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EPA Superfund
Record of Decision Amendment:

UNITED SCRAP LEAD CO., INC.
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U.S. EPA SUPERFUND
RECORD OF DECISION AMENDMENT

UNITED SCRAP LEAD SUPERFUND SITE

CITY OF TROY, CONCORD TOWNSHIP, MIAMI COUNTY, OHIO

JUNE 1997

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CITY OF TROY, CONCORD TOWNSHIP, MIAMI COUNTY, OHIO

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DECLARATION FOR THE RECORD OF DECISION AMENDMENT

SITE NAME AND LOCATION

United Scrap Lead ("USL") Superfund Site, City of Troy, Concord Township, Miami County, Ohio.

STATEMENT OF BASIS AND PURPOSE

This decision document amends the September 16, 1988, Record of Decision ("ROD") selecting the final remedial action for the USL Superfund Site in the City of Troy, Concord Township, Miami County, Ohio. This action was taken in accordance with the Comprehensive Environmental Response, Compensation and Liability Act of 1980 ("CERCLA"), as amended by the Superfund Amendments and Reauthorization Act of 1986 ("SARA"), and the National Oil and Hazardous Substances Contingency Plan ("NCP"). The decisions contained herein are based on information contained in the administrative record for this site. The State of Ohio is expected to concur with the selected remedy.

ASSESSMENT OF THE REMEDY

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

DESCRIPTION OF THE AMENDMENT

The remedy selected in the September 16, 1988, ROD was a final remedy addressing risks associated with on-site and off-site lead-contaminated soils and on-site lead acid battery casing chips ("battery casing chips"). Certain components of this selected remedy were implemented in 1992. However, the main source control component, involving an innovative technology for treatment of the on-site soils and battery casing chips, was not implemented after Predesign, Pilot Plant and Economic studies indicated serious implementability issues and substantially higher costs.

The selected remedy in this amendment addresses the remaining on-site lead-contaminated battery casing chips and soil. The scope of the selected remedy involves the following: (1) excavation of battery casing chips for treatment and disposal at a U.S. EPA-approved Resource Conservation and Recovery Act ("RCRA") Subtitle D landfill ("an approved solid waste landfill"); (2) excavation of the first foot of soils under the battery casing chips pile that exceed 1550 milligrams per kilogram ("mg/kg") lead and that fail the Toxicity Characteristic Leaching Procedure ("TCLP") standard, will be treated to meet RCRA Land Disposal Restrictions ("LDRs") and disposed off-site in an approved solid waste landfill; and (3) construction of a solid waste cover system over the remaining contaminated soils to ensure the future safety of the groundwater. If, however, all of the battery casing chips are removed and properly disposed of and all of the contaminated soils containing lead in excess of 1550 mg/kg lead are removed to the regional groundwater table and properly disposed of, then construction of a solid waste cover system would not be required. The proposed alternative remedy will remove the source of direct contact with lead contamination, and recent

analyses have demonstrated the absence of any groundwater contamination

STATUTORY DETERMINATIONS

The selected remedy in this amendment is protective of human health and the environment, complies with Federal and State applicable or relevant and appropriate requirements ("ARARs") and is cost-effective. The selected remedial action utilizes permanent solutions and considered the use of alternative treatment technologies to the maximum extent practicable. This remedy satisfies the statutory preference for treatment in CERCLA Section 121 in that all battery casing chips will be treated to meet RCRA LDRs and disposed off-site in an approved solid waste landfill. In addition, the first foot of soils under the battery casing chips pile that exceed 1550 mg/kg lead and that fail the TCLP standard will be treated to meet LDRs and disposed off-site in an approved solid waste landfill.

The proposed alternative 12 protects human health and the environment, is cost-effective and addresses the CERCLA statutory preference for treatment. Since some soils containing lead in excess of health-based levels will remain on-site, a review will be conducted to ensure that the remedy continues to provide adequate protection of human health and the environment within five years after commencement of the remedial action.

<IMG SRC 97069A>

RECORD OF DECISION AMENDMENT SUMMARY
UNITED SCRAP LEAD SUPERFUND SITE
CITY OF TROY, CONCORD TOWNSHIP, MIAMI COUNTY, OHIO

I. SITE NAME, LOCATION, AND DESCRIPTION

The United Scrap Lead Superfund ("USL") Site is located approximately one mile south of the City of Troy, Concord Township, Miami County in central west Ohio The Site occupies approximately 25 acres of land. The process facilities and lead acid battery casing chips ("battery casing chips") disposal area currently occupy about 8 acres. This is the area to be remediated.

The Site is located in a lightly populated area. The Site consists of three general areas: an open flat area in the northern half of the Site, a wooded area in the southeast quarter, and the southwest quarter where the offices, process buildings, and waste disposal areas were located. The Site lies entirely within the floodplain of the Great Miami River. Groundwater elevations are normally 3 to 10 feet below the ground surface except during periods of heavy precipitation when flooding occurs. The Miami Conservancy District ("MCD") is responsible for preserving flood control along the Miami River Basin The Site is located in the 10, 50, 100, and 500 year floodplains as defined by the MCD. The southeastern portion of the Site is frequently underwater after significant rainfall events. The last occurrence was August 1995. Surface Site drainage is generally in a south-easterly direction towards a culvert that discharges in a channel ("Tributary to Island 3" or "McKaig Ditch") that forms the southern boundary of the Site. The lands north and south of the Site are farm fields. The northern boundary of the Site is bordered by a gravel roadThe east edge is bordered by a line of the Baltimore & Ohio Railroad with wooded areas beyond. To the west, the Site is bounded by four residential/business properties and by County Road 25-A.

The topography and surficial geology of the Troy, Ohio area is dominated by glacial deposits. Bedrock beneath Troy consists of calcareous shales with thin limestones. The Site is covered by a thin mantle of cohesive soils overlying sand and gravel deposits containing variable amounts of silt, clay and cobbles.

II. SITE HISTORY AND ENFORCEMENT ACTIVITIES

Operations began in 1946 as a sole proprietorship with Edward Bailen as the owner. The company recovered lead components from used automobile and industry batteries transported to the Site. The lead components were then sold and shipped by rail to lead smelters for salvage. Battery tops and battery casing chips were disposed of on-site. Battery acid was collected and discharged directly on the ground on-site. The business was incorporated as United Scrap Lead, Inc. in 1964. In 1972, the State of Ohio Department of Health required the owners to install an acid treatment system to neutralize the acid waste prior to discharging to the seepage field.

In 1979, the Ohio Environmental Protection Agency ("Ohio EPA") found levels of cadmium and lead in the groundwater exceeding then existing Federal interim primary drinking water standards. In an attempt to correct the problem, as well as to comply with the Ohio EPA's solid waste disposal regulations, the Site management installed an acid storage tank on-site and began to dispose of shredded battery casing chips off-site. Lead reclamation operations ceased in 1980.

After the termination of the lead reclamation operations, a new corporation was formed and the Site was leased to other parties. By January 1982, the Site was being used for a battery casing reclaiming operation, i.e., the battery casing chips were shipped off-site for extraction of residual lead, with the battery casing chips returned to the Site after the extraction process was completed. In 1963, this operation was stopped when it was determined that the battery casing chips that remained after processing were hazardous and thus had to be disposed of in accordance with the Resource Conservation and Recovery Act ("RCRA"). Also, physicians tested employees' blood and found high levels of lead. In September 1984, the Site was placed on the National Priority List under the Comprehensive Environmental Response, Compensation, and Liability Act ("CERCLA").

In 1985, a United States Environmental Protection Agency ("U.S. EPA") Emergency Removal Action was conducted to remove and relocate contaminated soils and waste materials, to the east, away from the immediate vicinity

of the surrounding residences and roadway. Such wastes included: rubber and plastic battery casing chips, pieces of the lead components from the batteries, lead paste and lead-contaminated soils. In addition to the consolidated pile of waste battery casing chips and components, several abandoned buildings were located on-site. Accumulations of debris, including empty drums, fiberglass tanks, vehicles, wooden pallets, and trash, were noted at several locations.

The U.S. EPA conducted a Remedial Investigation at the Site during the period January, 1986 to February, 1988. In August, 1988, the Feasibility Study was completed.

A Record of Decision ("ROD") was signed by the U.S. EPA on September 16, 1988. The selected remedy included an innovative treatment technology then under development by the U.S Department of Interior-Bureau of Mines ("BOM"), which involved the treatment of both battery casing chips and contaminated soils to remove and recycle lead. The goal of the remedy was a permanent resolution to restore the land to its original state. The major components of this overall Site remedy included:

- Treatment of battery casing chips on-site (washing with lead recovery) with off-site disposal of residuals in a solid waste landfill if a recycler could not be found;
- Treatment of contaminated on-site soils (washing with lead recovery) with total lead concentrations greater than 500 milligrams per kilogram ("mg/kg" - parts per million or "ppm") or which exceeded the EP-toxicity standard for lead under the battery casing chips pile) with residual soils (non-hazardous) placed back on-site;
- Covering treated soils with clean fill, followed by revegetation;
- Excavation of certain off-site soils (location and volume to be determined during remedial design) and consolidation of these soils with the treated soils on-site, to be covered with clean fill;
- Dewatering of sediments from McKaig Ditch, consolidation on-site with treated soils, and covering with clean fill;
- Decontamination and off-site disposal of buildings/facilities and debris in a solid waste landfill;
- Installation of new residential well provided for an adjacent residence and the former USL office building;
- Deed restrictions;
- Control of Site drainage; and
- Monitoring of groundwater and surface water both during remedial action and for a minimum of two years following.

The Pre-Design Studies were developed by the BOM, and were to be implemented by the U.S. Army Corps of Engineers ("USACE").

On July 31, 1991, the United States filed a complaint in the United States District Court for the Southern District of Ohio, (United States v. Atlas Lederer Co., et al.), pursuant to section 107 of CERCLA to recover from various potentially responsible parties ("PRPs") the costs that had been incurred by the United States to that date in responding to contamination at the Site, and to obtain a declaratory judgment regarding the PRPs'/Defendants' liability for future response costs to be incurred in connection with the Site. By Order dated December 2, 1991, the Court stayed all further proceedings in the Atlas Lederer matter to allow the parties to explore settlement. The stay resulted in part from the PRPs'/Defendants, desire to explore other remedial technologies.

On September 12, 1991, an Administrative Order by Consent was executed under which certain PRPs constructed a fence around the perimeter of the Site to prohibit access. This action was an emergency protective measure to eliminate direct contact with the hazardous materials at the Site.

In November 1991, the USACE completed the Pre-Design Report. This report included additional field sampling necessary for complete characterization and identification of all materials such as contaminated soil and battery casing chips present at the Site and fully defined the extent of contamination. Also, current Site conditions were evaluated.

By June, 1992, the USACE had completed the plans for construction of a pilot plant for treatment of the battery casing chips and contaminated soils, along with an economic analysis report. The plans and reports provided the details of the design, feasibility and cost associated with the original ROD remedy for the on-site contaminated soils and battery casing chips. The cost-estimates for the operation of the pilot plant and the ultimate treatment of the contaminated soils and battery casing chips were substantially higher than those considered during the remedy selection process. At this time the U.S. EPA decided to cease development of the innovative technology and to consider other alternatives to address the soils and battery casing chips (See detailed discussion below in Section III, Reason for ROD Amendment).

In August 1992, the U.S. EPA proceeded to implement certain components of the 1988 ROD remedy while the other components were being reconsidered. This first phase of the remedial action ("Phase I - RA") addressed off-site contaminated areas, secured on-site soils and battery casing chips, and also secured other Site-related areas, so that neither the public health nor the environment would be affected during the transition period between remedies. This Phase I - RA consisted of the following components:

- Excavation of Off-Site Soils: Off-site contaminated soils with lead concentration levels above 210 ppm, were removed in the following areas of concern: the backyard of a nearby residence; the lot of a used car business; and along the Site access road. These soils were combined with on-site materials. Verification sampling was performed, once excavation was completed.

- Replacement of Off-Site Soils: off-site contaminated soils were replaced with clean soils and returned to original grade and vegetation.

- Cover Soils and Battery Casing Chips: Stockpiled soils and battery casing chips were covered with dust control tarpaulins. One year after this action was taken, the stockpiled soils and battery casing chips were leveled out over the existing area of contaminated soils, since these piles had become an attractive nuisance to children and young adults in the area.

- Installation of Residential Well: A new residential well was installed for an adjacent residence and the former USL Office Building. The newly installed residential well was sampled to ensure proper installation.

- Decontamination, Removal and Disposal: Two on-site buildings were decontaminated, removed, and disposed of off-site.

- Removal and Disposal: All drums and debris located on-site were removed and disposed of off-site.

- Installation of a Septic Tank Syste : A new septic tank system was installed for the USL office property.

The Phase I - RA was conducted by the USACE, through an interagency agreement with the U.S. EPA, and was completed in March, 1995. A detailed outline of this action is available in the Superfund Fact Sheet published in July 1992. The USACE submitted the final report for the Phase I - RA, dated December 8, 1995, to the U.S. EPA Region 5 Superfund Division, in December 1995. With the Phase I - RA addressing the off-site contamination and on-site buildings and debris, only on-site contaminated soil and battery casing chips (within the area fenced during the 1991 emergency action), remain to be remediated. However, a small area of contaminated material was left in place around the former USL Office building (currently the Pro Car Care

building), and a forced sewer system. Excavation around the former USL Office building was stopped so that the structural integrity of the building was not compromised. The remaining contamination is located between the Pro Car Care building and County Road 25A. This area is currently covered with asphalt. If the road is to be widened, the sewer system replaced, or the building demolished, additional activities shall be conducted at that time to ensure any contamination that may exist is remediated.

In September 1994, the U.S. EPA issued a Proposed Plan for an amendment to the ROD. The proposed amendment recommended a different remedy for the battery casing chips and contaminated soils (Alternative 7), in lieu of the BOM treatment remedy (Alternative 6). The U.S. EPA recommended Alternative 7 (See Section VII, Description of Alternatives, below). This proposed plan was never finalized.

On January 27, 1997, the U.S. EPA issued a second proposed plan for a ROD Amendment recommending a new Alternative 12. This ROD Amendment adopts the recommended alternative in the January 27, 1997, proposed plan.

III. REASON FOR ROD AMENDMENT

In June, 1992, the USACE completed the plans for construction of a pilot plant for treatment of the battery casing chips and contaminated soils, along with an economic analysis report. The plans and reports provided the details of the design, feasibility and cost associated with the original ROD remedy for the on-site contaminated soils and battery casing chips. The cost-estimates for the operation of the pilot plant and the ultimate treatment of the contaminated soils and battery casing chips were substantially higher than those considered during the remedy selection process. Those cost estimates indicated that it would require $10-million to operate the pilot plant for 2 years and that subsequent RA costs would be in excess of $100-million (based upon a cleanup level of 500 mg/kg lead in soil).

This increase in costs was primarily due to the increased residence time required to adequately treat the battery casing chips and contaminated soils to meet the 500 mg/kg lead cleanup level, subsequently increasing the overall project duration from an estimated 6 months to over 2 years. In addition, the costs of building the on-site treatment plant were significantly higher than originally anticipated due to the need to add treatment processes to reduce the size of the battery casing chips, in order to optimize the extraction of lead. There were also technical handling problems and increased costs due to treating the clay-like soils at the Site. Finally, it was acknowledged that the BOM technology was not proven beyond the bench scale, and therefore, the costs would continue to be subject to extreme variation. Therefore, the U.S. EPA conducted an Alternative Analysis Study ("AAS") to evaluate other cleanup options.

As a result of the AAS, the U.S. EPA issued a Proposed Plan for a ROD Amendment in September 1994. The U.S. EPA recommended Alternative 7 (See Section VII, Description of Alternatives, below), which involved the use of an off-site lead smelter to treat the battery casing chips. The U.S. EPA chose this option because it would recycle the lead from the battery casing chips, and because it was thought that the battery casing chips had to be treated at a lead smelter in order to comply with the applicable or relevant and appropriate requirements ("ARARs"). However, the lead smelters would only accept the batteiy casing chips, not the contaminated soils. The U.S. EPA, therefore, still would be required to stabilize the contaminated soils, and cap those soils in-place.

Substantial comments were received from the PRPs/Defendants in the Atlas Lederer Case, with regard to the implementability of the remedy proposed in the September 1994 Proposed Plan, whether the proposed lead smelter was in compliance with environmental regulations, and the cost of the proposed action. In addition, the PRPs/Defendants continued to express their concern over the use of innovative technologies at the USL Site that tend to turn into "research" projects. They continued to recommend a chemical fixation/stabilization remedy that would include a cap.

The U.S. EPA reevaluated its selection of Alternative 7 because it was determined that due to the economics of the lead smelter business, the U.S. EPA would have to pay substantial increased costs to have the battery casing chips processed, including loss of production time at a smelter due to the low concentration and recoverability of lead in the battery casing chips. The U.S. EPA also had difficulty locating a lead smelter of appropriate size that was in full compliance with Federal and State regulations, that would agree to

process the battery casing chips. There were also other lead acid battery breaking sites throughout the Midwest, similar to the USL Site, that were evaluating more cost-effective treatment options. Subsequent discussions between the U.S. EPA and the Ohio EPA determined that it was not necessary to send the battery casing chips to a lead smelter in order to comply with ARARs, since the battery casing chips were not subject to the RCRA Land Disposal Restriction ("LDRs") for lead acid batteries.

Therefore, the September 1994 Proposed Plan was never finalized. Discussions subsequently focused on the need to identify an alternative remedy for the contaminated soil and battery casing chips which is both protective of human health and the environment, and cost effective. Other entities were invited to participate in the discussions, including the Ohio EPA, the USACE (as consultant for the U.SEPA), and ENTACT, Inc. (the PRPs/Defendants consultant). Other parties, such as the MCD have been consulted concerning certain elements of the various proposals under consideration. The resulting selective alternative is discussed in Section VII below.

IV. HIGHLIGHTS OF COMMUNITY PARTICIPATION

Various public meetings and availability sessions have been held by the U.S. EPA in Troy, Ohio between 1987 and the present to discuss the general progress of the Site.

In September 1994, the U.S. EPA issued a Proposed Plan for a Record of Decision Amendment. The U.S. EPA provided a public comment period on the September 1994, Proposed Plan from October 3, 1994, through November 2, 1994, and conducted an evening public meeting on the USL Proposed Plan on October 20, 1994, in the City of Troy.

On October 9, 1996, the U.S. EPA conducted Community Involvement Plan interviews of residents and local government officials to update the public regarding Site activities.

The U.S. EPA issued a second Proposed Plan for a ROD Amendment for the Site on January 27, 1997. The U.S. EPA provided a public comment period on this Proposed Plan from January 27, 1997, through February 25, 1997, and conducted an evening public meeting on the USL Proposed Plan on February 19, 1997, in the City of Troy. The U.S. EPA's response to the public comments received are summarized in the attached Responsiveness Summary, which is Attachment A of this ROD Amendment. This ROD Amendment will become part of the Administrative Record pursuant to the National Oil and Hazardous Substances Contingency Plan ("NCP") Section 300.825(a)(2). The Administrative Record can be found at the Site repositories located at:

(1) Troy-Miami County Public Library
419 West Main Street
Troy, OH

2) U.S. Environmental Protection Agency
Records Center, 7th Floor
77 West Jackson Blvd.
Chicago, IL

V. SUMMARY OF SITE CHARACTERISTICS

The principal contaminant of concern is lead in soil and lead in battery casing chips. Lead concentrations range from 42 to 377,000 mg/kg. Arsenic was also found on-site with concentrations ranging from 21 to 444 mg/kg. Since the arsenic is co-located with lead, the selected remedial action for the lead will also address the arsenic contaminated soils. The contaminated soils on-site represent a continuing source of lead contamination for off-site soils, and possibly the waters and sediments of McKaig Ditch. Soil is the primary medium impacted by lead.

During the 1988 Remedial Investigation ("RI"), lead was detected in groundwater from two of seven commercial/residential wells, and in groundwater from one of 12 monitoring wells sampled. The lead concentration in groundwater from the monitoring well exceeded the then existing interim primary drinking water standard, which was 50 micrograms per liter ("ug/l") at the time the ROD was signed. However, no lead

was detected in a filtered sample from the same monitoring well. In addition, no lead was detected in unfiltered and filtered groundwater samples obtained in 1995 and 1996 using low flow purging and sampling methodology not used previously, which minimizes turbidity. This indicates that the lead that was detected during the 1988 RI was due to turbidity, related to the techniques used to sample the groundwater.

There is currently no drinking water standard for lead, but rather a technology-based action level of 15 parts per billion ("ppb") at the tap. Although current sampling and analysis indicate that lead is not migrating with groundwater, continued monitoring of the groundwater and removal of the majority of the source of lead will minimize any potential future impact to the groundwater.

VI. SUMMARY OF SITE RISKS

Lead is considered the primary contaminant of concern at the Site, and occurs mainly as metallic lead or lead compounds associated with lead-contaminated battery casing chips and lead-contaminated soils. Other metals (arsenic and antimony) found in the former process area at the Site have been found to be co-located with the lead.

Since there is evidence of on-going trespassing at the Site by local residents, it can be assumed that exposures have occurred and continue to occur at the Site. The greatest risk is to human health, with the current risk from ingestion and inhalation of lead-contaminated soils and the potential for future groundwater contamination if the source materials remain on-site. Direct and indirect contact to environmental media contaminated by a release from the Site has the potential to result in lead exposure from the inadvertent ingestion and inhalation of soil and dust. Receptors include humans, animals, and plants.

Lead exposure in children may result in learning disabilities caused by central nervous system depression. Also, the potential exists for an increased risk of exposure of the nearby population via the migration of contaminated media by flooding. Removal of the source material (i.e., battery casing chips and lead-contaminated soils) from the Site would reduce the possibility that the source material could impact the groundwater aquifer and water supply to adjacent residences. There are no apparent threatened or endangered species in the immediate vicinity of the Site, but there are common flora and fauna present.

The original ROD, assuming that the Site would contain residences, adopted a 500 mg/kg lead in soil clean-up level, which was based on then current U.S. EPA guidance. Based upon the Site's historical and anticipated future use as a light commercial/industrial property, the U.S. EPA, in consultation with the Ohio EPA, determined that a lead cleanup level based upon residential use assumptions was not appropriate for this Site.

The U.S. EPA, in consultation with the Ohio EPA, allowed the PRPs to conduct a revised risk assessment for on-site soils using a model developed by the U.S. EPA's Technical Review Workgroup for Lead entitled "Methodology for Assessing Risks Associated with Adult Exposures to Lead in Soil", and site-specific exposure scenarios. The Model assesses nonresidential adult risks for lead utilizing a methodology which relates soil lead intake to blood lead concentrations and is designed to develop cleanup goals which protect the developing fetus of a Site worker (woman of childbearing age) from adverse health effects of exposure to lead. 1 This Model was used to estimate the soil lead concentration at which the probability of blood lead concentrations in fetuses of women exposed to environmental lead exceeding 10 micrograms per deciliter ("ug/dL") blood lead would be less than 5 percent. 2 The PRPs/Defendants submitted a revised risk assessment dated September 19, 1996, which the U.S. EPA, in consultation with the Ohio EPA subsequently approved.

1 The primary basis for the algorithms in the U.S. - EPA Adult Lead Model used to calculate the cleanup level is that fetuses and neonates are a highly sensitive population with respect to the adverse effects of lead on development and that 10 ug/dL is considered to be a blood lead level of concern from the standpoint of protecting the health of sensitive populations.

2 The U.S. EPA Technical Review Workgroup for Lead reported that the weight-of-evidence from the scientific literature suggests that delayed or impaired neurodevelopment during the first 12 months of postnatal life can be associated with maternal blood lead levels during pregnancy or neonatal

blood lead levels at birth. A blood lead level of 10 ug/dL was recommended, based on the assumption that the blood lead level of concern for fetuses is the same as that for children. This position is supported in the National Research Council Committee on Measuring Lead Exposure in Infants, Children, and Other Sensitive Populations Report (NRC 1993).

Based upon its analysis of the results of this risk assessment, and since the Site is currently zoned I-1, industrial district within the county and will be deed-restricted for that use, the U.S. EPA, in consultation with the Ohio EPA, has established a level of 1550 mg/kg lead in soil as a cleanup level (concentration of lead in soil not to be exceeded) for on-site soils. An Ecological Evaluation completed by USACE in January 1997 determined that the relatively low level of post-remedial residual ecological risk would not be unacceptable. This report is included in the Administrative Record for the Site.

VII. DESCRIPTION OF ALTERNATIVES

In the January 1997 Proposed Plan for a ROD Amendment, the U.S. EPA re-considered the seven alternatives from the September 1994 Proposed Plan for a ROD Amendment (Alternatives 1, 4, 6, 7, 8, 10, and 11) and added a new Alternative 12. All alternatives were revised to reflect the 1550 mg/kg lead in soil cleanup level, as well as to update the 1986 costs and make them consistent with 1996 construction costs. The Administrative Record has been updated to include documents supporting Alternative 12.

Alternative 1: No Action

The CERCLA requires that the "No Action" alternative be evaluated at every site to establish a baseline for comparison. This alternative assumes that all lead-contaminated media remains in place as-is. The cost is based upon the cost of groundwater monitoring.

Total Costs (30 Years):	$ 525,000

Alternative 4: Ex-Situ Stabilization/Solidification of Battery Casing Chips and Soils with On-Site Nonhazardous Waste Landfill Disposal

This alternative consists of excavation and stockpiling of battery casing chips and soils; ex-situ stabilization/solidification of each media (soil and battery casing chips) using cement, cement kiln dust, or fly ash, disposal of the stabilized battery casing chips and the stabilized soils in an on-site landfill, and construction of a permanent levee around the Site to protect against flooding and infiltration. The additional operation and maintenance ("O&M") costs for Alternative 4 versus Alternative 1, are based upon O&M costs of a landfill cover, as well as the costs of groundwater monitoring.

Total Capital Costs:	$9,100,000
O&M Costs (30 years):	$ 700,000
Total Costs:	$9,800,000

Alternative 6: Battery Casing Chips Treatment using BOM process with Off-Site Nonhazardous Waste Landfill Disposal; Soils Treatment using BOM Process with On-Site Debris Landfill Disposal

This alternative was selected in the original ROD. It consists of excavation and stockpiling of battery casing chips and soils, treatment of each media in an on-site treatment system using the lead-removal process developed by the BOM, off-site disposal of the treated battery casing chips residuals, delivery of recovered lead to a smelting process, and replacement and compaction of the treated clean soils back on-site. The battery casing chips treatment would be completed first. The same treatment equipment and process steps, with the exception of some differences in initial size reduction steps, would be used to process both the battery casing chips and soil. The process involves washing to remove lead sulfate sludge, carbonation, extraction of lead using fluosilicic acid, and recovery of lead from the acid solution by electrowinning. This alternative involves an innovative technology that has not been demonstrated beyond the bench-scale.

Total Capital Costs:	$74,000,000

Alternative 7: Battery Casing Chips Disposal at Secondary Lead Smelter; In-Situ Stabilization and Capping of the Contaminated Soils

This alternative consists of excavation and transportation of untreated battery casing chips to a secondary lead smelter for lead recovery, and in-place (in-situ) stabilization and capping of the contaminated soils. Soils would be stabilized by injection of cement and in-place mixing. The area of stabilized soils would then be capped with a clay, HDPE liner, soil, and vegetative cover. Also, a levee would be constructed around the area where contaminated material is left on-site.

Total Capital Costs:	$15,600,000
O&M Costs (30 years):	$ 700,000
Total Costs:	$16,300,000

Alternative 8: Battery Casing Chips Disposal at Secondary Lead Smelter; Capping of Contaminated Soils

This alternative is a replica of Alternative 7 with the exception that all contaminated soils with a lead concentration above 1550 mg/kg would be capped in place without stabilization.

Total Capital Costs:	$12,400,000
O&M Costs (30 years):	$ 700,000
Total Costs:	$13,100,000

Alternative 10: Canonie Battery Casing Chips Washing Process; Stabilization/Solidification of Contaminated Soils; Disposal of Battery Casing Chips and Soil at Off-Site Nonhazardous Waste Landfill.

This alternative consists of physical treatment of the stockpiled battery casing chips and ex-situ stabilization/solidification of soils that fail the Toxicity Characteristic Leaching Procedure ("TCLP") test. The battery casing chips would be treated using the Canonie treatment process. The Canonie process involves size reduction, heavy-media gravity separation, and sequential washing stages that would separate the battery casing chips by size and density. Contaminated soils would be stabilized on-site using cement kiln fines and cement. Water for the stabilization process would be supplied directly from the Canonie battery casing chips washing process; therefore, no wastewater discharge is involved. Because of the ability of these combined processes to minimize water supply and discharge requirements, it is assumed that the two processes would be conducted simultaneously. Finally, both treated battery casing chips and stabilized soils would be transported off-site to an approved solid waste landfill. This alternative would take 2 years to implement.

Total Capital Costs:	$21,800,000
O&M Costs (30 years):	$ 700,000
Total Costs:	$22,500,000

Alternative 11: Construction of Vertical Barrier Around and Capping of Soils and Battery Casing Chips

This alternative is based exclusively on containment with groundwater monitoring. All the wastes present on the Site would remain in place. Vertical barriers (slurry walls) would be constructed around the areas of soil contamination to prevent the horizontal flow of groundwater through the contaminated material. The battery casing chips stockpiles would be leveled off and contoured to allow the construction of a clay solid waste cover system over the contaminated battery casing chips and contaminated soil areas. A levee would be constructed on-site around the area where contaminated material has been left in place.

Total Capital Costs:	$5,200,000
O&M Costs (30 years):	$ 700,000
Total Costs:	$5,900,000

Alternative 12: Ex-situ Stabilization of Battery Casing Chips; Disposal of Stabilized Battery Casing Chips and Contaminated Soils at an Approved Solid Waste Landfill.

This is the alternative recommended in the January 1997 Proposed Plan for a ROD Amendment. The following

remedial actions required by the original ROD remain the same: Monitoring of Surface Waters, Air, and Groundwater; Clean Fill and Revegetate; and Fencing. The proposed alternative (more fully described below in Section IX, Selected Remedy) involves the following:

- Battery Casino Chips - Excavation of all battery casing chips, with two treatment options: treatment on-site to meet LDRs; or transportation to a RCRA Subtitle C treatment, storage, and disposal facility ("a permitted TSDF") for treatment to meet the LDRs. The treated battery casing chips will be disposed in an approved solid waste landfill.

- Contaminated Soils Under Battery Casing Chips Pile - Excavation of the first foot of soils that exceeds 1550 mg/kg lead, and disposal off-site at an approved solid waste landfill. Any soils transported off-site would be subject to the TCLP test to determine whether or not those soils are RCRA-characteristic for lead and thus require treatment to meet LDRs prior to disposal. Treatment of soils on-site to meet LDRs, or treatment at a permitted TSDF to meet the LDRs. The treated soils will be disposed of in an approved solid waste landfill. Tested soils that do not exceed the TCLP standard for lead can be disposed without treatment in an approved solid waste landfill.

  Any soils below this first foot in excess of 1550 mg/kg lead, to a depth of the regional groundwater table, shall be either excavated and disposed of as described above, or consolidated under a solid waste cover system that complies with the Ohio EPA requirements set forth at the State of Ohio Administrative Code ("OAC") 3745-27-08.

