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DECLARATION FOR THE  
REVERE TEXTILE PRINTS CORPORATION RECORD OF DECISION



SDMS DocID 246622

**SITE NAME AND LOCATION**

Revere Textile Prints Corporation Superfund Site  
Sterling, Connecticut

**STATEMENT OF PURPOSE**

This decision document presents the selected No Action decision for the Revere Textile Prints Superfund Site (the Site), located in Sterling, Connecticut. This document was developed 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 to the extent practicable, the National Contingency Plan (NCP); 40 CFR Part 300 et seq. (1990). The Regional Administrator for Region I of the United States Environmental Protection Agency (EPA) has been delegated the authority to approve this Record of Decision.

The State of Connecticut has concurred with the No Action decision.

**STATEMENT OF BASIS**

This decision is based on the administrative record compiled for the Site which was developed in accordance with Section 113(k) of CERCLA. The administrative record is available for public review at the Sterling Public Library in Oneco, Connecticut and at the EPA Region I Waste Management Division Record Center in Boston, Massachusetts. The administrative record index (attached as Appendix E to this ROD) identifies each of the items which comprise the administrative record upon which the selection of the No Action remedy is based.

**DESCRIPTION OF THE SELECTED REMEDY**

EPA has determined that No Action is necessary to address the contaminants that remain at the Site under CERCLA. Previous response actions eliminated the need to conduct remedial action at the Site. EPA will perform a minimum of five years of additional monitoring of the ground water and sediments. In addition, pursuant to Section 121(c) of CERCLA, the Site will be reviewed to ensure that the No Action decision remains protective of human health and the environment.

DECLARATION

EPA has determined that no remedial action is necessary to ensure protection of human health and the environment. Therefore, the Site now qualifies for inclusion in the "sites awaiting deletion" subcategory of the Construction Completion category of the National Priorities List.

Sept. 30 1992  
Date

Julie Belaga  
Julie Belaga  
Regional Administrator

REGION I

REVERE TEXTILE PRINTS CORPORATION SUPERFUND SITE  
RECORD OF DECISION SUMMARY

SEPTEMBER 30, 1992

REVERE TEXTILE PRINTS CORPORATION

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REVERE TEXTILE PRINTS CORPORATION SUPERFUND SITE  
ROD DECISION SUMMARY  
SEPTEMBER 1992

I. REVERE TEXTILE PRINTS CORPORATION SUPERFUND SITE, STERLING,  
CONNECTICUT

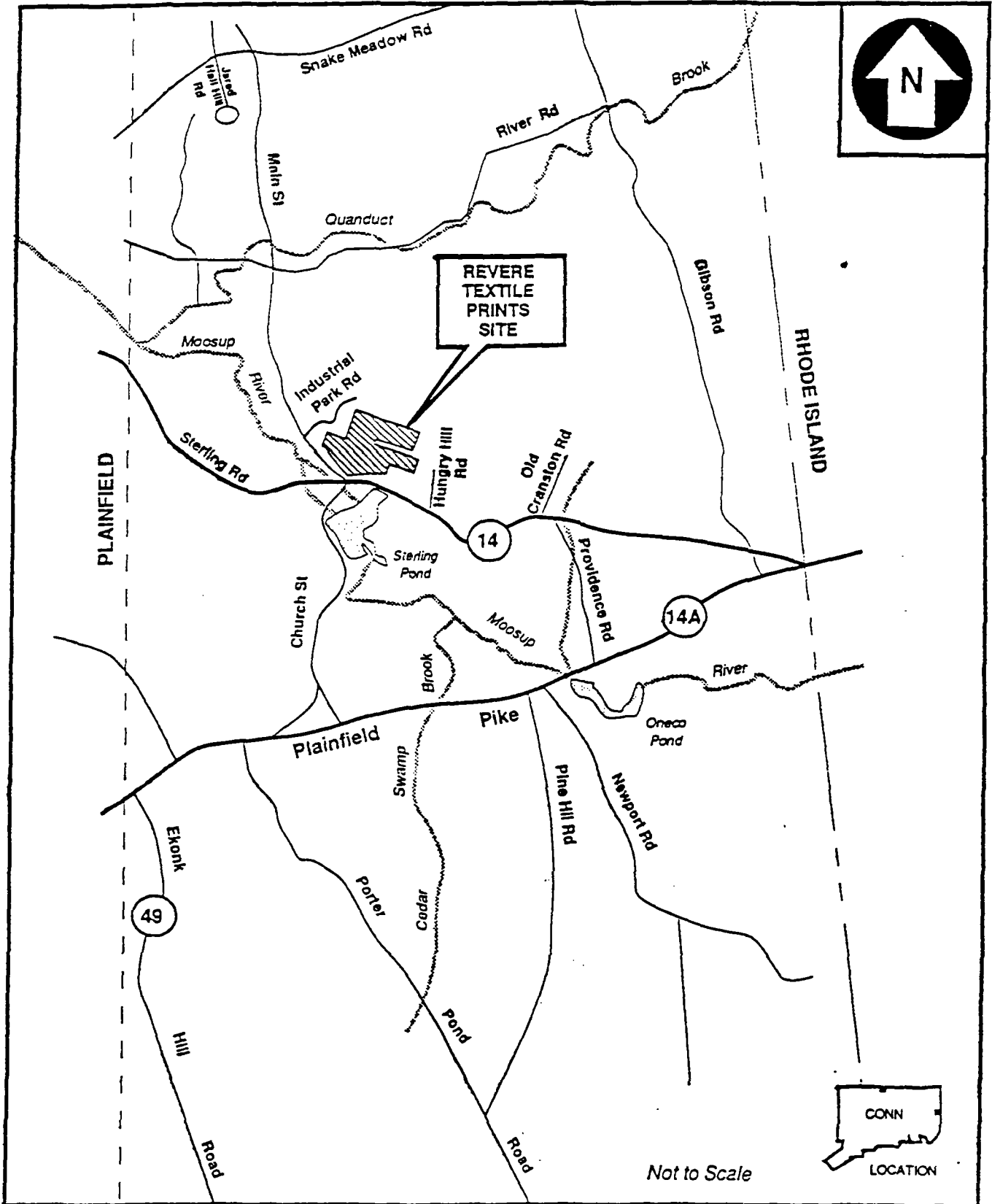
The Revere Textile Prints Corporation Superfund Site (the Site) covers approximately 15 acres in the small rural Town of Sterling, Connecticut, in Windham County, situated one mile west of the Rhode Island border (refer to Figure 1). The Site is bounded by Industrial Park Road to the northwest, Main Street and Route 14 to the south and southwest and a very steep bedrock dominated slope to the northeast (refer to Figure 2).

The Moosup River and Sterling Pond are located southwest and southeast of the Site, respectively, on the opposite side of Main Street and Route 14. Sterling Pond is a man-made reservoir created by damming the river. Four spillway channels allow pond overflow to merge into the Moosup River downstream of the Site. One of these channels diverts water from Sterling Pond underground through a subgrade, covered man-made spillway channel consisting of a headrace and tailrace (Spillway Channel). The headrace passes through the Revere Site feeding an on-site pond, and discharging back into the tailrace and into the Moosup River. Along the northern bounds of the Site, adjacent to the steep slope, is an abandoned railway bed. Fresh-water wetlands were identified 0.9 miles downstream of the Site. No critical habitats of threatened or endangered species, or natural wildlife refuges were identified within a 1-mile radius of the Site.

The Site is an open, gently sloping area with elevation increasing to the northeast. The northwestern third of the Site has a topographic depression. The most significant surface features on the Site are four dilapidated building structures on the northern portion of the Site (designated as Buildings B3, B5, B10 and B11) and two additional structures identified as Buildings B16 and B18 adjacent to Route 14 (refer to Figure 2). Approximately 130 feet northwest of Building B3 is a partially underground structure that houses the remains of the former Town of Sterling water distribution and treatment system. The northern edge of the topographic depression discussed above, terminates at this structure. Building debris and foundations cover a large portion of the surface of the Site. EPA performed both an electro-magnetic geophysical survey and a seismic survey which suggest the existence of either a maze of underground utilities or numerous buried metal objects (possibly including foundation slabs and demolition debris). Both surveys found significant anomalous readings in the southwestern portion of the Site that were thought to consist of such materials.

Figure 1.

# Revere Textile Prints Site Location Map



Based on interviews with Town officials, Sterling is serviced by a municipal water supply system located approximately 1,000 feet west of the Site. All homes within the vicinity of the Site are connected to the municipal water supply system. The total population served by ground water within a 3-mile radius was calculated to be 4,538 people.

