th

1 and copies of the FFS report, Proposed Plan
2 and supporting documentation have been made
3 available at our repositories. The two
4 repositories for this site are at the town
5 clerk's office here in Fairfield and the
6 Superfund Records Center at 26 Federal
7 Plaza, New York. Their address and phone
8 numbers are listed in the Proposed Plan
9 which is at the front desk there. Comments
10 received at this public meeting, as well as
11 written comments, will be documented in the
12 response and summary section of the record
13 decision amended which formalizes the
14 selection of the remedy. All written
15 comments should be addressed to me and my
16 address is in the Proposed Plan which is at
17 the front desk.

18 We'll now turn the presentation over
19 to Andy Johnson of Blasland, Bouck & Lee,
20 who will speak about the focused
21 feasibility study and present the two
22 alternatives being considered.

23 MR. JOHNSON: Thank you, Rick. Just
24 to start with what the focused feasibility
25 study looked at was treating the remaining

1 soils on-site in what is called the central
2 lagoon area, as well as the remaining soils
3 on-site in the north lagoon area
4 approximately 35,000 cubic yards of
5 material. As Rick said, during the design
6 of the landfill remedy the PRP Group came
7 to the EPA and requested the EPA to
8 consider an alternate remedy for the site.

9 The basis for the alternate remedy
10 that was proposed was really three
11 factors. Number one, that the site
12 contaminants which are the volatile organic
13 compounds, as in lead, could be
14 encapsulated via stabilization. The second
15 factor was that the presence of cobbles and
16 stones at the site would not impact the
17 proposed remedy and the third factor is
18 that the in-situ stabilization process
19 would be cost-effective.

20 As Rick reviewed before, there were
21 two alternatives, one was the EPA's
22 original remedy and Alternative 2 was the
23 remedy that the group was proposing the EPA
24 to consider. Alternative 1 is the
25 stabilization/landfill alternative which

1 entailed the stabilization of the north
2 lagoon area and central lagoon areas of
3 soil. The placement of the stabilized
4 soils into a landfill was constructed
5 on-site. The installation of a cap over
6 the stabilized materials and the placement
7 of a final cover over the landfill. The
8 second alternative, the one that the group
9 requested the EPA to consider, entailed
10 first of all, the removal of hot spots, as
11 Rick said before, the removal of volatile
12 organic compounds within the north lagoon
13 area and central lagoon area that exceeded
14 100 milligrams per kilogram in
15 concentration and secondly, the in-situ
16 stabilization of the remaining soils in the
17 central lagoon area and north lagoon area
18 and finally, the construction of a soil
19 cover over the stabilized mass.

20 Just to give you an idea what would
21 be involved with these two alternatives,
22 first of all, is the original remedy, the
23 EPA's original design which entailed a
24 number of specific steps. First of all,
25 the contaminated soils on the site would

1 have to be excavated out of the ground.
2 They would be placed in trucks. The soil,
3 contaminated soils, would be transported to
4 a central processing facility on-site where
5 soil solidification would be added. Once
6 these soils were solidified, they would
7 again be placed in trucks and would be
8 moved to the on-site landfill. Alternately
9 the on-site landfill, if you have the
10 treated soil within the landfill and,
11 ultimately you would, they would construct
12 a cap over the landfill and a final soil
13 cover.

14 The purposes of this figure is to
15 give you an idea of the extent of the
16 landfill on the property. The landfill
17 would have been about four acres in size
18 and would have taken up the entire north
19 lagoon area. That one segment of the
20 property that Rick pointed out before, near
21 the north lagoon area is a height of about
22 25, 30 feet above existing ground surface.

23 The alternate remedy that the group
24 proposed the EPA consider really consisted
25 of what we call the in-situ stabilization

1 of the contaminated soils. What is
 2 involved in that process? You've got a
 3 piece of construction equipment could be a
 4 backhoe or a rake or something like that.
 5 That piece of equipment adds cement like
 6 materials into the soils in place. As you
 7 can see, the soils here would be treated in
 8 place, the treated soils are simply left
 9 there. Once they're treated they're left
 10 in place and when the entire soil is within
 11 the north lagoon area and central lagoon
 12 area are treated via this process if soil
 13 is placed over the solidified mass and that
 14 is the extent of the remediation.