- Other On-Site Soils (Outside Perimeter of Battery Casing Chips Pile. But Within Original Area of Contamination) - Excavation of on-site soils above the regional groundwater table that exceed the 1550 mg/kg lead cleanup level. These soils may be: (1) Consolidated on-site under a solid waste cover system; or (2) Disposed off-site at an approved solid waste landfill as described above (subject to the TCLP test and treatment, if necessary).

- Implementation of an extensive groundwater monitoring program plan in two phases: Phase I during the RD/RA; and Phase II, once construction of the remedy is complete.

- Institution of deed restrictions or other institutional controls to: protect the integrity of any solid waste cover system, or disturbance of soil below the groundwater table; and to ensure that the small area of contaminated material that was left in place around the former USL Office building (currently the Pro Car Care building), and the forced sewer system, is properly remediated in the event that the road is widened, the sewer system replaced, or the building demolished.

- Construction of appropriate engineering controls to ensure adequate Site drainage, to ensure against the migration of contaminants due to flooding, and to ensure the integrity of the solid waste cover system is maintained.

Total Capital Costs:	$16,000,000
O&M Costs (30 years):	$ 700,000
Total Costs:	$16,700,000

VIII. COMPARATIVE EVALUATION OF ALTERNATIVES

The following nine criteria are used to evaluate cleanup alternatives and provide the basis for selection of the final cleanup action at Superfund sites. The following comparison of alternatives considers the options for battery casing chips and soil.

1. Overall Protection of Human Health and the Environment {addresses whether a remedy provides adequate protection of human health and the environment and describes how risks posed through each exposure pathway are eliminated, reduced or controlled through treatment, engineering controls or institutional controls}

Alternative 1 only proposes to monitor groundwater for the presence of lead. Therefore the risks from exposure to lead in the soils and battery casing chips are still present. "No action" provides no overall protection of human health and the environment and therefore is eliminated from further analysis.

Alternative 4, which provides for the battery casing chips as well as the soils to be stabilized prior to landfilling on-site, is protective to the extent that capping eliminates the direct contact threat, and stabilization with capping reduces the potential for lead to leach from the battery casing chips and soils to the groundwater. However, there is concern with leaving stabilized battery casing chips and soils on-site in a floodplain, since the source of lead remains on-site, subject to repeated wet/dry cycling due to weathering, which has not been evaluated, and would require further analysis.

Alternative 6 has the greatest potential for removal of the source contamination from the environment; however, this is an innovative technology that has not been demonstrated beyond the bench-scale.

Alternative 7 would provide greater overall protectiveness than Alternative 4 by removing the battery casing chips from the Site. However, although in-situ stabilization would probably decrease the mobility of the lead in the soil, under certain conditions of wet/dry cycling due to weathering, it might increase the mobility of the lead in the soil, as well as cause or provide for the potential release of the stabilization agent (phosphate) into the groundwater.

Alternative 8 would provide overall protectiveness for the battery casing chips by removal. Alternative 8 does not involve stabilization or treatment of the contaminated soils, which are simply capped in place.

Alternative 10 would provide overall protectiveness through treatment to completely remove the source of lead contamination from the Site.

Alternative 11 would reduce the potential for surface exposure and migration by providing horizontal and vertical barriers. However, this alternative clearly would not offer the degree of protection provided by treatment or removal technologies because the contaminated soils and battery casing chips remain on-site.

The proposed alternative 12 would be protective of human health and the environment because the source of lead from the battery casing chips would be removed from the Site, treated to meet LDRs, and disposed of properly in an approved solid waste landfill. In addition, the first foot of soil under the existing battery casing chips pile, which is contaminated with lead in excess of 1550 mg/kg lead, would also be treated (if they failed the TCLP test) either on-site or at an off-site permitted TSDF to meet LDRs, followed by disposal at an approved solid waste landfill off-site. All contaminated soils in excess of 1550 mg/kg lead that are above the regional groundwater table, and that were not consolidated under a solid waste cover system, would also be excavated and treated (if they failed the TCLP test) either on-site or at an off-site permitted TSDF to meet LDRs, followed by disposal in an approved solid waste landfill off-site. Alternative 12 would, therefore, remove a higher percentage of the total lead contamination at the Site, than Alternative 8. Finally, part of the remedy under Alternative 12 is an aggressive groundwater monitoring program, to protect the local aquifer from contamination from lead.

2. Compliance with Applicable and Relevant and Appropriate Requirements ("ARARs") {addresses how the proposed alternatives comply with pertinent Federal and State environmental laws and/or justifies a waiver} The ARARs with which each alternative must comply are detailed in the AAS.

Alternatives 4, 6, and 10 would comply with all ARARs through excavation and stabilization or treatment, if implementable, of all battery casing chips and soils prior to disposal in an approved solid waste landfill.

Alternative 11 would not comply with Ohio EPA Solid Waste Landfill capping requirements. It would also leave untreated battery casing chips and soils exceeding risk-based levels in place on-site, and, therefore, this Alternative's ability to comply with location- specific ARARs is doubtful.

Alternative 7 would comply with all ARARs associated with both excavation and disposal of battery casing chips and stabilization and capping of soils under a solid waste cover.

Alternative 8 would leave untreated contaminated soils on-site exceeding risk-based levels, and therefore this alternative's ability to comply with location-specific ARARs is doubtful.

Alternative 12 would comply with all ARARs associated with excavation, treatment and disposal of battery casing chips and soils, and with Ohio EPA Solid Waste Landfill capping requirements.

Alternatives 1 and 11 have been excluded from further analysis because they definitely fail to comply with ARARs.

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}

Alternative 4 exhibits long-term effectiveness and permanence because it involves stabilization/solidification of contaminated soils and battery casing chips and disposal in an on-site solid waste landfill. There is concern, however, with long-term effectiveness of leaving stabilized-battery casing chips on-site in the floodplain.

If Alternative 6 were shown to be implementable, it would readily meet this criterion. However, this alternative is of questionable implementability.

Alternative 7 and 8 would provide long-term effectiveness and permanence. The concern with the long-term effectiveness of leaving stabilized battery casing chips in a flood plain is addressed through their removal from the Site. However, Alternative 8 would leave a large amount of un-stabilized soils exceeding the cleanup level on-site, requiring reliance on vigilant monitoring and maintenance of the cap to ensure its continued long-term integrity.

Alternative 10 would ensure long-term effectiveness and permanence because both battery casing chips and soils would be treated and disposed of off-site.

Alternative 12, the proposed alternative, would provide a very effective permanent solution in that 95 percent or more of the on-site contamination would be removed from the Site. This alternative would remove the direct contact threat from contaminated soils above the regional groundwater table, and battery casing chips through treatment and off-site disposal, or consolidation of contaminated soils under a solid waste cover system. The potential for solid waste cover system failure would be minimized through a program of regular solid waste cover system maintenance, as well as engineering controls designed to ensure adequate Site drainage, to control against the migration of contaminants due to flooding, as well as to ensure that the integrity of the solid waste cover system is maintained. In addition, an aggressive groundwater monitoring program and, if necessary, corrective action would be required that would ensure the future protection of the aquifer.

4. Reduction of Toxicity, Mobility, or Volume Through Treatment {evaluates an alternative's use of treatment to reduce the harmful nature of contaminants, the environment, and the amount of contamination present}

Alternative 4 would reduce mobility, but would increase the volume of waste. However, due to size reduction activities which would precede stabilization of the battery casing chips, the volume increase is expected to be minimal.

While Alternative 6 exhibits a great potential for the removal of lead from the environment through treatment, the ability to implement the technology has not been demonstrated.

Alternatives 7 and 8 remove lead from the environment through the secondary smelting process for the lead-contaminated battery casing chips. For Alternative 7 the contaminated soils would be stabilized in place and capped. Alternative 8, however, would not include stabilization of the soils prior to capping.

In Alternative 10, reduction in toxicity and mobility of the lead in both battery casing chips and contaminated soils would be achieved through stabilization. However, the treatment process would increase volume, and decrease mobility.

The proposed Alternative 12 would provide for reduction in toxicity, and mobility through treatment by means of a demonstrated stabilization technology. Mobility of the contaminated soils left in place would be decreased through containment, not treatment. The proposed alternative would be effective in realizing the CERCLA statutory preference for treatment of the contaminated battery casing chips and the first foot (most contaminated) of soil underneath the battery casing chips pile.

5. Short-term Effectiveness {addresses the ability of alternatives to manage risks during construction and implementation phases, and reduce immediate risks posed by the hazardous materials present}

The primary short-term risk posed by Alternative 12 would be the exposure potential created during excavation, treatment and transportation of the battery casings chips from the Site to an approved solid waste landfill in the nearby area. On-site activities (e.g., treatment process and capping) represent minor exposure risks. The time required to complete remediation is estimated to be approximately 6 months. This is based on stabilization and transportation of the battery casing chips to an approved solid waste landfill; the excavation of the first foot of soils underneath the battery casing chips pile that are above the cleanup level, treatment to meet LDRs (if necessary), transportation to an approved solid waste landfill, and capping the remaining wastes on-site, that exceed the revised clean up level.

Alternatives 4, 6, 7, 8, and 10 all pose a short-term and/or temporary risk associated with the mixing process, mechanical treatment process or transportation each alternative anticipates for implementation.

6. Implementability {is the technical and administrative feasibility of a remedy, including the availability of goods and services needed to implement a particular option}

Alternative 6 is an innovative technology with mechanical complexity, so implementability is uncertain. Alternative 6 may also produce wastewaters that would have to be treated.

Alternative 4 is considered readily implementable.

Alternatives 7 and 8 ranked low under this criterion, because of the difficulty in locating secondary smelters willing to accept the contaminated batter casing chips, that were in full compliance with all Federal and State environmental regulations.

Alternative 10 can be considered a somewhat innovative technology. This process has been used at only one CERCLA site.

The proposed alternative 12 is considered to be readily implementable; the technologies used under this alternative are well-proven.

7. Cost {includes estimated capital and operation and maintenance costs}

A comparison of the costs are included in the table below. Alternative 4 provides a mid-range cost; however, it leaves treated battery casing chips in a flood plain. Alternative 6 is very expensive, even when the -30 to +50 percent accuracy is taken into account. Alternative 7 is mid-range in cost. Alternative 8 is the second lowest in cost of the Alternatives under consideration. Alternative 10 is expensive, reflective of significant on-site processing. The costs of Alternative 12 is mid-range and provides effective treatment and disposal of both battery casing chips and soils.

ALTERNATIVE:	DESCRIPTION	COSTS
4:	Ex-Situ Stabilization/Solidification of Battery Casing Chips and Soils with On-Site Solid Waste Landfill Disposal	$9,800,000

6: Battery Casing Chips Treatment Using BOM Process with Off-Site Solid Waste Landfill Disposal; Soils Treatment Using BOM Process With On-Site Debris Solid Waste Landfill Disposal	$74,000,000
7: Battery Casing Chips Disposal at Secondary Lead Smelter; In-Situ Stabilization and Capping of the Contaminated Soils	$16,300,000
8. Alternative 8: Battery Casing Chips Disposal at Secondary Lead Smelter; Capping of Contaminated Soils	$13,100,000
10: Canonie Battery Casing Chips Washing Process;. Stabilization/Solidification of Contaminated Soils; Disposal of Battery Casing Chips and Soil at Off-Site Solid Waste Landfill	$22,500,000
12: Ex-Situ Stabilization of battery Casing Chips; Disposal of Stabilized Battery Casing Chips and Contaminated Soils at an Approved Solid Waste Landfill	$16,700,000

8. Support Agency Acceptance {indicates whether, based on its review of the AAS and Proposed ROD Amendment, the support agency concurs, opposes, or has no comments on the proposed alternative}

The Ohio EPA fully accepts and supports Alternative 12, and is expected to concur with this ROD Amendment.

9. Community Acceptance {summarizes the public's general response to the alternatives described in this Proposed ROD Amendment and in the AAS.}

The U.S. EPA provided a public comment period on the Proposed Plan for a Record of Decision Amendment from January 27, 1997, to February 2S, 1997, and conducted a public meeting on the Proposed Plan in the City of Troy, Ohio, on February 19, 1997. The community generally supports the change. No significant concerns were raised during either the public meeting or during the public comment period. The U.S. EPA's response to the public comments received are summarized in Attachment A to this ROD Amendment.

IX. SELECTED REMEDY

The U.S. EPA has selected Alternative 12 as the alternative to address the remaining on-site lead-contaminated battery casing chips and soil. The selected alternative involves the following:

- Lead Acid Battery Casing Chips: Excavation of approximately 56,000 cubic yards of battery casing chips for treatment either on-site or off-site at a permitted TSDF to meet the LDRs as a RCRA D008 waste, followed by disposal at an approved solid waste landfill off-site.

- Contaminated Soils: Excavation of the first foot of contaminated surface soils under the existing battery casing chips pile, which exceed 1550 mg/kg lead in soil. Those contaminated soils that exceed 1550 mg/kg lead and that pass the TCLP test, would be disposed at an approved

solid waste landfill off-site. Those soils that exceed 1550 mg/kg lead and that fail the TCLP test, would either be treated on-site or off-site at a permitted TSDF to meet the LDRs, followed by disposal of the soils in an approved solid waste landfill off-site. In addition, any on-site soils below the first foot of soil underlying the former battery casing pile or outside the boundaries of the battery casing chips pile that exceed 1550 mg/kg lead, will be excavated and tested. Soils passing the TCLP can be either consolidated under a solid waste cover system meeting the OAC requirements for design and construction of solid waste landfill facilities, or disposed of at an approved solid waste landfill off-site without treatment. Soils that exceed the cleanup level and fail the TCLP will either be treated on-site or off-site at a permitted TSDF, to meet LDRs, followed by disposal in an approved solid waste landfill off-site. The decision whether to conduct off-site or on-site treatment will be made during the remedial design/remedial action phase.

- Lead in Soil Clean Up Level: The PRPS/Defendants submitted a revised risk assessment dated September 19, 1996. The U.S. EPA, in consultation with the Ohio EPA, has reviewed and approved the revised risk assessment and has established a level of 1550 mg/kg lead in soil as a cleanup level (concentration of lead in soil not to be exceeded) for on-site soils.

- Excavation Reguirements: If the clay layer associated with the semi-confined aquifer at the Site is penetrated during excavation activities, water might rise into the excavation. This phenomenon would be dependent on current Site conditions due to seasonal weather conditions. Any lead-contaminated water rising into the excavation would have to be treated to meet the substantive requirements of the Clean Water Act, National Pollutant Discharge Elimination System ("NPDES") permit requirements set forth at OAC 3745-33-04, the NPDES pretreatment requirements set forth at OAC 3745-36-07, or local limits set by a publicly-owned treatment works, if the water is discharged off-site. Therefore, excavation activities will use engineering controls to minimize any adverse impacts due to Site geological and hydro-geological conditions.

- Pre-Excavation Confirmatory Sampling: Confirmatory sampling of the contaminated areas on the Site will be conducted. This sampling may change the area to be capped, but will not affect the solid waste cover system design. Solid waste cover system design is independent of the confirmatory sampling.

- X-Ray Fluorescence ("XRF") Field Sampling Instrumentation: The XRF field sampling technology will be used to determine the soils that are above the cleanup level and that will be excavated and disposed of at an approved solid waste landfill. The calibration of the XRF instrument will be verified. The XRF instrument calibration standards will be analyzed as required by the manufacturer. In addition, at a minimum, a quality check of 10 percent of all XRF field measurements with off-site definitive laboratory analyses will be done, in accordance with approved design documents. If XRF field sampling instrumentation is not technically feasible or cost-effective, either off-site or mobile on-site laboratory analysis will be conducted in accordance with the approved design documents to determine soils requiring excavation and off-site disposal.

- Post-Excavation Confirmatory Soil Sampling: Post-excavation soil sampling will be conducted to confirm that all soils with lead contamination in excess of the cleanup level, above the regional groundwater table, have been excavated and removed from the Site. Sampling and analytical requirements for determining whether the cleanup level has been met will be specified in the approved design documents.

- Solid Waste Cover System Reguirements: Soils that contain greater than 1550 mg/kg lead, which remain on-site above the regional groundwater table, will be consolidated under a solid waste cover to ensure the future safety of the groundwater. If, however, all of the battery casing chips are removed and properly disposed of, and all of the contaminated soils containing lead in excess of the cleanup level are removed to the regional groundwater table and properly disposed of, then construction of a cover will not be required.

If a solid waste cover system needs to be constructed, it shall be a RCRA Subtitle D solid waste cover system compliant with all applicable or relevant and appropriate Ohio EPA solid waste regulations set forth at the OAC 3745-27-08, 3745-27-11 and 3745-27-19(H) and (J). Based upon OAC 3745-27-08, a geosynthetic clay liner ("GCL") may be substituted for a compacted clay liner, and a geonet may be substituted for the 12 inch sand drainage layer. In addition, a slope protection system shall be required. The solid waste cover system design, from bottom to top, is as follows:

- A GCL: The subgrade will be prepared for the installation of the GCL. The subgrade will be compacted. Protruding rocks and other deleterious debris will be removed. The surface will be flattened using a smooth drum compactor.

- A 40 Mil HDPE Flexible Membrane Liner ("FML"): The GCL and FML together form a composite geomembrane/soil liner with a maximum hydraulic conductivity of 1 X 10 -7 cm/sec.

- A 12 Inch Sand Drainage Layer: Minimum hydraulic conductivity of 1 X 10 -2 cm/sec. A geonet is an allowable option under OAC 3745-27-08.

- A 8 oz. Filter Fabric: Minimum hydraulic conductivity of 1 X 10 -2 cm/sec.

- A Cover Soil Layer: The cover soil will increase the total thickness of soil above the composite liner to 30 inches which is required thickness for frost protection in the Miami County, Ohio region. Assuming the use of a GCL, the total thickness of the soil cover above the composite liner would only need to be 24 inches.

- A 6 Inch Topsoil Layer:

- A Slope Protection System: Slope protection will be built into the topsoil layer and will protect the soil and side slopes from flood damage and other erosion factors.

- Native grass vegetation.

- Treatment/Disposal: Before waste materials are removed from the Site, it must be determined whether or not those waste materials are contaminated by hazardous waste, and therefore, must be managed as a hazardous waste under Subtitle C of RCRA. This determination can be made either through knowledge of the composition of the waste, or by testing the waste material using the TCLP test. The TCLP test will be used at the Site to determine whether or not the battery casing chips and those soils that are contaminated with lead in excess of 1550 mg/kg lead, are non-hazardous and should go directly to an approved solid waste landfill without any treatment, or are characteristic for lead and therefore, hazardous, and need to be treated, either on-site or off-site at a permitted TSDF, to meet LDRs. Soils-contaminated with lead less than 1550 mg/kg lead in soil, that are left in place at the Site, would not be subject to any hazardous waste management requirements, including any testing.

  The battery casing chips and soils that fail the TCLP test must be stabilized to meet the LDRs for a non-lead acid battery RCRA D008 waste and pass the TCLP test, prior to disposal in an approved solid waste landfill. In practical terms, this means that the leachate produced from the stabilized material when subjected to the TCLP test, must be less than the value set forth in the LDRs for that material. If so, the stabilized battery casing chips or soils would "pass" the TCLP and meet the LDRs, and could be transported off-site to an approved solid waste landfill for final disposal. The battery casing chips and soils will either be treated on-site or off-site at a permitted TSDF to meet LDRs, followed by disposal in an approved solid waste landfill. If the battery casing chips are treated off-site, the battery casing chips will be sent directly to a permitted TSDF for treatment to meet the LDRs, followed by disposal in an approved solid waste landfill. If the battery casing chips are treated on-site, each batch of the treated battery casing chips will be tested by the

TCLP. The definition of a batch will be based upon the size that develops the optimum performance for the on-site treatment plant used for treatment of battery casing chips or soils. Each batch that passes the TCLP test will be disposed of at an approved solid waste landfill. If a batch of treated battery casing chips fails the TCLP test, that batch will be treated until it meets the LDRs, and passes the TCLP test.

The decision to treat soils contaminated with lead in excess of 1550 mg/kg, that fail the TCLP test, and battery casing chips, on-site or off-site at a permitted TSDF will be made during the remedial design and remedial action phase. Other residues will be managed in accordance with approved design documents.

- Groundwater Monitoring: The technical groundwater monitoring requirements for this Site are described at OAC 3745-27-10. The groundwater monitoring action level for lead is 50 ppb. A phased approach to groundwater monitoring is described in OAC 3745-27-10. The direction of groundwater flow will be established, and a minimum of four wells will be used to monitor groundwater quality and flow in the vicinity of the unit, one up-gradient, three down-gradient. Additional groundwater sampling wells may be added, if necessary, based upon the interpretation of the groundwater flow direction(s). After background analytical data are established for the well system, the groundwater monitoring will be performed quarterly, with appropriate physical and chemical parameters measured and compared to background levels previously collected. If the data from a water sample shows a significant statistical increase or change in the parameter measured, the groundwater from all of the wells will be resampled to verify that the changes in the data are accurate and precise. If the re-sampling event verifies a change in a measured parameter, an assessment of the release will be conducted, followed by corrective action, if necessary. The fact that the aquifer is a source of drinking water may require additional provisions which would maintain the useability of the aquifer. Other physical and chemical parameters of monitoring may be considered, along with lead, on a site-specific basis. After the first year of testing, if no detections are made for other metals, the U.S. EPA, in consultation with the Ohio EPA, would re-evaluate both the frequency and the parameters for sampling. If lead is the only parameter that is monitored, and it is detected at an elevated level, then other parameters would be analyzed. The exact details of the long-term monitoring program will be worked out during the remedial design, including details of compliance monitoring, if necessary.

The following original ROD remedial actions were addressed by the Phase I - RA conducted in 1992: Off-Site Soils; New Well Installation; and General Clean Up.

The following original ROD remedial actions remain the same:

- Monitoring of Surface Waters and Air: Monitoring of the surface waters and air will be performed during the remedial action. After removal and treatment of the highly contaminated soils from the Site, surface water sampling and appropriate analyses of physical and chemical parameters will be performed quarterly for one year. After the first year of testing, if no detections are found, the U.S. EPA, in consultation with the Ohio EPA, will reevaluate both the frequency and the parameters for sampling. The exact details of the monitoring program will be worked out during the remedial design, including details of compliance monitoring, if necessary.

- Excavation and Non-Excavation Area Backfill, Grad, ring, Topsoil, Erosion Control and Revegetation: In addition to erosion control and revegetation of all backfilled areas, all areas disturbed during the remedial action will be filled and graded with clean fill. The Site will be graded in such a way as to promote positive Site drainage and to prevent ponding of waters on the Site, once remedial actions are complete. At least six inches of suitable top soil will be placed on the entire Site for revegetation. Drainage ditches, drainage swales, and erosion control methods will be implemented to prevent surface runoff from eroding the final grade and from flowing toward the adjacent properties. These controls will satisfy the requirements of OAC 3745-27-19(J).

Additional requirements with this proposed ROD amendment:

- Institutional Controls: Deed restrictions or other institutional controls will be required (to the extent of the U.S. EPA's authority) to: (1) protect the solid waste cover system; (2) ensure that the Site is and remains zoned light industrial or commercial; (3) ensure that there are restrictions prohibiting excavation in those areas of the Site that continue to have lead in soil at depth (below the regional groundwater table) in excess of the cleanup level of 1550 mg/kg lead in soil; and (4) ensure that the small area of contaminated material that was left in place around the former USL Office building (currently the Pro Car Care building), and the forced sewer system, is properly remediated in the event that the road is widened, the sewer system replaced, or the building demolished.

- Fencing: The fence shall be repaired and maintained throughout the remedial design/remedial action phase, to prevent access and vandalism to the Site. Once the remedial action has been completed, access to the capped area (if any) will be controlled in order to protect the integrity of the solid waste cover system, consistent with future land use at the Site.

X. ARARs COMPLIANCE

The substantive requirements set forth in the rules and regulations identified below are ARARs to the remedial action at the Site.

Clean Water Act (Ohio Authorized Program)

The remedy does not include groundwater treatment or otherwise require a discharge of contaminants to surface water. However, it as a result of excavation activities lead-contaminated water is generated, it will be treated and discharged in accordance with the substantive requirements of the Ohio NPDES permit program requirements (OAC.3745-33-04), the NPDES pretreatment requirements (OAC 3745-36-07) or any local limits set by a POTW. The only surface water body with the potential to be impacted by migration of lead contamination from the Site is McKaig Ditch. McKaig Ditch surface water will be monitored during the remedial action for up to two years following removal of the most contaminated soils Sampling and analysis will be in accordance with OAC 3745-1-03. If it is determined that the water quality has been impacted by Site contaminants being discharged to the Ditch, actions will be taken to ensure that applicable State water quality standards are achieved and maintained.

Clean Air Act (Ohio Authorized Program)

Fugitive air emissions resulting from response activities shall be controlled pursuant to OAC 3745-17-O8(B).

Resource Conservation and Recovery Act

A. Management of excavated battery casing chips and soils that are characteristic D008)waste. All excavated battery casing chips and soils that fail the TCLP test must be managed in compliance with RCRA hazardous waste ("HW") standards regulating generation, on-site treatment and shipment off-site for disposal.

-- Standards for generators of Hazardous Waste (State Authorized Program):

OAC 3745-52-11	HW Determination
OAC 3745-52-20,22,23	Manifest Requirements
OAC 3745-52-30-33	HW Packaging, Labeling, Marking, Placarding
OAC 3745-52-34	Accumulation Time of HW

-- General Facility Standards at OAC 3745-54:

OAC 3745-54-13	General Analysis of HW

OAC 3745-54-14	Security for HW Facilities
OAC 3745-54-15	Inspection Requirements
OAC 3745-54-31	Design and Operation of HW Facilities.
OAC 3745-54-32	Required Equipment for HW Facilities
OAC 3745-54-33	Testing and Maintenance of Equipment
OAC 3745-54-34	Access to Communications or Alarm System
OAC 3745-54-37	Agreements with Local Authorities
OAC 3745-54-62-64	Contingency Plan Requirements
OAC 3745-54-55	Emergency Coordinator
OAC 3745-54-56	Emergency Procedures

-- Land Disposal Restrictions

OAC 3745-59-35	Prohibits disposal of lead-contaminated battery casing chips and soils exhibiting the characteristic of toxicity (based on TCLP test showing concentration in extract of the waste exceeding 5 mg/L). The prohibition does not apply if the wastes are treated to meet the treatment standard specified for D008 waste in OAC 3745-59-41.

B. Consolidation within the area of contamination (boundaries of former battery casing chip pile) and capping of soils left on-site that exceed the 1550 ppm cleanup standard for lead

Soils (except for the first foot of soil underlying the former battery casing chips pile) that have been excavated and determined to meet the LDR treatment standard for lead (thus are not a characteristic hazardous waste) can either be disposed of off-site or consolidated within the boundaries of the former battery casing chips pile under a Subtitle D solid waste cover system. The cap will comply with Ohio solid waste regulation requirements that are ARARs. The remedial action does not require excavation of soils below the first foot of soil under the former battery casing chips pile if the lead content is below the 1550 ppm clean up standard; nor does it require excavation of any soils outside the boundary of the former battery casing chips pile that are below 1550 ppm. Although it is possible some of these soils may be RCRA characteristic, RCRA Subtitle C capping requirements will not be triggered because the soils will not be excavated. The U.S. EPA has determined that neither RCRA Subtitle C nor Subtitle D capping requirements are appropriate with respect to these soils because the lead contamination does not exceed risk-based levels and because most of the highly contaminated soils and battery casing chips are being removed from the Site. There are also lead contaminated soils located below the regional groundwater table. The contamination resulted historically from the migration of lead in acidic leachate from the disposal area. This migration has stopped because acid is no longer present in the soils. The Ohio EPA has determined that under its solid waste rules, these contaminated soils should not be considered "solid waste" and are thus not subject to solid waste capping requirements. (See Letter dated June 10, 1997 from Ms. Frances M. Kovac, Attorney, Ohio EPA.) The U.S. EPA concurs with the state's determination.

Ohio's siting requirements for solid waste landfills are set forth at OAC 3745-27-07(H) and 3745-27-20. OAC 3745-27-20 prohibits the placing of solid waste in any unfilled areas of an existing landfill or a new unit unless the unfilled areas or new unit are at a minimum provided with an interim composite liner/ leachate collection system in accordance with paragraph B of OAC 3745-27-08. After June 1, 1994, the rule also prohibits placing solid waste in any new unit located in a flood plain unless it can be shown that the facility will not restrict the flow of the one hundred year flood, reduce the temporary water storage capacity of the floodplain or result in washout of solid waste so as to pose a hazard to human health and the environment. These restrictions are not applicable to the remedial action at the USL Site because the waste was placed at the Site prior to 1994, and no new waste will be added. Waste is being consolidated within the original area of contamination. The area to be covered will not be expanded beyond the boundaries of the existing area of contamination. The siting regulation may be relevant because there will be solid waste left on-site in a floodplain. They are not considered to be appropriate because the selected remedial action removes the battery casing chips and the majority of the soils exceeding risk-based levels (95% of the more

contaminated waste material) from the Site. Nevertheless, the U.S. EPA believes that the criteria for siting in a flood plain in 3745-27-20(C)(2) will be met because engineering controls to prevent washout are part of the remedy.

The design, construction and operation of a solid waste cover system will comply with the following applicable or relevant and appropriate RCRA requirements:

OAC 3745-27-08 (C)(16)	Construction Specifications for Sanitary Landfills
OAC 3745-27-10	Requirements for Groundwater Monitoring and Corrective Action
OAC 3745-27-11(G), & (H)	Final Closure of Sanitary Landfill
OAC 3745-27-13	Prohibition on Excavating on Land Where Hazardous or Solid Waste was Operated, Unless Activity Won't Create Nuisance
OAC 3745-27-14(A)	Requirements for 30 Years Post-Closure Care
OAC 3745-27-19(H)	Final Cover Requirement
OAC 3745-27-19(J)	Ensure Surface Water is Diverted from Areas Where Waste is Deposited; Control of Run-On and Run-Off to Ensure Minimal Infiltration Through Cap and Minimal Erosion of Cover Material and Cap System

Other Federal and State Requirements

Response activities shall comply with the following:

a. OSHA requirements pursuant to 29 C.F.R. 1910 and 1926;

b. Department of Transportation requirements pursuant to 49 CFR Part 171;

c. Water well standards pursuant to OAC 3745-9-04(A)(B); OAC 3745-9-05(A)(1) and (B) to (G); OAC 3745-9-06 (A), (B), (D) and (E); OAC 3745-9-07; OAC 3745-9-08; OAC 3745-9-09 (A) to (D)(1), (E) and (F); OAC 3745-9-10;

d. OAC 6111.04: Prohibition on causing to be placed any industrial waste or other wastes in a location where they cause pollution of any waters of the state; and

e. OAC 3745-15-07: Prohibition of air pollution nuisances.

XI. STATUTORY DETERMINATION

The selected remedy in this amendment is protective of human health and the environment, complies with Federal and State ARARs and is cost-effective. The selected remedial action utilizes permanent solutions and considered the use of alternative treatment technologies to the maximum extent practicable. This remedy satisfies the statutory preference for treatment in CERCLA Section 121 in that the majority of the lead-contaminated waste will be excavated, treated to meet land disposal restrictions and disposed off-site.

Alternative 12 protects human health and the environment, is cost-effective and addresses the CERCLA statutory preference for treatment. Since some soils containing lead in excess of health-based levels will remain on-site, a review will be conducted to ensure that the remedy continues to provide adequate protection of human health and the environment within five years after commencement of the remedial action.