A more complete description of the Site can be found in the Remedial Investigation Report in Section 1.

## **II. SITE HISTORY AND ENFORCEMENT ACTIVITIES**

### **A. Land Use and Response History**

Land use in the area surrounding the Site is a mix of rural residential, industrial and agricultural, interspersed with woodlands and grassland meadows. The Moosup River is used for recreational purposes including fishing.

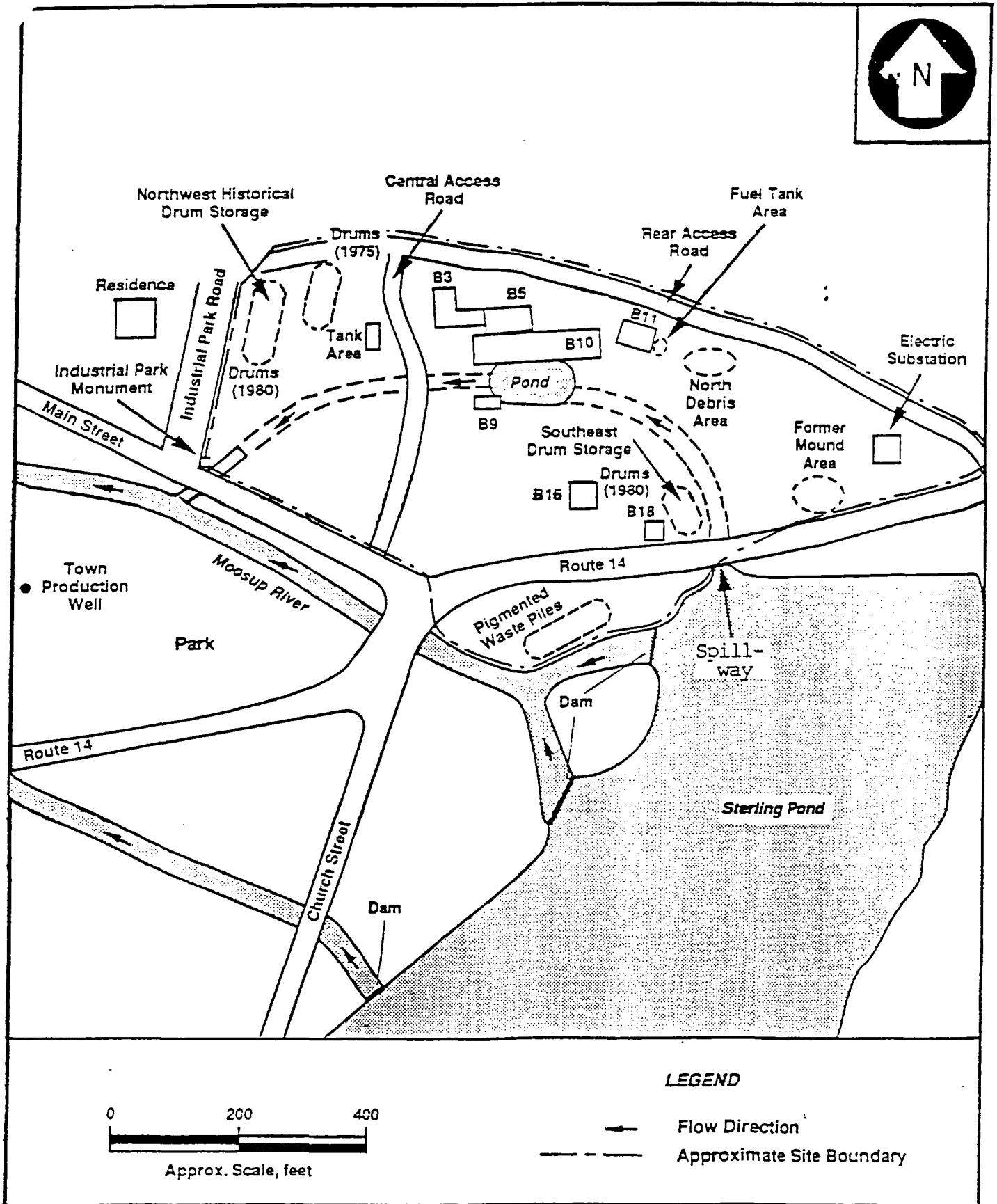
The Site has long been used for industrial purposes and was originally a cotton mill operated by various owners from 1809 to 1879. The first dyeing of cotton began in 1879 with operations conducted by the Sterling Dyeing and Finishing Company. Since then, the Site has been occupied by several textile processing facilities, including the Sterling Dyeing and Finishing Company from 1904-1954, the Moosup Finishing Corporation from 1959-1960, and the Revere Textile Prints Corporation from 1966-1980. Pigments, dyes, and solvents were used at each of the textile firms to print various colors and patterns on fabrics until March 1980 when a fire forced operations at the facility to shut down. The fire, however, did not destroy all of the buildings at the Site. Kenneth Lynch bought the Site in 1981, then sold it to W.F. Norman Company in 1982-1983. The W.F. Norman Company used the Site for metal stamping operations and then abandoned operations at the site.

The Town of Sterling acquired the Site in October 1988 and is the current owner of the property. Recently, a light industrial park has been developed, and several of the lots have been sold. The industrial park boundary includes the Site property and continues to the northeast of the Site. Businesses already operating in the park are a machine shop, a computer paper manufacturer, a liquid soap manufacturer, and a rubber tire incinerator operated by Oxford Energy. Currently, the buildings at the Site are in very poor shape. The Town plans for the Site to remain within the Sterling Industrial Park.

Throughout the history of dyeing operations at the facility, process rinse water and leftover printing pigments were reportedly disposed down floor drains of the Revere facility and into the Moosup River. Many residents reportedly observed the dumping or observed the colored effects of the dumping of waste dyes into the Moosup River. In 1978, after an order was issued from the Connecticut Department of

Figure 2.

# Revere Textile Prints Site Map





Environmental Protection (CTDEP) to drastically reduce the organic color levels being discharged directly into the Moosup River, the Revere Textile Prints Company apparently began drumming the wastes and having them shipped off the Site for treatment/disposal. The Revere Textile Print Company began storing large quantities of the wastes on the Site after their contracted drum hauler went out of business.

After the fire in 1980, an inspection of the Site in September 1980 by the CTDEP revealed that over 1,500 drums of waste material remained at the Site. The inspection revealed waste-containing drums spread out over the entire Site, and not placed specifically in waste storage areas. Some drums were lying horizontally and evidence of soil staining was apparent. A November 1980 inspection by CTDEP personnel revealed that the drums were eventually gathered and organized in two of the on-site buildings. Figure 2 identifies the historical drum storage areas and waste material piles.

During the period that the drums were on the Site, the property did not have adequate security measures and several drums leaked as a result of vandalism. As stated previously, visual inspection of the Site showed evidence of stained/colored soils located by the former drum storage areas and also pigmented waste piles by the fill area of the Spillway Channel and across Route 14 in the pile area.

EPA involvement with the Site commenced after the discovery of drum storage on the Site. In 1987, the Site was placed on EPA's National Priorities List (NPL) of hazardous waste sites, making it eligible for federal funding for investigation and cleanup. The drum storage area as well as certain historical waste disposal areas on Site, including the Spillway Channel and the Moosup River, had the potential to have been affected by the historical Site waste disposal activities. Therefore, EPA determined that contamination might reside in the ground water, surface water, soils and sediments connected with the historical waste disposal and storage areas of the Site.

Several sampling events were conducted in an effort to determine whether significant levels of contamination still existed in the soils, sediments, surface water, and ground water, and to identify the contents of the remaining drums. The results of these sampling events led to the initiation and subsequent completion of EPA's remedial investigation in 1992.

A more detailed description of the Site history can be found in the Remedial Investigation Report in Section 1.

#### **Removal Activities to Date**

In September 1980, CTDEP ordered Kenneth Lynch to remove the drums remaining on the Site. In 1983, Kenneth Lynch hired Environmental Waste Removal (EWR) to remove approximately 1,500 drums from the

Site. At the same time, an unspecified amount of stained soils was removed for off-site disposal. The CTDEP inspected the Site following the removal and found that all of the drums had been removed. Although most of the contaminated soil was removed, stained soils and sludge piles remained on the Site in material fill areas and around the drum storage areas.

In 1989, EPA found several 55-gallon drums and 5-gallon cans containing liquid waste material, located in and around the remaining Site buildings. The drums were sampled in June 1989. On May 31, 1990, EPA issued a unilateral administrative order pursuant to Section 106 of CERCLA to the Town of Sterling to remove and dispose of the remaining drums off the Site. The Town of Sterling performed the removal and disposal in 1991.