15 This is a profile of what the
 16 solidified mass will look like in the
 17 central lagoon area. What you've got in
 18 the yellow represents the California List
 19 wastes where they formerly were as of the
 20 materials that we removed this summer. The
 21 green represents the solidified material,
 22 the remaining contaminated soils that were
 23 going to be stabilized in place and the
 24 purple represents the topsoil cover that
 25 will be put over the solidified mass.

1 MR. ROBINSON: In evaluating the
2 remedies EPA looks at the leachate criteria
3 and the first seven I will be going over in
4 detail state acceptance, State of New
5 Jersey has already accepted, it accepts the
6 proposed remedy change and right now we're
7 out here soliciting the community's
8 comments on this remedy.

9 The first evaluation criteria is
10 overall protection to human health in the
11 environment and Alternative 1 provides
12 overall protection of human health in the
13 environment. Alternative 1, the remaining
14 contaminated materials after the California
15 List wastes have been removed, will be
16 excavated and treated prior to placements
17 in on-site hazardous landfill. It would
18 encapsulate infiltration of rain surface
19 water and ground water. Alternative 2
20 would provide overall protection by soils
21 with concentrations of volatile organics
22 greater than 100 milligrams per kilogram
23 being sent off-site for treatment and
24 disposed. The remaining contamination
25 would be stabilized in place forming a low

1 permeability stabilized mass. This
2 solidified mass would practically eliminate
3 flow of ground flow of water through the
4 treated soil. Two feet of clean soil will
5 be placed over the solidified mass to
6 reduce potential exposure for direct
7 contact with the solidified mass and to
8 prevent erosion. The second evaluation
9 criteria is compliance with the applicable
10 or relevant and appropriate requirements
11 and both Alternative 1 and Alternative 2
12 meet the soil cleanup projectives that were
13 selected for the site through the
14 implementation of the air monitoring
15 program that would meet the federal and
16 state air emission requirements.

17 Alternative 1 will not meet the
18 requirements of this state's hazardous
19 waste landfill citing criteria because its
20 being built too close to the property
21 lines. By the way, they have been obtained
22 through that purpose. Alternative 2 does
23 not meet. That requirement is not
24 applicable since a landfill is not being
25 built. Land disposal restrictions,

1 Alternative 1 would meet the land disposal
2 restrictions and land disposal restrictions
3 are the regulations that deal with the
4 disposal of hazardous wastes. Alternative
5 2, they are not applicable since the soil
6 would be treated in place in the ground.
7 However, the stabilization of the soil
8 under both alternatives will meet the same
9 requirements and both alternatives will
10 meet through wetland requirements.

11 The next evaluation criteria is
12 long-term effectiveness and permanence and
13 overall the first is reduction of risk.
14 Alternative 1 will reduce risk through the
15 stabilization, through contaminated soils
16 and containment of the on-site landfill.
17 Alternative 1 reduces risk through
18 stabilization of the soils in place,
19 forming a low permeability solidified
20 concrete mass.

21 Reduction in leachate generation is
22 important to prevent and also migration
23 ground water underlying the Caldwell
24 Trucking Site. Alternative 1 would reduce
25 the leachate generation through the

1 stabilization to immobilize the
2 contaminants followed by landfilling of the
3 treated soil to isolate the materials from
4 water. Alternative 2 would reduce the
5 leachate generation. There would be no
6 leachate generation under Alternative 2
7 since it's not a landfill and the soils
8 would be encapsulated. Contaminated soils
9 would be encapsulated in a low permeability
10 concrete mass which would practically
11 eliminate infiltration of water and, as
12 required by Superfund, both alternatives
13 would require a five year review to
14 evaluate site conditions and if justified
15 by the review, additional remedial actions
16 may be implemented to remove or treat the
17 wastes.

18 Next evaluation criteria is
19 reduction in toxicity, mobility or volume.
20 Alternative 2 somewhat reduce the toxicity
21 in volume of the contaminated soils at the
22 site by the off-site treatment disposal of
23 the contaminated soils with volatile
24 organic compound concentrations greater
25 than 100 milligrams per kilogram. Neither

1 alternative would directly reduce the
2 intrinsic toxicity or volume of the
3 contaminant soils. Both alternatives would
4 immobilize the soil with chemical
5 stabilization and secondary reduction in
6 mobility would be obtained by either
7 containment in a hazardous waste landfill
8 which is Alternative 1 or by encapsulation
9 in a subsurface concrete solidified mass,
10 which is Alternative 2.