APPENDIX A - RESPONSIVENESS SUMMARY

TO THE

RECORD OF DECISION AMENDMENT

UNITED SCRAP LEAD SUPERFUND SITE

CITY OF TROY, CONCORD TOWNSHIP, MIAMI COUNTY, OHIO

JUNE 1997

PURPOSE

The responsiveness summary has been prepared to meet the requirements of Sections 113(k)(2)(B)(iv) and 117(b) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 ("CERCLA"), as amended by the Superfund Amendments and Reauthorization Act of 1986 ("SARA"), which requires the United States Environmental Protection Agency ("U.S. EPA") to respond to the comments submitted, either written or oral presentations, on the proposed plan for remedial action. All comments received by the U.S. EPA during the public comment period were considered in the selection of the final remedial alternative for the United Scrap Lead Superfund Site (the "Site") located in the City of Troy, Concord Township, Miami County, Ohio.

This document summarizes written and oral comments received during the public comment period of January 27, 1997, to February 25, 1997. The comments have been paraphrased to efficiently summarize them in this document. The public meeting was held at 7:00 p.m. on February 19, 1997, in the cafeteria of the Troy High School in Troy, Ohio. A full transcript of the public meeting, as well as all written comments received during the public comment period and all Site related documents, are available for review at the Information Repositories, at the following locations: 1) Troy-Miami County Public Library, 419 West Main Street, Troy, Ohio; and 2) U.S. EPA Region 5 Superfund Division, Records Center, 7th Floor, 77 West Jackson Blvd., Chicago, Illinois, 60604-3590.

OVERVIEW

The remedy selected in the September 16, 1988, ROD was a final remedy addressing risks associated with on-site and off-site lead-contaminated soils and on-site lead acid battery casing chips ("battery casing chips"). Certain components of this selected remedy were implemented in 1992. However, the main source control component, involving an innovative technology for treatment of the on-site soils and battery casing chips, was not implemented after Predesign, Pilot Plant and Economic studies indicated serious implementability issues and substantially higher costs.

The selected remedy in this ROD amendment addresses the remaining on-site lead-contaminated battery casing chips and soil. The scope of the selected remedy involves the following: (1) excavation of battery casing chips for treatment and disposal at a U.S. EPA-approved Resource Conservation and Recovery Act ("RCRA") Subtitle D landfill ("an approved solid waste landfill"); (2) excavation of the first foot of soils under the battery casing chips pile that exceed 1550 milligrams per kilogram ("mg/kg") lead and that fail the Toxicity Characteristic Leaching Procedure ("TCLP" standard, will be treated to meet RCRA Land Disposal Restrictions ("LDRs") and disposed off-site in an approved solid waste landfill; and (3) construction of a solid waste cover system over the remaining contaminated soils to ensure the future safety of the groundwater. If, however, all of the battery casing chips are removed and properly disposed of, and all of the contaminated soils containing lead in excess of 1550 mg/kg lead are removed to the regional groundwater table and properly disposed of, then construction of a solid waste cover system would not be required. The proposed alternative remedy will remove the source of direct contact with lead contamination, and recent analyses have demonstrated the absence of any groundwater contamination

I. Comments on the January 1997 Proposed Plan

1. Comment: Alternative 12.

Response: We appreciate your support of the recommended and selected remedial action at the Site, which will remove all of the sources of lead contamination in the soils, and battery casing chips, and is restricted to an approximately 8 acre area on the Site property. Deed restrictions will be placed on the property to prevent homes from being built on the property. The local residences are not impacted by any lead-contamination, and therefore, there is no justification for extending the remediation beyond the Site boundaries. The U.S. EPA is very concerned about the potential for lead poisoning, and the reason for this remedial action at the Site is specifically to remove the sources of lead, ensuring the protection of human health and the environment.

2. Comment: What are the latest figures for levels of cadmium and lead in the groundwater (after 1979)? After 1992 cleanup?

Response: Neither cadmium nor lead were detected in groundwater in the December 1995 and May 1996 sampling rounds conducted by the U.S. Army Corps of Engineers ("USACE"). The USACE is the USEPA's contractor for the Site. No sampling was conducted prior to the 1992 cleanup to make a determination of groundwater concentrations.

3. Comment: What health problems resulted since 1979 to nearby residents and former employees of USL directly from the lead and/or cadmium? Who are the names please. Have their conditions improved since the 1992 cleanup? How much, if any, will their medical conditions improve after renewed cleanup?

Response: The 1988 Remedial Investigation ("RI") Report (Section 1, P 5-6/14) stated that in the period from 1972 to 1977, ten USL workers were diagnosed by physicians as having lead poisoning. This prompted an investigation by the Occupational Safety and Health Administration ("OSHA"), which noted high levels of lead contamination in air samples taken close to the Site and lead-contaminated dust near the railroad depot in Troy, Ohio. In 1982, "dangerously high" lead concentrations were noted in blood samples taken from employees. Blood levels from these workers were not provided within the RI.

Section 6.2, p. 2/2 of the RI, discusses air sampling taken near the Site and blood samples taken from willing residents living around the Troy railroad yard and the Site. Appendix J of the RI lists names and blood lead concentrations of these persons. Sample reports were dated November 19, 1985 and February 10, 1986. Of the 18 adult and 16 children residing in the immediate area of the Site who agreed to participate, Section 6.2 states there were no indications that these (OSHA) levels (30 micrograms/ deciliter blood or "30 ug/dL") were exceeded by adult residents in the immediate area of the Site who agreed to participate. [However, Appendix J notes that blood lead concentrations of 2 adults exceeded 30 ug/dL in the November sampling. One of these adults was retested in February 1986, and blood lead concentrations were within acceptable limits.]

The RI notes that in 1988, blood lead concentrations of 30 ug/dL to 50 ug/dL suggested that further evaluation be performed. A blood lead concentration equal to greater than 50 ug/dL was considered by OSHA to be indicative of lead poisoning. The USACE did not find reports of any further testing of blood lead concentrations. Current OSHA regulations, Title 29 of the Code of Federal Regulations ("C.F.R.") 1926.62, require additional medical examinations and consultations for employees whose with blood lead levels at or above 40 ug/dL.

The RI stated that children with erythrocyte protoporphyrin ("EP") concentrations greater than 35 ug/dL were referred to a physicianOne child four and E had an EP value of 37. A six and 12 year old had EP values of 35 ug/dL. All remaining children had EP values less than 35Current U.S. Department of Housing and Urban Development ("HUD"') Guidance (June 1995) defines a lead-poisoned child as a child with a single blood lead level that is greater than or equal to 20 ug/dL or consecutive blood lead levels greater than or equal to 15 ug/dL. The Integrated Exposure Biokinetic Uptake ("IEUBK") Model for Lead in Children has a default value of 10 ug/dL blood lead as a level of concern for a child.

4. Comment: Have you documented the health problems of the former USL employees with high lead blood levels and followed their health since their 1983 testing?

Response: Neither the U.S. EPA or its contractor, the USACE, could find any evidence of follow-up medical studies that documented health problems attributable to the Site.

5. Comment: Can you provide the 1983 employee blood test results? With names, if possible.

Response: Employee blood test results are not available within the RI Report or other USL documentation. It is possible that some employees were included on the list found in Appendix J, but this information was not provided.

6. Comment: Any local documented cases of learning disabilities caused by the lead from the Site? Names would be helpful.

Response: Sixteen children were among the participants in the blood lead testing, but all but three had EP values less than 35 ug/dL. Children with EP values greater than 35 were referred to a physician. Neither the U.S.EPA nor the USACE could find any evidence of additional blood sampling or evaluation of lead impact on the children. Neither the U.S. EPA nor the USACE could find any documentation of learning disabilities caused by lead from the Site.

7. Comment: Absent any documented health problems caused by the contaminates, why take any action? Only after caused health problems are documented, can a cost/benefit analysis be done.

Response: Even though the area is now fenced, it is very difficult to prevent Site access, especially among children. At one time children were using the battery casing pile for sledding. Children are the most susceptible to adverse health effects from exposure to lead, and the effects ave been found to be cumulative.

From Appendix A, Title 29 C.F.R.1926.62: There are immediate toxic effects of lead. but also serious toxic effects that may not become apparent until years of exposure have passed. A significant portion of the lead that a person inhales or ingests get into the blood stream, then is circulated throughout the body and stored in various organs and body tissue. Some of this lead is quickly filtered out the body and excreted, but some remains in the blood and other tissues. As exposure to lead continues, the amount stored in your body will increase if you are absorbing more lead than your body is excreting. Even though you may not be aware of any immediate symptoms of disease, this lead stored in your tissues can be slowly causing irreversible damage, first to individual cells, then to organs and whole body systems. Please refer also to Volume 58 Federal Register ("FR") Number 84, Tuesday, May 4, 1993: Appendix A, Page 26635 and Appendix C, II, Page 26642 for more details.

Groundwater results indicated that there is no current impact. However, to prevent future impact to the shallow aquifer, it is prudent to remove the source of lead and other metals. Removal of the source material will ensure that there is no impact to the groundwater quality, and that a more costly remediation will not be required in the future. The U.S. EPA requires consideration of both human health and the environment.

8. Comment: Overall, the proposed plan seems to adequately balance overall remediation while protecting the environment, at a reasonable cost. Other proposed plans are more expensive, but do not provide a balanced plan to protect the environment and humans.

Response: The U.S. EPA, in selecting the remedy, is required to evaluate all alternatives against nine criteria, which are used to evaluate cleanup alternatives and provide the basis for selection of the final cleanup action at Superfund sites. Two of the nine criteria are Long-term Effectiveness and Permanence, which refers to the ability of a remedy to maintain reliable protection of human health and the environment over time, and Cost, which includes estimated capital and operation and maintenance costs. The U.S. EPA believes that the selected remedy will provide the best balance between all nine criteria, which are presented below:

1. Overall Protection of Human Health and the Environment {addresses whether

a remedy provides adequate protection of human health and the environment and describes how risks posed through each exposure pathway are eliminated, reduced or controlled through treatment, engineering controls or institutional controls}

2. Compliance with ARARs {addresses how the preferred alternatives comply with pertinent Federal and State environmental laws and/or justifies a waiver. The ARARs with which each alternative must comply are detailed in the Remedial Investigation and Pre-Design Reports.}

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}

4. Reduction of Toxicity, Mobility, or Volume Through Treatment {evaluates an alternative's use of treatment to reduce the harmful nature of contaminants to the environment, and the amount of contamination present}

5. Short-term Effectiveness {addresses the ability of alternatives to manage risks during construction and implementation phases, and reduce immediate risks posed by the hazardous materials present}

6. Implementability {is the technical and administrative feasibility of a remedy, including the availability of goods and services needed to implement a particular option}

7. Cost {includes estimated capital and operation and maintenance costs}

8. Support Agency Acceptance {indicates whether, based on its review of the Proposed Plan for a ROD Amendment, the support agency concurs, opposes, or has no comments on the preferred alternative}

9. Community Acceptance {summarizes the public's general response to the alternatives described in this Proposed ROD Amendment.}

9. Comment: Troy currently receives all of its drinking water supply from the lower buried valley aquifer. Our aquifer has been designated a sole source aquifer, and the plan proposed for the Site will protect the aquifer from future risks of contamination from this Site.

Response: The U.S. EPA is very concerned about the potential for lead poisoning, and the reason for this remedial action at the Site is specifically to remove the sources of lead, ensuring the protection of human health and the environment. Groundwater results indicated that there is no current impact. However, to prevent future impact to the shallow aquifer, it is prudent to remove the source of lead and other metals. Removal of the source material will ensure that there is no impact to the groundwater quality, and that a more costly remediation will not be required in the future. The U.S. EPA requires consideration of both human health and the environment.

10. Comment: Troy is currently planning to initiate investigations to locate a third well field. The well field will more than likely be located further east and south the current two well fields. Troy has received endorsement from Ohio EPA on the first 2 of 3 parts of its wellhead protection program.

Response: Groundwater results indicated that there is no current impact. However, to prevent future impact to the shallow aquifer, it is prudent to remove the source of lead and other metals. Removal of the source material will ensure that there is no impact to the groundwater quality, and that a more costly remediation will not be required in the future. The selected remedial action at the Site will ensure that the remaining sources of lead are removed, ensuring the protection of human health and the environment.

11. Comment: Currently, the Time of Travel protection area for our current well fields does not overlap the Site; depending upon the location of a third well field, the ultimate protection zones may impart an overlap

near the Site. For this reason, Troy urges U.S. EPA and all interested parties to move forward on a timely basis with the proposed plan clean up.

Responses: Groundwater results indicated that there is no current impact. However, to prevent future impact to the shallow aquifer, it is prudent to remove the source of lead and other metals. Removal of the source material will ensure that there is no impact to the groundwater quality, and that a more costly remediation will not be required in the future. The selected remedial action at the Site will ensure that the remaining sources of lead are removed, ensuring the protection of human health and the environment.

12. Comment: I've been with this like I said since '85. I watched them put the fence up around that 5 acres back there. Those people were from Canada. Who in the world chooses where this money is paid out to whom? This is American soil, and we should keep our money local. And I watched the 17 foot hole dug back there and big dump trunks dump that dirt in that hole behind that building just because it's what they call public access. And there's a lot of money wasted. Why can't there be a better control on this and get the job done? That is just my comment. I've seen it. I had a wind mill in my yard. Those people did not come, those engineers did come over and set that thing up when the wind blew it over. So I don't know how they got an accurate record. I'd call them. I'd tell them. I'd go over and talk to the engineers. I seen the figures on the first site. There was a lot of money wasted and this country ain't in no shape to waste that kind of money. I mean, it was big figures. So who is in control of all this? I mean it just doesn't, seems like just a waste for such a good cause. Do you understand what I'm saying? There was money wasted. Those engineers built that fence around that property in back and done the surveys because I told them they had to do that survey for my property. They are not people local. All these people, all these engineers have been brought in from other states or like I said those people were brought in from Canada. Why is that? I mean to me it looks like it would be better controlled, better money put right here to our people that is affected by this,

Response: The fence was constructed by the PRPs at the request of the U.S. EPA under a Consent Decree. The U.S. EPA does have the right to disallow the use of a particular contractor, if the Agency is not comfortable with the qualifications of that contractor for the task. However, the U.S. EPA cannot dictate what contractor the PRPs may hire.

13. Comment: You happen to have since 1988 produced one of the nicest collections of Chinese honeysuckle there is in this part of the country. That is a new problem that has created since the old problem. Probably should take a look at that environmentally. Chinese honeysuckle is an exotic plant which is a real problem in this area. It's growing rapidly every year. Farmers are more concerned about it than anyone else. But this Site happens to have on it a very nice collection of rapidly growing Chinese honeysuckle. Little red berries.

Response: The selected remedial action at the Site will remove all of the sources of lead contamination in the soils, and battery casing chips, and is restricted to an approximately 8 acre area on the Site property. Deed restrictions will be placed on the property to prevent homes from being built on the property. The local residences are not impacted by any lead-contamination, and therefore, there is no justification for extending the remediation beyond the Site boundaries. The U.S. EPA is very concerned about the potential for lead poisoning, and the reason for this remedial action at the Site is specifically to remove the sources of lead, ensuring the protection of human health and the environment. The selected remedial action does not include addressing the Chinese Honeysuckle plant.

APPENDIX B - ADMINISTRATIVE RECORD

TO THE

RECORD OF DECISION AMENDMENT

UNITED SCRAP LEAD SUPERFUND SITE

CITY OF TROY, CONCORD TOWNSHIP, MIAMI COUNTY, OHIO

JUNE 1997

U.S. EPA ADMINISTRATIVE RECORD
REMEDIAL ACTION
UNITED SCRAP LEAD SITE
TROY, OHIO
UPDATE #1 TO THE COMBINED ADMINISTRATIVE RECORD
02/06/97

DOC#	DATE	AUTHOR	RECIPIENT	TITLE/DESCRIPTION	PAGES
1	01/00/97	Department of the Army, Corps of Engineers	U.S. EPA	Report: Supplement To The Alternatives Analysis Study	69
2	01/27/97	U.S. Army, Corps of Engineers		Map: Conceptual Remedial Action Plan	1
3	01/27/97	U.S. Army, Corps of Engineers		Map : Soil Lead Concentrations	1

U.S. EPA ADMINISTRATIVE RECORD
REMEDIAL ACTION

UNITED SCRAP LEAD
TROY, OHIO

COMBINED ADMINISTRATIVE RECORD
JANUARY 29, 1997

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U.S. EPA ADMINISTRATIVE RECORD
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DOC#	DATE	AUTHOR	RECIPIENT	TITLE/DESCRIPTION	PAGES
1	00/00/00	Adamus, V., U.S EPA	Porter, J., U.S. EPA	Action Memorandum re: Immediate Removal Request for United Scrap Lead Site	10
2	00/00/00	Hoelscher, R., U.S EPA	Kleiman, J., U.S EPA	Memorandum re: Regulatory Status of Batteries w/Attachments	18
3	00/00/00	Canonie Environ-mental	U.S. EPA	Remedial Design Executive Summary for the Gould, Inc(OR) Site	41
4	00/00/00			Treatability Study Scope of Services for United Scrap Lead	13
5	00/00/00			United Scrap Lead Remedial Investigation and Feasibility Study Statement of Work	17
6	06/26/67	Boyd, M., Miami County Board of Zoning Appeals		Meeting Notes: Minutes of Board's Decision to Delay Judgement Permit Request by United Scrap Lead to Landfill Battery Casings on Their Property	4
7	08/01/67	Boyd, M., Miami County Board of Zoning Appeals		Meeting Notes: Minutes of Board's Decision that the findings of the Zoning Inspector be Overruled and the Use of the Land by United Scrap Lead for Landfilling of Battery Cases be Approved with Reservations	1
8	04/00/83	IEPA		Report: Study of Lead Pollution in Granite City, Madison and Venice, Illinois	52
9	05/26/83	Ontko, T., Ohio EPA	U.S. EPA	Site Inspection Report	8

10	06/09/83	Ontke, T., Ohio EPA and TRutter, U.S EPA		Hazard Ranking System Work Sheets and Documentation Records for Hazard Ranking System	21
11	11/03/83	Bailen Cand E Bailen	United Scrap Load Company	Warraty Deed Transferrinq Tract of Land to United Scrap Lead Company	3
12	12/00/84	Weston-Sper TAT	U.S. EPA	Site Assessment of United Scrap Lead, Inc	33
13	03/15/85	Camp Dresser & McKee	Bartelt, R., U.S EPA	Initial Site Evaluation Report for the United Scrap Lead Site	29
14	05/00/85	Camp Dresser & McKee	U.S. EPA	Final Health And Safety Plan for the United Scrap Lead Site	50
15	06/27/85	Hawthorne, J., Camp Dresser & McKee	Vanderlaan, S., U.S EPA	Final Community Relations Plan for the United Scrap Lead Site	26
16	02/00/85	Weston-Sper TAT	U.S. EPA	Emergency Action Plan for the United Scrap Lead Site	39
17	08/23/85	Wojtas, A., U.S. EPA	Lowrence, S., U.S EPA	Conversation Record re: Interpretation of Off Site Policy with Regards to Emergency Action Proposed at the United Scrap Lead Site	1
18	10/26/85	Babcock, J., Dayton Daily News		Newspaper Article: "Troy Being Warned About Lead Contaminated Sites"	1
19	10/27/85	Albaugh, D., Dayton Daily News		Newspaper Article: "Annoyance Becomes Dangerous"	1
20	10/29/85	Ohio EPA		Agenda for Public Meeting on Sample Results and Action Being Taken at the Baltimore & Ohio Railyard, Troy OH, w/Attachad Background Sheet	3
21	11/00/65	U.S. EPA/OPA		Fact Sheet re: United Scrap Lead Site	2
22	11/14/85	Nelson, R., U.S. EPA	Myers, J., Jenks & Myers Company	Letter re: Additional Request for Information Made to Attorneys for United Scrap Lead	2

23	11/14/85	Nelson, R., U.S. EPA	United Scrap Lead Company; at al;	Letter re: Second Request for Information	2
24	11/14/05	Hawthorne, J., Camp Dresser & McKee	Vanderlaan, Gand A. Mojtas; U.S. EPA	Work Plan (Volume 1) for the United Scrap Lead Site	108
25	11/29/95	McCue, W., U.S. EPA	File	Memorandum re: Trip Report for the United Scrap Lead Site	2
26	12/03/05	Myers, J., Jenks & Myers	Oaks, J., U.S. EPA	Letter re: Answers to Information Request by United Scrap Lead Through Their Attorneys	18
27	12/04/85	McLeod, M., U.S. EPA	Adankus, V., U.S EPA	Action Memorandum: Immediate Removal Request for the United Scrap Lead Site	3
28	12/12/85	Porter, B., Troy Daily News		Newspaper Article: "Arcanua Lead Contan ination Similar to Troy's"	1
29	12/20/85	Constantelos U.S. EPA	Service List	Letter Transmitting the RI/FS Workplan and Offer to Conduct the RI/FS in Accordance with the Workplan	8
30	12/20/85	Constantelos, B., U.S. EPA	Service List	Letter re: Notice of Status as a Potatially Responsible Party and Offer to Recipients to Conduct the Work Required to Abate Any Releases or Threatened Releases	9
31	01/00/86	U.S. EPO/OPA		Superfund Program, Fact Sheet for the United Scrap Lead Site	4
32	01/22/86	Bowman, N., Troy Daily News		Newspaper Articles: (1) "High Lead Levels Uncovered in Some Blood Tests" and (2) "Superfund Meeting Next Week"	1
33	01/26/86	Bowman, N., Miami Valley Sunday Magazine		Newspaper Article: "Troy Doing Something About Hazardous Waste Sites"	2
34	01/29/86	U.S. EPA		Agenda for the January 29, 1989 Public Meeting	1

35	01/29/86	U.S. EPA		Public Announcement of the January 29, 1986 Public Meeting	1
36	01/30/86	Bowman, M., Troy Daily News		Newspaper Articles: (1) "Long Term Clean up of USL Years Away" and (2) "Officials to Determine What to do with Railyard"	1
37	02/00/86	Nelson, R., U.S. EPA	McGraw, W.; Dungan, McGraw & Koppers	Letter to Landowner J.WHolcoab Through His Attorneys Requesting His to Memorialize the Consent He Granted U.S. EPA to Conduct Certain Studies on His Property	3
38	02/07/86	McCue, M., U.S. EPA	File	Memorandum re: Trip Report for United Scrap Lead January 29, 1996 RI/FS Kick Off Meeting	2
39	02/17/86	Bailen, E. and C Bailen	U.S. EPA	Consent for Entry and Access to U.S. EPA and Camp Dresser & McKee	2
40	02/27/86	Frayne, A.; Jacob A Myers Company	Nelson, R., U.S. EPA	Letter re: Nationals for Not Providing the U.S. EPA with United Scrap Lead Records	2
41	03/12/86	Commanding Officer, U.S. Coast Guard/Atlantic Strike Team	U.S. EPA/Region 5	Incident Summary: Joint Superfund Immediate Removal at the United Scrap Lead Site	7
42	03/18/86	Frayne, A., Jacob A Myers Company	Nelson, R., U.S. EPA	Letter re: Additional Response to Information Request by United Scrap Lead	14
43	03/20/86	McLeod, M., U.S. EPA	Adamkus, V., U.S. EPA	Action Memorandum: Six Month Time Exemption to Allow Continuation to Inmediate Removal Activities at the United Scrap Lead Site	3
44	04/03/86	Nelson, R., U.S. EPA	Frayne, A., Jacob A. Myers Company	Letter re: U.S. EPA's Claim to Authority to Compel Production of Additional Documents Directly to the U.SEPA Region 5 Offices	2
45	04/14/86	Burk, E., Jacobs Engineering and M McLeod, U.S. EPA		Study: "Fugitive Lead Air Emissions From an Abandoned Battery Breaking Facility"	3

46	04/18/86	Frayne, A., Jacob A Myers Company	Nelson, R., U.S. EPA	Letter re: Response to U.S EPA'S April 3, 1986 Letter Concerning U.S EPA Authority Compelling Actual Physical Production of Documents	1
47	04/22/86	Bowman, M., Troy Daily News		Newspaper Articles: (1) "Lead Levels High at Park" and (2) "Lead Contaminated Area Once Used as Landfill"	1
48	04/23/86	Lindeman, D., Troy Daily News		Newspaper Article: "Lead Danger a Bad Problem Handled Well"	1
49	04/24/86	Bowman, N., Troy Daily News		Newspaper Article: "EPA Supports City's Trostle Park Proposal"	1
50	04/25/86	Bowman, N., Troy Daily News		Newspaper Article: "Clay Put on Park Grounds"	1
5l	04/28/86	Burk, E. and S Springer; Weston Sper	Wu, B., U.S. EPA	Technical Assistance Team Report on Soil and Air Sampling	10
52	05/22/86	Hawthorne, J., Camp Dresser & McKee	Vanderlaan, Gand A. Wojtas; U.S. EPA	Draft Technical Memorandum for Geophysical Survey at the United Scrap Lead Site	63
53	07/00/86	PEI Associates, Inc.	U.S. EPA	Phase I Final Report: Electromembrane Process for Recovery of Lead from Contaminated Soils	153
54	11/05/66	Nelson, T., U.S. EPA	Holcoab, J.	Letter re: Fears of Landowner That His Property May Still be Contaminated	2
55	12/31/96	Hartman, Dand S Springer; Weston Sper	Strisbu, M., U.S EPA	OSC Report Outline for the United Scrap Lead Site	22
56	03/23/87	Wojtas, A., U.S. EPA	Troy Residents	Letters to Area Residents Updating Them an the Residential Well Sampling Along with the Results	12

57	04/13/87	Yoshitani, J., Camp Dresser & McKee	Vaderlaan G., U.S. EPA	Alternatives Array Document for the United Scrap Lead Site	72
58	07/00/87	U.S. EPA		Superfund Program Fact Sheet for the United Scrap Lead Site	4
59	09/01/87	Longest, H., U.S EPA	U.S.EPA	Memorandum of Understanding with the Bureau of Miners	15
60	09/11/87	Constantelos, B., U.S. EPA	Various	Information Letter Requesting Responses to Question About Waste Materials and Insurance Coverage	3
61	09/17/87	Senser, S., Senser Metal Company	Justus, N., U.S. EPA	Letter re: Response to September 1987 Information Request	2
62	09/17/87	Onbrello, S., Richmond Auto Parts	Justus, N., U.S. EPA	Letter re: Response to September 1987 Information Request	1
63	09/17/87	Russell, E (Bateson); Bateson Scrap Metal	Justus, N., U.S. EPA	Letter re: Response to September 1987 Information Request	1
64	09/17/87	Fricke, S., Dudley Bros., Inc	Justus, N., U.S. EPA	Letter re: Response to September 1987 Information Request	1
65	09/18/87	Schmidt, W., U.S D01/Bureau of Mines	Wojitas, A., U.S. EPA	Letter Report on Testing of Casing Materials and Soils for Lead Contamination with Attachment Covering Waste, Characterization	13
66	09/18/87	Dillon R.; Raymond LDillon	Justus, N., U.S. EPA	Letter re: Hinton's Inc. Response to September 1987 Information Request	1
67	09/19/87	Locy, R., CCC Highway, Inc	Justus, N., U.S. EPA	Letter re: Response to September 1987 Information Request	1
68	09/18/87	Ebner, R., Ebner Sons Company	Justus, N., U.S. EPA	Letter re: Response to September 1987 Information Request	1
69	09/18/87	Columbus Recycling/ Caldwell Iron	Justus, N., U.S. EPA	Letter re: Response to September 1987 Information Request	1
70	09/16/87	Hess, R., Lancaster Metal Company	Justus, N., U.S. EPA	Letter re: Response to September 1987 Information Request	1

71	09/21/87	Charla, L., General Motors Corporation	Justus, N., U.S. EPA	Letter re: Response to September 1987 Information Request	2
72	09/21/87	Sherry, D	Justus, N., U.S. EPA	Letter re: Response to September 1987 Information Request	1
73	09/21/87	Atlas Metal Inc	Justus, N., U.S. EPA	Letter re: Response to September 1987 Infomation Request	1
74	09/22/87	Senser, A.; J.M Cousins Company	Justus, N., U.S. EPA	Letter re: Response to September 1987 Information Request	3
75	09/23/87	Elberson, T., Dinner Bell	Justus, N., U.S. EPA	Letter re: Response to September 1987 Information Request	1
76	09/23/87	Midwest Iron & Metal Company	Justus, N., U.S. EPA	Letter re: Response to September 1987 Information Request	1
77	09/23/87	Hoover, N.; Norman F. Hoover	Justus, N., U.S. EPA	Letter re: Schiffer Metals Company Response to September 1987 Information Request	1
78	09/24/87	Mayerson, H., Mayerson Iron & Metal	Justus, N., U.S. EPA	Letter re: Response to September 1987 Information Request	2
79	09/24/87	Stevenson, D., Diamond Crystal Salt Company	Justus, N., U.S. EPA	Letter re: Response to September 1987 Information Request	1
80	09/25/87	Cramer, R.; Michel, Davis & Cramer	Justus, N., U.S. EPA	Letter re: Malo Brothers & Sons Response to September 1987 Information Request	2
81	09/25/87	Mott, M.	Justus, N., U.S. EPA	Letter re: Response to September 1987 Infomation request	1
82	09/25/87	Fister, M.; Vincent Fister, Inc	Justus, N., U.S. EPA	Letter re: Response to September 1987 Information Request	1
83	09/25/87	Grotz, C., Materials Handling Systems	Justus, N., U.S. EPA	Letter re: Response to September 1987 Information Request	1

84	09/26/87	Dobrow E., Dobrow Industries, Inc	Justus, N., U.S. EPA	Letter re: Response to September 1987 Information Request	3
85	09/28/87	Gable, D., Kenia Iron & Metal, Inc	Justus, N., U.S. EPA	Letter re: Response to September 1987 Information Request	1
86	09/28/87	Monnin, J., Troy Lawn Equipment	Justus, N., U.S. EPA	Letter re: Response to September 1987 Information Request	1
87	09/28/87	Charla, L., General Motors Corporation	Justus, N., U.S. EPA	Letter re: Response to September 1987 Information Request	4
88	09/28/87	Cohen, W., Cohen Brothers, Inc	Justus, N., U.S. EPA	Letter re: Response to September 1987 Information Request	1
89	09/28/87	Plualy, D.; Critchfield, Critchfield & Johnston	Justus, N., U.S. EPA	Letter re: Volper Iron & Metal's Response to September 1987 Information Request	2
90	09/29/87	Johnson, C.; Lewis, Ciccarello & Friedberg	Justus, N., U.S. EPA	Letter re: Cremer Iron and Metal's Response to September 1987 Information Resest	1
91	09/29/87	Fields, R., Central Transport	Justus, N., U.S. EPA	Letter re: Response to September 1987 Information Request	1
92	09/30/87	Diller, L., Bob's Auto Parts	Justus, N., U.S. EPA	Letter re: Response to September 1987 Information Request	3
93	10/01/87	Molar, Gand N. Molar; Fairfield Junk Company	Justus, N., U.S. EPA	Letter re: Response to September 1987 Information Request	2
94	10/02/87	Cornelius, T.; Terry L. Cornelius	Justus, N., U.S. EPA	Letter re: Imel Battery & Lead Company's Response to September 1987 Information Request	1
95	10/05/87	Bodas, G.	Justus, N., U.S. EPA	Letter re: Response to September 1987 Information Request	1