#### B. Enforcement History

EPA issued a unilateral administrative order to the Town of Sterling on May 31, 1990, to remove and dispose of the remaining drums off the Site. The Town of Sterling performed the removal and disposal in 1991.

On January 29, 1991, EPA requested that four parties who either owned or operated the facility, generated wastes that were shipped to the facility, arranged for the disposal of wastes at the facility, or transported wastes to the facility provide certain information regarding the identification, nature, and quantity of materials that have been generated, treated, stored, disposed of at the Site or transported to the Site. EPA also requested information relating to the ability of a person to pay for or to perform investigations and a cleanup of the Site.

### III. COMMUNITY PARTICIPATION

Throughout the Site's history, community concern and involvement has been low. EPA has kept the community and other interested parties apprised of the Site activities through fact sheets, press releases and public meetings.

EPA conducted interviews with local officials and residents during September 1990 to assess community concerns. On October 15, 1990, EPA issued a press release to describe the plans for the Remedial Investigation. During January, 1991, EPA released a community relations plan which outlined a program to address community concerns and keep citizens informed about and involved in activities during remedial activities.

On August 19, 1992, EPA updated the administrative record which had previously been made available for public review at EPA's offices in Boston and at the Sterling Public Library in Oneco, Connecticut. EPA published a notice and brief analysis of the Proposed Plan in The Norwich Bulletin on August 20, 1992 and made the plan available to

the public at the Sterling Public Library.

On September 2, 1992, EPA held an informational meeting to discuss the results of the Remedial Investigation and to present the Agency's Proposed No Action Plan. Also during this meeting, the Agency answered questions from the public. From August 21, 1992 through September 19, 1992, the Agency held a 30-day public comment period to accept public comment on the No Action remedy outlined in the Proposed Plan and on any other documents previously released to the public. During the September 2, 1992, informational meeting, the Agency was prepared to accept any oral comments. No oral comments were made during this meeting. A transcript of this meeting (Appendix C of this ROD) and the written comments received during the comment period and the Agency's responses to these comments are included in the attached responsiveness summary (Appendix B).

#### IV. SCOPE AND ROLE OF NO ACTION REMEDY

EPA has determined that no further CERCLA action is required at the Revere Textile Prints Corporation Site. The levels of contaminants detected in the soils, sediments, ground water, surface water, and air at the Site do not appear to pose an unacceptable risk to human health and the environment based upon the authority of CERCLA to respond to releases.

EPA will continue to monitor the ground water and sediments at the Site for a period of five years. Consistent with Section 121(c) of CERCLA, EPA will also perform five-year reviews of the Site to ensure that the No Action decision remains protective of human health and the environment.

The decision by EPA not to pursue further action at the Site is not a determination that no action is warranted under other federal or state regulations and statutes. In addition, EPA has the authority to revisit the No Action decision even if the Site is removed from the NPL. This could occur if future conditions indicate that an unacceptable risk to human health or the environment would result from the exposure to contaminants at the Site.

#### V. SUMMARY OF SITE CHARACTERISTICS

The significant findings of the Remedial Investigation are summarized below:

##### A. Soil

Based on U.S. Geological Survey (USGS) surficial maps, the overburden at the Site and vicinity primarily consists of two types of surficial deposits: glacial till and stratified glacial outwash (Harwood and Goldsmith, 1971a). According to the regional well and test boring data, the till varies in thickness from 8 to 80 feet with average values of less than 10 feet. The till typically consists of

heterogeneous, dense, poorly sorted, light-gray to tan silt, sand, gravel, boulders, and minor clay. The stratified outwash ranges in size from boulder/cobble/gravel to coarse/fine sand, silt and clay. The overburden thickness increases to the west from the Site towards the center of the valley. The town well field 1000 feet west of the Site boundary (across the Moosup River) is located in an area of overburden 92 feet thick.

EPA investigated soils throughout the Site using various field screening techniques, and laboratory analysis of soil samples. These activities are described in detail in Section 4 of the RI Report. Site soils were sampled and analyzed for volatile organic contaminants (VOCs), base neutral acid extractables (BNAs), pesticides, polychlorinated biphenyls (PCBs), metals, and cyanide.

The highest VOC concentration levels were recorded at the four foot depth interval from MWT-09-04 (acetone at 200 micrograms per kilogram (ug/kg), ethylbenzene at 400 ug/kg, and xylene at 6100 ug/kg), and adjacent subsurface sample SL-02-D (acetone at 480 ug/kg). These low levels of VOC contamination appear to be limited to a very small area and are probably associated with minor spills and/or releases associated with the movement of drums/tanks and/or equipment across the Site. The data do not indicate any major spills or sources of VOC contamination.

Soil sampling and subsequent laboratory analysis of BNAs was conducted during Phase II of the remedial investigation. Analytical results for the surface and subsurface soil sampling programs are presented in Section 4 of the RI Report with more discussion of the results in Section 5 of that report and in the December 1991 Technical Directive Memorandum.

Numerous BNAs, primarily polynuclear aromatic hydrocarbons (PAHs), were identified in the surface and subsurface soils. Low PAH concentrations were distributed throughout the entire Site; however, concentrations were elevated in some areas.

A number of metals including lead, barium, copper, iron, and zinc are elevated above the highest reported background concentrations in certain localized areas of the Site. Elevated concentrations of aluminum, beryllium, and manganese were found in soils at the Northwest Historical Drum Storage Area. The Southeast Drum Storage Area, the Rear and Central Access Roads, the Fuel Tank Area, and the Northern Building Perimeter Area all showed elevated concentrations of copper and/or lead. Chromium, magnesium, and nickel were found at elevated levels in the Pigmented Waste Pile and iron was found at elevated levels in the Former Mound Area. Arsenic was found at several locations.

The occurrences of elevated metals at these areas may be the result of pigments and dyes used at the Site, and spills and/or leaks of materials during the movement of equipment and vehicles across the

Site or from drums stored on the property. The occurrence of vanadium at elevated levels along the Access Roads may be the result of fuel spills from vehicular movement.

Pesticide/PCB field screening results and laboratory analysis indicate that chlorinated pesticides are not widespread at the Site. No PCBs were detected in the field screening or the laboratory analysis.

## B. Ground Water

The Moosup River flows past the Site and the well field in a northwesterly direction and recharges the overburden aquifer in the vicinity of the town well field. Due to the shallow water table, the surficial aquifer also discharges to the Moosup River in the vicinity of the Site. Ground water was characterized during the Site hydrogeological study as flowing in a southwesterly direction across the Site towards the Moosup River.

Potential impacts of increasing ground water withdrawal from the Moosup River aquifer were evaluated. Based on the town supply well (installed 1985) pump test data, geologic logs of wells in the immediate vicinity and a study performed by BCI-Geonetics (BCI-Geonetics, 1988) EPA concludes that two surficial aquifers, a lower and upper aquifer, are present at the municipal well field area directly across Moosup River from the Site. Sterling's municipal well PW-01 is screened in the lower aquifer, which is confined by a layer of silt and clay that has a low, but measurable, permeability. Seventy-two (72) hour pump tests of well PW-01 pumped ground water at a constant rate (550 gpm) from the lower aquifer. Based on these tests, transmissivity of the aquifer was estimated at 4,144 ft<sup>2</sup>/day. The upper aquifer appeared unconfined. The low-permeability layer does not appear to exist under the Site and the overburden aquifer acts as one entity.

Ground water sampling was conducted in three phases (Phase I, Phase II, and Phase III). During Phase I, ground water samples were collected on the Site from 14 overburden monitoring wells and three bedrock wells, two existing overburden monitoring wells, an existing on-site bedrock production well, an old public supply source, and the town supply well. All water samples were analyzed for VOCs, BNAs, pesticides, PCBs, metals, cyanide, and physical characteristics. Well PB-03 and ground water source area PW-02 are considered to be representative of background conditions.

During Phase II, ground water samples were collected again from all wells discussed above. All samples were analyzed for the same parameters as in the Phase I round.

High concentrations of aluminum and iron (which are not priority metal contaminants) in Phase I and II data suggested that those water samples contained appreciable levels of particulate matter.

Particulates, if not part of the matter moving with ground water, may bias the results of metal analysis. This bias can lead to an over estimation of concentrations and imply exceedences of maximum contaminant levels (MCLs) where, in fact, there are none. Because of this, EPA decided to conduct a third sampling phase using a peristaltic pump rather than a bailer for purging and sampling of all the wells. Purging and sampling of the wells was performed at low extraction rates until turbidity stabilized. Once stabilized, an unfiltered water sample was taken for metals analysis. This procedure was used in order to limit the artificial entrainment of particulates which can occur if the well is overstressed during a bailing operation.