11 The next evaluation criteria is
12 short-term effectiveness. Alternative 1
13 through the supplementation of an air
14 monitoring program would construct dust,
15 air, odors and emissions as of
16 Alternative 2. The impacts on wetland
17 Alternative 1 would impact approximately
18 1.8 acres of wetlands that are at the site
19 versus a half acre for Alternative 2.
20 Alternative 1 would require approximately
21 5,000 truckloads to build the landfill and
22 250 truckloads would be necessary for
23 Alternative 2. The construction time it
24 would take approximately 18 months to
25 complete Alternative 1 versus nine months

1 for Alternative 2. The next evaluation
2 criteria is implementability for both
3 alternative technical equipment and skilled
4 workers are available. Numerous hazardous
5 waste sites have been remediated by
6 stabilization and containment methods
7 similar for both alternatives. Under
8 Alternative 2 procedures are the handling
9 of large debris and boulders that are
10 present at the site must be designed.

11 The final evaluation criteria that
12 we will be discussing is cost and the
13 capital cost for Alternative 1 is
14 approximately \$13.2 million and with an
15 annual operation of maintenance cost of
16 \$189,000 per year. Alternative 2 capital
17 cost is \$8.4 million and annual operation
18 of maintenance cost is approximately
19 \$93,000 per year. Preferred alternative is
20 Alternative 2, in-situ stabilization of the
21 contaminated soils. This alternative
22 provides long-term protection to human
23 health in the environment and practically
24 eliminates migration of contaminants to the
25 ground water, soils with volatile

1 concentration, underlying the Caldwell
2 Trucking site for treatment and off-site
3 disposal of contaminated soils and the lead
4 and the remaining lower levels of the
5 volatile organics will be stabilized and
6 encapsulated in a concrete solidified
7 mass. This alternative has fewer
8 short-term impacts, 250 truckloads versus
9 5,000 truckloads for Alternative 1. The
10 preferred alternative was nine months to be
11 completed versus eight months to be
12 completed for Alternative 1, \$5 million
13 less than Alternative 1 and operation and
14 maintenance costs are half of those for
15 Alternative 1.

16 This alternative provides the best
17 balance of trade-offs among the
18 alternatives with respect to the evaluation
19 criteria and EPA and the State believes
20 that the preferred remedy alternative will
21 protect human health in the environment,
22 comply with the applicable or relevant and
23 appropriate requirements, be cost-effective
24 and utilize permanent solutions and
25 alternative treatment technologies or

1 resource recovery technologies to the
2 maximum extent practicable. The remedy
3 meets the statutory preference for the use
4 of the treatment as a principal element.

5 On that note, I'd like to open it up
6 for questions. If you would, please state
7 your name and who you are representing so
8 the stenographer can take it down.

9 Any questions?

10 MS. DONALDSON: I'm Robin Donaldson
11 with Two Bridges Sewerage Authority. I
12 just want to know the time period for the
13 excavation. What time period? Was that
14 going back to the original?

15 MR. ROBINSON: Going back to the
16 original work this summer?

17 MS. DONALDSON: Yes, in the summer.
18 Did it take place --

19 MR. ALONZO: It started mid August
20 and it finished Labor Day week. I'm John
21 Alonzo with De Maximis.

22 MR. ROBINSON: If you would like, you
23 can come up afterwards and ask individual
24 questions. Please sign in before you
25 leave. We have copies of the Proposed Plan

1 and if you want to send any written
2 comments, the address and where to send
3 them is in the Proposed Plan.

4 Thank you very much for attending.
5 (Whereupon the meeting was concluded.)
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C E R T I F I C A T E

I, LISA ARGENTIERI, a Notary Public and
Shorthand Reporter of the State of New Jersey do hereby
certify that the foregoing is a true and accurate
transcript of the testimony as taken stenographically
by and before me at the time, place and on the date
hereinbefore set forth.

I DO FURTHER CERTIFY that I am neither a
relative or nor employee nor attorney nor counsel for
any of the parties to this action and that I am neither
a relative nor employee of such attorney or counsel,
and that I am not financially interested in the action.



Notary Public of the State of New Jersey
My Commission Expires February 16, 1998

APPENDIX D

10/21/94

Index Document Number Order
CALDWELL TRUCKING COMPANY, OPERABLE UNIT NO. 1 Documents

Page: 1

Document Number: CTC-001-0001 To 0046

Date: 02/25/85

Title: Potential Hazardous Waste Site Preliminary Assessment - Regional Contamination

Type: PLAN

Author: Fowler, Tom: Malcolm Pirnie, Inc.