96	10/05/87	Edelnah, D., Franklin Iron & Metal Corporation	Justus, N., U.S. EPA	Letter re: Response to September 1987 Information Request	1
97	10/05/87	Markus, S.; Ulmer, Berne, Laronge, Glickman & Curtis	Justus, N., U.S. EPA	Letter re: St. Mary's Iron & Steel's Response to September 1987 Information Request	2
98	10/06/07	Fry, C.; Fry & Waller Company	Justus, N., U.S. EPA	Letter re: Aluminum Alloys Company's Response to September 1987 Information Request	3
99	10/06/87	McNeill, W.; McCulloch, Felger, Fite & Gutmann Company	Justus, K., U.S. EPA	Letter re: Kelly's Battery Service's Response to september 1987 Information Request	2
100	10/06/87	Pavlik, M.; I.H. Schlezinger & Sons, Inc.	Justus, N., U.S. EPA	Letter re: Rospose to September 1987 Information Request	1
101	10/07/87	Kastner, L., Kastner Scrap Iron & Metal	Justus, N., U.S. EPA	Letter re: Response to September 1987 Information Request	1
102	10/08/87	Katz, L., Pennsyl vania Iron & Coal Company	Justus, N., U.S. EPA	Letter re: Response to September 1987 Information Request	1
103	10/09/87	Cutchall, A., Triton Group Ltd	Justus, N., U.S. EPA	Letter re: Response to September 1987 Information Request	1
104	10/09/87	Blank, H., CSK Transportation	Justus, N., U.S. EPA	Letter re: Response to September 1987 Inforeation Request	2
105	10/09/87	Williamson, K., Bode-Finn Company	Justus, N., U.S. EPA	Letter re: Response to September 1987 Information Request	1
106	10/10/87	Hartoin, D., Dill's Battery Company	Justus, N., U.S. EPA	Letter re: Response to September 1987 Infomation Request	3
107	10/12/87	Stanaway, D., Galion Dresser	Justus, N., U.S. EPA	Letter re: Response to September 1987 Information Request	1

108	10/12/87	Norly, D., Worly Steel and Supply company	Justus, N., U.S. EPA	Letter re: Response to September 1987 Infomation Request	1
109	10/13/87	Frydman, A.	Justus, N., U.S. EPA	Letter re: Response to September 1987 Information Request	1
110	10/14/87	Cohen, D., Cohen Scrap Materials	Justus, N;, U.S. EPA	Letter re: Response to September 1987 Information Request	2
111	10/14/87	Pollack, D.; Gottlieb, Johnston, Bean & Joseph	Justus, N., U.S. EPA	Letter re: Ross Auto Parts' Response to September 1987 Information Request	2
112	10/15/87	Raizk, A., Wilmington Iron & Metal Company	Justus, N., U.S. EPA	Letter re: Response to September 1987 Information Request	2
113	10/15/87	Charla, L., General Motors Corporation	Justus, N., U.S. EPA	Letter re: Response to September 1987 Information Request	9
114	10/16/87	Burns, R., Burns Iron & Metal Company	Justus, N., U.S. EPA	Letter re: Response to September 1987 Information Request	4
115	10/19/87	Harmon, J.; Porter, Wright, Morris & Arthur	Justus, N., U.S. EPA	Letter re: Moskowitz Bros. Response to September 1987 Information Request	3
116	10/20/87	Brown, H., Dayton Power & Light Company	Justus, N., U.S. EPA	Letter re: Response to September 1987 Information Request	3
117	10/22/87	Constanteles, B., U.S. EPA	Various	Letter re: Notice of Potential Liability	3
118	10/22/87	Constantelos, B., U.S. EPA	Service List	Letter re: Notice of Potential Liability and Request for Information w/Enclosures	21
119	12/08/87	Schmidt, W., U.S. DOI/Bureau of Mines	Wojtas, A., U.S. EPA	Letter re: Summary of Preliminary Results from Testing of a Number of Treatment Approaches for the United Scrap Lead Samples	2

120	01/19/88	Schmidt, W., U.S. DOI/Bureau of Mines	Wojtas, A., U.S. EPA	Letter re: Report on the Results of the Bureau of Mines Preliminary Assessment of the Treatability of the Soil	18
121	02/00/88	Camp Dresser & McKee	U.S. EPA	Remedial Investigation Report: Volume 1 of 2 (Text, Figures and Tables)	158
122	02/00/98	Camp Dresser & McKee	U.S. EPA	Remedial Investigation Report: Volume 2 of 2 (Appendices)	377
123	03/23/88	USDHHS/USPHS/ATSDR	U.S. EPA	Health Assessment for the United Scrap Lead Site	12
124	03/31/88	U.S. EPA/Region 10	U.S. EPA	Record of Decision for the Gould, Inc. (OR) Site	58
125	08/00/88	Camp Dresser & McKee		Final Feasibility Study Report	279
126	08/00/88	U.S. EPA		Proposed Plan for Remedial Design	11
127	08/15/98	U.S. EPA		Transcript of Public Meeting Held August 15, 1988 at the Troy High School	72
128	08/20/96	Friedman, L.; Thomposon, Hine and Flory	Dufficy, J., U.S. EPA	Letter re: United Scrap PRP Group's Request for an Extension of the Public Consent Period on the Draft Feasibility Study Report	3
129	08/24/88	Schroeder, D., DIFES, Inc.	Meins, G., U.S. EPA/OPA	Letter re: Process for Removal of Lead and Other Heavy Metals from Solid Waste	3
130	08/25/88	Friedman, L.; Thompson, Hine and Flory	Dufficy, J., U.S. EPA	Letter re: Proposed Treatment of the United Scrap Lead Site and Request for U.S. EPA Meeting with the United Scrap Lead PRP Group	3
131	08/25/88	Gade, M., U.S. EPA		Letter re: Special Notice of Potential Liability	28
132	08/29/88	Dames & Moore	U.S. EPA	Letter re: D&M's Evaluation of the Feasibility Study Report and Remedial Investigation Report for the United Scrap Lead Site	21

133	08/29/88	Overturf, J.; Harrison & Moberly	Wojtas, A., U.S. EPA	Letter re: Debrow Industries' Comments on the Feasibility Study Report for the United Scrap Lead Site	5
134	08/29/88	United Scrap Lead Group	U.S. EPA	Report: USLG's Comments an U.S. EPA's Feasibility Study for the United Scrap Lead Site	46
135	09/00/88	U.S. EPA		Record of Decision	82
136	05/25/89	Schmidt, W., U.S. DOI/Bureau of Mines	Wojtas, A., U.S. EPA	Letter Forwarding Attached U.S. DOI Phase I Report for the United Scrap Lead Site	54
137	06/22/89	McLeod, M., U.S. EPA	U.S. EPA	On Scene Coordinator's Report	30
138	07/21/89	Cyphert, M.; Thompson, Hine and Flory	Nelson, T., U.S. EPA	Letter Forwarding Attached Information Submitted by the United Scrap Lead PRP Group Concerning Treatmeat of Lead Battery Casings	9
139	01/00/90	Converse, J. and E. Tyler		Publication: "Wisconsin Mound Soil Absorption System: Siting, Design And Construction Manual"	42
140	02/00/90	Schmidt, W., U.S. DOI/Bureau of Mines	U.S. EPA	Assessment of Current Treatment Technique at Superfund Battery Sites	28
141	02/00/90	Canonie Environ mental	U.S. EPA	Marketing Studies Report for the Gould, Inc (OR) Site	125
142	02/00/90	Conestoga-Rovers & Associates	U.S. EPA	Report: CRA's Comments an the Record of Decision (Including the RI/FS)	141
143	03/09/90	United Scrap Lead PRP Group	Adaskus, V., U.S. EPA	Letter re: United Scrap Load Steering Committee's Comments on the ROD	11
144	05/16/90	Boseman, A., U.S. EPA	Fabinski, L., U.S. EPA	Memorandum re: Load Cleanup Levels	2
145	07/00/90	Canonie Environ-mental	U.S. EPA	Stabilization Design Study for the Gould, Inc.(OR) Site	18

146	10/31/90	Boseman, A., U.S. EPA	Van Leeuwen, P., U.S. EPA	Memorandum re: Lead Cleanup Levels at Supefund Sites	1
147	11/21/90	Boseman, A., U.S. EPA	Hull, T., Ohio EPA	Letter re: Remedial Design Clarification, Final Decision	2
148	12/00/90	Sverdrup Environ-mental	U.S. EPA	Quality Control/Sampling Plan	102
149	12/00/90	Sverdrup Environ-mental	U.S. EPA	Safety, Health and Emergency Response Plan	73
150	12/03/90	Hull, T., Ohio EPA	Boseman, A., U.S. EPA	Letter re: Remedial Design Clarification	1
151	12/06/90	Van Leeuwen, P., U.S. EPA	Boseman, A., U.S. EPA	Memorandum re: Lead Cleanup Levels	9
152	01/03/91	Hull, T., Ohio EPA	Boseman, A., U.S. EPA	FAX Transmission Forwarding Map Outlining Flooded Area	2
153	01/17/9l	Royer, M., U.S. EPA/ORD/RREL	Holoska, A., U.S. EPA	Memorandum re: Discussion Items Concerning Request to Evaluate Viability of Chemical Stabilization at the United Scrap Lead Site	8
154	02/00/91	U.S. EPA	Public	Fact Sheet: Cleanup Action to Begin	4
155	03/25/91	U.S. EPA/DERR/OWPE	U.S. EPA	Memorandum re: Human Health Evaluation Manual, Supplemental Guidance: "Standard Default Exposure Factors" (OSWER Directive #9285.6-03)	28
156	03/27/91	Boseman, A., U.S. EPA	File	Summary of March 27, 1991 Site Visit to United Scrap Lead re: Inspection of (1) USL Site for Installation of Fence and (2) Residential Property After Completion of Sampling	1
157	04/00/91	U.S. EPA/OSWER/ORD	U.S. EPA	Superfund Engineering Issue: Treatment of Lead Contaminated Soils (EPA/540/2-91/009)	10

158	05/00/91	Molan, C., U.S. EPA	U.S. EPA	Site Photographs	1
159	06/06/91	Boseman, A., U.S. EPA	Molan, C., U.S. EPA	Letter Briefing	2
160	07/00/91	U.S. EPA/ORD	U.S. EPA	Selection of Control Technologies for Remediation of Lead Battery Recycling Sites (EPA/540/2-91/014)	158
161	08/00/91	Donohue & Associates, Inc.	U.S. EPA	Community Relations Plan for the United Scrap Lead Site	35
162	09/12/91	U.S. EPA	Respondents	Administrative Order by Consent w/Attached Sample Cover Letter	61
163	09/20/91	Bosemman, A., U.S. EPA	File	Conversation Record re: Drinking Water at Residence (PORTIONS OF THIS DOCUMENT HAVE BEEN REDACTED)	1
164	09/23/91	Bosemman, A., U.S. EPA	File	Conversation Records for the Period June 6 September 23, 1991 re: Damage to Backyard of Residence (PORTIONS OF THIS DOCUMENT HAVE BEEN REDACTED)	3
165	09/23/91	Holoska, A., U.S. EPA	Montgomery, A., Canonie Environmental	Memorandum re: Removal of Lead From Battery Casings w/Attachment	5
166	09/23/91	Holoska, A., U.S. EPA	Humphrey, C., U.S. EPA/Region 10	Telephone Memorandum re: Lead Cleanup at the Gould, Inc. (OR) Site	1
167	10/17/91	Cichocki, A., Hatch Associates	U.S. EPA	Technical Memorandum re: Casings Treatment Process	10
168	11/00/91	Sverdrup Environmental	U.S. EPA	Pre Design Field Investigation Report	425
169	11/15/91	Buzzell, J., Sverdrup Environmental	Bosseman, A., U.S. EPA	Technical Memorandum re: Soil Treatment Process	14

170	11/18/91	Holoska, A., U.S. EPA	Blaney, B., U.S. EPA/TSD	Memorandum re: Request for Technical Assistance	1
171	12/00/91	Conestoga-Rovers & Associates	U.S. EPA	Perimeter Site Fencing Work Plan	70
172	00/00/92	Lead Industries Association, Inc.		Lead Recycling 1992 Directory	7
173	01/00/92	Canonie Environ-mental	U.S. EPA	Treatment of Battery Casings and Sails Report (Draft)	108
174	02/00/92	Conestoga-Rovers & Associates	U.S. EPA	Chemical Fixation Position Paper	132
175	02/18/92	Royer, M., U.S. EPA/TSB	Holoska, A., U.S. EPA	Memorandum re: Follow Up to January 30, 1992 PRP/EPA/DDJ Meeting w/Attachments	12
176	02/26/97	Wethington, A., et al.		Paper: "Decontamination of Lead Wastes from Superfund Sites" (Proceedings of HMC South '92)	7
177	02/27/92	U.S. Army Corps of Enginners	Attendees	Meeting Summary re: Implementation of the BOM Soil and Casing Treatment Process	6
178	02/27/92	Buchholz, T., U.S. Army Corps of Engineers/Omaha District	File	Memorandum re: Summary of February 27, 1992 Meeting Concerning Implementation of the BOM Soil and Casing Treatment Process at the United Scrap Lead and Arcanus Iron & Metal Sites	6
179	03/00/92	Conestoga-Rovers & Associates	U.S. EPA	Final Report: Perimeter Site Fencing	100
180	03/12/92	Carlock, S.	Boseman A., U.S. EPA	Letter Forwarding Attached Rough Cost Estimates for Three Remediation Alternatives (Draft) (UNSIGNED)	11
181	-03/12/92	Wiles, C., U.S. EPA	Royer, M., U.S. EPA	Memorandum re: Municipal Waste Technology Section's Comments on the "Chemical Fixation Position Paper"	2

182	03/16/92	Royer, N., U.S. EPA/TSD	Holoska, A., U.S. EPA	Memorandum re: START Comments on the "Chemical Fixation Position Paper"	2
183	04/00/92	Gong, Y., et al.		Journal Article: "The Conversion of Lead Sulphate to Lead Carbonate in Sodium Carbonate Media" (Hydrometallurgy)	24
184	05/04/92	Royer, M., U.S. EPA	Buchholz, T., U.S. Army Corps of Enginners	Letter Forwarding Attached Review Comments on the Pilot Plan Report	16
185	06/00/92	Sverdrup Environ-mental	U.S. EPA	Economic Analysis Report	117
186	06/00/92	Sverdrup Environ-mental	U.S. EPA	Pilot Plan Report	400
187	06/23/92	Stumbar, J., Forest Wheeler Envire-sponse, Inc	U.S. EPA	START Program Special Investigation, Final: Feasibility of Using Hard Rubber "Composite" Battery Casings as a Fuel Supplement	36
188	07/00/92	U.S. EPA	Public	Fact Sheet; Phase I Cleanup Action Designs	4
189	07/21/92	Bange, M., MAECORP, Inc.	Estes, S., U.S. EPA	Letter Forwarding Attached Information re: the MAECTITE Treatment Process as an Alternative Solution for the United Scrap Lead Site	44
190	07/23/92	Center of Hazardous Materials Research	U.S. EPA	Reclamation of Materials From Battery Case Piles From the Tonolli Corporation Superfund Site, Final Report	46
191	09/16/92	U.S. EPA	Ohio EPA	Superfund State Contract Between the Ohio EPA and U.S. EPA For Funding the Remedial Action	14
192	09/24/92	ATSDR/U.S. Public Health Service	U.S. EPA	Load Initiative Summary Report	9
193	11/00/92	Defense General Supply Center	U.S. EPA	Hazardous Technical Information Services Bulletin, Special Edition: EPA Issues Final Rule of Hazardous Debris	4

194	12/15/92	Ohio EPA	Boseman, A., U.S. EPA	FAX Transmittal re: the Miami Conservancy District (Dayton, OH) Policy and Procedure for Permits in Retarding Basins	4
195	05/00/93	U.S. EPA/Region 5/WMD	U.S. EPA	Guidelines for Making Environmentally Sound Decision in the Superfund Remedial Process	41
196	06/00/93	Starr, R., et al.; Waterloo Centre for Groundwater Research	U.S. EPA	Article: "Funnel and Gate System Directs Plumes to In Situ Treatment" (Ground Water Currents) w/Attachments	5
197	07/30/93	Spitler, J., Ohio EPA	Boseman, A., U.S. EPA	Letter re: Sewage Treatment System at the Pro Car Care & Used Cars Site	2
198	08/02/93	Thomas Winemiller & Associates	OHM Remediation Services Corp.	Drawing: Sanitation Plot Plan for the Pro Car Care & Used Cars Site	1
199	08/05/93	OHM Remediation Services	U.S. EPA	Work Plan for Rapid Response Remediation Activities, Revision 3	630
200	08/09/93	Schmidt, S., U.S. Army Corps of Engineers/Omaha District	Boseman, A., U.S. EPA	Letter Forwarding Attached Total Lead Analytical Results of Decontamination Water	4
201	08/19/93	Simpson, J., Ohio EPA	Boseman, A., U.S. EPA	Letter re: Disposal of Sewage Generated at the Pro Car Care Facility	1
202	08/20/93	Boseman, A., U.S. EPA	Hull, T., Ohio EPA	Letter re: Phase I Remedial Action Sewage Leach Field Installation at the United Scrap Lead Site	8
203	08/20/93	Boseman, A., U.S. EPA	Hull, T., Ohio EPA	Letter re: Sewage Leach Field Installation at the United Scrap Lead Site	2
204	10/13/93	Carlock, S., U.S. Aray Corps of Engineers/Omaha District	Boseman, A., U.S. EPA	Letter re: Drinking Water Well at the United Scrap Lead Site	8
205	11/12/93	Pasha Publications Inc.		"Superfund Week" (Vol. 7, No. 44)	3

206	11/17/93	Fristad, W., COGNIS, Inc	Boseman, A., U.S. EPA	Letter Forwarding Attached Information on COGNIS and the TERRAMET Process	41
207	12/17/93	U.S. Army Corps of Engineers	U.S. EPA	30% Design Analysis for Temporary and Permanent Flood Central (Revised)	131
208	03/01/94	Boseman, A., U.S. EPA	Spitler, J., Ohio EPA	Letter re: Sewage Leach Field Installation at the United Scrap Lead Site	2
209	05/27/94	Phelps, R., Ohio EPA	U.S. EPA	Letter Forwarding Attached OEPA Permit to Install for the Mound System at the Pro Car Care & Used Cars Site	4
210	06/10/94	Boseman, A., U.S. EPA	Bornhoft, S., U.S. Army Corps of Engineers/Omaha District	Letter re: Phase I Remedial Activities at the United Scrap Lead Site	1
211	08/31/94	Ringenbach, L.; Taft, Stettinims & Hollister	Boseman, A., U.S. EPA	Letter Requesting Attached Article ("PRPs Review Gold Battery, Stabilization;" Superfund Weekly, July 29, 1944) be Included in the Administrative Record	3
212	09/00/94	Radian Corporation	U.S. EPA	Alternatives Analysis Study, Final	263
213	09/00/94	U.S. EPA	Public	Proposed Record of Decision Amendment	14
214	09/21/94	Hull, T., Ohio EPA	Boseman, A., U.S. EPA	Letter re: OEPA's Review of the Revised Alternatives, Analysis Study ad Proposed ROD Amendment w/Attached Ohio Revised Code ARARs for the proposed ROD Amendment	13
215	11/00/94	Conestoga-Rovers Associates	U.S. EPA	CRA's Technical Comments on Proposed Record of Decision Amendment	21
216	11/22/94	United Scrap Lead Group	U.S. EPA	USLG's Comments on the September 1994 Proposed Record of Decision Amendment	25
217	11/29/94	Robinette, P., Miami Conservancy District	Boseman, A., U.S. EPA	Letter Forwarding Attached (1) April 14, 1992 Meeting Summary w/USACE Concerning the Potential Effect of the Proposed Cleanup Project on the Taylorsville Retarding Basin and (2) MCD's Policy and Procedure for Permits in Retarding Basins	6

218	01/30/95	Ringenbach, L.; Taft, Stettinius & Hollister	Allen, C., U.S. EPA/OPA	Letter Forwarding Attached USLG'S Supplemental Comment to the Proposed R0D Amendeent for the United Scrap Lead Site"	16
219	02/15/95	Youngstros, G., Ohio EPA	Boseman, A., U.S. EPA	Letter re: (1) Cleanup Levels and (2) Completion of Statement of Work Tasks	1
220	03/07/95	Denit, J.; Don Clay Associates, Inc	Niedergang, N., U.S. EPA/RCRA	Letter re: Regulatory Requirements for Plastic Chips Generated as Part of Lead Acid Battery Recycling	1
221	03/23/95	Monzingo, J., U.S. Army Corps of Engineers	File	Memorandum re: (1) United Scrap Lead Levee and (2) Battery Chip Removal, Stabilization, and Cover Design	5
222	04/04/95	Garber, D., U.S. EPA	Cyphert, M.; United Scrap Lead PRP Steering Committee	Letter re: the Public Cannot Period for the Proposed ROD Amendment	2
223	04/20/95	Boseman, A., U.S. EPA	Robinette, P., Miami Conservancy District	Cover Letter Forwarding Various Documents Concerning the Proposed Cleanup Activities at the United Scrap Lead Site	1
224	05/01/95	Royer, M., U.S. EPA	Bosseman, A., U.S. EPA	FAX Transmission Forwarding Attached Proposed Agenda for the May 1, 1995 Conference Call Concerning Remedial Action Objectives	7
225	05/24/95	Royer, M., U.S. EPA	Estes, A., U.S. EPA	Memorandum re: (1) Addresses for Distribution of Field Investigation Study and (2) Draft Key Questions for Containment Team	2
226	05/24/95	U.S. EPA	File	Memorandum re: Funnel and Gate Evaluation Effort Status as of May 24, 1995 (DRAFT) w/Attachments	9
227	05/31/95	Seart, R., U.S. Army Corps of Engineers/ Omaha District	Boseman, A., U.S. EPA	Memorandum Forwarding Attached (1) USACE March 23, 1995 Memorandum Concerning Recommendations for Revision to the Preferred Cleanup Plan and (2) April 20, 1995 Trip Report to the United Scrap Lead Site	8

228	06/01/95	Royer, M., U.S. EPA/TAS/TSD	Barth, E., U.S. EPA/CERI	Memorandum re: S/S Issues	5
229	06/13/95	Royer, M., U.S. EPA/NRMRL	Addressees	Memorandum re: Transmittal of United Scrap Lead Documents for Potential Review and Assistance	10
230	06/14/95	Studer, M., ENTACT, Inc.	Estes, S., U.S. EPA	Letter re: U.S. EPA Contacts for Battery Breaking Operations and Lead Contaminated Sites w/Attached Draft U.S. EPA Memorandum Concerning June 13, 1995 U.S. EPA/USLSC Meeting	4
231	06/22/95	ENTACT, Inc.	U.S. EPA	Proposed Remedial Solution at the United Scrap Lead Site	93
232	06/27/95	Robinette, P., Miami Conservancy District	Boseman, A., U.S. EPA	Letter re: MCD's Comments on the Proposed Cleanup Plan for the United Scrap Load Site	2
233	06/29/95	Royer, M., U.S. EPA/ORD/NRMRL	Barth, E., U.S. EPA	Memorandum re: NRMRL's Review of the June 22, 1995 ENTACT Proposal for the United Scrap Lead Site	2
234	07/00/95	U.S. EPA/ORD	U.S. EPA	Guidance: Contaminants and Remedial Options at Selected Metal Contaminated Sites (EPA/540/R-95/512)	248
235	07/07/95	Barth, E., U.S. EPA/ORD/NRMRL	Barth, E., U.S. EPA	Memorandum re: NRMRL's Review of the June 22, 1995 ENTACT Proposal for the United Scrap Lead Site	2
236	07/13/95	Barry, D., U.S. Army Corps of Engineers/ Omaha District	File	Memorandum re: USACE's Comments an ENTACT's "Proposed Remedial Solution at the United Scrap Lead NPL Site"	2
237	07/18/95	Brown, D., U.S. EPA	Royer, M., U.S. EPA	Memorandum re: Review of the ENTACT Proposal for United Scrap Lead	1
238	07/26/95	Youngstrom, G., Ohio EPA	Boseman, A., U.S. EPA	Letter re: OEPA's Comments on the July 12, 1995 "Proposed Remedial Solution at the United Scrap Lead NPL Site" Decument	2

239	08/04/95	Russell, R., Soil Technologies, Inc	Boseman, A., U.S. EPA	Letter Forwarding Attached Information re: the MDS Process for Remediation of Soil. Containing Heavy Metal Contamination	4
240	08/22/95	OHM Remediation Services Corp.	U.S. EPA	Final Report for Phase I Remedial Action (Appendices C-J)	352
241	09/11/95	Burden, D., U.S. EPA/ORD/NRMRL	Royer, M., U.S. EPA/NRMRL	Memorandum re: Document and Data Review for Modeling Lead Migration at the United Scrap Lead Site	8
242	09/11/95	Duyang, Yand B. Hill; Computer Data Systems, Inc.	Burden, D., U.S. EPA/NRMRL	Memorandum re: References for Measuring Kd, CEC, Unsaturated Hydraulic Conductivity, and Water Release Curve	3
243	10/03/95	Royer, N., U.S. EPA/NRMRL/WSWRD	Boseman, A., U.S. EPA	Memorandum re: Change of START Point of Contact for the United Scrap Lead Site	1
244	10/10/95	Barth, E., U.S. EPA/NRMRL/SMSB	Boseman, A., U.S. EPA	Memorandum re: SMSD's Comments on the September 26, 1995 ENTACT RA Proposal Meting	2
245	10/12/95	Herring, G., U.S. Army Corps of Engineers/Omaha District	Boseman, A., U.S. EPA	FAI Transission re: USACE's Comments on the September 26, 1995 ENTACT RA Proposal Meeting	3
246	10/21/95	Boseman, A., U.S. EPA	Pisani, D., ENTACT, Inc.	Letter re: U.SEPA's Comments on the "Proposed Remedial Solution" Document	5
247	10/26/95	U.S. EPA/Technical Review Workgroup for Lead	U.S. EPA	Review of a Methodology for Establishing Risk Based Soil Remediation Goals for Commercial Areas of the California Gulch Site	94
248	10/27/95	Burden, D., U.S. EPA/NRMRL	Boseman, A., U.S. EPA	Memorandum re: Additional Data Needs from the United Scrap Lead Site	8
249	11/00/95	Sverdrup Environ-mental	U.S. Army Corps of Engineers/U.S. EPA	Report: Final Field Sampling Plan for Groundwater Sampling at the United Scrap Lead Site	45

250	11/09/95	ENTACT, Inc.	U.S. EPA	Preliminary Alternative Analysis Study at the United Scrap Land Site	73
251	11/29/95	Barth, E., U.S. EPA/NRMRL	Boseman, A., U.S. EPA	Memorandum re: NRMRL's Comments on the November 9, 1995 Preliminary Alternatives Analysis Study (2nd Edition)	10
252	11/29/95	Barth, E., U.S. EPA/SMSB	Boseman, A., U.S. EPA	Memorandum re: SMSB's Comments on the November 9, 1995 Preliminary Alternative Analysis Study	2
253	12/08/95	OHM Remediation Services Corp	U.S. EPA	Final Report for Phase I Remedial Action (Appendices D-J)	757
254	12/08/95	Youngstron, G., Ohio EPA	Boseman, A., U.S. EPA	Letter re: OEPA's Comments on the November 13, 1995 Proposed Alternative Analysis Study	4
255	12/08/95	OHM Remediation Services	U.S. EPA	Second Set Annotated Comments and Changes to the Phase I Remedial Action Final Report: Volume 1 of 2 (Text and Appendices A-C)	619
256	12/08/95	OHM Remediation Services	U.S. EPA	Second Set Annotated Comments and Changes to the Phase I Remedial Action Final Report: Volume 2 of 2 (Appeadices D, F-I)	B69
257	01/19/96	Boseman, A., U.S. EPA	Pisani, D., ENTACT, Inc	Letter re: U.S. EPA's Revised Comments an the November 9, 1995 "Preliminary Alternative Analysis Study"	9
258	01/25/96	Howe, T., et al.; U.S. Army Corps of Engineers	Boseman, A., U.S. EPA	Memorandum re: Position Paper for the United Scrap Lead Vadose Zone Modelling	17
259	02/00/96	Sverdrup Environmen-tal, Inc	U.S. Army Corps of Engineers/U.S. EPA	Groundwater Sampling Report	114
260	02/05/96	Hussey, G., U.S. Army Corps of Engineers/Omaha District	Boseman, A., U.S. EPA	Letter Fowarding Attached USACE January 26, 1996 Memorandum re: Position Paper for United Scrap Lead Vadose Zone Modeling w/Attachments	9

261	02/12/96	Burden, D., U.S. EPA/NRMRL	Boseman, A., U.S. EPA	Memorandum re: Computer Modeling Plan and Expected Results for the United Scrap Load Site	5
262	02/16/96	Barth, E., U.S. EPA	Boseman, A., U.S. EPA	FAX Transmission Forwarding Attached Drawing: Conceptual Approach for Alternative United Scrap Lead Site Remedy	2
263	02/20/96	Studer, M., ENTACT, Inc.	Boseman, A., U.S. EPA	Letter re: ENTACT's Response to U.S. EPA's January 19, 1996 Comments on the November 9, 1995 "Preliminary Alternative Analysis Study"	25
264	02/28/96	Pisani, D., ENTACT, Inc.	Boseman, A., U.S. EPA	Letter Forwardinq Attached References Concerning the Alternative Analysis Study	3
265	03/01/96	Boseman, A., U.S. EPA	Herring, G., U.S. Army Corps of Engineers	Letter re: Tasks to be Performed at the United Scrap Lead Site	2
266	03/07/96	Barth, E., U.S. EPA/NRMRL	Van Donsel, T., U.S. EPA	FAX Transsission Forwarding Memoranda Concerning NRMRL's Comments on Various Issues Concerning the United Scrap Lead Site	11
267	03/12/96	Barth, E., U.S. EPA/NRMRL/SMSB	Van Donsel, T., U.S. EPA	Memorandum re: SMSD's Response to ENTACT's January 19, 1996 Proposal and Comments	5
268	03/14/96	Youngstron, G., Ohio EPA	Boseman, A. and T. Van Donsel; U.S. EPA	FAX Transmission re: OEPA's General Comments on the ENTACT Proposal	4
269	03/20/96	Wilson, T., U.S. Army Corps of Engineers	Howe, T., U.S. Army Corps of Engineers	Memorandum re: Request from U.S. EPA for Additional Information Requirements from ENTACT	1
270	03/22/96	Howe, T., U.S. Army Corps of Engineers/ Omaha District	Van Donsel, T., U.S. EPA	FAX Transmission Forwarding Attached March 12, 1996 Cost Estimates for Remedial Action Alternatives for the United Scrap Lead Site	13
271	03/22/96	Howe, T., U.S. Army Corps of Engineers/ Omaha District	Van Donsel, T., U.S. EPA	Fax Transission re: USACE Comments on the ENTACT Proposal	3