None of the sampled wells had organic compound concentrations above MCLs. None of the monitoring wells showed any detectable concentrations of VOCs during the Phase II sampling round.

BNAs were detected in four monitoring wells, with two of the wells showing very low but quantifiable concentrations. No pesticides or PCBs were detected in the wells sampled at the Site. No BNAs, pesticides, or PCBs were detected in the town water supply samples. (Note: Phase I BNA and pesticide/PCB data were rejected due to exceedence of sample holding times.)

Metal concentrations in off-site public supply wells, and on-site background, bedrock, and most overburden monitoring wells were quite low during sampling rounds one and two. However, concentrations for two priority metals in four overburden wells exceeded MCLs. The chromium MCL was exceeded in two wells in Phase I and two other wells in Phase II. The arsenic MCL was exceeded in one well in Phase I. The spotty nature of these exceedences coupled with elevated concentrations of aluminum and iron (which are non-priority metals) suggested to EPA as discussed above, that the data could be biased by particulate matter in the water samples. A third round of sampling was performed using low extraction rates during purging and sampling. Particulate matter in all water samples (as measured by turbidity) was quite low, as were all metal concentrations. There were no exceedences of MCLs.

It is the judgement of EPA that the elevated metal concentrations in Phase I and II are a result of the purge and sampling method (bailer) used at that time. Those metal concentrations are not characteristic or representative of the total metals load moving through the aquifer under natural flow conditions. Therefore, the Agency is using only the metal concentrations for water samples from Phase III to determine risk at the Site.

### C. Ground Water Flow

RI data indicate that ground water moves in a southwesterly direction across the Site toward the Moosup River. Two surficial aquifers, a lower and upper aquifer, are present in the municipal well field

area. A low-permeability layer of silt and clay separates the upper and lower aquifers. However, based on the RI study, a low-permeability layer does not appear to exist under the Site and the overburden aquifer acts as one entity.

The RI data show levels in bedrock wells PB-01 and PB-02 are artesian (upward gradients). Water level elevations in these two wells suggest that locally, fractures in the bedrock may have a poor hydraulic connection with the surficial aquifer.

#### D. Surface Water

Twelve surface water samples were collected from the on-site pond and Spillway Channel, Sterling Pond, and the Moosup River during the RI. Phase I and II sampling locations are shown in Section 4 of the RI Report. All surface water samples were analyzed for complete VOCs, BNAs, pesticides, PCBs, metals, cyanide, and physical characteristics.

Twenty-one sediment samples were collected from the water bodies located on and adjacent to the Site during Phases I and II. Six sediment samples were collected during the most recent round of sampling completed in July 1992. These samples were used for a round of biological assay tests incorporating indigenous benthic organisms for analysis. All sediment samples contained greater than 30 percent solids to assure valid data. All the samples were analyzed for VOCs, BNAs, pesticides, PCBs, metals and cyanide.

No VOCs were detected in surface water at the Site. However, low-level VOC contamination is present in sediments at the Site. Acetone and 2-butanone were most frequently detected while methylene chloride, toluene, and carbon disulfide were less pervasive.

No BNAs, pesticides, or PCBs were detected in the surface water at the Site. However, BNAs are widely distributed across the Site in sediments and were detected at all sampling locations during Phases I and II. Section 4 in the RI Report contains the analytical results of sediment BNA, pesticide, and PCB analysis. Only four pesticides were detected and all concentrations were at or near detection levels.

With the exception of one sampling location, no metals were detected in surface water at concentrations above those typically occurring naturally. In sediments, only copper was detected at concentrations significantly exceeding background levels. Low levels of other metals were detected particularly from sediment samples collected downstream of the Site.

The results of the biological assay testing indicate that no significant biological accumulation is occurring as a result of the concentrations of contaminants present in the sediments associated with the Site.

### **E. Air**

The results of the continuous and fenceline air monitoring during the intrusive activity at the Site are negligible. The only significant sustained contamination readings were noted during the exploration of underground storage tanks (USTs) in the building depicted near grid location 7+50, 150 L in Section 4 of the RI Report. However, values obtained on soils quickly dissipated in the open air to nondetectable levels.

### **F. Underground Storage Tanks**

A series of tank vents observed during a Site walkover in May of 1990 were investigated during the RI. The investigation included monitoring of the void-space of the tanks using an OVA probe, sampling of the tank contents, and a boring program designed to characterize the overburden immediately surrounding the tanks for signs of environmental impact. The three tanks were found to contain petroleum products. In addition, an area of soil adjacent to the tanks next to Building B10 also found to be contaminated with petroleum products.

A complete discussion of Site characteristics can be found in the Remedial Investigation Report in Section 3.

## **VI. SUMMARY OF SITE RISKS**

### **A. Human Health Risk Summary**

A Risk Assessment was performed to estimate the probability and magnitude of potential adverse human health and environmental effects from exposure to contaminants associated with the Site. The public health risk assessment followed a four step process: 1) contaminant identification, which identified those hazardous substances which, given the specifics of the Site were of significant concern; 2) exposure assessment, which identified actual or potential exposure pathways, characterized the potentially exposed populations, and determined the extent of possible exposure; 3) toxicity assessment, which considered the types and magnitude of adverse health effects associated with exposure to hazardous substances, and 4) risk characterization, which integrated the three earlier steps to summarize the potential and actual risks posed by hazardous substances at the Site, including carcinogenic and non-carcinogenic risks. The results of the public health risk assessment for the Site are discussed below, followed by the conclusions of the environmental risk assessment.

Fifty-eight contaminants of concern, listed in Tables 1, 2, and 3 of this Record of Decision were selected for evaluation in the risk assessment. These contaminants constitute a representative subset of the more than 77 contaminants identified at the Site during the Remedial Investigation. The 58 contaminants of concern were selected



to represent potential Site related hazards based on toxicity, concentration, frequency of detection, and mobility and persistence in the environment. A summary of the health effects of each of the contaminants of concern can be found in Section 6 and Appendix M of the Risk Assessment in the RI.

Potential human health effects associated with exposure to the contaminants of concern were estimated quantitatively or qualitatively through the development of several hypothetical exposure pathways. These pathways were developed to reflect the potential for exposure to hazardous substances based on the present uses, most probable future uses, and location of the Site.

Potential current receptors of Site related contamination are trespassers on the Site and recreational users of the Moosup River. Under present conditions the Site is completely accessible to trespassers, therefore a trespasser scenario was developed for incidental ingestion of and dermal contact with surface soils. In addition, exposure to sediments from the Moosup River is likely by youths. Therefore, a recreational exposure scenario was developed for incidental ingestion and dermal contact with sediments. There is also a small pond on the Site and the frequent use of the Site by trespassers makes it a present and potential future exposure pathway. Therefore, a recreational exposure scenario was developed for incidental ingestion and direct contact with surface water.

Future land use of the Site is expected to involve industrial and commercial activity as it has in the past. Because there is reasonable certainty that the Site will continue to be used for industrial purposes and not residential purposes, an excavation worker scenario was also developed for direct contact and incidental ingestion of subsurface soils. Risk was also calculated based upon future residential exposure to both surface and subsurface soils, and ground water.

The following is a brief summary of the exposure pathways evaluated. A more thorough description can be found in Section 6 of the RI. For contaminated ground water, a lifetime of consuming 2 liters of water per day was assumed. For contaminated soil, dermal contact and incidental ingestion of soil was evaluated for a trespasser assuming exposure 91 days a year for 10 years. Dermal contact and incidental ingestion of soil was evaluated for an excavation worker assuming exposure 65 days a year for 1 year. For contaminated sediments, exposure to an adolescent (9-18 years old) was estimated. Dermal contact with and incidental ingestion of sediments was evaluated assuming exposure 52 days a year for 10 years. Dermal contact and incidental ingestion of surface water by an adolescent (9-18 years old) while swimming was evaluated assuming exposure 26 days a year for 10 years. For each pathway evaluated, an average and a reasonable maximum exposure estimate was generated corresponding to exposure to the average and the maximum concentration detected in that particular medium.