Recipient: none: US EPA

Document Number: CTC-001-0047 To 0056

Date: 06/16/82

Title: Potential Hazardous Waste Site - Site Inspection Report - Caldwell Trucking Co. Site

Type: REPORT

Author: Harvey, Paul: NJ Department of Environmental Protection (NJDEP)

Recipient: none: US EPA

Document Number: CTC-001-0057 To 0070

Date: 02/16/82

Title: (Memorandum discussing) Well Sampling in Fairfield Township (with attached pages of historical well data)

Type: CORRESPONDENCE

Author: Harvey, Paul: NJ Department of Environmental Protection (NJDEP)

Recipient: Maack, Charles: NJ Department of Environmental Protection (NJDEP)

Document Number: CTC-001-0071 To 0089

Date: 06/01/84

Title: Community Relations Plan - Caldwell Trucking, Fairfield Township, Essex County, New Jersey

Type: PLAN

Author: Meyer, Gilbert J.: MUS Corporation

Recipient: none: US EPA

Document Number: CTC-001-0090 To 0156

Date: 11/01/84

Title: Work Plan - Remedial Investigation/Feasibility Study - Caldwell Trucking Company Site, Township of Fairfield, New Jersey

Type: PLAN

Author: Mather, Stanley E. J.: MUS Corporation

Recipient: none: US EPA

10/21/94

Index Document Number Order
CALDWELL TRUCKING COMPANY, OPERABLE UNIT NO. 1 Documents

Page: 2

Document Number: CTC-001-0157 To 0372

Date: 06/01/85

Title: Site Operations Plan and General Health and Safety Requirements - Caldwell Trucking Company Site

Type: PLAN

Author: Johnson, Leonard C.: MUS Corporation

Recipient: none: US EPA

Document Number: CTC-001-0373 To 0566

Date: 06/01/86

Title: Remedial Investigation - Volume I: Text, Caldwell Trucking Site

Type: REPORT

Author: Johnson, Leonard C.: MUS Corporation

Recipient: none: US EPA

Document Number: CTC-001-0567 To 0602

Date: 06/01/86

Title: Remedial Investigation - Volume II: Pumping Test, Caldwell Trucking Company Site

Type: REPORT

Author: Johnson, Leonard C.: MUS Corporation

Recipient: none: US EPA

Document Number: CTC-001-0603 To 0971

Date: 01/01/86

Title: Remedial Investigation - Volume III: Appendices A and B, Caldwell Trucking Company Site

Type: REPORT

Author: Johnson, Leonard C.: MUS Corporation

Recipient: none: US EPA

Document Number: CTC-001-0972 To 1047

Date: 01/01/86

Title: Remedial Investigation - Volume IV: Appendices C through G, Caldwell Trucking Company Site

Type: REPORT

Author: Johnson, Leonard C.: MUS Corporation

Recipient: none: US EPA

10/21/94

Index Document Number Order
CALDWELL TRUCKING COMPANY, OPERABLE UNIT NO. 1 Documents

Page: 3

Document Number: CTC-001-1048 To 1049

Date: 09/30/86

Title: (Letter transmitting copies of the errata or corrections to the draft Remedial Investigation and Feasibility Study reports)

Type: CORRESPONDENCE

Author: Johnson, Leonard C.: MUS Corporation

Recipient: Finnerty, Edward J.: US EPA

Attached: CTC-001-1050

Document Number: CTC-001-1050 To 1084

Parent: CTC-001-1048

Date: 09/01/86

Title: Errata - Remedial Investigation/Feasibility Study Final Reports, Caldwell Trucking Company Site

Type: REPORT

Author: Johnson, Leonard C.: MUS Corporation

Recipient: none: US EPA

Document Number: CTC-001-1085 To 1246

Date: 06/01/86

Title: Feasibility Study, Caldwell Trucking Company Site

Type: REPORT

Author: Johnson, Leonard C.: MUS Corporation

Recipient: none: US EPA

Document Number: CTC-001-1247 To 1379

Date: 06/01/86

Title: Feasibility Study - Volume II: Appendices A and B; Caldwell Trucking Company Site

Type: REPORT

Author: Johnson, Leonard C.: MUS Corporation

Recipient: none: US EPA

Document Number: CTC-001-1380 To 1381

Date: 05/30/91

Title: Public Notice 91-64, Explanation of Significant Differences, Caldwell Trucking Superfund Site (Certification of publication attached)