272	03/26/96	Howe, T., U.S. Army Corps of Engineers	Van Donsel, T., U.S. EPA	FAX Transsission re: USACE Comments on U.S. EPA's Draft Letter to PRPs Concerning the ENTACT Proposal	5
273	03/29/96	Van Donsel, T., U.S. EPA	Cyphert, M.; Thompson, Hine & Flory	Letter re: Remedy for Casings and Contaminated Soil Above the Water Table	5
274	05/07/96	ENTACT, Inc.	U.S. EPA	Alternative Analysis Study at the United Scrap Lead Site	85
275	05/17/96	Slaughter, T., ENTACT, Inc.	Van Bonsel, T., U.S. EPA	FAX Transmision re: Residual Lead Concentrations Associated with the Battery Casing Debris at the United Scrap Lead Site	4
276	05/18/96	Floyd, D., ENTACT, Inc.	Van Bonsel, T., U.S. EPA	Letter Forwarding Attached Statistical Analysis for Data Generated from Boring Samples at the United Scrap Lead Site	4
277	05/30/96	Healy, T., ENTACT, Inc.	O'Grady, J., U.S. EPA	Letter Forwarding Attached Minutes from the May 14, 1996 United Scrap Lead Site Meeting	6
278	06/05/96	Schenk, K., U.S. Army, Corps of Engineers/Omaha District	Von Bonsel, T., U.S. EPA	Letter Forwarding Attached Cost Estimates for Two Remedial Alternatives Proposed for the United Scrap Lead Site	7
279	06/12/96	Schenk, K., U.S. Army Corps of Engineers/Omaha District	O'Grady, J., U.S. EPA	Letter Forwarding Attached Cost Estimates for Four Remedial Action Altenatives Proposed for the United Scrap Lead Site	11
280	06/26/96	Slaughter, T., ENTACT, Inc.	O'Grady, J., U.S. EPA	Letter re: Land Disposal Restriction Regulatory Requirements for the Battery Casing Debris at the United Scrap Lead Site	11
281	07/15/96	ENTACT, Inc.	O'Grady, J., U.S. EPA	FAX Transmission Forwarding Attached Chart: "Sites at which Stabilization and or Solidification of Battery Casing Debris was the Choose Remedy in Linu of Thermal Recovery in a Secondary Lead Smelter"	4

282	07/17/96	Youngstron, G., Ohio EPA	O'Grady, J., U.S. EPA	Letter re: Waste Characterization of Battery Casing Chips	1
283	07/22/96	O'Grady, J., U.S. EPA	Kleiman, J., U.S. EPA	Memorandum re: Classification of Chips from Lead Acid Battery Casings w/Attachments	14
284	08/01/96	Mead, H., U.S. Army Corps of Engineers/ Omaha District	O'Grady, J., U.S. EPA	FAX Transmission re: USACE Review of Land Disposal Restrictions at the United Scrap Lead Site	4
285	08/01/96	Slaughter, T., ENTACT, Inc.	O'Grady, J., U.S. EPA	Letter Forwarding Attached Notes from the July 18, 1996 United Scrap Lead Site Meeting	11
286	08/01/96	O'Grady, J., U.S. EPA	Kleiman, J., U.S. EPA	Memorandum re: Cap Issues at the United Scrap Lead Site	6
287	08/02/96	Slaughter, T., ENTACT, Inc.	O'Grady, J., U.S. EPA	Letter re: Summary of Issues from the July 31, 1996 Teleconference Concerning the Development of a Lead Action Level or Cleanup Standard for the United Scrap Lead Site	2
288	08/08/96	Bremer, K., U.S EPA/WMB	Garber, D., U.S. EPA/ORC	Memorandum re: RCRA Regulatory Determination for Plastic Chips from Lead Acid Battery Recycling	7
289	09/00/96	U.S. Army Corps of Engineers/Omaha District	U.S. EPA	Final Ground Water Sampling Technical Memorandum	121
290	09/16/96	McPheeters, C., Sevenson Environ mental Services, Inc.	O'Grady, J., U.S. EPA	Letter Forwarding Attached (1) Sevenson's Comments on the Proposed ROD Amendment; (2) Introductory Letter to the MAECTITE Chemical Treatment Process; and (3) Paper: "Lead and Other Heavy Metal Fixation in Soils and Solid Waste by We MAECTITE Process	41
291	09/16/96	0'Grady, J., U.S. EPA	File	Notes re: Applicability of the TCLP Test at the Uniited Scrap Lead Site (DRAFT FINAL SUBJECT TO REVISION)	3

292	09/17/96	Kleiman, J., U.S. EPA	O'Grady, J., U.S. EPA	Memorandum re: Cap Design at the United Scrap, Lead Site	1
293	09/19/96	ENTACT, Inc.	U.S. EPA	Risk Assessment for the United Scrap Lead Site	13
294	09/23/96	ENTACT, Inc.	O'Grady, J., U.S. EPA	FAX Transmission Forwarding Attached Cost Information re: (1) Excavation and Stabilization; (2) On Site Consolidation and Capping; (3)McKaig Ditch Investigation; and (4) Other Items	3
295	09/26/96	U.S. Army Corps of Engineers	U.S. EPA	Off Site Disposal Estimate for Off Site Treatment and Disposal for the United Scrap Load Site	5
296	10/03/96	O'Grady, J., U.S. EPA	File	Notes from the September 19, 1996 United Scrap Lead Site Meeting Concerning the Draft Proposed Plan for the Record of Decision Amendment for Final Remedial Action	10
297	11/12/96	O'Grady, J., U.S. EPA	Youngstrom, G., Ohio EPA and GHerring, USACE	Fax Transmission Forwarding Excerpts from the February 1988 Remedial Investigation Report Concernig Sediment Sampling	19
298	11/13/96	O'Grady, J., U.S. EPA	Herrim, G., U.S. Army Corps of Engineers	Fax Transmission Forwarding Excerpts from the November 1991 Pre Design Filed Investigation Report	16
299	12/13/96	O'Grady, J., U.S. EPA	File	Notes from the October 30, 1996 United Scrap Lead Site Meeting Concerning the Consent Decree and Statemet of Work (FINAL)	20
300	01/00/97	U.S. EPA/OPA	Public	Fact Sheet: "Proposed Plan Summary for the United Scrap Lead Site"	8
301	01/00/97	U.S. EPA	Public	Fact Sheet: "Proposed Plan for Record of Decision Amendment for Final Remedial Action at United Scrap Lead Superfund Site"	22
302	01/00/97	U.S. Army Corps of Engineers/Omaha District	U.S. EPA	Supplement to the Alternative Analysis Study for the United Scrap Lead Superfund Site	24

GUIDANCE ADDENDA TO THE COMBINED ADMINISTRATIVE RECORD

UNITED SCRAP LEAD SITE
TROY, OHIO

I. Compendium of CERCLA Response Selection Guidance Documents

II. Guidance Addendum to the Combined Administrative Record

III. U.S. EPA/Region 5 OSWER Directive Compendium

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DOC#	DATE	AUTHOR	RECIPIENT	TITLE/DESCRIPTION	PAGES
1	00/00/00	Chaney, R., USDA; et al.		"The Potential for Heavy Metal Exposure From Urban Gardens and Soils" (USDA/Agricultural Research Service)	46
2	00/00/00	Lutz, P., et al.		Abstract: "Immunity in Children With Exposure to Environmental Lead: IEffects on Cell Numbers and Cell-Mediated Inmunity" (DRAFT)	21
3	00/00/00	Angle, C.		Abstract: "Kinetics of Childhood Lead: The Omaha Duplicate Diet Study"	5
4	00/00/00	Various		Abstracts From "Medicine/Lead" (Listing of Lead Studies)	10
5	00/00/00	Bornschein, R., et al.		Article: "Soil Lead Blood Lead Relationship in a Former Lead Mining Town"	12
6	00/00/00	Watt. T., et al.		Excerpt form Journal Article: "Lead Contamination of U.K. Dusts and Soils and Implications for Childhood Exposure: An Overview of the Work of the Environmental Geochemistry Research Group" (Imperial College of London)	1
7	00/00/00			Excerpt "Lead and Compounds" (Integrated Risk Information System)	10
8	00/00/00	Maddaloni, M., et al.		Paper: "Bioavailability of Soil Borne Lead in Adults by Stable Isotope Dilution"	17
9	00/00/00	Bornschein, R.		Paper: "Nueurobehavioral Effect of Lead: A Summary Review of Cross Sectionial and Longitudinal Studies"	15

10	00/00/00	Rock, S., U.S. EPA/NRMRL	U.S. EPA	Paper: "Phytoremediation"	11
11	00/00/00	National Academy of Sciences		Publication: "Measuring Lead Exposure in Infants, Children, and Other Sensitive Populations" (National Academy Press)	0
12	00/00/00	USDC/NOAA		Technical Memorandum: "The Potential for Biological Effects of Sediment Sorbed Contaminants Tested in the National Status and Trends Programs" (NOS OMA 52)	235
13	05/00/61	Kehoe, R.		Lecture: "The Metabolism of Lead in Man in Health and Disease" (Harbin Lectures: 1960)	21
14	05/00/74	Rosen, J., et al.		Journal Article: "Significance of Plasma Lead Levels in Normal and Lead Intoxicated Children (Environmental Health Prospectives)	6
15	00/00/75	Barry, P.		Journal Article: "A Comparison of Concentrations of Lead in Human Tissues" (British Journal of Industrial Medicine)	22
16	01/00/76	Barry, P.		Journal Article: "Complete Set of Data in Support of "A Comparison of Concentrations of Lead in Human Tissues" (British Journal of Industrial Medicine)	35
17	00/00/77	Barry, P., et al.		Journal Article: "Lead Concentrations in Human Tissues" (British Journal of Industrial Medicine)	13
18	08/00/77	Yankel, A., et al.		Journal Article: "The Silver Valley Lead Study: The Relationship Betwen Childhood Blood Lead Levels and Environmental Exposure (Journal of the Air Pollution Control Association)	5
19	08/00/77	Danstra, T.		Journal Article: "Toxicological Properties of Lead" (Environmental Health Perspectives)	11

20	00/00/77	Ziegler, E., et al.	Journal Article: "Absorption and Retention of Lead by Infants" (Pediat. Res.)	6
21	00/00/79	Barltrop, D., et al.	Journal Article: "Effect of Particle Size on Lead Absorption" (Arch. Environ. Health)	5
22	00/00/80	Keller, C. and R. Doherty	Journal Article: "Bone Lead Mobilization in Lactating Mice and Lead Transfer to Suckling Offspring" (Toxicology and Applied Pharmacology)	9
23	04/00/80	Needleman, H.	Journal Article: "Lead Exposure and Human Health: Recent Data on aft Ancient Problem (Technology Review)	4
24	00/00/81	Barry, P.	Journal Article: "Additional Set of Data in Support of "Concentrations of Lead in the Tissue of Children" (British Journal of Industrial Medicine)	8
25	00/00/81	Barry, P	Journal Article: "Concentrations of Lead in the Tissues of Children" (British Journal of Industrial Medicine)	11
26	00/00/81	Needleman, H., et al.	Journal Article: "The Health Effects of Low Level Exposure to Lead" (Annual Review of Public Health"	20
27	00/00/82	Needleman, H.	Journal Article: "The Neurobehavioral Consequences of Low Lead Exposure in Childhood" (Neurobehavioral Toxicology and Teratology)	4
28	00/00/82	Stark, A., et al.	Journal Article: "The Relationship of Environmental Lead to Blood Lead Levels in Children (Environmental Research)	12
29	09/02/82	Mahaffey, K., et al.	Journal Article: "National Estimates of Blood Lead Levels: United States, 1976-1980" (New England Journal of Medicine)	7

30	12/00/82	Freedberg, L.	Journal Article: "Lead Laden Freeway Parts Hazardous to Kids" (Neighborhood Works)	4
31	00/00/83	Kneip, T., et al.	Journal Article: "Biokinetic Modeling for Mammalian Lead Metabolism" (Neurotoxicology)	3
32	00/00/83	Needleman, H.	Journal Article: "Lead at Low Dose and the Behavior of Children" (Acta Psychiat Scand.)	12
33	09/00/83	Ryu, J., et al.	Journal Article: "Dietary Intake of Lead and Blood Lead Concentration in Early Infancy" (An J Dis Child)	6
34	12/00/83	Mielke, H., et al.	Journal Article: "Lead Concentrations in Inner City Soils as a Factor in the Child Lead Problem" (American Journal of Public Health)	4
35	12/00/83	Mahaffey, K.	Journal Article: "Sources of Lead in the Urban Environment" (American Journal of Public Health)	1
36	00/00/84	Angle, C., et al.	Journal Article: "Omaha Childhood Blood Lead and Environmental Lead: A Linear Total Exposure Model" (Environmental Research)	10
37	00/00/84	Brunekreef, B.	Journal Article: "The Relationship Between Air Lead and Blood Lead in Children: A Critical Review" (Sci. Total Environ.)	44
38	00/00/84	Rabinowitz, M., et al.	Journal Article: "Variability of Blood Lead Concentrations During Infancy" (Arch. Environ. Health)	3
39	06/08/84	Needleman, et al.	Journal Article: "The Relationship Between Prenatal Exposure to Lead and Congenital Anomalies" (Journal of the American Medical Association)	4

40	09/00/84	U.S. EPA	Health Effects Assessment for Lead	45
41	00/00/85	Clark, C.	Journal Article: "Condition and Type of Housing as an Indicator of Potential Environmental Lead Exposure and Pediatric Blood Lead Levels" (Environmental Research)	5
42	00/00/85	Quettee, S., et al.	Journal Article: "Evolution of Efficient Methods to Sample Lead Sources, Such as House and Hand Dust, in the Homes of Children" (Environmental Research)	10
43	00/00/85	Marcus, A.	Journal Article: "Multicompartment Kinetic Models for Lead: I. Done Diffusion Models for Long Term Retention" (Environmental Research)	18
44	00/00/85	Schroeder, S.	Journal Article: "Separating the Effects of Lead and Social Factors on IQ" (Environmental Research)	11
45	00/00/85	Bornschein, R., et al.	Journal Article: "The Cincinnati Prospective Study of Low Level Lead Exposure and Its Effects of Child Development: Protocol and Status Report" (Environmental Research)	14
46	00/00/85	Bornschein, R., et al.	Journal Article: "The Influence of Social and Environmental Factors on Dust Lead, Hand Lead, and Blood Lead Levels in Young Children" (Environmental Research)	10
47	01/00/85	Centers for Disease Control	Statement: "Preventing Lead Poisoning in Young Children"	82
48	04/00/85	Rabinowitz, et al.	Journal Article: "Home Refinishing, Lead Paint, and Infant Blood Lead Levels" (American Journal of Public Health)	2
49	10/00/85	Rabinowitz, K., et al.	Journal Article: "Lead in Milk and Infant Blood: A Dose Response Model" (Archives of Enviromental Health)	4

50	00/00/86	U.S. EPA	Air Quality Criteria for Lead: Volumes 2, 3, and 4	0
51	00/00/86	Koh, T., et al.	Journal Article: "A Comparison of Blood Levels in Dogs from Lead Mining, Lead Smelting, Urban, and Rural Island Environment (Aust. Vet. J.)	3
52	00/00/86	Craswell, P., et al.	Journal Article: "Chronic Lead Nephropathy in Queensland: Alternative Methods of Diagnosis" (Australian/New Zealand Journal of Medicine)	7
53	00/00/86	Bornschein, R., et al.	Journal Article: "Exterior Surface Dust Lead, Interior House Dust Lead, and Childhood Lead Exposure in an Urban Environment" (Environmental Health)	0
54	00/00/86	Bellinger, et al.	Journal Article: "Low Level Lead Exposure and Infant Developmet in the First Year" (Neurobehavioral Toxicology and Teratology)	11
55	00/00/86	Rabinowitz, M., et al.	Journal Article: "Occurrence of Elevated Protoporphyr Levels in Relation to Lead Burden in Infants" (Environmental Research)	5
56	05/00/86	Hamir, A., et al.	Journal Article: "Time Required for Elevated Blood Lead Concentrations to Return to Normal in Dogs" (Australian Veterinary Journal)	2
57	06/00/86	Bornschein, et al.	Paper: "Exterior Surface Dust Lead, Interior Dust Lead and Childhood Lead Exposure in an Urban Environment" (Trace Metals in Environment Health Conference)	13
58	06/06/86	Bellinger, D., et al.	Journal Article: "Correlates of Low Level Lead Exposure in Urban Children at 2 Years of Age" (Pediatrics)	8
59	00/00/87	Bornschein, R., et al.	Journal Article: "Exterior Surface Dust Lead, Interior House Dust Lead, and Childhood Lead Exposure in in Urban Environment" (Environ. Health)	10

60	00/00/87	Needleman, H.	Journal Article: "Introduction Biomarkers in Neurodevelopmetal Toxicology" (Environmental Health Perspectives)	4
61	00/00/87	Schutz, A., et al.	Journal Article: "Kinetics of Lead in Blood After the End of Occupational Exposure" (Scand J Work Environ Health)	10
62	00/00/87	Needleman, H.	Journal Article: "Low Level Lead Exposure in the Fetus and Young Child" (Neurotoxicology)	5
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9010.1	11/25/85	Follow-up to Quarterly Waste Mgmt Directors Meeting
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9200.3-05	08/10/93	Clarification of FY'93 Superfund Program Management Manual Definitions
9200.3-07	12/27/88	Preparation of the 2nd Quarter Proactive Memo
9200.3-08	12/11/89	Flexible Funding In the Regional, Extramural Operating Plan -- Superfund Management Review, Recommendation #10
9200.3-09	12/19/89	Establishing a Construction pipeline
9200.3-10	08/01/90	In-House Remedial Investigation & Feasibility Study (RIFS) Initiative SupeRfund Management Review: Recommendation 45.B.2)
9200.3-11	12/27/90	Final Policy on Setting RIFS Priorities
9200.3-14-1	10/01/93	Superfund Program Implementation Manual FY 1994 Vol. I & II

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9200.3-14-2	04/01/94	Superfund Program Management Manual FY'94
9200.3-17	09/21/94	Integration of Environmental Justice Into OSWER Policy, Guidance, & Regulatory Development
5200.3-18/-18FS	05/01/95	Environmental Justice Action Agenda
9200.3-19/-19FS	05/01/95	Waste Programs Environmental Justice Accomplishments Report
9200.3-20	05/01/95	Waste Programs Environmental Justice Accomplishments Report Executive Summary
9200.3-23FS	09/01/96	The Role of Cost In the Superfund Remedy Selection Process
9200.4-00(a)	03/31/89	Staff Responsibilities for Managing OERR Documents
9200.4-02-2	04/01/90	OERR Publications Standards Toolbox.
9300.4-05	09/30/96	Pre-CERCLIS Screening Guidance
9200.4-06A	02/22/90	Uniform Format for OERR Policy/Directive Memos - Revised Instructions
9200.4-07	03/02/90	Coordination of Quick Reference Fact Sheets 90-Day Study - #31A
9200.4-1	02/09/87	Guidelines for Producing Superfund Documents
9200.4-14	01/19/95	Consistent Implementation of the FY 1993 Guidance on Technical Impracticability of Ground-Water Restoration at Superfund Sites
9200.4-15	07/31/96	Reducing Federal Oversight at Superfund Sites with Cooperative and Capable Parties
9200.5-006	11/01/90	Superfund: Environmental Progress
9200.5-13	10/01/94	The Environmental Response Center
9200.5-1151	02/01/91	Update on Implementation of the Oil Pollution Act of 1990
9200.5-154	01/01/95	Inland Area Contingency Plan Region 5
9200.5-162	12/01/95	Presumptive Remedies for Soils, Sediments, & Sludges at Wood Treater Sites
9200.5-2151	06/01/90	Superfund Design & Construction Update Vol. 4, No. 3
9200.5-2151	10/01/90	Superfund Design & Construction Update Vol. 4, No. 4
9200.5-2161	04/01/90	Superfund Records of Decision Update Vol. 5, No. 4
9200.5-2161	05/01/90	Superfund Records of Decision Update Vol. 5, No. 5
9200.5-2161	09/01/90	Superfund Records of Decision Update Vol. 5, No. 7
9200.5-2161	12/01/90	Superfund Records of Decision Update Vol. 6, No. 1
9200.5-2161	06/01/91	Superfund Records of Decision Update Vol. 6, No. 2
9200.5-2161	07/01/91	Superfund Records of Decision Update Vol. 6, No. 3
9200.5-251FS	11/01/89	Innovative Technology - In-Situ Vitrification
9200.5-253FS	11/01/89	Innovative Technology - Best Solvent Extraction Process
9200.5-254FS	11/01/89	Innovative Technology - Glycolate Dehalogenation

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9200.5-321FS	04/01/90	Contact Laboratory Program Analytical Results Database (CARD)
9200.5-4011	12/01/90	CORAS Bulletin, Vol. 1, No. 10
9200.5-402A	05/01/92	Contracting & Subcontracting Guide to the Superfund Program
9200.5-723	09/01/90	National Priorities List (NPL) Sites: Michigan
9200.5-748	09/01/90	National Priorities List (NPL) Sites: Wisconsin
9200.6-02	04/01/88	National Priorities List (NPL) Docket Guidance
9200.6-041	10/01/92	Directory of Superfund Rulemaking Dockets, Vol. 1, No. 1
9200.6-303(95-1)	05/01/95	Health Effects Assessment Summary Tables
9200.7-01(a)	02/10/89	Superfund Program Directives, Issued from 8/1/88 through 1/31/89
9200.7-01(b)	03/13/89	Superfund Program Directives, Issued During February 1989
9200.7-01(abc)	03/31/89	Catalog supplement: Ordering Information & Catalog Addendum through March 1989
9200.7-01-1	05/01/89	Interim Report Superfund Publications System
9200.7-021	08/01/92	Superfund & Enforcement Program Publications Update, Vol. 1, No. 1
9200.7-021	03/01/94	Superfund & Enforcement Program Publications Update, Vol. 1, No. 5
9200.9-02	07/28/93	Procedures to Ensure that CLP Laboratories Are Not Paid for Non-complaint or Unusable Data
9200.9-02	02/05/96	Procedures to Ensure that CLP Laboratories Are Not Paid for Non-complaint or Unusable Data: First Quarter FY 96
9201.1-01 (*)	11/27/91	Implementation of the Superfund Alternative Remedial Contracting Strategy (ARCS): Report of the Administrator's Task Force
9201.01A	06/01/89	A Management Review of the Superfund Program
9202.1-04	05/22/92	Identification of a Senior Superfund Official for Addressing Special NPL Site-Related Issues
9202.1-05 (*)	07/07/92	Required Contracts Management Training for Regional Superfund Personnel
9202.1-06 (*)	09/04/92	Initiative to Streamline the Alternative Remedial Contracting Strategy (ARCS) Contracts' Award Fee Process
9202.1-09	02/11/93	Guidance on Program Management Activities Under ARCS
9202.1-10-1	03/01/93	Compendium of Good Ideas, Models of Success & Lessons Learned, Vol. 1, Highlights
9202.1-10-2	03/01/93	Compendium of Good Ideas, Models of Success & Lessons Learned, Vol. 2, Source Book
9202.1-12	07/29/93	Guidance on Preparing Independent Government Cost Estimates (IGCEs)
9202.1-14	02/02/93	Current National Superfund Program Priorities
9202.1-20	03/01/94	Lost Management Manual for the Superfund Remedial & Enforcement Programs

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9203.0-06	06/04/90	Superfund Responsiveness Summaries (Superfund Management Review: Recommendation #43E)
9203.1-01	04/07/92	Superfund Accelerated Cleanup Model (SACM)
9203.1-03	07/07/92	Guidance on Implementation of the Superfund Accelerated Cleanup Model (SACM) Under CERCLA & the NCP
9203.1-03A	10/26/92	Exercising Flexibility Through the Superfund Accelerated Cleanup Model (SACM)
9203.1-03/SUP	08/22/94	Guidance on Accelerating CERCLA Environmental Restoration at Federal Facilities
9203.1-051	12/01/92	Status of Key SACM Program Management Issues - Interim Guidance, Vol. 1, No. 1
9203.1-051	12/01/92	Enforcement Under SACM - Interim Guidance, Vol. 1, No. 3
9203.1-08	04/27/93	Further Direction on Implementing the Superfund Accelerated Cleanup Model (SACM)
9203.1-10	07/12/93	Superfund Accelerated Cleanup Model (SACM) -- Transmittal of Questions & Answers Bulletin & Issue Submittal Form
9203.1-10FS	07/01/93	Superfund Accelerated Cleanup Model (SACM) -- Questions & Answers
9203.1-11	09/14/93	Superfund Accelerated Cleanup Model (SACM) -- Coordination Strategy
9203.1-13	01/28/94	Expectations for Full Implementation of SACM
9203.1-14	03/08/94	Update on SACM Implementation
9204.1-01	04/20/92	Establishment of OERR Records Management Program
9208.0-10	11/06/90	Guidance on Alternative Dispute Resolution in Enforcement Actions
9208.0-11	05/01/93	Enforcement Mediation - Status Report on The Use of Alternative Dispute Resolution In Environmental Protection Agency Enforcement Actions
9208.0-12	10/01/91	Superfund Enforcement Mediation - Regional Pilot Project Results
9208.0-13	04/01/92	Superfund Enforcement Mediation - Case Studies
9210.0-01	06/27/95	Transmittal of Guidance for Data Collection at State-lead NPL Sites
9221.0-02A	05/30/90	CERCLIS Data Handling Support Policy Statement
9221.0-1	03/04/86	Data Handling Support for CERCLIS
9221.0-2	03/31/86	CERCLIS Data Handling Support Policy Statement
9221.2-01FS	04/01/91	CERCLIS - WasteLAN - CleanLAN
9223.0-1A	11/01/85	Chemical Emergency Preparedness Program (Interim Guidance)
9225.0-02	04/25/84	Forwarding Claims to Headquarters
9225.0-3	11/25/85	Notification of Restrictions on Reimbursement of Private Party Costs for Removal Actions
9225.1-01	04/19/89	Procurement Under Preauthorization/Mixed Funding OSWER Directive 9225.1-01
9225.3-01FS	11/01/89	Reimbursement to Local Governments for Emergency Response to Hazardous Substance Releases

DIRECTIVE #	DATE	TITLE
9225.3-01FS-A	10/01/92	Reimbursement to Local Governments for Emergency Response to Hazardous Substance Releases
9230.0-02	05/09/83	Superfund Community Relations Policy
9230.0-03	09/01/83	Community Relations in Superfund: A Handbook - Interim Version
9230.0-3a	03/22/86	Community Relations Activities at Superfund Enforcement Sites -- Interim Guidance
9230.0-3A	05/05/86	Community Relations in Superfund: A Handbook - Revised
9230.0-3B	06/01/88	Community Relations in Superfund: A Handbook - Interim Version
9230.0-03C	01/01/92	Community Relations in Superfund: A Handbook
9230.0-04	10/17/83	Community Relations Guidance for Evaluating Citizens Concerns at Superfund Sites
9230.0-05	10/02/85	Community Relations Requirements for Operable Units
9230.0-06	06/04/90	Superfund Responsiveness Summaries
9230.0-08	03/07/90	Planning for Sufficient Community Relations
9230.0-09	08/31/90	Community Relations: Use of Senior Environmental Employees in Superfund
9230.0-13	12/19/90	Minimizing Problems Caused by Staff Turnover
9230.0-15	06/15/90	Role of Community Interviews in the Development of a Community Relations Program for Remedial Response
9230.0-16	11/05/90	Making Superfund Documents Available to the Public Throughout the Cleanup Process, & Discussing Site Findings & Decisions as They are Developed
9230.0-17	09/28/90	Using State & Local Officials to Assist In Community Relations
9230.0-18	01/21/91	Incorporating Citizen Concerns Into Superfund Decision-making
9230.0-19	09/18/90	Proposed Method to Evaluate the Effectiveness of Community Involvement in Superfund
9230.0-20	11/30/90	Innovative Methods to Increase Public Involvement in Superfund Community Relations
9230.1-01	03/20/87	Interim Guidance on Technical Assistance Grants
9230.1-02	01/11/88	Technical Assistance Grants Program Activities Prior to the Issuance of the Interim Final Rule
9230.1-03	06/01/88	Citizens' Guidance Manuel for the Technical Assistance Grant Program
9230.1-04	06/01/88	Superfund Technical Assistance Grants Program - Regional Guidance Manual
9230.1-06	01/31/90	Technical Assistance Grants: Waivers of $50.000 Cap & Grant Amendments
9230.1-10FS	03/01/95	Technical Assistance Grant (TAG) Audits
9230.2-01	09/28/88	OERR Communications Planning Process
9230.2-02	09/26/88	Peer Review and Approval of Abstracts and Papers
9234.0-02	10/02/85	CERCLA Compliance with Other Environmental Statutes

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9234.0-4	08/19/86	Consideration of RCRA Requirements in Performing CERCLA Responses at Mining Waste Sites
9234.0-05	07/09/87	Interim Guidance on Compliance with Applicable or Relevant and Appropriate Requirements
9234.1-01	08/08/88	CERCLA Compliance with Other Laws Manual
9234.1-02	11/01/87	CERCLA Compliance with Other Laws Manual (DRAFT): Clean Air Act & Other Environmental Statutes
9234.1-03	03/13/89	Regional ARARs and LDR Contacts
9234.1-06	12/27/89	Applicability of Land Disposal Restrictions to RCRA & CERCLA Ground Water Treatment Reinjection (Superfund Management Review: Recommendation No. 26)
9234.2-01FS	05/01/89	ARARs Q's & A's
9234.2-01FS-A	07/01/91	ARARs Q's & A's: General Policy, RCRA, CWA, SDWA, Post-ROD Information, & Contingent Waivers
9234.2-02FS	09/01/89	CERCLA Compliance with Other Laws Manual - Guide to Manual
9234.2-03FS	12/01/89	CERCLA Compliance with Other Laws Manual - Overview of ARARs Focus on ARAR Waivers
9234.2-04FS	10/01/89	CERCLA Compliance with Other Laws Manual - RCRA ARARs: Focus on Closure Requirements
9234.2-05FS	12/01/89	CERCLA Compliance with Other Laws Manual - CERCLA Compliance with State Requirements
9234.2-06FS	02/05/90	ARARs Fact Sheet Entitled "CERCLA Compliance with the CWA & SDWA"
9234.2-07FS	04/01/90	CERCLA Compliance with Other Laws Manual - Summary of Part II CAA, TSCA, and Other Statutes
9234.2-08FS	05/01/90	ARARs Q's & A's Compliance with the Toxicity Characteristics Rule: Part I
9234.2-09FS	05/01/90	ARARs Q's & A's Compliance with Federal Water Quality Criteria
9234.2-10FS	07/01/90	ARARs Publications Reference Sheet DRAFT
9234.2-11FS	07/01/90	ARARs Q's & A's: State Ground-Water Antidegradation Issues
9234.2-15FS	07/01/91	ARARs Q's & A's: Compliance with New SDWA National Primary Drinking Water Regulations (Phase II)
9234.2-25	10/04/93	Guidance for Evaluating the Technical Impracticability of Ground-Water Restoration (Interim Final)
9234.3-001	07/01/90	ARARs Short Guidance Quarterly Report
9240.0-1	10/01/84	User's Guide to the Contract Laboratory Program
9240.0-2	03/20/86	Analytical Support for Superfund
9240.0-02A	11/20/90	Further Guidance on OSWER Directive 9242.0-02 Analytical Support for Superfund
9240.0-02B	07/06/92	Extending the Tracking of Analytical Services to Potentially Responsible Party-Lead