Excess lifetime cancer risks were determined for each exposure pathway by multiplying the exposure level with the chemical specific cancer factor. Cancer potency factors have been developed by EPA from epidemiological or animal studies to reflect a conservative "upper bound" of the risk posed by potentially carcinogenic compounds. That is, the true risk is unlikely to be greater than the risk predicted. The resulting risk estimates are expressed in scientific notation as a probability (e.g.  $1 \times 10^{-6}$  for 1/1,000,000) and indicate (using this example), that an average individual is not likely to have greater than a one in a million chance of developing cancer over 70 years as a result of Site-related exposure as defined to the compound at the stated concentration. Current EPA practice considers carcinogenic risks to be additive when assessing exposure to a mixture of hazardous substances.

The hazard index was also calculated for each pathway as EPA's measure of the potential for non-carcinogenic health effects. A hazard quotient is calculated by dividing the exposure level by the reference dose (RfD) or other suitable benchmark for non-carcinogenic health effects for an individual compound. Reference doses have been developed by EPA to protect sensitive individuals over the course of a lifetime and they reflect a daily exposure level that is likely to be without an appreciable risk of an adverse health effect. RfDs are derived from epidemiological or animal studies and incorporate uncertainty factors to help ensure that adverse health effects will not occur. The hazard quotient is often expressed as a single value (e.g. 0.3) indicating the ratio of the stated exposure as defined to the reference dose value (in this example, the exposure as characterized is approximately one third of an acceptable exposure level for the given compound). The hazard quotient is only considered additive for compounds that have the same or similar toxic endpoint and the sum is referred to as the hazard index (HI). (For example: the hazard quotient for a compound known to produce liver damage should not be added to a second whose toxic endpoint is kidney damage).

Tables 1 through 7B can be found in Appendix A of this ROD.

Table 1 depicts the summary of contaminants of concern in ground water and their frequency of detection at the Site during the RI.

Table 2 depicts the summary of contaminants of concern in surface soils on the main Site and their frequency of detection during the RI.

Table 3 depicts the summary of contaminants of concern in subsurface soils at the main Site and their frequency of detection during the RI.

Table 4 depicts the carcinogenic risk summary for the contaminants of concern in ground water evaluated to reflect potential future

ingestion of ground water corresponding to the average and the reasonable maximum exposure.

Table 5 depicts the non-carcinogenic risks for the contaminants of concern in ground water evaluated to reflect potential future ingestion of ground water corresponding to the average and the reasonable maximum exposure scenarios.

Table 6 depicts the carcinogenic risk summary for the contaminants of concern in subsurface soil evaluated to reflect potential future ingestion and direct contact with subsurface soils corresponding to the average and reasonable maximum exposure scenarios.

Tables 7A and 7B depict the cumulative risk summary for the carcinogenic and noncarcinogenic contaminants of concern for each pathway analyzed. For a more detailed analysis on the risk for each contaminant of concern, see Appendix L of the RI.

EPA has determined that the Site does not currently pose an unacceptable threat to human health. The ground water on Site does not currently pose a threat to human health because it is not currently used as a drinking water source. Water samples from the municipal supply well were tested and results indicate that current risks are insignificant.

Samples collected from the surface water indicate that surface water currently poses no carcinogenic risk. Noncarcinogenic inorganics were detected in surface water samples. However, ingestion of and dermal contact with Main Site surface water while swimming resulted in hazard index values below one ( $3 \times 10^{-3}$ ), an acceptable risk.

The current risk from exposure to contaminated soil was calculated for both carcinogens and non-carcinogens. These risks were all quite low and are found to be acceptable by EPA. EPA divided the Site into two areas of study for the purpose of calculating current risk from exposure to soils. These two areas are called the Main Site area and the Pigmented Waste Pile area. The carcinogenic risk from soil to trespassers and recreational users of the Pigmented Waste Pile area was very low ( $1 \times 10^{-8}$ ). The hazard index value for noncarcinogenic risk from soil to trespassers and recreational users of the Pigmented Waste Pile area was also very low -- less than one ( $3 \times 10^{-2}$ ). The carcinogenic risk from soils to trespassers on the Main Site area was estimated to be  $1 \times 10^{-4}$  and the hazard index value for noncarcinogenic risk from soils to trespassers of the Main Site area was estimated to be less than one ( $8 \times 10^{-2}$ ).

EPA also evaluated the human risk currently posed by sediments at the Site. Risk from exposure to Main Site sediments, collected from the Spillway Channel and the on-site pond, were evaluated for trespassers. The carcinogenic risk associated with these sediments was very low ( $1 \times 10^{-5}$ ). The hazard index value for noncarcinogenic risks to these sediments was lower than one -- ( $3 \times 10^{-2}$ ), and is

therefore, considered acceptable by EPA. The carcinogenic risk to a recreational user from Moosup River sediments collected near the Pigmented Waste Pile area and down-river calculated was estimated to be very low --  $4 \times 10^{-6}$  and  $1 \times 10^{-6}$ , respectively. The hazard index value for noncarcinogenic risks from these sediments was lower than one -- ( $4 \times 10^{-2}$  and  $3 \times 10^{-2}$  respectively). These risks are all quite small and are acceptable to EPA.

In addition to finding that the Site currently poses no unacceptable risk to human health, EPA has also determined that the Site will not pose a threat to human health in the future. The future carcinogenic and noncarcinogenic risks for surface water, Pigmented Waste Pile area surface soils, Main Site and all Moosup River sediments were estimated to be the same as the current risk outlined above and are, therefore, found to be acceptable to EPA.

After reviewing site-specific information, EPA has determined with reasonable certainty that the use of the Site in the future will remain industrial. Given this determination, EPA estimated the future risk in an industrial scenario to an excavation worker as the most probable and potential risk scenario. The carcinogenic risk under this scenario was estimated to be  $2 \times 10^{-5}$  and the noncarcinogenic risk had an estimated hazard index of 1. These risks are small and are, therefore, acceptable to EPA. Finally, the carcinogenic risk in the future from ingestion of ground water, after recalculation, poses a very small risk. See Table 7A. The hazard index for the maximum detected arsenic concentration in ground water (19 ug/L) slightly exceeds one. However, EPA does not believe that arsenic levels in ground water warrant taking action at the Site because the detected concentration is well below the MCL of 50 ug/L.

At the Site, there are very low levels of contaminants in the ground water, surface water, surface and subsurface soils and sediments. The cancer and non-cancer risks that would result from current or probable future exposure to these contaminants are very slight and are within a range that EPA considers acceptable. This strongly supports the decision to select No Action.

#### B. Ecological Risk Summary

Sediment toxicity testing was performed by EPA on two benthic invertebrate organisms, *chironomus tentans* and *hyallela azteca*. Sediment samples were homogenized and placed into test chambers and then overlain with water and  $\text{CaCO}_3$ . Each chamber was then inoculated with 20 organisms. The tests were performed to assess the sensitivity of these organisms to the sediment samples. At the end of ten days the organisms were removed, counted and measured.

The data from the *hyallela azteca* test did not indicate toxic effects in survival or growth from any of the sediment samples. The *chironomus tentans* test did not indicate any toxic effects on survival but did have some effect on growth from the sediments

sampled from the on-site pond. However, the effects on growth were not significant enough to warrant any remedial action. A more complete discussion of the results of the toxicity testing performed can be found in Section 6 of the RI.

#### VII. DESCRIPTION OF NO ACTION ALTERNATIVE

No construction activities would be associated with the No Action decision. However, both ground water and sediment monitoring would be performed to provide information regarding the nature of ground water and area sediment in the event that any changes should occur.

At a minimum, quarterly monitoring for the first year followed by semi-annual monitoring for the next four years would be performed to confirm that no unacceptable exposures will occur in the future. The need for additional monitoring wells would be examined. These, plus a subset of the existing monitoring wells, and the public supply well, would be selected as ground water monitoring points. In addition, the ground water monitoring would provide a better understanding of rate of ground water flow. Due to the present low concentration of contaminants at the Site, the analytical methods that would be used for ground water must be capable of achieving very low detection limits. In addition to the monitoring and consistent with CERCLA, the Site would be reviewed at least once every five years to confirm that the decision to take no action remains protective. The estimated net present worth of the five-year monitoring program would be \$263,000.00.

#### VIII. DOCUMENTATION OF NO SIGNIFICANT CHANGES

EPA presented a Proposed Plan (preferred No Action alternative) on August 21, 1992 for remediation of the Site based on the results of both the human health and ecological risk assessments performed as part of the RI. The No Action alternative presented in the Proposed Plan includes monitoring of the ground water and sediments at the Site for a minimum of five years. The Proposed Plan described EPA's proposal to take no further action at the Revere Textile Prints Corporation Site. No significant changes have been made to the No Action recommendation described in the Proposed Plan.