Type: CORRESPONDENCE

Author: none: US EPA

Recipient: none: The Progress

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Page: 4

Document Number: CTC-001-1382 To 1383

Date: 05/03/91

Title: (Memo regarding:) Request for Approval of an Explanation of Significant Differences for the
Caldwell Trucking Superfund Site

Type: CORRESPONDENCE

Author: Callahan, Kathleen C.: US EPA

Recipient: Sidamon-Eristoff, C.: US EPA

Document Number: CTC-001-1384 To 1390

Date: 05/03/91

Title: Explanation of Significant Differences, Caldwell Trucking Site, and Supporting Information

Type: LEGAL DOCUMENT

Author: none: US EPA

Recipient: none: none

Document Number: CTC-001-1391 To 1393

Date: 11/30/90

Title: (Letter and attached copy of resolution #90-146)

Type: CORRESPONDENCE

Author: Tafuri, Spencer: Township of Fairfield

Recipient: Robinson, Rick: US EPA

Attached: CTC-001-1394

Document Number: CTC-001-1394 To 1396

Parent: CTC-001-1391

Date: 10/09/90

Title: Resolution #90-146, EPA Water Purification Tower

Type: LEGAL DOCUMENT

Author: Lemley, Janet: Township of Fairfield

Recipient: none: none

Document Number: CTC-001-1397 To 1399

Date: 01/21/85

Title: Agenda: Public Meeting, Caldwell Trucking Site, Municipal Building, Fairfield, New Jersey
(with attachments)

Type: CORRESPONDENCE

Author: none: US EPA

Recipient: none: none

Attached: CTC-001-1400 CTC-001-1401 CTC-001-1405

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Page: 5

Document Number: CTC-001-1400 To 1400

Parent: CTC-001-1397

Date: 01/21/85

Title: (Meeting sign-in sheet, Caldwell Trucking Company site)

Type: CORRESPONDENCE

Author: none: none

Recipient: none: none

Document Number: CTC-001-1401 To 1404

Parent: CTC-001-1397

Date: 01/21/85

Title: Meeting Summary: Caldwell Trucking, January 21, 1985

Type: PLAN

Author: none: US EPA

Recipient: none: none

Document Number: CTC-001-1405 To 1406

Parent: CTC-001-1397

Date: / /

Title: (Pamphlet:) Superfund: What It Is, How It Works (handout at a January 21, 1985, public meeting)

Type: CORRESPONDENCE

Author: none: US EPA

Recipient: none: none

Document Number: CTC-001-1407 To 1408

Date: 01/01/85

Title: (Fact sheet) Environmental Facts - Caldwell Trucking Site, Township of Fairfield, Essex County,
New Jersey

Type: CORRESPONDENCE

Author: none: US EPA

Recipient: none: none

Document Number: CTC-001-1409 To 1414

Date: 06/01/86

Title: (Fact sheet) Environmental Facts - Caldwell Trucking Company Site - Status Advisory: Evaluation
of Remedial Alternatives

Type: CORRESPONDENCE

Author: none: US EPA

Recipient: none: none

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Document Number: CTC-001-1415 To 1417

Date: 10/01/86

Title: News Release - EPA Selects Cleanup Option for Superfund Site in Fairfield, NJ

Type: CORRESPONDENCE

Author: none: US EPA

Recipient: none: none

Document Number: CTC-001-1418 To 1418

Date: 09/15/86

Title: (Memo forwarding) Record of Decision for Caldwell Trucking Site for Approval

Type: CORRESPONDENCE

Author: Marshall, James R.: US EPA

Recipient: Daggett, Christopher J.: US EPA

Attached: CTC-001-1419

Document Number: CTC-001-1419 To 1478

Parent: CTC-001-1418

Date: 09/25/86

Title: Record of Decision, Remedial Alternative Selection (Caldwell Trucking Company site)

Type: LEGAL DOCUMENT

Author: Daggett, Christopher J.: US EPA

Recipient: none: none

Document Number: CTC-001-1479 To 1511

Date: / /

Title: LEAD in the Environment (and other news articles related to the health effects of lead)

Type: REPORT

Author: Boggess, William R.: University of Illinois

Recipient: none: National Science Foundation

Document Number: CTC-001-1512 To 1515

Date: 02/01/88

Title: (Letter containing NJDEP's comments on the revised Work Plan and the Quality Assurance Management Plan for the Caldwell Trucking Company site)

Type: CORRESPONDENCE

Author: Longo, Lawrence J.: NJ Department of Environmental Protection (NJDEP)