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		Superfund Sites (Supplemental Guidance on OSWER Directive 9240.0-2A)
9240.0-03	08/18/88	Superfund Analytical Review & Oversight
9240.0-05	09/01/89	Decentralization of Superfund Bottle Repository Functions
9240.0-05A	03/08/93	Updated "Specifications & Guidance for Obtaining Contaminant-Free Sample Containers" April 1992 & Designated as OSWER Directive 9240.0-05A
9240.0-25	01/19/93	Reassignment of CLP Transportation Functions
9240.1-05-1	03/17/94	USEPA, Contract Laboratory Program National Functional Guidelines for Inorganic Data Review (FINAL)
9242.2-01B	10-01-87	Emergency Response Cleanup Services Contracts (ERCs) User's Manual
9242.2-02	05/10/89	Site-Specific Contracting for Removals
9242.2-03 (*)	11/29/91	Administrative Guidance for the FIT to ARCS (FIT/ARCS)
9242.2-05 (*)	01/22/92	Implementation of ARCS Task Force Plan Recommendations
9242.2-06	01/31/92	Superfund Contracts Management Issues
9242.2-06a	08/05/92	Resources for Preparing Independent Government Estimates for Remedial Contracting Work Assignments
9242.2-08FS	05-01-93	Superfund Response Action Contracts
9242.2-1A	06/01/86	Emergency Response Cleanup Services (ERCS) Contracts Users' Manual
9242.3-03	07/06/84	Procedures for Initiating Remedial Response
9242.3-05	07/25/84	Rem II Contract Award Fee Performance Evaluation
9242.3-06	08/25/86	Management of Files from REM/FIT Contract Closeout
9242.3-07 (*)	03/09/87	Implementation of the Decentralized Contractor Performance Evaluation and Award Fee Process for Selected Remedial Program Contracts
9242.3-08	12/10/91	Revision of Policy Regarding Superfund Project Assignment Between Alternative Remedial Contracting Strategy Contractors & the U.S. Army Corps of Engineers
9242.3-08A	06/08/95	Clarification of Policy Regarding Work Assignments to the U.S. Army Corps of Engineers (USACE)
9242.3-09 (*)	07/29/92	Use of Time & Materials & Cost Reimbursement Subcontracts for Remedial Actions Under the Alternative Remedial Contracting Strategy
9242.3-10 (*)	03/16/92	Congressional Limits for FY'92 Alternative Remedial contracting Strategy (ARCS) Program Management Costs

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9242.4-01A	07/01/87	Technical Assistance Team (TAT) Contracts Users' Manual
9242.5-02	09/26/88	Model Performance Standards for Superfund Project Officers, Deputy Project Officers, and Work Assignment Managers/Delivery Order Officers
9242.5-02A	12/13/90	Model Performance Standards for Superfund Project Officers, Deputy Project Officers, and Work Assignment Managers/Delivery Order Officers
9242.6-01 (*)	05/01/89	ARCS Work Assignment Management - Field Guide
9242.6-02	01/03/89	Guidance for Organizing ARCS Contract Files
9242.6-03	08/09/89	Need for Contract Officers Authorization Before Contractor Activation
9242.6-04	10/31/89	OERR Organizational Conflict of Interest Review and Approval Program (Superfund Management Review: Recommendation #46.C)
9242.6-06	03/28/90	Quality Assurance Review for Extramural Projects: Environmental Measurements
9242.6-07	08/31/90	Long Term Contracting Strategy for Superfund (Superfund Management Review: Recommendation E.2)
9242.6-08	12/05/90	Total Quality Management (TOM) and quality Assurance (QA) in Superfund
9242.6-09	12/17/90	Long-Term Contracting Strategy for Superfund--Implementation Framework
9242.6-13	09/08/92	Performance Tracking Under ARCS Contracts
9242.6-16FS	06/01/95	Long-Term Contracting Strategy for Superfund--Implementation Update
9250.1-01	03/03/83	Policy On Cost-Sharing At Publicly-Owned Sites
9250.2-01	05/05/83	Policy On Cost-Sharing of Immediate Removals at Publicly-Owned Sites
9250.3-01	05/13/83	Waiver of 10 Percent Cost-Share for Remedial Planning Activities at Privately-Owned Sites
9250.3-02	06/03/83	Guidance an Implementing Waiver of 10 Percent Cost-Share for Remedial Planning
9260.1-09	03/24/86	Delegation of Remedy Selection to Regions (Under Delegation #14-5)
9260.2-00	04/01/84	Delegations of Authority Under the Comprehensive Environmental Response, Compensation, & Liability Act (CERCLA)
9260.3-00	04/16/84	Delegations of Authority Under the Federal Water Pollution Control Act (FWPCA) Which are Applicable to the Superfund Program
9260.5-01	05/25/88	Redelegation of Authority Under CERCLA & SARA
9260.5-02	09/24/87	Superfund Internal Delegations of Authority
9260.5-02A	04/01/90	Superfund Internal Delegations of Authority
9272.0-01	04/02/84	Implementation of CERCLA Strategy at Federal Facilities
9272.0-2	12/03/84	Initial Guidance on Federal Facilities CERCLA Sites

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9272.0-03	08/19/85	Responsibilities for Federal Facilities
9272.0-04	08/19/85	Federal Facilities
9272.0-05	08/26/85	Responsibilities for Federal Facilities
9275.1-01	07/31/84	Removal Financial Management Instructions
9275.2-01	09/21/84	Remedial Financial Management Instructions
9280.0-02 (*)	08/06/85	Policy on Flood Plans and Wetlands Assessments
9280.0-03	05/09/94	Considering Wetlands at CERCLA Sites
9283.1-01	03/24/86	Recommendations for Ground Water Remediation at the Millcreek, PA Site
9283.1-02	12/01/88	Guidance on Remedial Action for Contaminated Groundwater at Superfund Sites
9283.1-03	10/10/90	Suggested ROD Language for Various Ground Water Remediation Options
9283.1-04	10/01/90	Subsurface Contamination Reference Guide
9283.1-06	05/27/92	Considerations in Ground-Water Remediation at Superfund Sites and RCRA Facilities -- Update
9285.0-01	08/16/88	OSWER Integrated Health and Safety Policy (Renumbered, Formerly 9010.15)
9285.0-01	02/19/93	OSWER Integrated Health and Safety Standard Operating Practices
9285.0-01B	11/84/84	Standard Operating Safety Guide Manual
9285.1-02	07/05/88	Standard Operating Safety Guides
9285.1-03	06/01/92	Standard Operating Safety Guides
9285.2-01	01/01/85	Field Standard Operating Procedures Manual: FSOP #4 Site Entry
9285.2-02	01/01/85	Field Standard Operating Procedures Manual: FSOP #7 Decontamination of Response Personnel
9285.2-03	01/01/85	Field Standard Operating Procedures Manual: FSOP #8 Air Surveillance
9285.2-04	04/01/85	Field Standard Operating Procedures Manual: FSOP #6 Work Zones
9285.2-05	04/01/85	Field Standard Operating Procedures Manual: FSOP #9 Site Safety Plan
9285.2-06FS	04/01/91	Establishing Work Zones at Uncontrolled Hazardous Waste Sites
9285.2,07FS	04/01/91	Hazardous Waste Operations and Emergency Response: RCRA TSD and Emergency Response without Regard to Location
9285.2-08FS	04/01/91	Hazardous Waste Operations and Emergency Response: Uncontrolled Hazardous Waste Sites and RCRA Corrective Actions
9285.3-01	03/15/84	Occupational Safety & Health Technical Assistance and Enforcement Guidelines for Superfund Hazardous Waste Site Activities
9285.3-02	07/07/87	Employee Occupational Health & Safety

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9285.3-05	05/22/90	Hazmat Team Planning
9285.3-06	03/01/90	Priority for Health & Safety Requirements, Especially Medical Surveillance Requirements for EPA Employees Who Support OSWER Programs
9285.4-01	10/01/86	Superfund Public Health Evaluation Manual
9285.4-02	03/11/87	Guidance for Coordinating ATSDR Health Assessment Activities with the Superfund Remedial Process
9285.4-03	04/07/88	Health Assessments by ATSDR in FY'88
9285.4-06	11/21/91	ATSDR Health Consultations Under CERCLA
9285.4-1	11/16/87	Updated Reference Dose & Cancer Potency Numbers for Use in Risk Assessments
9285.5-1	01/14/86	DRAFT Superfund Exposure Assessment Manual
9285.6-03	03/25/91	Human Health Evaluation Manual, Supplemental Guidance: "Standard Default Exposure Factors"
9285.6-04FS	03/01/94	Emergency Responders Agreements for Fund-Lead Remedial Actions
9285.6-1	12/17/86	Superfund Risk Assessment Information Directory
9285.7-01	03/01/89	Risk Assessment Guidance for Superfund -- Environmental Evaluation Manual (EPA/540/1-89/001A)
9285.7-02	03/01/89	Risk Assessment Guidance for Superfund -- Environmental Evaluation Manual, Vol. II, Interim Final (EPA/540/1-89/001)
9285.7-01A	12/01/89	Risk Assessment Guidance for Superfund, Part A -- Health Evaluation Manual, Vol. I, Interim Final (EPA/540/1-89/002)
9285.7-01B	12/31/91	Risk Assessment Guidance for Superfund, Vol. I, Human Health Evaluation Manual, (Part B, Development of Risk-based Preliminary Remediation Goals, Interim)
9285.7-01C	12/01/91	Risk Assessment Guidance for Superfund, Vol. I, Human Health Evaluation Manual, (Part C, Risk Evaluation of Remedial Alternatives, Interim)
9285.7-05	10/01/90	Guidance for Data Useability in Risk Assessment (Interim Final)
9285.7-05FS	09/01/90	Guidance for Data Useability in Risk Assessment
9285.7-09A	04/01/92	Guidance for Data Useability in Risk Assessment (Part A), Final
9285.7-09AFS	05/01/92	Guidance for Data Useability in Risk Assessment (Part A), Final
9285.7-09B	05/01/92	Guidance for Data Useability in Risk Assessment (Part B), Final
9285.7-13	05/26/92	Implementing the Deputy Administrator's Risk Characterization Memorandum
9285.7-15-1	02/01/94	Guidance Manual for the Integrated Exposure Uptake Biokinetic Model for Lead in Children
9285.7-16	01/04/94	Guidance on Use of Integrated Risk Information System (IRIS) Values

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9285.7-17	08/12/94	Role of the Ecological Risk Assessment in the Baseline Risk Assessment
9285.9-01	02/03/89	Inauguration of the OSC/RPM Program
9285.9-02	05/01/89	OSC/RPM Support Program - Mentoring (Pilot, 3 attachments)
9285.9-03	06/01/89	Superfund University Training Institutes - Request for Workshop Attendees
9285.9-04	06/30/89	On-Scene Coordinator and Remedial Project Manager Special Recognition Awards
9285.9-05	09/29/89	Mandatory Training Requirements of OSCs and RPMs
9285.9-06	10/31/89	Mandatory Community Relations Training -- Superfund Management Review Implementation Product Recommendation: #43.P(i)
9285.9.07	11/01/89	Implementing the Mentoring Program for Newly-Hired OSCs/RPMs - Superfund Management Review Implementation Product (Recommendation #45B.1)
9295.0-02	05/07/92	Memorandum of Understanding (MOU) Between the NOAA and the USEPA Concerning the Notification and Coordination of Activities Pursuant to the CERCLA
9295.1-01	04/02/85	MOU Between ATSDR and EPA
9295.2-02	06/24/83	Joint Corps/EPA Guidance
9295.2-03	12/03/84	Interagency Agreement Between The U.S. Army Corps of Engineers & U.S. EPA In Executing P.L. 96.510 (CERCLA)
9295.2-04	03/21/90	EPA/U.S. Army Corps of Engineers Payment Process, Direct Cite/Revised Reimbursement Methods
9295.4-01	11/05/90	MOU Between ORD and OERR
9295.5-01	04/05/85	MOU Between FEMA and EPA for the Implementation of CERCLA Relocation Activities Under PL 96-510
9295.5-02	06/14/85	Implementation of EPA/FEMA MOU on CERCLA Relocations
9295.9-05	09/29/89	Mandatory Training Requirements for OSCs and RPMs
9318.0-05	04/13/87	Environmental Review Requirements for Removal Actions
9319.0-01FS	02/01/90	The Final National Contingency Plan: New Directions for Superfund
9320.1-01	02/02/82	Guidance for Establishing the National Priorities List
9320.1-02	06/28/82	Guidance for Establishing the National Priorities List
9320.1-03	05/17/83	Promulgation of the National Priorities List
9320.1-04	07/17/84	National Priorities List Categorization
9320.1-07	05/29/87	Interim Guidance for Consideration of ºs 105(g) and 125 of the Superfund Amendments and Reauthorization Act of 1986 Prior to NPL Proposal of Special Study Waste Sites

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9320.1-05	09/10/86	RCRA NPL Listing Policy
9320.1-09	08/21/86	Listing Municipal Landfills on the NPL
9320.1-11	04/30/93	Discussions with the Public Concerning NPL Listings
9320.2-03A	12/01/88	Procedures for Completion and Deletion of Sites from the NPL
9320.2-03B	12/29/89	Update to the "Procedures for Completion and Deletion of NPL Sites" Guidance Document Regarding the Performance of Five-Year Reviews
9320.2-03C	02/19/92	Update No. 2 to "Procedures for Completion and Deletion of NPL Sites"
9320.2-05	10/08/92	Amendment to Historical Definitions of NPL Deletion Start and Completion Dates
9320.2-06	06/21/93	NPL Construction Completion Definition at Bioremediation and Soil Vapor Extraction Sites
9320.2-07	08/26/93	Additional Guidance on "Worst Sites" and "NPL Caliber Sites" to Assist in SACM Implementation
9320.2-2	04/04/86	Completion and Deletion of NPL Sites
9320.3-01	05/12/83	Guidance for Updating the National Priorities List
9320.3-02	01/18/84	Instructions for Promulgating the National Priorities List Update
9320.3-03	05/23/84	Procedures for Updating the National Priorities List
9320.3-04	12/10/84	Guidance for Proposed NPL Update #3 - February 1985
9320.3-05	04/30/85	NPL' Information Update - Update #4
9320.3-06	09/17/85	Updating the National Priorities List: Update #6 Proposal
9320.3-08	02/05/90	CERCLIS Listing
9320.4-01	04/18/85	Interim Information Release Policy
9320.7-01FS	11/01/90	The Revised Hazard Ranking System: An Improved Tool for Screening Superfund Sites
9320.7-02FS	11/01/90	The Revised Hazard Ranking System: Qs and As
9320.7-04FS	11/01/90	Closing the NPL Book Under the Original HRS
9330.1-01	01/28/83	Requirements for Selecting an Off-Site Option in a Superfund Response Action
9330.1-2	12/03/86	Evaluation of Program and Enforcement-Lead RODs for Consistency with RCRA Land Disposal Restrictions
9330.2-01	05/06/85	Procedures for Planning and Implementing Off-site Response Actions
9330.2-04	04/15/86	Discharge of Wastewater from CERCLA Sites in POTWS
9330.2-05	05/12/86	CERCLA Off-site Policy: Providing Notice to Facilities
9330.2-07	09/14/89	Notification of Out-of-State Shipments of Superfund Site Wastes
9330.2-11	08/01/90	CERCLA Site Discharges to POTWS Treatability Manual

DIRECTIVE #	DATE	TITLE
9330.2-13FS	03/01/91	Guide to Discharging CERCLA Aqueous Wastes to Publicly Owned Treatment Works (POTWs)
9335.0-25A	02/08/89	Use of Removal Approaches to Speed Up Remedial Action Projects
9335.3-02FS-1	11/01/89	A Guide to Developing Superfund Records of Decision
9335.3-02FS-2	11/01/89	A Guide to Developing Superfund Proposed Plans
9340.1-01	03/20/84	Participation of Potentially Responsible Parties in Development of Remedial Investigations & Feasibility Studies Under CERCLA
9340.1-02	01/26/96	Revised Policy On Performance of Risk Assessments During Remedial Investigation /Feasibility Studies (RIFS) Conducted by Potentially Responsible Parties (PRPs)
9340.2-01	02/27/85	Preparation of Decision Documents for Approving Fund-Financed and Potentially Responsible Party Remedial Actions Under CERCLA
9345.0-01	01/01/88	Preliminary Assessment Guidance FY'88
9345.0-04	11/07/88	Policy Requiring Utiliztion of Brochure on Preliminary Assessment Petitions
9345.0-05I	05/01/92	ECO Update, Vol. 1, No. 4
9345.0-07	12/08/92	Standard Document for Remedial Site Assessment Decisions
9345.1-02	02/26/87	Expanded Site Inspection: Transitional Guidance for FY'88
9345.1-05	09/09/92	Guidance for Performing Site Inspections Under CERCLA
9345.1-08	12/26/91	Regional Quality Control Guidance for NPL Candidate Sites
9345.1-1	01/07/86	Comment on Draft Sampling Strategy to Support HRS Scoring
9345.1-15FS	08/24/93	Guidance on Conducting Site Inspection Prioritization Activities
9345.1-16	10/21/93	Integrating Removal and Remedial Site Assessment Investigations
9345.1-16FS	09/01/93	Integrating Removal and Remedial Site Assessment Investigations
9345.2-01	02/12/88	Pre-Remedial Strategy for Implementing SARA
9345.2-02	03/10/89	Regional Pre-remedial Program Objectives for FY'89 and First Quarter of FY'90
9345.3-01	01/30/89	Request for Designation of State Natural Resource Trustees
9345.3-03FS	04/01/92	Guide to Management of Investigation - Derived Wastes
9347.0-01	03/03/86	Interim RCRA/CERCLA Guidance on Non-Contiguous Sites and On-Site Management of Waste and Treatment Residue
9347.1-02	04/17/89	Policy for Superfund Compliance with the RCRA Land Disposal Restrictions Under RCRA
9347.2-01	06/05/89	Land Disposal Restrictions as Relevant and Appropriate Requirements for CERCLA Contaminated Soil and Debris
9347.3-01FS	07/01/89	Superfund LDR Guide #1: Overview of RCRA Land Disposal Restrictions (LDRs)

DIRECTIVE #	DATE	TITLE
9347.3-02FS	07/01/89	Superfund LDR Guide #2: Complying With the California List Restrictions Under Land Disposal Restrictions (LDRs)
9347.3-03FS	07/01/89	Superfund LDR Guide #3: Treatment Standards & Minimum Technology Requirements Under Land Restrictions Under Land Disposal Restrictions (LDRs)
9347.3-04FS	07/01/89	Superfund LDR Guide #4: Complying With the Hammer Restrictions Under Land Disposal Restrictions (LDRs)
9347.3-05FS	07/01/89	Superfund LDR Guide #5: Determining When Land Disposal Restrictions (LDRs) Are Applicable to CERCLA Response Actions
9347.3-06FS	07/01/89	Superfund LDR Guide #6A: Obtaining a Soil and Debris Treatability Variance for Remedial Actions
9347.3-06FS	09/01/90	Superfund LDR Guide #6A (2nd Edition): Obtaining a Soil and Debris Treatability Variance for Remedial Actions
9347.3-06BFS	09/01/90	Superfund LDR Guide #6B: Obtaining a Soil and Debris Treatability Variance for Remedial Actions
9347.3-07FS	12/01/89	Superfund LDR Guide #7: Determining When Land Disposal Restrictions (LDRs) are Relevant and Appropriate to CERCLA Response Actions
9347.3-08FS	10/01/90	Superfund LDR Guide #8: Compliance with Third Third Requirements under the LDRs
9347.3-09FS	09/01/90	A Guide to Delisting of RCRA Wastes for Superfund Remedial Responses
9347.3-10FS	04/01/91	Guide to Obtaining No Migration Variances for CERCLA Remedial Actions
9347.3-11FS	10/01/90	CERCLA Compliance with the RCRA Toxicity Characteristics (TC) Rule: Part II
9347.3-15	10/01/91	Compendium of CERCLA ARARs Fact Sheets and Directives
9355.0-3	07/16/82	Uncontrolled Hazardous Waste Site Ranking System - A Users Manual (HW-10)
9355.0-4A	06/01/86	Superfund Remedial Design and Remedial Action Guidance
9355.0-4B	06/01/95	Remedial Design/Remedial Handbook
9355.0-7A	10/17/86	Data Quality Objectives Development Guidance for Uncontrolled Hazardous Waste Site Remedial Response Activities (DRAFT)
9355.0-7B	03/01/87	Data Quality Objectives for Remedial Response Activities (Development Process)
9355.0-08	04/01/85	Modeling Remedial Actions at Uncontrolled Hazardous Waste Sites
9355.0-10	09/01/85	Remedial Action Costing Procedures Manual
9355.0-12	11/26/85	Suggested Actions to Keep Projects Moving During Funding Suspension
9355.0-14	12/01/87	A Compendium of Superfund Field Operations Methods

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9355.0-15	04/02/86	Third Quarter Superfund Strategy
9355.0-16	05/30/86	Superfund Slowdown
9355.0-17	07/03/86	Superfund Slowdown
9355.0-19	12/24/86	Interim Guidance on Superfund Selection of Remedy
9355.0-20	07/23/87	RIFS Improvements
9355.0-21	07/24/87	Additional Interim Guidance for FY'87 Records of Decision
9355.0-23	10/26/87	Interim Policy on Funding for Ground & Surface Water Restoration Actions
9355.0-24	12/28/87	OSWER Strategy for Management Oversight of the CERCLA Remedial Action Start Mandate
9355.0-24A (*)	12/22/92	The SARA "200" Remedial Action Starts Requirement
9355.0-25	12/09/88	Statement of Policy: Requirements for Using Removal Authorities for Speeding Up Remedial Projects
9355.0-25A (*)	07/06/89	Use of Removal Approaches to Speed Up Remedial Action Projects
9355.0-26	02/21/89	Advancing the Use of Treatment Technologies for Superfund Remedies
9355.0-27FS	04/01/90	A Guide to Selecting Superfund Remedial Actions
9355.0-28	06/15/89	Control of Air Emission from Superfund Air Strippers at Superfund Groundwater Sites
9355.0-29	08/13/90	Scoper's Notes, An RIFS Costing Guide
9355.0-30	04/22/91	Role of the Baseline Risk Assessment in Superfund Remedy Selection Decisions
9355.0-36	12/11/91	FY'92 Themes for Regional Coordination to Support Continuous Improvements of Superfund's Remedial Program
9355.0-38	05/01/92	Guide for Conducting Treatability Studies Under CERCLA - Chemical Dehalogenation
9355.0-38FS	05/01/92	Chemical Dehalogenation Treatability Studies under CERCLA: An Overview
9355.0-39FS	06/01/92	Remedial Action Report - Documentation for Operable Unit Completion
9355.0-43	03/01/95	Guidance for Scoping the Remedial Design
9355.0-47FS	09/01/93	Presumptive Remedies: Policy and Procedures
9355.0-48FS	09/01/93	Presumptive Remedies: Site Characterization and Technology Selection for CERCLA Sites With Volatile Organic Compounds in Soils
9355.0-49FS	09/01/93	Presumptive Remedies for CERCLA Municipal Landfill Sites
9355.0-58FS	06/01/95	Remedial Design/Remedial Action (RD/RA) Handbook
9355.1-02	09/01/87	The RPM Primer - An Introductory Guide to the Role and Responsibilities of the Superfund Remedial Project Manager
9355.1-1	01/27/86	Draft Federal-Lead Remedial Project Management Handbook

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9355.2-1	12/01/86	Superfund State-Lead Remedial Project Management
9355.3-01	10/01/88	Guidance for Conducting Remedial Investigations & Feasibility Studies Under CERCLA - Interim Final
9355.3-01FS1	11/01/89	Getting Ready Scoping The RIFS
9355.3-01FS2	11/01/89	The Remedial Investigation Site Characterization & Treatability Studies
9355.3-01FS3	11/01/89	The Feasibility Study: Development & Screening of Remedial Action Alternatives
9355.3-01FS4	03/01/90	The Feasibility Study: Detailed Analysis of Remedial Action Alternatives
9355.3-02	07/01/89	Interim Final Guidance on Preparing Superfund Decision Documents: The Proposed Plan, The Record of Decision, Explanation of Significant Differences, The Record of Decision Amendment
9355.3-02FS-3	04/01/91	Guide to Developing Superfund No Action, Interim Action, and Contingency Remedy RODs
9355.3-02FS-4	04/01/91	Guide to Addressing Pre-ROD and Post-ROD Changes
9355.3-03	02/01/88	Guidance Document for Providing Alternate Water Supplies
9355.3-05	04/25/88	RIFS Improvements Follow-up
9355.3-06	02/14/89	RI/FS Improvements Phase II, Streamlining Recommendations
9355.3-07	05/01/89	Result of FY 88 Record of Decision Analysis
9355.3-08	11/30/89	FY 90 Regional Coordination Plan and Themes for the Remedial Investigation/Feasibility Study and Selection of Remedy Process
9355.3-09	03/30/90	Result of FY 89 Record of Decision Analysis Superfund Management Review Implementation Product - Recommendation # 25A
9355.3-11	02/02/91	Conducting Remedial Investigations/Feasibility Studies for CERCLA Municipal Landfill Sites
9355.3-11FS	09/01/90	Streamlining the RI/FS for CERCLA Municipal Landfill Sites
9355.3-17	03/23/93	Compendium of ROD Language for FY 93 Focus Areas
9355.3-20	06/25/93	Revisions to OMB Circular A-94 on Guidelines & Discount Rates for Benefit-Cost Analysis
9355.4-01	08/15/90	Guidance on Remedial Actions for Superfund Sites w/PCB Contamination
9355.4-02	09/07/89	Interim Guidance on Establishing Soil Lead Cleanup Levels at Superfund Sites
9355.4-02	08/29/91	Update an OSWER (Directive #9355.4-02, Sept. 1989) Soil lead Cleanup Guidance
9355.4-02A	01/26/90	Supplement to Interim Guidance on Establishing Soil Lead Cleanup Levels at Superfund Sites
9355.4-03	10/18/89	Considerations in Ground Water Remediation at Superfund Sites
9355.4-07FS	01/01/92	Estimating Potential for Occurrence of DNAPL at Superfund Sites
9355.4-12	07/14/94	Revised Interim Soil Lead Guidance for CERCLA Sites and RCRA Corrective Action Facilities

DIRECTIVE #	DATE	TITLE
9355.4-13	09/01/93	Evaluation of the Likelihood of DNAPL Presence at NPL Sites - National Results, final Report
9355.4-14	09/01/93	Draft Soil Screening Level Guidance
9355.4-14FS	12/01/94	Soil Screening Guidance
9355.4-14FSA	07/01/96	Soil Screening Guidance: Fact Sheet
9355.4-15	07/14/94	Guidance on Residential Lead-Based Paint, Lead-Contaminated Dust, and Lead-Contaminated Soil
9355.4-16		Draft Soil Screening Guidance: Issues Document
9355.4-17	11/01/94	Technical Background Document for Soil Screening Guidance
9355.4-17A	05/01/96	Soil Screening Guidance: Technical Background Document
9355.4-23	04/01/96	Soil Screening Guidance: User's Guide
9355.5-01	02/01/90	Interim Final Guidance an EPA Oversight of RD/RA Performed by PRPs (Pre-Publication Version)
9355.5-01	04/01/90	Interim Final Guidance on EPA Oversight of RD/RA Performed by PRPs
9355.5-01FS	09/01/89	ARCS Construction Contract Modification Procedures
9355.5-02	06/04/90	Guidance on Expediting Remedial Design and Remedial Action
9355.5-02FS	10/01/89	Expediting Remedial Construction
9355.5-03FS	05/01/90	Value Engineering
9355.5-05FS	12/01/89	USACE Preplaced and Rapid Response Contracts
9355.5-07FS	02/01/90	Real Estate Acquisition Procedures for USACE Projects
9355.5-14FS	05/30/90	EPA/USACE Payment Process, Direct Cite/Revised Reimbursement Methods
9355.5-16FS	02/01/90	EPA Oversight of RD/RA Performed by PRPs
9355.5-21FS	03/01/90	Scoping the Remedial Design
9355.6-06	12/01/93	ROD Annual Report: FY/92 (11/19/93)
9355.7	11/05/85	Data QualitY Objectives for the RI/FS Process
9355.7-01	01/02/91	FY'91 Implementation Themes & Regional Coordination Plan for Superfund's Remedial & Enforcement Programs
9355.7-02	05/23/91	Structure and Components of Five-Year Reviews
9355.7-02A	07/26/94	Supplemental Five Year Reviews Guidance
9355.7-03	02/19/92	Permits and Permit "Equivalency Processes for CERCLA On-site Response Actions
9355.7-03A	05/01/95	Estimated O&M Costs for Rods: Historical Trends and Projected Costs Through FY 2040

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9355.7-03A	12/21/95	Second Supplemental Five-Year Review Guidance
9355.7-04	06/23/95	Land Use In the CERCLA Remedy Selection Process
9355.9-01	09/01/93	Data Quality Objectives Process for Superfund - Interim Final Guidance
9360.0-02B	04/01/88	Removal Cost Management Manuel
9360.0-03B	02/01/88	Superfund Removal Procedures, Revision No. Three
9360.0-05	01/06/85	User's Guide for Removal Cost Management Software
9360.0-06	11/27/85	Draft - Relationship of the Removal & Remedial Program under the Revised NCP
9360.0-06	03/17/86	Relationship of the Removal & Remedial Programs under the Revised NCP
9360.0-08	01/23/86	CERCLA Removal Actions at Methane Release Sites
9360.0-10 (*)	07/06/86	Expedited Response Actions
9360.0-12	04/06/87	Guidance on Implementation of the Revised Statutory Limits on Removal Actions
9360.0-12A	06/12/89	Final Guidance on Implementation of the "Consistency" Exemption to the Statutory Limits on Removal Actions
9360.0-13 (*)	04/06/87	Guidance on Implementation of the "Contribute to Remedial Performance" Provision
9360.0-14	02/07/87	Use of Expanded Removal Authority to Address NPL and Proposed NPL Sites
9360.0-15 (*)	04/21/87	The Role of Expedited Response Action Under SARA
9360.0-16A	07/26/88	Guidance for Conducting Federal-Lead Underground Storage Tank Corrective Action
9360.0-18	03/31/88	Removal Program Priorities
9360.0-19	03/03/89	Guidance on Non-NPL Removal Actions Involving Nationally Significant of Precedent-Setting Issues
9360.0-20	02/17/89	Required Use of the Removal Cost Management System for All Removal Actions
9360.0-23BFS	08/01/95	ERNS and CERCLA - Emergorcy Response Notification System (ERNS)
9360.0-29FSA	03/01/95	An Overview of Emergency Response Notification System (ERNS)
9360.0-32	08/06/93	Transmittal of Guidance on Conducting Non-Time-Critical Removal Actions Under CERCLA
9360.0-32FS	12/01/93	Conducting Non-Time-Critical Removal Actions Under CERCLA
9360.0-34	08/19/93	Determination of Imminent and Substantial Endangerment for Removal Actions
9360.0-36FS	03/01/95	ERNS and Site Searches
9360.0-37FS	03/01/95	ERNS Statistics
9360.1-01	10/06/87	Interim Final Guidance on Removal Action Levels at Contaminated Drinking Water Sites
9360.2-01	07/18/88	Model Program for Removal Site Management
9360.2-02	12/03/90	Policy on Management of Post-Removal Site Control