#### IX. STATE ROLE

The Connecticut Department of Environmental Protection has reviewed the various alternatives and has indicated its support for the No Action decision. The State of Connecticut concurs with the selected remedy for the Revere Textile Prints Superfund Site. A copy of the declaration of concurrence is attached as Appendix D.

APPENDIX A

Human Health Risk Tables

TABLE 1:  
SUMMARY OF CONTAMINANTS  
OF CONCERN IN (GROUND WATER)

<u>Contaminants</u> <u>of Concern</u>	<u>Average</u> <u>Concentration</u> <u>(ug/l)</u>	<u>Maximum</u> <u>Concentration</u> <u>(ug/l)</u>	<u>Frequency</u> <u>of Detection*</u>
Tetrachloroethylene	3	14	1/40
Chrysene	2	1	1/20
Phenol	3	6	2/20
Aluminum	86	2560	12/16
Arsenic	7	19	2/16
Barium	10	102	12/16
Chromium	2	4	1/16
Copper	4	124	3/16
Iron	1583	2500	14/16
Manganese	203	2096	13/16
Zinc	6	12	3/16

\* Frequency of detection values were calculated using the geometric mean where a value of one-half the detection limit was incorporated into the equation for contaminant non-detect values.

**TABLE 2:**  
**SUMMARY OF CONTAMINANTS**  
**OF CONCERN IN SOILS (MAIN SITE- -SURFACE)**

CONTAMINANT OF CONCERN	AVERAGE CONCENTRATION (ppb)	MAXIMUM CONCENTRATION (ppb)	FREQUENCY OF DETECTION
Acetone	8	280	3/37
Methylene Chloride	5	310	13/37
Toluene	3	10	4/37
Xylenes	3	31	9/33
Acenapthene	76	2400	11/23
Acenapthylene	81	4000	12/22
Anthracene	85	14000	22/28
Benzo (a) anthracene	159	32000	28/29
Benao (a) pyrene	169	32000	29/30
Benzo (b) fluor anthene	263	44000	29/30
Benzo (g, h, i) perylene	115	12000	23/29
Benzo (k) fluor anthene	202	16000	28/30
Benzoic Acid	258	310	4/21
Chrysene	186	38000	30/30
Dibenzo (a, h) anthracene	81	5700	20/28
Dibenzofuran	67	3000	12/23
Fluoranthene	290	77000	30/30
Fluorene	78	4500	12/24
Indeno (1, 2, 3, cd) pyrene	118	19000	28/30
2 Methylnaptha lene	82	2200	8/21
Napthalene	85	3500	10/22
N Nitrosodi phenylamine	72	250	5/20
Phenathrene	221	54000	27/29
Phenol	70	170	6/20
Pyrene	277	67000	30/30



**TABLE 2: (cont.)**  
**SUMMARY OF CONTAMINANTS**  
**OF CONCERN IN SOILS (MAIN SITE- -SURFACE)**

CONTAMINANT OF CONCERN	AVERAGE CONCENTRATION (ppb)	MAXIMUM CONCENTRATION (ppb)	FREQUENCY OF DETECTION
4,4 DDT	8	27	1/16
4,4 DDD	8	9	2/16
Aluminum	8790000	4994070	10/10
Arsenic	4614	12100	10/10
Barium	39914	184500	10/10
Cadium	262	1200	1/10
Chromiun	7638	27700	10/10
Cobalt	2375	5300	7/10
Copper	123868	1040000	9/10
Iron	7087716	18200000	10/10
Lead	47184	339000	10/10
Manganese	102431	200000	10/10
Mercury	100	980	4/10
Nickel	5620	31200	9/10
Vanadium	12767	111000	9/10
Zinc	37147	297000	8/10

TABLE 3:  
SUMMARY OF CONTAMINANTS OF CONCERN  
IN SOILS (MAIN SITE SUBSURFACE)

CONTAMINANT OF CONCERN	AVERAGE CONCENTRATION (PPB)	MAXIMUM CONCENTRATION (PPB)	FREQUENCY OF DETECTION
ACETONE	9	480	8/78
METHYLENE CHLORIDE	5	310	16/78
TOLUENE	3	12	7/78
XYLENES	3	6100	11/74
ACENAPTHENE	115	2400	12/31
ACENAPHTHYLENE	108	4000	14/30
BENZO (A) ANTHRACENE	192	32000	31/37
BENZO (A) PYRENE	178	32000	32/38
BENZO (B) FLUORANTHENE	287	44000	32/38
BENZO (g, h, i) PERYLENE	147	12000	26/37
BENZO (k) FLUORANTHENE	231	16000	30/38
BENZOIC ACID	417	310	4/29
CHRYSENE	217	38000	33/38
DIBENZO (a, h) ANTHRACENE	107	5700	22/36
DIBENZOFURAN	101	3000	14/31
FLUORANTHENE	332	77000	33/38
FLUORENE	112	4500	14/32
INDENO 1,2,3,CD PYRENE	150	19000	30/38
2 METHYLNAPHTHALENE	121	2200	10/29
NAPHTHALENE	127	3500	12/30
N NITROSODI PHENYLAMINE	104	250	6/28
PHENOL	106	170	6/28
PYRENE	307	67000	34/38
4,4,DDD	5	9	2/48
4,4 DDT	5	27	1/48
ALUMINUM	5550474	2610000	19/19
ARSENIC	2535	12100	17/19

TABLE 3: (cont.)  
SUMMARY OF CONTAMINANTS OF CONCERN  
IN SOILS (MAIN SITE SUBSURFACE)

CONTAMINANT OF CONCERN	AVERAGE CONCENTRATION (PPB)	MAXIMUM CONCENTRATION (PPB)	FREQUENCY OF DETECTION
BARIUM	29916	184500	19/19
CADIUM	282	1500	4/19
COBALT	1953	9100	9/19
CHROMIUM	6342	27700	18/19
COPPER	57972	1040000	17/19
IRON	6393460	18200000	19/19
MANGANESE	118619	2420000	19/19
MERCURY	83	980	5/19
NICKEL	4343	31200	16/19
VANADIUM	8874	2300	16/19
ZINC	26399	297000	16/19
LEAD	18594	339000	18/19

**TABLE 4:**  
**CARCINOGENIC RISKS FOR THE POSSIBLE FUTURE INGESTION**  
**OF GROUNDWATER**

Contaminant of Concern (class)	Concentration (ug/l)		Exposure Factor (l/kg/day)	Cancer Potency Factor (mg/kg/day) <sup>-1</sup>	Risk Estimate	
	avg	max			avg	RME
Tetrachloro ethylene B2	3	14	$1.2 \times 10^{-2}$	$5.01 \times 10^{-2}$	$2 \times 10^{-6}$	$8 \times 10^{-6}$
Chrysene	2	1	$1.2 \times 10^{-2}$	$5.79 \times 10^{+0}$	$2 \times 10^{-4}$	$7 \times 10^{-5}$
Arsenic	7	19	$1.2 \times 10^{-2}$	$1.75 \times 10^{+0}$	$1 \times 10^{-4}$	$4 \times 10^{-4*}$

\*The MCL for Arsenic is set at 50 ug/L. The carcinogenic risk posed by arsenic at 50 ug/L in ground water will approximate  $2 \times 10^{-3}$ . The highest concentration found onsite was 19 ug/l, well below the MCL. Recent studies indicate that many skin tumors arising from oral exposure to arsenic are non-lethal and that the dose-response curve for the skin cancers may be sublinear (in which case the cancer potency factor used to generate risks estimates may be overestimated). It is Agency policy to manage these risks downward by as much as a factor of ten. As a result, the carcinogenic risk for arsenic at this site would be  $4 \times 10^{-5}$ , one order of magnitude lower than the calculated risk level in the above table.

**TABLE 5:**  
**NON-CARCINOGENIC RISKS FOR THE POSSIBLE FUTURE INGESTION**  
**OF GROUNDWATER**

Contaminant of concern (class)	Concentration (ug/l)		Exposure Factor (l/kg/day)	Reference Dose (mg/kg/day)	Target Endpoint of Toxicity	Hazard Quotient	
	avg	max				avg	RME
Tetrachloro ethylene B2	3	14	1.2x10 <sup>-2</sup>	1x10 <sup>-2</sup>	liver	.01	.03
Phenol D	4	6	1.2x10 <sup>-2</sup>	6x10 <sup>-1</sup>	reduced fetal body wt.	.0001	.0003
Arsenic A	7	19	1.2x10 <sup>-2</sup>	3x10 <sup>-4</sup>	keratosis	.7	2 *
Barium	4	10	1.2x10 <sup>-2</sup>	5x10 <sup>-2</sup>	increased bld pressure	.006	.06
Chromium A	2	4	1.2x10 <sup>-2</sup>	5x10 <sup>-3</sup>	no effect	.01	.02
Copper D	4	124	1.2x10 <sup>-2</sup>	4x10 <sup>-2</sup>	G.I. distress	.003	.09
Iron D	1583	25000	1.2x10 <sup>-2</sup>	5x10 <sup>-1</sup>	CNS effects	.09	1
Maganese D	203	2096	1.2x10 <sup>-2</sup>	1x10 <sup>-1</sup>	no effect	.06	.6
Zinc D	6	12	1.2x10 <sup>-2</sup>	2x10 <sup>-1</sup>	Anemia	.0008	.002

\* The Hazard Index for the maximum detected arsenic concentration of 19 ug/L slightly exceeds one. EPA does not believe that arsenic levels in groundwater warrant taking action at this site because the HI is only slightly above a HI of one and because the maximum detected concentration is well below the MCL of 50 ug/L.