Recipient: Finnerty, Edward J.: US EPA

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Document Number: CTC-001-1516 To 1516

Date: 11/07/88

Title: (Memo forwarding the enclosed Preliminary Health Assessment for the Caldwell Trucking Company site)

Type: CORRESPONDENCE

Author: Johnson, Denise: Agency for Toxic Substances & Disease Registry (ATSDR)

Nelson, William: Agency for Toxic Substances & Disease Registry (ATSDR)

Recipient: Finnerty, Edward J.: US EPA

Attached: CTC-001-1517

Document Number: CTC-001-1517 To 1531

Parent: CTC-001-1516

Date: 10/01/88

Title: Health Assessment for Caldwell Trucking Company, Fairfield, New Jersey

Type: PLAN

Author: none: Agency for Toxic Substances & Disease Registry (ATSDR)

Recipient: none: none

Document Number: CTC-001-1532 To 1532

Date: 11/28/88

Title: (Letter discussing soil excavation during the remedial action at the Caldwell Trucking Company site)

Type: CORRESPONDENCE

Author: Reynolds, Frederick D.: US Army

Recipient: Singh, Iqbal: IMS Engineers/Architects

Document Number: CTC-001-1533 To 1681

Date: 08/01/89

Title: Evaluation of Low Temperature Volatilization Systems, Volume 2 (for the Caldwell Trucking Company site)

Type: PLAN

Author: none: Roy F. Weston, Inc.

Recipient: none: IMS Engineers/Architects

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Document Number: CTC-001-1682 To 1688

Date: 12/22/89

Title: (Memo discussing excavation limits)

Type: CORRESPONDENCE

Author: Hooker, Donald: none

Recipient: none: file

Document Number: CTC-001-1689 To 1690

Date: 01/18/90

Title: (Memo summarizing a conversation held on January 18, 1990, regarding the excavation and treatment of contaminated soil at the Caldwell Trucking Company site)

Type: CORRESPONDENCE

Author: Barry, Alison: US EPA

Recipient: Finnerty, Edward J.: US EPA

Document Number: CTC-001-1691 To 1693

Date: 04/16/90

Title: (Letter with attached comments on the 65% design submittal for the Caldwell Trucking Company site)

Type: CORRESPONDENCE

Author: Magee, John F. II: NJ Department of Environmental Protection (NJDEP)

Recipient: Hooker, Donald: US Army Corps of Engineers

Document Number: CTC-001-1694 To 1709

Date: 04/25/90

Title: (Transmittal slip with attached April 1990, Scope of Work for additional field activities at the Caldwell Trucking Company site)

Type: CORRESPONDENCE

Author: Hooker, Donald: US Army Corps of Engineers

Recipient: Finnerty, Edward J.: US EPA

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Document Number: CTC-001-1710 To 1711

Date: 06/13/90

Title: (Memo discussing the significance of the TCLP rule for the remedial design of the Caldwell Trucking Company site)

Type: CORRESPONDENCE

Author: Barry, Alison: US EPA

Recipient: Finnerty, Edward J.: US EPA

Document Number: CTC-001-1712 To 1715

Date: 09/04/90

Title: (Memo with attached Addendum to the Caldwell Trucking Company site Health Assessment)

Type: CORRESPONDENCE

Author: Kent, Martha Dee: Agency for Toxic Substances & Disease Registry (ATSDR)

Recipient: Nelson, William: Agency for Toxic Substances & Disease Registry (ATSDR)

Document Number: CTC-001-1716 To 1722

Date: 11/09/90

Title: (Letter containing the analyses of Waste Characterization Samples taken from the Caldwell Trucking Company site)

Type: DATA

Author: Ross, Robert W. II: Acurex Corporation

Recipient: Waterland, Larry: none

Document Number: CTC-001-1723 To 1728

Date: 05/15/91

Title: (Letter responding to comments on the Acurex draft report regarding the Caldwell Trucking Company site. The Acurex Report is contained within this Administrative Record as CTC 001 1793)

Type: CORRESPONDENCE

Author: Thurnau, Robert C.: US EPA

Recipient: Finnerty, Edward J.: US EPA

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Document Number: CTC-001-1729 To 1739

Date: 06/24/91

Title: (Memo containing comments on the technical review of the cut lines for the Caldwell Trucking Company site)

Type: CORRESPONDENCE

Author: Conti, Trish: NJ Department of Environmental Protection (NJDEP)