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9360.2-04	02/24/92	Authorization for Regional Administrators to Approve Consistency Exemptions at NPL Sites
9360.2-04A	06/03/92	Clarification of Delegation to Approve Consistency Exemptions at NPL Sites
9360.3-01	09/26/90	Transmittal of Advance Copy of Action Memorandum Guidance
9360.3-01	12/01/90	Superfund Removal Procedures Action Memorandum Guidance
9360.3-01FS	12/01/90	A Guide to Developing Action Memorandums
9360.3-02	09/01/91	Superfund Removal Procedures: Guidance on the Consideration of ARAs During Removal Actions
9360.3-02FS	04/01/92	Consideration of ARARs During Removal Actions
9360.3-03	06/01/94	Superfund Removal Procedures Removal Response Reporting: POLREPs and OSC Reports
9360.3-05	07/01/92	Superfund Removal Procedures Public Participation Guidance for On-Scene Coordinators: Community Relations and the Administrative Record
9360.3-06	04/01/92	Superfund Removal Procedures Removal Enforcement Guidance for On-Scene Coordinators
9360.3-06FS	07/01/92	A Guide to Removal Enforcement
9360.3-12	08/12/93	Response Actions at Sites with Contamination Inside Buildings
9360.3-14FS	06/01/94	Removal Response Reporting: OSC Reports
9360.3-15FS	06/01/94	Removal Response Reporting: POLREPS
9360.4-01	06/13/90	Quality Assurance/Quality Control Guidance for Removal Activities
9360.4-02	01/01/91	Compendium of ERT Soil Sampling & Surface Geophysics Procedures, Interim Final
9360.4-03	01/01/91	Compendium of ERT Surface Water & Sediment Sampling Procedures, Interim Final
9360.4-06	01/01/91	Compendium of ERT Groundwater Sampling Procedures, Interim Final
9360.4-07	01/01/91	Compendium of ERT Waste Sampling Procedures, Interim Final
9360.4-08	01/01/91	Compendium of ERT Toxicity Testing Procedures, Interim Final
9360.4-10	04/03/92	Removal Program's Representative Sampling Guidance Document: Volume 1 -- Soil
9360.4-12	02/04/12	CERCLA Reporting Requirements for Releases of Ethylene Glycol from Airplane De-Icing Operations
9360.5-00	06/02/89	Proposed Guidelines for the Cleanup of Clandestine Drug Laboratories
9360.7-01	10/25/90	Reporting Requirements for Continuous Releases of Hazardous Substances: A Guide for Facilities and Vessels on Compliance
9360.7-02	10/25/90	Continuous Release-Emergency Response Notification System: Users Manual for Industry
9360.7-14	01/01/95	Questions & Answers on Release Notification Requirements and Reportable Quantity Adjustments
9360.8-10	06/15/93	Interim Guidance for the Determination of Significant and Substantial Harm Facilities for

DIRECTIVE #	DATE	TITLE
		Oil Pollution Act Response Plans
9370.0-1	08/15/86	Preliminary FY 87 SPMS Targets
9375.0-01	05/08/89	Interim Final Guidance on Preparation of Superfund Memoranda of Agreement (SMOAs)
9375.1-06	07/12/87	Cooperative Agreements with Political Subdivisions for Remedial Response
9375.1-08	06/22/87	Role of EPA Personnel in the State Contractor Selection Process Under a Cooperative Agreement
9375.1-09	07/21/87	Interim Guidance on State Participation in Pre-Remedial and Remedial Response
9375.1-2A-e	12/16/85	Audits of Superfund Response Agreements: Proposed Addenda to State Participation in the Superfund Remedial Program Manual
9375.1-4	02/01/84	State Participation in the Superfund Remedial Program
9375.1-4-9	03/20/86	STATE PARTICIPATION IN THE SUPERFUND PROGRAM MANUAL Chapter IX, Audits of Superfund Cooperative Agreements
9375.1-4-10	12/17/86	STATE PARTICIPATION IN THE SUPERFUND PROGRAM MANUAL Chapter X, Closeout of Superfund Remedial Response Agreements
9375.1-4-c	05/02/86	STATE PARTICIPATION IN THE SUPERFUND PROGRAM MANUAL Appendix C - Documenting State CERCLA Credits & Advance Match
9375.1-4-C	12/31/86	STATE PARTICIPATION IN THE SUPERFUND PROGRAM MANUAL Volume 1: Appendix C - Documenting State CERCLA Credits & Advance Match
9375.1-4-f	01/05/87	STATE PARTICIPATION IN THE SUPERFUND PROGRAM MANUAL Volume 1: Appendix F - Sample Cooperative Agreement Provisions
9375.1-4-h	10/20/86	STATE PARTICIPATION IN THE SUPERFUND PROGRAM MANUAL Volume 1: Appendix H - Sample Articles for Superfund State Contracts
9375.1-4-k	03/24/86	STATE PARTICIPATION IN THE SUPERFUND PROGRAM MANUAL Volume 1: Appendix H - Community Relations Plan Format and Sample Plan
9375.1-4-l	02/07/86	STATE PARTICIPATION IN THE SUPERFUND PROGRAM MANUAL Volume 1: Appendix L - State Lead Quality Assurance Project Plan Guidance
9375.1-4-n	08/22/86	STATE PARTICIPATION IN THE SUPERFUND PROGRAM MANUAL Volume 1: Appendix N - How to Obligate CERCLA Funds for State & Federal-Lead Response
9375.1-4-p	03/06/86	STATE PARTICIPATION IN THE SUPERFUND PROGRAM MANUAL Volume 1: Appendix P - Superfund Supplemental Guidance
9375.1-4-T	11/21/86	STATE PARTICIPATIUN IN THE SUPERFUND PROGRAM MANUAL Volume 1:

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		Appendix T - Obtaining and Disposing of Equipment Under a CERCLA Cooperative Agreement
9375.1-4-U	09/11/86	STATE PARTICIPATION IN THE SUPERFUND PROGRAM MANUAL Volume 1: Appendix U - Cost Documentation Requirements for Cooperative Agreements
9375.1-4-W (*)	09/29/86	CERCLA Funding of State-lead Removals
9375.1-5	03/10/86	STATE PARTICIPATION IN THE SUPERFUND PROGRAM MANUAL Volume II: State Procurement Under Superfund Remedial Cooperative Agreements
9375.1-6	10/07/86	Draft Guidance for Cooperative Agreements with Political Subdivisions
9375.1-11	06/01/88	Guidance: Procurement Under Superfund Remedial Cooperative Agreements
9375.1-12	04/27/88	State Access to EPA Contractors During Remedial Response
9375.1-13	09/27/88	Clarification on Allowability of Management Assistance to States for ERAs and Removals
9375.2-01	12/18/87	Final Guidance on State Core Program Funding Cooperative Agreements
9375.2-03	08/02/88	Funding for State Core Program Cooperative Agreement State-Specific Additional Functions
9375.2-04	07/19/89	Core Program Cooperative Agreements and Small/Disadvantaged Business Utilization in the Superfund Program]
9375.5-01	03/10/89	40 CFR Part 35 Subpart O, Cooperative Agreements and Superfund State Contracts for Superfund Response Actions
9375.5-02	10/18/89	Interim Final Guidance on Indian Involvement in the Superfund Program
9375.5-02A	11/28/89	Revised Interim Final Guidance an Indian Involvement in the Superfund Program
9375.5-03	05/01/89	Political Subdivision-Lead for Remedial Response
9375.5-03FS	04/01/90	Political Subdivision Involvement in Superfund
9375.5-04	02/12/90	Involvement of Superfund Program Managers in Superfund Response Agreement Audits
9375.6-08A	09/01/90	An Analysis of State Superfund Program: 50-State Study, 1990 Update
9375.6-11	05/03/95	Guidance on Deferral of NPL Listing Determinations While States Oversee Response Actions
9375.6-11A	05/03/95	Response to Comments on the 1988 Proposed NCP Deferral Policy Concept
9375.7-01	03/29/93	Ensuring the Adequacy of Cost Share Provisions in Superfund State Contracts
9375.7-02	08/05/93	Obligation of Funds Under Superfund State Contracts
9380.0-05	11/01/85	Leachate Plume Management
9380.0-06	07/17/86	Guidance Document for Cleanup of Surface Impoundment Sites
9380.0-08	09/01/88	Field Screening Method Catalog (USER"S GUIDE)
9380.0-3	05/28/95	Guidance Document for Cleanup of Surface Tank & Drum Sites
9380.0-13	09/01/85	Covers for Uncontrolled Hazardous Waste Sites

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9380.0-16	09/01/89	Forum on Innovative Hazardous Waste Treatment Technologies: "Technical Papers" Domestic & Int'l (6/19-21/89), Atlanta, GA
9380.0-17	06/10/91	Furthering the Use of Innovative Treatment Technologies in OSWER Programs
9380.0-17FS	08/10/91	Furthering the Use of Innovative Treatment Technologies in OSWER Programs
9380.0-19	01/01/91	Innovative Treatment Technologies: Semi-Annual Status Report (No. 1)
9380.0-25	04/29/96	Initiatives to Promote Innovative Technology in Waste Management Programs
9380.0-46	07/01/89	Terra Vac In Situ Vacuum Extraction System Applications Analysis Report
9380.1-02	10/01/87	Hazardous Waste Bibliography
9380.1-03FS	07/01/90	Superfund Innovative Technology Evaluation Program - Site Program FS
9380.1-04	08/01/90	CF Systems Organics Extraction Process - Applications Analysis Report, New Bedford Harbor, MA
9380.1-06	05/01/91	Synopses of Federal Demonstrations of Innovative Site Remediation Technologies
9380.1-1	09/16/86	Superfund Technology Transfer Program, Draft
9380.1-13	06/01/91	Survey of Materials-Handling Technologies Used at Hazardous Waste Sites
9380.1-14	11/01/90	Technical Support Services for Superfund Remediation, 2nd Edition
9380.2-02	07/01/87	SUPERFUND INNOVATIVE TECHNOLOGY EVALUATION (SITE) Operations Plan
9380.2-06	03/22/88	SUPERFUND INNOVATIVE TECHNOLOGY EVALUATION (SITE) Program Requirements
9380.2-3	12/01/86	SUPERFUND INNOVATIVE TECHNOLOGY EVALUATION (SITE) Strategy and Program Plan
9380.3-01	07/12/89	Treatability Studies Contractor Work Assignments
9380.3-02	12/28/89	Treatability Studies Under CERCLA
9380.3-02FS	12/01/89	Treatability Studies Under CERCLA
9380.3-03	12/28/89	Inventory of Treatability Study Vendors
9380.3-03	03/01/90	Inventory of Treatability Study Vendors: Vol. II
9380.3-04	11/30/89	Analysis of Treatability Data for Soil & Debris: Evaluation of Lan Ban Impact on the Use of Superfund Treatment Technologies
9380.06FS	11/01/91	A Guide to Principal Threat & Low Level Threat Wastes
9380.3-38	05/01/89	Hazcon Solidification Process - Applications Analysis Report, Douglassville, PA
9380.4-01	03/12/90	Use of ORD's Bioremediation Expertise in Superfund Removal Programs
9380.5-01A	07/01/89	AIR/SF NAT'L TECHNICAL GUIDANCE STUDY SERIES: Vol. I, "Application of Air Pathway Analyses for Superfund Activities" - Interim Final
9380.5-01B	08/01/90	AIR/SF NAT'L TECHNICAL GUIDANCE STUDY SERIES: Vol. II, "Estimation of Baseline Air

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		Emissions at Superfund Sites" - Revised Edition
9380.5-01C	01/01/89	AIR/SF NAT'L TECHNICAL GUIDANCE STUDY SERIES: Vol. III, "Estimation of Air Emissions from Cleanup Activities at Superfund Sites" - Interim Final
9380.5-01D	07/01/89	AIR/SF NAT'L TECHNICAL GUIDANCE STUDY SERIES: 12l. IV, "Procedures for Dispersion Modeling & Air Monitoring for Superfund Air Pathway Analysis" - Interim Final
9380.5-04	05/01/90	Air Stripper Design Manual
9380.5-05	07/01/90	AIR/SF NAT'L TECHNICAL GUIDANCE STUDY SERIES: Development of Example Procedures for Evaluating the Air Impacts of Soil Excavation Associated w/ Superfund Remedial Actions
9380.5-09	11/01/89	Area Source Dispersion Algorithms for Emission Source at Superfund Sites
9380.5-10	09/01/89	Soil Vapor Extraction VOC Control Technology Assessment
9380.5-12	05/01/90	User's Guide for the Fugitive Dust Model
9380.5-13	03/01/90	Comparisons of Air Stripper Simulations & Field Performance Data
9380.6-01	09/20/90	Transmittal of Solvent Extraction Engineering Bulletin
9380.6-01A	09/20/90	Engineering Bulletin: Solvent Extraction Treatment
9380.6-01B	09/20/90	Engineering Bulletin: Mobile/Transportable Incineration Treatment
9380.6-01C	09/20/90	Engineering Bulletin: Chemical Dehalogenation Treatment:Apeg Treatment
9380.6-01D	09/20/90	Engineering Bulletin: Slurry Biodegradation
9380.6-01E	09/20/90	Engineering Bulletin: Soil Washing Treatment
9380.6-01F	05/01/90	Engineering Bulletin: In Situ Steam Extraction Treatment
9380.6-01G	05/01/91	Engineering Bulletin: In Situ Soil Vapor Extraction Treatment
9380.6-01H	05/01/91	Engineering Bulletin: Thermal Desorption Treatment
9380.7-01	03/01/90	Basics of Pump-and-Treat, Ground Water Remediation Technology
9380.7-02A	03/01/89	Superfund Ground Water Issue - Ground Water Sampling of Metals Analyses
9380.7-02B	03/01/91	Superfund Ground Water Issue - Characterizing Soils for Hazardous Waste Site Assessments
9380.7-02C	03/01/91	Superfund Ground Water Issue - Dense Nonaqueous Phase Liquids
9380.7-03A	04/01/91	Superfund Engineering Issue: Treatment of Lead-Contaminated Soils
		* * * RCRA (OSW) * * *
9410.00-1	02/01/85	Draft Guidance on Implementation of Minimum Technology Requirements and Corrective Action

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		Requirements of the Hazardous and Solid Waste Amendments of 1984
9410.00-2	06/01/86	EPA Guide for Infectious Waste Management
9420.00-01	05/19/86	FY'87 RCRA Implementation Plan
9420.00-03	10/16/85	FY'86 PA/SI Strategy - Addendum to the FY'86 RIP
9420.00-04	03/31/87	FY'88 RCRA Implementation Plan
9420.00-05	04/05/88	FY'89 RCRA Implementation Plan
9420.00-07	05/06/91	FY'92 RCRA Implementation Plan
9420.00-08	04/27/92	FY'93 RCRA Implementation Plan
9420.00-09	04/02/93	FY'94 RCRA Implementation Plan
9420.00-09a	04/02/93	FY'94 RCRA Implementation Plan Addendum
9420.00-10	05/19/94	FY'95 RCRA Implementation Plan Addendum
9431.01(84)	09/10/84	Permit Policy Question and Answer Quarterly Report
9432.00-01	02/11/86	Totally Enclosed Treatment Facilities Exemption for Bag House Sludge
9432.00-1	02/01/88	Totally Enclosed Treatment System Proposal TDJ Group, Inc.
9432.00-2	03/02/87	Joint EPA/NRC Guidance on the Definition & Identification of Commercial Mixed Lowel-Level Radioactive and Hazardous Waste
9432.01(80)	12/30/80	RCRA Regulation of Aerosol Cans
9432.01(81)	06/26/81	Definition of "Liquid Waste"
9432.01(83)	02/18/83	Regulatory Clarification of Totally Enclosed Treatment Facility
9432.01(84)	01/27/84	Determination of Operator at the DOE Oak Ridge Facility
9432.01(85)	06/26/85	Definition of Treatment
9432.02(81)	07/27/81	Totally Enclosed Treatment Facilities
9432.02(83)	11/29/83	Recent Court Decisions on RCRA Applicability to Storage Facilities
9432.02(84)	02/02/84	Regulation of Hazardous Aqueous Waste at Wastewater Treatment Facilities
9432.03(84)	04/26/84	Permit Policy for Decanning & Crushing Operations
9432.04(85)	08/30/85	Certification of "Existing Units" Under HSWA
9432.05(84)	11/06/84	Definition of Treatment as Defined in 40 CFR °260.10 Subpart B - Definition
9432.07(84)	12/24/84	Guidance on Implementation of Wastewater Treatment Unit Exemption
9433.00-01	04/16/86	RCRA °3001(f)(2)(B) and States Exclusion of Wastes from Regulation as Hazardous
9433.00-2A	04/30/86	Determination of Regulatory Status-Light Bulbs
9433.00-3	08/11/82	Concurrence on Responses to Pennsylvania Der Delisting Activities

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9433.01(83)	11/14/83	Withdrawl of a Facility's Delisting Petition
9433.01(84)	02/08/84	Changes Regarding the Delisting Review Procedures
9433.02(84)	08/08/84	Response to Questions from State Pesticide Personnel Deregulating Decontaminsted Water
9433.02(85)	05/16/85	RCRA RSI #4: Effect Of HSWA on State Delisting Decisions
9433.03(84)	10/23/84	Delisting of Spent Pickle Liquor Generated from the Porcelain Enamel Industry
9433.05(84)	12/11/84	Test Methods & Standards to Evaluate Cyanide Level in Inorganic Wastes
9433.06(84)	12/18/84	Issues Regarding a Delisting Petition
9433.07(84)	12/21/84	Information Required for Review of Delisting Petitions
9434.00-6	12/10/80	Effect of EPAs MOU with the DOT on Activities in States with Cooperative Agreements (PIG-81-9)
9435.00-1	11/03/87	Procedures for Developing Regulations & Guidance Documents
9440.00-1	01/07/87	Guidance on the Definition & Identification of Radioactive Mixed Wastes
9441.00-02	03/01/86	Guidance Manual on the RCRA Regulation of Recycled Hazardous Waste
9441.01(80)	05/30/80	Hazardous Waste Regulation of Empty Drums for Reuse & Reconditioning
9441.01(81)	01/13/81	Interpretation of the Fossil Fuel Combustion Waste Exclusion in °261.4(b)(4)
9441.01(82)	07/07/82	Interpretation of the Farmer Exemption Under 40 CFR °261.51
9441-01(84)	01/06/84	Determining if the Soils from Missouri Dioxin Sites are Hazardous
9441.01(85)	01/11/85	Impact of the RCRA Regulations on Landfill Gas Condensate
9441.01(91)	07/05/91	Applicability of the "Mixture" Rule to Petroleum Refinery Wastewater Systems
9441.02(80)	08/19/80	Agricultural Waste Exclusion
9441.02(81)	02/18/81	EPA Regulation of Utility Waste
9441.02(83)	04/19/83	Subtitle C Exclusion of Drilling Fluids and Produced Waters
9441.02(85)	01/16/85	Exclusion of Sodium Azide in Air Bag Canisters of Obsolete Automobile Hulks from RCRA Regulations
9441.03(80)	09/04/80	Exemption of Certain Waste From Drilling Operations
9441.03(81)	04/06/81	Paint Wastes as Hazardous Wastes
9441.03(83)	05/26/83	Scope of Oil and Gas Waste Exemption in °3001(b)(2)(A) of RCRA: "Iron Sponge" Process
9441.03(84)	02/16/84	Residue from a Reclamation Operation
9441.03(85)	01/23/85	Clarification of the Laboratory Waste Exclusion
9441.04(80)	11/17/80	Railroad Ties as Hazardous Wastes Under the Mixture Rule
9441.04(81)	04/10/81	Interpretation of 40 CFR °261.6(b) As It Applies to the Reuse of "Red Water" from TNT

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9441.05(83)	07/12/83	Exemptions from Presumption of Hazardousness
9441.05(84)	02/19/84	Listing of Residue from the Treatment of a Listed Hazardous Waste
9441.05(85)	02/04/85	Exemption of Waste Streams Resulting from Extraction, Beneficiation, or Processing of An Ore or Mineral
9441.06(81)	06/09/81	Operation of the Mixing Rule
9441.06(84)	04/10/84	Regulatory Status of Mixtures of Spent Solvents - F001-F005
9441.06(85)	02/13/85	Use/Reuse Provisions in the Definition of Solid Waste Rulemaking
9441.07(84)	03/19/84	Exclusion of Household Wastes
9441.07(85)	02/13/85	Exclusion of Laboratory Wastes from Dioxin Regulation
9441.08(83)	10/21/83	Leachate From a Municipal Landfill
9441.08(84)	05/03/84	Emission Control Dust/Sludge Generated from Electric ARC Furnaces
9441.08(85)	02/22/85	Use of a Secondary Wastewater Treatment System to Remove biological Solids from an Activated Sludge Unit
9441.09(84)	05/09/84	Status of Mining Laboratory Wastes Under 40 CFR 261.4(b)(7)
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9441.10(84)	05/15/84	Regulatory Status of Residue from Stream-Stripping of Process Waste Containing Toluene
9441.10(85)	04/10/85	Perchloroethylene Residue as a Hazardous Waste
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9441.12(84)	06/04/84	Status of Supernatant From Lime Neutralization of Spent Pickle Liquor
9441.12(85)	05/13/85	Zinc Plating (Segregated Basis) on Carbon Steel
9441.13(85)	05/15/85	Disposal of Waste Electrolyte from Rechargeable Nickel-Cadmium Batteries with a Potassium Hydroxide Electrolyte
9441.14(85)	05/16/85	Clarification of Mining Waste Exclusion
9441.15(84)	07/31/84	Existing and Proposed Regulations Addressing RCRA's Coverage of Incinerators that Receive Gaseous Emissions
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9441.19(85)	05/31/85	Empty Drums Containing Metallic Nickel or Nickel Oxide
9441.20(84)	08/16/84	Clarification of Exemptions Enacted in 1980 RCRA Amendments
9441.20(85)	06/05/85	Use/Reuse Exemption as Applied to Spent Pickle Liquor
9441.21(85)	06/06/85	Regulatory Status of Brass Dross Skimmings
9441.23(85)	06/27/85	Disposal Requirements of Scrap DEHP and Small Capacitors Containing DEHP
9441.24(84)	09/06/84	Delisting of Waste Generated from Zinc Phosphating on Carbon Steel - F006 (Wastewater Treatment Sludges from Electroplating Operations)
9441.24(85)	06/27/85	Clarification of Recycling Under Revised Solid Waste Rules
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9441.25(85)	07/01/85	Scope of the Term "Abandoned" under Revised 40 CFR 261.2
9441.26(84)	09/11/84	Definition of "Empty Container" Removal Methods
9441.26(85)	07/05/85	Dioxin-Containing Laboratory Waste
9441.27(84)	09/20/84	Regulatory Status of Dibutyltin Difluoride
9441.27(85)	07/16/85	Status of Spent Pickle Liquor Used in Production of Ferric Chloride
9441.28(85)	07/16/85	Regulatory Status of Creosote Treated Cross Ties
9441.29(84)	09/24/84	Zinc Plating (Waste Streams)
9441.29(85)	08/23/85	Applicability of "Mixture" and "Derived From" Rules to Petroleum Refinery Wastewater Systems
9441.30(84)	10/22/84	Contamination of Used Oil Through Normal Use of Through Purposeful Mixing With Hazardous Wastes
9441.31(84)	10/25/84	Clarification of Federal Register Notice Pertaining to Lime-Stabilized Waste Pickle Liquor Sludge (LSWPLS) from the Iron and Steel industry (6/5/84)
9441.32(84)	11/07/84	Clarification of RCRA Regulations on Hazardous Characteristic
9441.34(84)	11/28/84	Empty Container Rule
9441.35(84)	12/07/84	Regulations Applicable to Oil/Water Emulsions Generated by Refinery Wastewater Systems
9441.36(84)	12/17/84	RCRA Implications of Treating Gases Vented from Compressed Cylinders
9441.37(84)	11/14/84	Clarification of Policy on Hazardous waste Derived from Mixture of Leachate & Precipitation Run-off at Landfills, Waste Piles and Land Treatment Units
9441.50-01A	11/20/86	RCRA Exclusions under º3001(b)(2)(A) of RCRA as Applied to Hydrogen (H 2 S) Sulfide Scrubber Wastes from Geothermal Power Plants

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9443.00-01A	04/21/86	Evaluating the Ignitability of Physical Solids
9443.00-02A	04/30/86	Determination of Regulatory Status-Light Bulbs
9443.01(80)	09/15/80	Corrosivity as It Applies to Solid Waste
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9443.01(83)	01/10/83	Definition of Ignitable Solids
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9443.01(85)	02/21/85	Management of Excavated Construction Soil Containing Quantities of Volatile Organic Compounds
9443.02(80)	09/16/80	The Impact of Hazardous Waste Regulations on Food Processors
9443.02(84)	03/07/84	Regulatory Status of Spent and/or Discarded Lithium-Sulfur Dioxide (Li/SO 2) Batteries
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9443.03(80)	12/22/80	Hazardousness of Paint Residues on Conveyor Hooks
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9443.05(83)	07/27/83	Hazardous Waste Identification Regulations as They Apply to Waste Batteries and Cells
9443.05(84)	09/11/84	Blasting Caps as Reactive Wastes
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9443.07(85)	09/18/85	Permit Requirements Applicable to a Water/Methanol Mixture
9443.08(84)	11/23/84	Designation for Waste Ink and Solvent Mixtures Generated from Printing Facilities
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9443.10(84)	11/30/84	Classification of Small Arms Ammunition with Respect to Reactivity
9443.11(84)	12/03/84	Evaluation of EP Toxicity an the Basis of Total Chromium
9444.01(80)	09/04/80	Interpretations of °261.33
9444.01(81)	03/12/81	Manufacturing Wastes Containing 261.33 Compounds
9444.01(82)	09/15/82	Regulation of Paint Filters
9444.01(83)	06/10/83	Interpretation of RCRA Hazardous Waste Regulations as Pertaining to Spent Solvent Listings

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9444.02(81)	05/19/81	Hazardous Waste Listing P120
9444-02(83)	07/11/83	Scope of the Listing K061, Emission Control Dust/Sludge from the Primary Production of Steel in Electric Furnaces
9444.02(85)	03/04/85	Applicability of the RCRA Dioxin Listings Published in the Federal Register on 1/14/85, to Wastes from Wood Preserving Processes Using Pentachlorophenol
9444.03(80)	11/17/80	RCRA Regulation of Wastes from Storage of Petroleum Products
9444.03(81)	06/06/81	Clarification of Hazardous Waste Listing K052
9444.03(83)	07/20/83	Hazardous wastes from Solar Cell and High Tech Industries
9444.03(84)	04/10/84	Toxicity of 2.4-D Waste
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9444.04(81)	06/22/81	Freon TF Recovery Still Bottoms
9444.04(84)	04/26/84	Wastewater Treatment Sludges from Wood Preserving Processes Using Creosote and/or Pentachlorophenol
9444.04(85)	04/10/85	Guidance on the Management of Dioxin Wastes
9444.05(80)	11/18/80	Asbestos as a Hazardous Waste
9444.05(81)	09/16/81	Pesticides Containing A °261.33(e) Compound
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9444.06(80)	12/02/80	Application of K061 Hazardous Waste Listing to Steel Foundries
9444.07(84)	05/30/84	Ballast Fluid Classification
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9444.08(85)	05/24/85	Wastes Containing Unreacted Materials are not Listed Spent Solvents
9444.09(84)	06/13/84	Zinc Plating (Segregated Basis) on Carbon Steel
9444.09(85)	06/03/85	Toluene-Laden Filter Residue Generated from an Ink Production Process
9444.10(84)	07/25/84	Regulation of Wastewater Treatment Effluent from Processes that Generate K001 & F006 Wastewater Treatment Sludge

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9444.11(84)	07/27/84	Clarification of K062 - Spent Pickle Liquor Listing
9444.11(85)	06/19/85	Status of Ion Exchange Resin from Metal Removal from Electroplating Rinse
9444.12(84)	07/30/84	Regulatory Status of Spent Acid from Electro-polishing of Stainless Steel
9444.13(84)	07/30/84	Michigan Petition Sb0 3 Listing
9444.13(85)	09/03/85	Application of the F006 Listing to Wastewater Treatment Sludges from Electroplating Operations
9444.14(84)	07/30/84	Dragout from EPA Hazardous Wastes No. F007 - Spent Cyanide Plating Bath Solutions from Electroplating Operations (Except for precious metals electroplating spent cyanide plating bath solutions)
9444.14(85)	09/10/85	Disposal of Dioxin Containing Waste Rinsates by Deep Well Injection
9444.15(84)	08/08/84	Response to Questions from State Pesticide Control Office: What is Distribution Criteria for Waste with Only 1 Active Ingredient
9444.15(85)	06/24/85	Regulatory Status of Nalcast 6015/Water/Wax Mixture
9444.16(85)	09/26/85	Clarification of January 14, 1985, Dioxin Ruling
9444.18(84)	10/04/84	Listing of Spent Cartridges Containing Perchloroethylene from Dry Cleaning Establishments
9445.01(84)	04/23/84	Notes on RCRA Methods & Quality Assurance Activities
9445.01(85)	04/05/85	Regulating Status of Soil Contaminated with Toluene
9445.02(84)	04/23/84	Topics Relating to RCRA Methodology and Quality Assurance (QA) Activities
9445.02(85)	04/23/85	Notes on RCRA Methods and QA Activities
9445.03(84)	05/25/84	Analytical Methods for Petroleum Refining Residues and Wastes
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9445.04(84)	11/19/84	EPA-Approved Waste Analyses Test Methods
9445.04(85)	06/01/85	Notes on RCRA Methods and QA Activities
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9450.00-01	04/01/86	Implementation Strategy for Small Quantity Generators of 100-1000 KG/Month
9451.00-1A	02/05/86	Letter to Vice Admiral Peter J. Rotz concerning the interaction between Marpol and RCRA regulations from Marcia Williams
9451.01(80)	11/05/80	Liability of a Servicing Company as a Generator of Hazardous Waste
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9453.01(84)	05/18/84	Applicability of EPA's Hazardous Waste Marking Requirement (262.32) to State-Regulated Wastes
9453.02(85)	03/12/85	Exclusion from RCRA Permitting Requirements for Less Than 90-Day Accumulators of Dioxin-Containing Wastes
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9455.01(85)	06/25/85	Generator Responsibilities for Importation of Hazardous Waste
9461.01(85)	09/19/85	Building and Consolidating Shipments of Compatible Wastes with Different Hazardous Codes
9463.01(80)	06/18/80	Department of Transportation Role in the Transportation of Hazardous Waste
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9471.00-01a	04/15/91	Assurance of Hazardous Waste Capacity Guidance to State Officials
9471.03(84)	09/06/84	Regulation of Tanks Used for Emergency Containment
9471.05(84)	11/21/84	Interim Status Standards for Owners and Operators of Hazardous Waste Treatment, Storage and Disposal Facilities
9472.00-1	02/01/85	Permit Writers' Guidance Manual for Hazardous Waste Land Storage and Disposal Facilities--Phase I: Criteria for Location Acceptability and Existing Applicable Regulations
9472.00-02A	07/01/86	Statutory Interpretative Guidance: Criteria for Identifying Areas of Vulnerable Hydrogeology
9472.00-03	07/01/86	Technical Guidance Document: Construction Quality Assurance for Hazardous Waste Land Disposal Facilities
9472.03(83)	12/13/83	Waste Analysis Requirements at Off-Site Storage Facilities
9474.01(84)	09/10/84	Permit Policy Question and Answer Quarterly
9476.00-01	09/01/82	Evaluating Cover Systems for Solid and Hazardous Waste
9476.00-02	09/01/82	Closure of Hazardous Waste Surface Impoundments
9476.00-03	05/07/82	Financial Assurance for Closure and Post-Closure Care: Requirements for Owner/Operator of