**TABLE 6:**  
**CARCINOGENIC RISKS FOR THE FUTURE INGESTION OF**  
**SUBSURFACE SOILS BY EXCAVATION WORKER**

CONTAMINANT OF CONCERN	CONCENTRATION MG/KG		EXPOSURE FACTOR MG/KG/DAY	CANCER POTENCY MG/KG/DAY	RISK ESTIMATE	
	AVG	RME			AVG	RME
METHYLENE CHLORIDE B2	.005	.31	$1.7 \times 10^{-2}$	$7.5 \times 10^{-3}$	$6.57 \times 10^{-13}$	$4.01 \times 10^{-11}$
BENZO(a) ANTHRACENE B2	.192	32	$1.7 \times 10^{-2}$	$7.3 \times 10^{+0}$	$2.45 \times 10^{-08}$	$4.08 \times 10^{-06}$
BENZO(a) PYRENE B2	.178	32	$1.7 \times 10^{-2}$	$7.3 \times 10^{+0}$	$2.27 \times 10^{-08}$	$4.08 \times 10^{-06}$
BENZO(b) FLUORANTHENE B2	.287	44	$1.7 \times 10^{-2}$	$7.3 \times 10^{+0}$	$3.65 \times 10^{-08}$	$5.60 \times 10^{-06}$
BENZO(k) FLUORANTHENE B2	.231	16	$1.7 \times 10^{-2}$	$7.3 \times 10^{+0}$	$2.94 \times 10^{-08}$	$2.14 \times 10^{-06}$
CHRYSENEB2	.218	38	$1.7 \times 10^{-2}$	$7.3 \times 10^{+0}$	$2.77 \times 10^{-08}$	$4.84 \times 10^{-06}$
DIBENZO-(a,h) ANTHRACENE B2	.107	57	$1.7 \times 10^{-2}$	$7.3 \times 10^{+0}$	$1.36 \times 10^{-08}$	$7.26 \times 10^{-07}$
INDENO (1,2,3) PYRENE B2	.151	19	$1.7 \times 10^{-2}$	$7.3 \times 10^{+0}$	$1.92 \times 10^{-08}$	$2.42 \times 10^{-06}$
N-NITROSO DIPHENYL AMINE B2	.105	.25	$1.7 \times 10^{-2}$	$4.9 \times 10^{-3}$	$8.95 \times 10^{-12}$	$2.14 \times 10^{-11}$
4,4 DDD B2	.006	.009	$1.7 \times 10^{-2}$	$2.4 \times 10^{-1}$	$6.74 \times 10^{-12}$	$1.13 \times 10^{-11}$
4,4 DDT B2	.005	.027	$1.7 \times 10^{-2}$	$3.4 \times 10^{-1}$	$9.58 \times 10^{-12}$	$4.80 \times 10^{-11}$
ARSENIC A	2.5	1.21	$1.7 \times 10^{-2}$	$1.75 \times 10^{+0}$	$7.74 \times 10^{-08}$	$3.69 \times 10^{-07}$
BERYLLIUM B2	.35	1.17	$1.7 \times 10^{-2}$	$4.3 \times 10^{+0}$	$2.63 \times 10^{-08}$	$8.78 \times 10^{-07}$
					TOTAL RISK $2.77 \times 10^{-07}$	$2.50 \times 10^{-05}$

Table 7A and 7B below depict the cumulative risk summary for the carcinogenic and noncarcinogenic contaminants of concern for each pathway analyzed. For a more detailed analysis on the risk for each contaminant of concern, see Appendix L of the RI.

**TABLE 7A:**  
**SUMMARY OF CARCINOGENIC RISKS ESTIMATES**  
**FOR THE REVERE SITE**

**INCREMENTAL RISK**

SCENARIO	RECEPTOR	PRESENT/FUTURE	AVERAGE	REASONABLE MAXIMUM
GROUNDWATER	RESIDENT	FUTURE	$3 \times 10^{-04*}$	$5 \times 10^{-04*}$
MAIN SITE SURFACE SOILS DERMAL CONTACT TOTAL	TRESPASSER	PRESENT	$1 \times 10^{-06}$ $1 \times 10^{-07}$ $1 \times 10^{-06}$	$8 \times 10^{-05}$ $2 \times 10^{-05}$ $1 \times 10^{-04}$
PIGMENTED WASTE PILE SURFACE SOIL INGESTION  DIRECT CONTACT  TOTAL	TRESPASSER/ RECREATIONAL USER  TRESPASSER/ RECREATIONAL USER	PRESENT/FUTURE	$9 \times 10^{-09}$  $2 \times 10^{-09}$  $1 \times 10^{-08}$	$9 \times 10^{-09}$  $2 \times 10^{-09}$  $1 \times 10^{-08}$
MAIN SITE SURFACE/ SUBSURFACE SOIL INGESTION DERMAL CONTACT TOTAL	RESIDENT RESIDENT	FUTURE FUTURE	$1 \times 10^{-05}$ $1 \times 10^{-06}$ $1 \times 10^{-05}$	$8 \times 10^{-04}$ $1 \times 10^{-04}$ $9 \times 10^{-04}$
MAIN SITE SEDIMENTS (SPILLWAY CHANNEL/ POND) INGESTION DERMAL CONTACT TOTAL  INGESTION DERMAL CONTACT TOTAL	TRESPASSER TRESPASSER  RESIDENT RESIDENT	PRESENT PRESENT  FUTURE FUTURE	$1 \times 10^{-06}$ $2 \times 10^{-07}$ $1 \times 10^{-06}$  $7 \times 10^{-06}$ $9 \times 10^{-07}$ $8 \times 10^{-06}$	$9 \times 10^{-06}$ $2 \times 10^{-06}$ $1 \times 10^{-05}$  $5 \times 10^{-05}$ $8 \times 10^{-06}$ $6 \times 10^{-05}$

**TABLE 7A: (cont.)**  
**SUMMARY OF CARCINOGENIC RISKS ESTIMATES**  
**FOR THE REVERE SITE**

**INCREMENTAL RISK**

SCENARIO	RECEPTOR	PRESENT/FUTURE	AVERAGE	REASONABLE MAXIMUM
MOOSUP RIVER SEDIMENTS (NEAR PIGMENTED WASTE PILE) INGESTION	RECREATIONAL USER	PRESENT/FUTURE	$2 \times 10^{-06}$	$3 \times 10^{-06}$
DERMAL CONTACT	RECREATIONAL USER	PRESENT/FUTURE	$4 \times 10^{-07}$	$6 \times 10^{-07}$
TOTAL			$2 \times 10^{-06}$	$4 \times 10^{-06}$
MOOSUP RIVER SEDIMENTS (DOWNGRADIANT) INGESTION	RECREATIONAL USER	PRESENT/FUTURE	$7 \times 10^{-07}$	$1 \times 10^{-06}$
DERMAL CONTACT	RECREATIONAL USER	PRESENT/FUTURE	$1 \times 10^{-07}$	$2 \times 10^{-07}$
TOTAL			$8 \times 10^{-07}$	$1 \times 10^{-06}$

\*The MCL for Arsenic is set at 50 ug/L. The carcinogenic risk posed by arsenic at 50 ug/L in ground water will approximate  $2 \times 10^{-3}$ . The highest concentration found outside was 19 ug/l well below the MCL. Recent studies indicate that many skin tumors arising from oral exposure to arsenic are non-lethal and that the dose-response curve for the skin cancers may be sublinear (in which case the cancer potency factor used to generate risks estimates may be over-estimated). It is Agency policy to manage these risks downward by as much as a factor of ten. As a result, the carcinogenic risk for arsenic at this site would be  $4 \times 10^{-5}$ , one order of magnitude lower than the calculated risk level in the above table.