Recipient: Kelman, Zoe: NJ Department of Environmental Protection (NJDEP)

Document Number: CTC-001-1740 To 1743

Date: 08/20/91

Title: (Letter providing general guidelines pertaining to the regulations governing air permitting for the Caldwell Trucking Company site)

Type: CORRESPONDENCE

Author: Kelman-Shinn, Zoe: NJ Department of Environmental Protection (NJDEP)

Recipient: Finnerty, Edward J.: US EPA

Document Number: CTC-001-1744 To 1744

Date: 09/26/91

Title: (Letter confirming an earlier telephone conversation regarding the control of polychlorinated biphenyl emissions at the Caldwell Trucking Company site)

Type: CORRESPONDENCE

Author: Kelman-Shinn, Zoe: NJ Department of Environmental Protection (NJDEP)

Recipient: Finnerty, Edward J.: US EPA

Document Number: CTC-001-1745 To 1746

Date: 11/02/91

Title: (Facsimile header sheet and attached summary of PCB data for the Caldwell Trucking Company site)

Type: CORRESPONDENCE

Author: Enger, John: US Army Corps of Engineers

Recipient: Robinson, Rick: US EPA

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Document Number: CTC-001-1747 To 1748

Date: 02/06/92

Title: Attachment I, Potential Air ARARs for the 95% Review Submittal for the Design Analysis for
Caldwell Trucking Company Superfund Site in Fairfield, New Jersey

Type: PLAN

Author: none: US EPA

Recipient: none: none

Document Number: CTC-001-1749 To 1752

Date: 02/11/92

Title: (Letter containing the NOAA's review of documents relating to the Caldwell Trucking Company
site)

Type: CORRESPONDENCE

Author: Csulak, Frank G.: National Oceanic & Atmospheric Administration (NOAA)

Recipient: Robinson, Rick: US EPA

Document Number: CTC-001-1753 To 1753

Date: 02/13/92

Title: (Letter from the Air and Waste Management Division, Hazardous Waste Facilities Branch regarding
the 95% Design Analysis for the proposed Site Remediation Excavation at the Caldwell Trucking
Company site)

Type: CORRESPONDENCE

Author: Bellina, Andrew: US EPA

Recipient: Borsellino, Ronald: US EPA

Document Number: CTC-001-1754 To 1756

Date: 02/21/92

Title: (Letter containing comments on the 95% Remedial Design for the Caldwell Trucking Company site)

Type: CORRESPONDENCE

Author: Greenlaw, David: US EPA

Recipient: Finnerty, Edward J.: US EPA

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Document Number: CTC-001-1757 To 1766

Date: 03/02/92

Title: (Letter with comments on materials submitted for the 95% Design for Remedial Action at the Caldwell Trucking Company site)

Type: CORRESPONDENCE

Author: Vijayasundaram, S.: NJ Department of Environmental Protection (NJDEP)

Recipient: Finnerty, Edward J.: US EPA

Document Number: CTC-001-1767 To 1767

Date: 10/30/92

Title: (Letter with plans for a biddability, constructability and operability review of documents for the Caldwell Trucking Company site remediation excavation)

Type: CORRESPONDENCE

Author: Beyer, Harry F. Jr.: US Army Corps of Engineers

Recipient: none: US EPA

Attached: CTC-001-1768 CTC-001-1793 CTC-002-0001 CTC-002-0608

Document Number: CTC-001-1768 To 1792

Parent: CTC-001-1767

Date: 06/23/92

Title: 95% Design Review Comments, Site Excavation Remediation, Caldwell Trucking Superfund Site, Fairfield, NJ

Type: CORRESPONDENCE

Author: none: US Army Corps of Engineers

Recipient: none: US EPA

Document Number: CTC-001-1793 To 2338

Parent: CTC-001-1767

Date: / /

Title: Invitation for Bids, Caldwell Trucking Company, Site Remediation Excavation, Design Analysis (Design Analysis Report)

Type: PLAN

Author: none: US Army Corps of Engineers

Recipient: none: US EPA

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Document Number: CTC-002-0001 To 0607

Parent: CTC-001-1767

Date: 10/01/92

Title: Caldwell Trucking Company, Site Remediation Excavation, Step 1 of Two-Step Sealed Bidding

Type: PLAN

Author: none: US Army Corps of Engineers

Recipient: none: US EPA

Document Number: CTC-002-0608 To 0654

Parent: CTC-001-1767

Date: 08/01/92

Title: Caldwell Trucking Co. Site Remediation, Fairfield, New Jersey (site maps)