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		Hazardous Waste Treatment, Storage & Disposal Facilities
9476.00-05	01/01/87	RCRA Guidance Manual for Subpart G Closure and Post-Closure Care Standards and Subpart H Cost Estimating Requirements
9476.00-06	11/01/86	Final Report/Guidance Manual: Cost Estimates for Closure & Post-Closure Plans (Subparts G&H) Vols. I-IV
9476.00-07	12/30/86	RCRA Policy Compendium for Subparts G and H
9476.00-08	03/31/87	Surface Impoundment Clean Closure Guidance Manual
9476.00-09	04/14/87	Part 265 Land Treatment Closure/Post Closure Guidance
9476.00-12	02/02/88	Closure Requirements
9476.00-13	02/08/88	Regulatory Interpretation of the Closure Performance Standard
9476.00-14	03/31/88	Ground-Water Monitoring at Clean Closing Surface Impoundment and Waste Pile Units
9476.00-16	04/01/89	Effective Dates for Characteristic and Listed Wastes per March 19, 1987 Clean Closure Regulation
9476.00-18	05/12/89	Guidance on Demonstrating Equivalence of Part 265 Clean Closure with Part 264 Requirements
9476.00-22	11/01/82	Liability Coverage = Requirements for Owners or Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities
9476.02(83)	01/11/83	Interpretation of Closure and Post-Closure Requirements Regarding Hazardous Waste Treatment, Storage and Disposal Facilities
9476.02(85)	08/27/85	RCRA Policies on Ground-Water Quality at Closure
9476.03(85)	10/11/85	Permitting Units Created for Facility Closure
9476.04(83)	08/10/83	Trip Report: Region X - Closure Standards for Disposal Facilities
9476.04(84)	08/07/84	Closure Issues Related to Wood Preserving Plants
9476.04(85)	10/25/85	Applicability of Post-Closure Permitting Requirements to Non-Regulated Units
9476.05(83)	08/17/83	Definitions for Data Element Dictionary
9476.05(84)	09/18/84	Closure Activities
9477.00-04	03/02/87	Liability Requirements for Facilities Seeking a RCRA Permit
9477.00-05	11/23/87	Risk Retention Groups and Financial Assurance Requirements
9477.00-06	12/29/87	Guidance for Reviewing Exclusions for Pre-Existing Conditions in RCRA TSDF Insurance Policies
9477.01(82)	05/24/82	Part B Financial Responsibility information Requirements for Owners or Operators in States with Only Phase I Authorization

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9477.01(83)	01/05/83	Applicability of the Subpart H Financial Responsibility Requirements
9477.01(84)	01/12/84	Closure Cost Estimates Based on Third Party Costs
9477.02(84)	01/30/84	EPA Authority to Enforce Subpart H Compliance at Facilities Located on State-Owned Land
9477.03(82)	10/08/82	Clarification of Intended Meanings in Hazardous Waste Facility Certificates of Liability Insurance
9477.04(84)	11/20/84	Insura (Summary of Requirements)
9935.0	03/14/81	Interim Status Under º3005(e) of RCRA
9935.1	07/31/81	º3055(e) of RCRA Operation of Hazardous Waste Facilities by Owners or Operators Who have Failed to Achieve Interim Status
9936.0	11/29/84	Part B Permit Applications with Insufficient Groundwater Monitoring Data
9936.1	09/09/83	Guidance on Compliance Orders for failure to Submit & Submittal of Incomplete Part B Permit-Application
9936.2	02/19/87	Final Administrative Hearing Procedures for RCRA º3008(h) Orders
9936.3	01/24/89	Enforcement of Authorized State Laws Pursuant to 40 CFR º271.19 - Formal Comments on State Requirements Applicable to Facility Permits
9938.0	04/17/86	Inspection Authority Under º3007 of RCRA
9938.02b	10/01/93	Revised RCRA Inspection Manual (1993 Edition)
9938.1	04/01/87	Compliance Review Guidance for the Land Disposal Restrictions Rule for Solvents
9938.2A	04/22/88	RCRA Inspection Manual
9938.3	07/13/88	RCRA Technical Case Development Guidance Document
9938.4	10/06/88	Inspection Manual for Hazardous Waste Storage & Treatment Tank Systems (not releasable to public under Exemption 7 of FOIA)
9938.4-03	04/26/94	Waste analysis at Facilities that Generate, Treat, Store & Dispose of Hazardous Wastes (A Guidance Manual)
9938-.5	01/23/89	Enforcement Strategy for the Land Disposal Restrictions First Third Rule (not releasable to public under Exemption 7 of FOIA)
9938.7	09/28/84	RCRA Compliance/Enforcement Guidance Manual
9938.9	07/01/91	Conducting RCRA Inspections at Mixed Waste Facilities
9938.12	03/01/93	Toxicity Characteristic Rule Enforcement Training Manual
9938.13	12/17/93	Procedures for Recovering Costs Incurred During Implementation of RCRA Requirements of the Federal Facility Compliance Act (FFCA) of 1992

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9938.14	03/14/94	Transmittal of Used Oil Management Inspection/Enforcement Strategy
9939.0	05/19/86	Guidance on RCRA Overfiling
9940.0	07/28/81	Use of RCRA º3008(g) Independently of º3008(a)
9940.1	09/26/84	Issuance of Administrative Orders Under º3013 of RCRA
9940.2	09/21/84	Issuance of Final Revised Guidance on the Use of Issuance of Administrative Orders Under º7003 of RCRA
9940.3	06/26/87	Criteria for Eliminating Headquarter's Concurrence on RCRA º3008(h) Orders
9940.4	07/06/89	Guidance on Administrative Records for RCRA º3008(h) Actions
9943.3-1a	12/30/86	Enforcement of the UST Interim Prohibition
9943.3	09/16/86	Enforcement Strategy & Procedures for the "Interim Prohibition" º9003(g) of SWDA
9945.1	10/01/86	Guidance Concerning EPA Involvement in RCRA º7002 Citizen Suits
9946.1	02/08/88	RCRA State Oversight Inspection Guide (not releasable to public under Exemption 7 of FOIA)
9950.1	09/09/86	RCRA Ground-Water Monitoring Technical Enforcement Guidance Document
9950.1a	07/01/88	Executive Summary - RCRA Ground-Water Monitoring Technical Enforcement Guidance Document
9950.2	12/01/86	Final RCRA Comprehensive Ground-Water Monitoring Evaluation Guidance Document
9950.3	03/30/88	RCRA-Comprehensive Ground-water Monitoring Evaluation Document (RCRA Ground-Water Monitoring Systems, not releasable to public under Exemption 7 of FOIA)
9951.1	12/30/86	Transmittal of the Final Waste Oil Interim Enforcement Guidance Document
9971	07/25/86	FY'87 SPMS Targets for RCRA Enforcement
9972.00	02/22/94	Regional Project Officers, Headquarters Zone Project Officers, Contracting Officers, and Work Assignment Managers Roles & Responsibilities
9990.0	06/22/83	RCRA Regulation of Wastes Handled by DOE Facilities
9992.0	01/25/88	Enforcement Actions Under RCRA & CERCLA at Federal Facilities
9992.1a	03/24/88	Elevation Process for Achieving Federal Facility Compliance under RCRA
9992.1	05/27/88	Agreement With the Department of Energy -- Model Provisions for CERCLA Federal Facilities Agreements
9992.2	06/17/88	Agreement with the Department of Defense -- Model Provisions for CERCLA Federal Facilities Agreements
9992.3	08/10/89	Federal Facilities Negotiations Policy
9992.4	01/09/90	Federal Facilities Hazardous waste Compliance Manual
81.15(84)	11/20/84	Definition of Regulated Units

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9481.16(84)	12/26/84	RCRA Regulatory Status of Contaminated Groundwater
9481.17(84)	12/27/84	Analytical Methods for Appendix VIII Constituents
9483.00-01	12/01/86	Technical Resource Document for the Storage & Treatment of Hazardous Waste in Tank Systems
9483.00-02	02/01/87	Technical Resource Document for Obtaining Variances from the Secondary Containment Requirement of Hazardous Waste Tank Systems, Vol. 2: Risk-Based Variance (EPA 530-SW-87-002B)
9483.00-03	10/02/87	Questions & Answers Regarding the July 14, 1986 Hazardous Waste Tank System Regulatory Amendments
9483.00-04	05/19/87	Implementation Strategy for the Hazardous Waste Tank System Regulations
9483.01(83)	04/15/83	Definition of Tank and Surface Impoundment
9483.01(84)	02/23/84	Permitting of Hazardous Waste Treatment/Storage Tanks
9483.02(83)	04/20/83	Tank Shell Thickness Requirement
9483.03(83)	09/26/83	Tank Inspection Procedures
9483.05(83)	12/08/83	Waiver of Minimum Shell Thickness Requirement
9483.50-1A	01/07/86	Guidance Manual for Hazardous Waste Tank Standards (Subpart J)
9484.00-1B	04/28/86	Interim Status Surface Impoundments Retrofitting Variances (Interim Final Guidance Document)
9484.00-03	09/15/86	Implementation Strategy for Surface Impoundment Retrofitting Exemptions
9484.00-05a	10/15/87	Surface Impoundment Retrofitting & Time Allowed for Closure
9484.01(85)	07/25/85	Interpretation of Section 3005(j)(1)
9484-00-1A-a(86)	01/02/86	Request for Comments on Guidance Concerning RCRA Section 3005(j) - Retrofitting Interim Status Surface Impoundments
9484.01(85)	07/25/85	Interpretation of Section 3005(j)(1)
9484.50-1A	01/02/86	Guidance on Variances for Retrofiting Interim Status Surface Impoundments
9486.00-02	09/17/86	Permit Guidance Manual on Hazardous Waste land Treatment Demonstrations
9486.01(81)	06/18/81	Hazardous Waste Regulation of Gray Iron Foundry Waste
9486.01(85)	03/27/85	Criterion for the Application of Hazardous Waste Treatment Technologies
9487.00-01A	04/21/86	Use of Liquids for Wind Dispersal Control at Hazardous Waste Landfills
9487.00-02A	05/01/86	Prohibition on the Disposal of Bulk Liquid Hazardous Waste in Landfills - Statutory Interpretive Guidance
9487.00-03	09/01/82	Hydrologic Simulation on Solid Waste Disposal Sites

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9487.00-4D	01/01/84	The Hydrologic Evaluation of Landfill Performance (HELP) Model, Volumes I & II
9487.00-6C	10/01/85	Construction Quality Assurance for Hazardous Waste Land Disposal Facilities
9487.00-08	08/03/87	Joint NRC-EPA Guidance on a Conceptual Design Approach for Commercial Mixed Low-Level Radioactive & Hazardous Waste Disposal Facilities
9487.00-09	02/10/88	Vertical Expansion at the U.S. Ecology's Trench 10, Beatty, Nevada Facility
9487.01(81)	03/12/81	Interim Status of Proposed Landfill Cells
9487.01(83)	12/05/83	Landfills & Land Disposal Standards
9487.01(84)	02/07/84	Liner Design
9487.01(85)	01/22/85	Clarification on the Disposal of Nonhazardous Liquid Wastewaters & Sludges in Sanitary Landfills Under RCRA & HSWA
9487.01-01	04/30/86	Restrictions on the Placement of Nonhazardous Liquids in Hazardous Waste Landfills
9487.02(84)	05/14/84	Conditions for a Variance from Part 264 Landfill Liner & Leachate Collection Requirements
9487.02(85)	05/10/85	Clarification of Continued Landfill Disposal of "Lab Packs"
9487.03(85)	05/29/85	Clarification of Ban or Disposal of Liquids in Landfills
9487.04(85)	08/07/85	Management of Liquid Hazardous Wastes In Landfills
9487.05(84)	11/12/84	Existing Regulations on the Placement of Liquids in Landfills & Expected Requirements of the RCRA Amendments
9487.05(85)	09/20/85	User of Absorbents for Containerized Liquid Hazardous Wastes
9487.50-01A	11/18/85	"Waiver from Double Liner Requirements Pursuant to º3015(b)(1) and 40 CFR º265.301(c)" for CECOS International, Inc., Williamsburg, OH, Landfill Cell No. 9
9488.00-01A	05/21/86	Dioxin Trial Burns for Purposes of Certification or a RCRA Permit
9488.00-02	06/10/86	Permitting Incinerators
9488.00-03	06/30/86	Acceptability of Thermal Relief Vents on Hazardous Waste Incinerators
9488.00-3	09/01/81	Engineering Handbook for Hazardous Waste Incineration
9488.00-04	07/01/83	Guidance Manuel for Hazardous Waste Incinerator Permits
9488.00-06	08/01/86	Hazardous Waste Incineration Permitting Study
9488.00-08	06/30/86	Acceptability of Thermal Relief Vents on Hazardous Waste Incinerators
9488.01(85)	01/10/85	Dilution of a Characteristic Waste as a Treatment Process to Qualify for the º264.340 Exemption
9488.02(85)	01/14/85	Summary of EPA's Regulations Concerning Disposal of Dioxin - Contaminated Wastes by Incineration or Landfilling

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9488.03(85)	04/01/85	Acceptable Levels of Residual Contaminants in the EPA Incinerator Residues (Revision)
9488.04(85)	05/20/85	Modification of Incinerator Permits to Burn Dioxin Wastes
9488.05(85)	05/22/85	Effective Incineration of Infectious wastes
9488.06(85)	06/18/85	Certifying Incinerators & Thermal Treatment Units
9488.07(85)	06/26/85	Effect of Water-Stripped POHCs on Incinerator DRE
9488.08(85)	08/30/85	Regulatory Status of Drum Furnaces Burning Hazardous Waste Fuel
9488.50-01A	11/08/85	Burning Hazardous Waste Fuels in Cement KILNS
9489.00-02	04/22/88	Issues Relating to Miscellaneous Units
9489.01(82)	11/23/82	Status of DOD Munitions Deactivation Facilities
9490.00-02	11/14/80	Used Oil Recycling Act of 1980 (P.L. 96-463) (PIG-81-5)
9493.00-01A	07/31/86	EPA's Interpretation of the HSWA Prohibition on the Use of Hazardous Waste as a Dust Suppressant
9493.01(85)	07/12/85	Prohibition on Use of Hazardous Waste for Dust Suppression or Road Treatment
9494.00-01	08/24/87	Implementation Strategy to Accompany the Proposed Rule for Burning of Hazardous Waste Fuels
9500.00-01A	03/14/86	Guidance Document on RCRA Public Involvement
9501.01(82)	07/09/82	Guidance for Permitting of Hazardous waste Incinerators
9501.01(84)	11/09/84	RCRA Reauthorization Statutory Interpretation #1: Immediate Permit Requirements
9501.02(82)	12/29/82	RCRA Land Disposal Permit Strategy
9502.00-02	04/18/86	RCRA Corrective Action at Federal Facilities
9502.00-03	08/04/86	Implementation of UIC Corrective Action Requirements
9502.00-04	08/14/86	Implementation of RCRA Facility Assessments
9502.00-05	10/09/86	RCRA Facility Assessment Guidance
9502.00-06	07/24/87	Definition of Solid Waste Mgmt Unit for the Purpose of Corrective Action Under º3004(u)
9502.00-06C	07/01/87	RCRA Facility Investigation (RFI) Guidance
9502.00-06D	06/16/89	RCRA Facility Investigation (RFI) Guidance Vol. 1 of IV (EPA 530/SW-89-031, May 1989)
9502.00-07	03/08/88	Use of Corrective Action Authorities at Closing Facilities
9502.01(84)	12/07/84	Permitting of Refinery Oily Wastewater Treatment Ponds
9502.01(85)	02/05/85	RCRA Reauthorization Statutory Interpretation #3: Immediate Implementation of New Corrective Action Requirements

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9502.02(85)	06/17/85	Regulation of Wood Treatment Plant Drip Areas as SWMUs
9502.05(85)	02/05/85	RSI: Guidance on Corrective Action for Continuing Releases
9502.05(85B)	02/05/85	RCRA Reauthorization Statutory Interpretation #3: Immediate Implementation of New Corrective Action Requirements
9503.01(85)	05/10/85	Definition of Mixed Waste (DOE Facilities)
9503.02(85)	08/30/85	Regulation of "Mixed Wastes" at DOE Facilities
9503.50-01A	12/23/85	RSI Memorandum for RD&D Permits
9503.51-01A	12/24/89	RD&D Permit for a Sludge Drying Process in a Wastewater System
9503.52-01A	01/02/86	Permit-Exempt Status of Sludge Dryers Added to Wastewater Treatment Units
9504.01(84)	08/16/84	Enforcing Groundwater Monitoring Requirements in RCRA Part B Permit Applications
9504.02(84)	11/29/84	Responses and Mechanisms to Prevent GWM Deficiencies
9505.00-01	08/19/93	RCRA Public Involvement Manual
9521.00-01	10/03/90	RCRA Permit Appeals Guidance Manual
9521.01(84)	05/02/84	Inadequate Part B Permit Application
9521.02(84)	02/22/84	Public Participation in Permit Issuance
9521.03(84)	07/09/84	Reporting Withdrawals in SPMs as Final Permit Determinations
9522.00-01	09/15/86	Effect of Land Disposal Restrictions on Permits
9522.00-02	11/16/87	RCRA Permit Requirements for State Superfund Actions
9522.00-02a	03/09/88	RCRA Permit Requirements for State Superfund Actions
9522.00-03	11/13/87	Region 10's Recommended Revision of 40 CFR °s 270.4(a) & 270.32(b)(1)
9522.01(82)	05/14/82	Definition of "Major" Hazardous Waste Generators, Transporters, & Facilities (PIG-82-2)
9522.01(85)	02/11/85	Signatories to Department of Defense Permit Applications
9522.02(83)	07/11/83	Revised Definition of "Major Handlers" of Hazardous Waste
9522.02(85)	04/09/85	Steam Team RCRA Permit Issuance to Facilities in Violation of Other Federal Laws and Regulatory Programs
9522.03(84)	07/30/84	Issuance of RCRA Permits to Facility Owners and Operators
9522.03(85)	07/05/85	Requirements of °213 of HSWA
9522.04(84)	10/01/84	EPA Review of Draft State RCRA Permits
9522.04(85)	08/30/85	Partial Permitting
9523.00-01A	07/05/86	Permit Applicants' Guidance Manual for Exposure Information Requirements Under RCRA °3019
9523.00-02A	09/26/86	Procedural Guidance for Reviewing Exposure Information Under RCRA °3019

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9523.00-05	07/01/86	Permit Applicant's Guidance Manual for Hazardous Waste Land Treatment, Storage and Disposal Facilities
9523.00-10	10/01/83	Permit Applicant's Guidance Manual for the General Facility Standards of 40 CFR 264
9523.00-11	12/10/86	Denial of RCRA Operating Permits
9523.00-12	03/30/87	Summary of Permit Assistance Team (PAT) Comments
9523.00-14	03/14/86	Summary of Recent Permit Assistance Team (PAT) Comments
9523.00-15	03/30/88	Summary of Permit Assistance Team (PAT) Comments
9523.00-16	04/19/88	Call-in of Storage and Treatment Applications
9523.00-17	09/02/88	Summary of Assistance Branch Permitting Comments
9523.00-18	03/14/89	Summary of Assistance Branch Permitting Comments
9523-01(82)	10/22/82	Existing Incinerators and Date in Lieu of Trial Burn
9523.01(84)	01/17/84	Estimated Closure Dates in Permit Applications
9523.01(85)	02/25/85	Required Signatures on Part B Permit Applications
9523.02(84)	05/24/84	Guidance on Petroleum Refinery Waste Analyses for Land Treatment Permit Applications (list of 89 Hazardous Constituents Possibly Present in Refinery Wastes & Column Clean Up Procedure)
9523.03(83)	06/17/83	Land Owner Signature on Part A Applications
9523.03(85)	08/19/85	Additional Organic Parameters in Evaluation of Interim Status Groundwater Monitoring
9523.05(83)	07/29/83	Supplemental PAT Comments on McDonnell-Douglas Electronics Part B Applications
9523.05(84)	09/06/84	Groundwater Monitoring Requirements at a Site Overlying by Two Aquifers
9523.09(84)	11/23/84	Criteria for Using Trial Burn Information Obtained from One Incinerator to Issue a Permit at a Second Incinerator in Lieu of Conducting a Second Trial Burn at the Second Facility
9523.10(84)	11/29/84	EPA Authority Under RCRA º3008 to Assess Penalties for Failure to Submit a Complete and Adequate Part B Application
9523.50-01A	11/18/86	Post-Closure Part B Permit Requirements
9524.01(82)	02/08/82	RCRA Permits for Facilities that have Underground Tanks
9524.01(84)	10/05/84	Use of Compliance Schedules in RCRA Permits
9524.01(85)	08/01/85	Future Permitting of Incinerators Burning Non-Hazardous Waste
9524.02(84)	10/11/84	Permit Writer Responsibilities in Writing Permit conditions, the Velsicol Decision
9525.01(82)	01/29/82	Proposed Mechanism for Handling Mobile Treatment Units
9527.00-01A	05/01/86	Guidance Manual for Research, Development and Demonstration Permits Under 40 CFR º270.65

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9527.01(82)	11/02/82	RCRA Permits for Mobile Treatment Units & Multiple Sites Using the Same Type of Equipment
9527.01-84	03/19/84	The Revised Delegation to Process "Research and Special Incineration-at-Sea Permits"
9527.02(82)	11/02/82	EPA's Mobile Incinerator
9527-02(84)	07/20/84	Permitting Mobile Treatment Units, PAT Comments: EPA's Mobile Incinerator, Denney Farm Site, MO
9528.00-01	05/25/88	Interim Status Expansion to Add an Incinerator
9528.01(82)	05/28/82	Changes to Hazardous Waste Mgmt Facilities During Interim Status: Current & Proposed Regulations
9528.02(82)	07/20/82	Facility Changes During Interim Status
9528.50-1A	11/05/85	Interpretation of 40 CFR 270.70(b)
9540.00-1C	03/31/86	Draft State Consolidated RCRA Authorization Manual
9540.00-03	06/25/85	Guidance on RCRA State Program Reversion
9540.00-04	06/06/85	Review of State Statutory Authorities for the HSWA Amendments
9540.00-05	08/09/82	Status of Permits Issued Before a State Receives RCRA Phase II Authorization (PIG-82-5)
9540.00-6	07/01/85	RCRA Reauthorization and Joint Permitting in Authorized States: RCRA Reauthorization Statutory Interpretation #5
9540.00-07	01/15/87	Compliance Schedules for State Program Revisions
9540.00-08	04/08/87	Capability Assessments for RCRA Authorization Program Revisions
9540.00-09	01/21/88	State Consolidated RCRA Authorization Manual (SCRAM)
9540.00-09A	11/09/90	State Authorization Manual (SAM) Vols. I & II
9540.00-10	01/30/92	Capability Assessment Guidance
9540.50-1A	11/06/85	Effect on State Authorization of HSWA º3006(f): Availability of Information
9541.00-01A	06/16/86	State Program Revisions for RCRA
9541.00-03	06/10/83	RCRA State Final Authorization Guidance Manual
9541.00-03A	09/01/82	Equivalency of State Financial Responsibility Mechanisms
9541.00-04	02/21/84	Review of State Capability in RCRA Final Authorization
9541.00-6	07/30/87	State Program Advisory #2: RCRA Authorization to Regulate Mixed Waste
9541.00-7	06/09/88	State Program Advisory (SPA) #3: RCRA Authorization, Non-HSWA Cluster III & HSWA Cluster I
9541-00-09	08/22/88	State Program Advisory #5: Revised Model Attorney General's Statement and Models G & H Federal Register Notices for Codification
9541.00-10	09/27/88	State Program Advisory #4: State Program Changes for Non-HSWA Cluster IV and HSWA II and

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		Associated Revisions to the SCRAM
9541.00-11	07/13/89	State Program Advisory #6
9541-00-12	09/10/90	State Program Advisory #7 (Memo to Regional Division Directors (1-10)
9541.00-13	03/01/91	State Program Advisory #8
9541.00-14	01/08/92	State Program Advisory #9
9541.00-16	07/28/92	State Program Advisory #10
9541.00-17	09/23/93	State Program Advisory #11
9541.00-18	04/04/94	State Program Advisory #12
9541.00-19	04/07/94	State Program Advisory #13
9541.00-20	07/12/94	State Program Advisory #14
9541.01(81)	09/29/81	States' Role in Assigning EPA Identification Numbers (PIG-81-12)
9541.01(82)	05/17/82	EPA Enforcement of RCRA-Authorized State Hazardous Waste Laws & Regulation (PIG-82-3)
9541.01(83)	09/08/83	State Regulation Development & RCRA Final Re-authorization
9541.01(84)	02/21/84	State Regulation of Radioactive Waste
9541.01(85)	03/06/85	RCRA Permit Re-authorization Issues in Region 3
9541.02(83)	12/14/83	State Financial Regulations
9541.02(84)	03/05/84	Jurisdiction & Implementation of the Hazardous Waste Program on Indian Lands
9541.02(85)	11/20/81	Universe of Wastes for EPA Permit Activities in State Authorized for Phased II or Final Authorization (Ref. PIG-82-1)
9541.03(84)	04/16/84	Effect on Authorized State of Recent Addition of a Waste Stream to 40 CFR 261.31
9541.03(85)	03/08/85	Review of State Statutory Authorities for the Hazardous & Solid Waste Amendments of 1984
9541.04(84)	05/21/84	Determining Whether State Hazardous Waste Requirements are Broader in Scope or More Stringent than the Federal RCRA Program PIG-84-1
9541.05(85)	03/20/85	Application of 40 CFR 271.21(e) ("Moving Target") to Recently Promulgated Regulations
9541.05(84)	06/13/84	Transfer of Federal RCRA Permits to Authorized States & Compliance with 40 CFR 124.10(e)
9541.05(85)	05/08/85	Management of Wastes Newly Regulated Under HSWA
9541.06(84)	06/27/84	Effect of Applicability Revision on Final Authorization Requirement
9541.06(85)	05/20/85	Role of Local Governments in Operating Harardous Waste Programs
9541.07(84)	06/29/84	State Adoption of Regulations in Anticipation of Pending Federal Regulations Which Would Reduce the Stringency or Scope of the Federal Program

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9541.08(84)	09/13/84	Radioactive Waste Exemption in North & South Carolina
9541.08(85)	08/16/85	Revisions to State Program
9541.09(85)	07/01/85	Re-authorization Statutory Interpretation - #5 RCRA Re-authorization & Joint Permitting in Authorized States
9542.00-03	10/23/80	Federal Register Notice of Public Hearing & Comment Period on State Applications for Interim Authorization (PIG-81-2)
9542.00-04	12/01/80	Final Determinations on State Applications for Interim Authorization Action Memo & Federal Register Notice (PIG-81-7)
9542.01(80)	10/03/80	Requirement that State-Permitted Hazardous Waste Facilities have "Interim Status" (PIG-80-3)
9542.01(81)	02/12/81	Involvement of States Without Phase II Interim Authorization in RCRA Permitting (PIG-81-11)
9542.01(82)	05/25/82	State & EPA Interaction Regarding Exclusion of Waste Generated at Individual Facilities ("Delisting") (PIG-82-4)
9542.01(83)	08/02/83	Changes During Interim Status in Phase II Authorized States
9542.01(85)	01/11/85	RCRA RSTI #2: Extensions of Interim Authorization of State Hazardous Waste Programs
9542.02(80)	10/03/80	Interim Authorization of Program Based on Emergency State Regulations (PIG-80-2)
9542.02(81)	03/24/81	Transfer of Notification & Permit Application Information to States (PIG-81-10)
9542.02(82)	07/09/82	Federal Delisting & RCRA Permitting in Interim Authorized States
9542.02(84)	12/17/84	Clarification of State Vs. Federal Role in Interim Authorization
9542.03(80)	10/17/80	The Use of State Permitting Systems During Phase I Interim Authorization Not Based on Explicit Regulatory Standards (PIG-81-1)
9542.03(81)	11/20/81	Universe of Wastes for EPA Permit Activities in States Authorized for Phase I Only (PIG-82-1)
9542.04(80)	10/31/80	"Delisting" of Wastes by Authorized States (PIG-81-4)
9542.05(80)	11/14/80	State Regulation of Federal Agencies for Purpose of Interim Authorization (PIG-81-6)
9543.00-02	12/27/84	Additional Guidance on RCRA State Capability Assessments
9543.01(84)	06/26/84	State Capability Assessment Guidance
9545.00-2	07/01/86	RCRA Permit Quality Protocol
9545.00-4	05/15/86	FEDTRAK Federal RCRA Regulation Tracking System
9545.00-06A	08/11/88	RCRA Program Evaluation Guide

DIRECTIVE #	DATE	TITLE
9551.00-01	05/23/94	RCRA Policy Statement: Clarification of the Land Disposal Restrictions" Dilution Prohibition & Combustion of Inorganic Metal-Bearing Hazardous Wastes
9551.00-01A	02/26/86	Land Disposal Ban Variance Petitioner's Guidance Manual
9555.00-01	09/28/90	Memo to All NRC Licensees: Guidance on the Land Disposal Restrictions' Effects on Storage & Disposal of Commercial Mixed Waste
9560.01(85)	01/08/85	The Use & Nature RSIs
9560.02(83)	11/15/83	RCRA Permits for Superfund Sites
9560.02(85)	04/29/85	Delegation of Authority to Issue Permits
9560.03(85)	05/08/85	Joint Permitting & Compliance Schedules for Corrective Action
9560.05(85)	05/24/85	Loss of Interim Status Provisions
9560.10(85)	06/03/85	Detection of Gasoline Contamination in GW & Detection of LUST
9560.12(85)	07/10/85	Clarification of Points Raised at an EPA Symposium on RCRA & HSWA
9560.14(85)	08/05/85	Clarification of Types of Activities that May Be Used to Satisfy the Waste Minimization Certification
9560.15(85)	09/11/85	Waste Minimization: Permit Certification & Joint Permitting
9571.00-01A	07/29/88	Cooperative Agreement Guidance for State Mining Waste Programs
9572.00-01	10/16/87	Implementation of HSWA Subtitle D º4005(c)(1)(A) & º4005(c)(1)(C)
9572.00-02	02/22/88	Letter to State Environmental Commissioners: Subtitle D State Solid Waste Management Plans
9573.00-01	09/18/92	Exemption for Municipal Waste Combustion Ash from Hazardous Waste Regulation Under RCRA º3001(i)
9574.00-01	11/01/88	Clarification of Issues Pertaining to Household Hazardous Waste Collection Programs
9574.00-02	07/22/92	RCRA Subtitle C Requirements Applicable to Household Hazardous Waste Collection Programs Collecting Conditionally Exempt Small Quantity Generator Waste
9581.01-lA(86)	01/09/86	Guidance on Use or FY86 Additional RCRA Grant Funds
9595.00-1	05/06/86	Facility Management Planning/Multi-year Strategies
		* * * UNDERGROUND STORAGE TANKS (OUST) * * *
9610-1	02/10/86	When is a Tank Considered to be Installed
9610.2	04/07/86	Clarification of the Definition of "Underground Storage Tank"

DIRECTIVE #	DATE	TITLE
9610.3	05/02/86	Revisions & Additions to the Underground Storage Tank (UST) Notification Definitions
9610-05	04/13/88	FY'89-FY'90 Transition Strategy for the Underground Storage Tank Program
9610-05-01	01/30/89	Transition Tasks List
9610.06	05/06/88	The UST Program Appraisal Strategy
9610.07	03/14/88	UST Program Indian Lands Strategy for FY'88 & FY'89 and Guidance for Regional Pilot Project
9610.08		