Type: GRAPHIC

Author: none: US Army Corps of Engineers

Recipient: none: US EPA

Document Number: CTC-002-0655 To 0656

Date: / /

Title: (List of documents used as guidance in selecting and documenting modifications to the remedy at the Caldwell Trucking Company site)

Type: OTHER

Author: none: none

Recipient: none: none

Document Number: CTC-002-0657 To 0658

Date: 02/05/93

Title: (Memo providing minutes of a January 28, 1993, meeting concerning VOC treatment technologies for the Caldwell Trucking Company site)

Type: CORRESPONDENCE

Author: Robinson, Rick: US EPA

Recipient: file: US EPA

Document Number: CTC-002-0659 To 0668

Date: 02/17/93

Title: Explanation of Significant Differences, Caldwell Trucking Company Site, Fairfield Township, New Jersey.

Type: LEGAL DOCUMENT

Author: Muszynski, William J.: US EPA

Recipient: none: none

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Page: 14

Document Number: CTC-002-0669 To 0726

Date: 02/03/94

Title: (Letter discussing the attached Caldwell Trucking Site OU1 - Alternate Remedial Approach)

Type: CORRESPONDENCE

Author: McBurney, John P.: de maximis, inc.

Recipient: Robinson, Richard J.: US EPA

Document Number: CTC-002-0727 To 0728

Date: 03/11/94

Title: (Letter regarding the Caldwell Site Trust's proposed alternate remedy for the on-site soils)

Type: CORRESPONDENCE

Author: McBurney, John P.: de maximis, inc.

Recipient: Robinson, Richard J.: US EPA

Document Number: CTC-002-0729 To 0730

Date: 03/18/94

Title: (Letter regarding the Caldwell Trucking Company Site Trust's, February 3, 1994, Request for Modification of Remedy)

Type: CORRESPONDENCE

Author: Muszynski, William J.: US EPA

Recipient: McBurney, John P.: de maximis, inc.

Document Number: CTC-002-0731 To 0731

Date: 10/14/94

Title: (Letter forwarding the Focused Feasibility Study, Operable Unit One)

Type: CORRESPONDENCE

Author: Caldwell Trucking Trust: Blasland & Bouck Engineers

Recipient: Robinson, Richard J.: US EPA

Attached: CTC-002-0732 CTC-002-0854

Document Number: CTC-002-0732 To 0853

Parent: CTC-002-0731

Date: 10/01/94

Title: Focused Feasibility Study, Operable Unit 1, Volume 1 of 2

Type: REPORT

Author: Caldwell Trucking Trust: Blasland & Bouck Engineers

Recipient: Robinson, Richard J.: US EPA

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Document Number: CTC-002-0854 To 1213

Parent: CTC-002-0731

Date: 10/01/94

Title: Focused Feasibility Study, Operable Unit 1, Volume 2 of 2

Type: REPORT

Author: Caldwell Trucking Trust: Blasland & Bouck Engineers

Recipient: Robinson, Richard J.: US EPA

ROD AMENDMENT FACT SHEET

SITE

Name : Caldwell Trucking Company Site
Location/State : Fairfield Township, New Jersey
EPA Region : 2
HRS Score (date): 58.30 (9/01/83)
Site ID # : NJD048798953

ROD Amendment

Date Signed: 2/27/95; amends ROD signed 9/25/86
Remedy In-situ stabilization
Operating Unit Number: OU-1
Capital cost: \$8,384,000 (in 1995 dollars)
Construction Completion: 6/96
O & M in 1995: \$93,000 (in 1995 dollars)
1996: \$93,000
1997: \$93,000
1998: \$93,000
Present worth: \$9,538,000 (7% discount rate 30 years of O & M)

LEAD

EPA Enforcement - PRP Lead
Primary contact: Rick Robinson (212) 637-4371
Secondary contact: Charlie Tenerella (212) 637-4375
Main PRPs: Schering Plough, Curtiss Wright, DuPont, Cooper
Industries, Engelhard, Kearfott Guidance and
Navigation, and Carborundum Company
PRP Contact: Jack McBurney, de maximis, inc. (609) 735-9315

WASTE

Type: metals (primarily lead) and volatile organic compounds
Medium: soil
Origin: commercial, industrial and residential septic tank
contents land disposed on the property
Volume: Est. 38,000 cubic yards of soil