**TABLE 7B:  
SUMMARY OF THE NONCARCINOGENIC RISKS ESTIMATES  
FOR THE REVERE SITE**

SCENARIO	RECEPTOR	PRESENT/FUTURE	AVERAGE	REASONABLE MAXIMUM
MAIN SITE SURFACE SOIL INGESTION DERMAL CONTACT TOTAL	TRESPASSER TRESPASSER	PRESENT PRESENT	$2 \times 10^{-02}$ $3 \times 10^{-05}$ $2 \times 10^{-02}$	$8 \times 10^{-02}$ $3 \times 10^{-03}$ $8 \times 10^{-02}$
PIGMENTED WASTE PILE SURFACE SOIL INGESTION  DERMAL CONTACT  TOTAL	TRESPASSER/ RECREATIONAL USER TRESPASSER/ RECREATIONAL USER	PRESENT/FUTURE  PRESENT/FUTURE	$3 \times 10^{-02}$  $2 \times 10^{-09}$  $3 \times 10^{-02}$	$3 \times 10^{-02}$  $2 \times 10^{-09}$  $3 \times 10^{-02}$
MAIN SITE SURFACE/ SUBSURFACE SOIL INGESTION  DERMAL CONTACT  TOTAL  INGESTION  DERMAL CONTACT  TOTAL	ADULT RESIDENT ADULT RESIDENT  CHILD RESIDENT CHILD RESIDENT	FUTURE  FUTURE  FUTURE  FUTURE	$2 \times 10^{-02}$  $4 \times 10^{-05}$  $2 \times 10^{-02}$  $2 \times 10^{-01}$  $2 \times 10^{-04}$  $2 \times 10^{-01}$	$1 \times 10^{-01}$  $4 \times 10^{-03}$  $1 \times 10^{-01}$  $1 \times 10^{+00}$  $2 \times 10^{-02}$  $1 \times 10^{+00}$
MAIN SITE SEDIMENTS (SPILLWAY CHANNEL/POND) INGESTION DERMAL CONTACT TOTAL  INGESTION  DERMAL CONTACT  TOTAL  INGESTION  DERMAL CONTACT  TOTAL	TRESPASSER TRESPASSER  ADULT RESIDENT ADULT RESIDENT  CHILD RESIDENT CHILD RESIDENT	PRESENT PRESENT  FUTURE  FUTURE  FUTURE  FUTURE	$1 \times 10^{-02}$ $5 \times 10^{-05}$ $1 \times 10^{-02}$  $8 \times 10^{-03}$  $4 \times 10^{-05}$  $8 \times 10^{-03}$  $7 \times 10^{-02}$  $2 \times 10^{-04}$ $7 \times 10^{-02}$	$3 \times 10^{-02}$ $4 \times 10^{-04}$ $3 \times 10^{-02}$  $2 \times 10^{-02}$  $3 \times 10^{-04}$  $2 \times 10^{-02}$  $2 \times 10^{-01}$  $1 \times 10^{-03}$ $7 \times 10^{-02}$

TABLE 7B: (cont.)  
SUMMARY OF THE NONCARCINOGENIC RISKS ESTIMATES  
FOR THE REVERE SITE

SCENARIO	RECEPTOR	PRESENT/FUTURE	AVERAGE	REASONABLE MAXIMUM
MOOSUP RIVER SEDIMENTS (NEAR PIGMENTED WASTE PILE) INGESTION	RECREATIONAL USER	PRESENT/FUTURE	$1 \times 10^{-02}$	$4 \times 10^{-02}$
DERMAL CONTACT	RECREATIONAL USER	PRESENT/FUTURE	$1 \times 10^{-04}$	$1 \times 10^{-04}$
TOTAL			$1 \times 10^{-02}$	$4 \times 10^{-02}$
MOOSUP RIVER SEDIMENTS (DOWNGRAIDENT) INGESTION	RECREATIONAL USER	PRESENT/FUTURE	$6 \times 10^{-03}$	$3 \times 10^{-02}$
DERMAL CONTACT	RECREATIONAL USER	PRESENT/FUTURE	$2 \times 10^{-05}$	$3 \times 10^{-05}$
TOTAL			$6 \times 10^{-03}$	$3 \times 10^{-05}$
MAIN SITE SURFACE WATER (SPILLWAY CHANNEL/POND) INGESTION	TRESPASSER/ RESIDENT	PRESENT/FUTURE	$4 \times 10^{-04}$	$3 \times 10^{-03}$
DERMAL CONTACT	TRESPASSER/ RESIDENT	PRESENT/FUTURE	$9 \times 10^{-08}$	$8 \times 10^{-07}$
TOTAL			$4 \times 10^{-04}$	$3 \times 10^{-03}$

ATTACHMENT A

FORMAL COMMUNITY RELATIONS ACTIVITIES CONDUCTED AT THE  
REVERE TEXTILE PRINTS CORPORATION SUPERFUND SITE

- September 1990 On September 12, 1990, EPA interviewed local officials and residents of the Sterling, Connecticut area to assist in the development of a Community Relations Plan. A public availability session was also held on September 12, 1990.
- Fall 1990 EPA established an information repository for the site at the Sterling Public Library in Oneco, Connecticut. EPA also compiled a site mailing list.
- October 1990 On October 12, 1990, EPA issued a press release announcing the upcoming Remedial Investigation to residents and officials on the site mailing list.
- January 1991 EPA completed the Community Relations Plan for the Revere Textile Prints Corporation site.
- November 1991 EPA installed a sign describing Remedial Investigation activities at the site and listing contact names for more information.
- August 1992 On August 20, 1992, EPA issued the Proposed Plan for the Revere Textile Prints Corporation site and a press release announcing the Proposed Plan.
- August 1992 On August 21, 1992, the public comment period began.
- September 1992 On September 2, 1992, an informal public hearing was held in Sterling, Connecticut in order to accept oral and written comments on the Proposed Plan.
- September 1992 On September 19, 1992, the public comment period ended.

APPENDIX B

Responsiveness Summary

**RESPONSIVENESS SUMMARY  
REVERE TEXTILE PRINTS CORPORATION SITE  
STERLING, CONNECTICUT**

**PREFACE**

The U.S. Environmental Protection Agency (EPA) held a 30-day comment period from August 21 through September 19, 1992, to provide an opportunity for the public to comment on the Proposed Plan for the Revere Textile Prints Corporation Superfund site (the Site) in Sterling, CT. In the Proposed Plan, issued on August 20, 1992, EPA announced a preference for No Action, other than monitoring, at the site. A collection of all documents used by EPA in choosing this alternative were made available at the EPA Records Center (90 Canal Street, Boston, MA) and at the Sterling Public Library (1110 Plainfield Pike, Oneco, CT). This collection of documents is known as the Administrative Record.

The purpose of this Responsiveness Summary is to document EPA responses to the questions and comments raised during the public comment period. EPA considered all of the comments before making a final decision on the need for remedial action at the site.

This Responsiveness Summary is organized into the following sections:

**I. Rationale for the No Action Alternative** - This section explains the criteria used by EPA to select the No Action alternative and describes EPA's program for continued monitoring of site-related contamination.

**II. Background on Community Involvement and Concerns** - This section includes a brief Site history, a history of community involvement, and an overview of EPA's community relations program for the Site.

**III. Summary of Public Comments and Agency Responses** - This section

summarizes the comments received by EPA during the public comment period, along with EPA's responses to those comments.

IV. **Remaining Concerns** - This section summarizes issues raised during the public comment period that cannot be fully addressed at this stage of the Superfund process but which will continue to be of concern during the monitoring of the site.

In addition, one attachment is included with this Responsiveness Summary. Attachment A is a chronological list of formal community relations activities which have been completed by EPA for this Site. A transcript of the informal public hearing held on September 2, 1992, in Sterling, Connecticut is included in Appendix C. All comments submitted during the comment period have been added to the Administrative Record.

#### I. **RATIONALE FOR THE NO ACTION ALTERNATIVE**

In 1992, a baseline risk assessment was prepared for the Revere Textile Prints Corporation site. This study focused on risks both to human health and to the environment associated with current and potential future uses of the Site and immediately adjacent areas. The possibilities of both cancer and non-cancer health effects were considered.

EPA has proposed a No Action alternative for the Site because of the low cancer risk estimated in this risk assessment. The fact that the cancer risk that would result from exposure to all currently accessible areas of the site would be within the acceptable risk range strongly contributed to EPA's decision to recommend No Action. In addition, EPA concluded that due to the nature of site-related contamination, non-cancer adverse health effects are not likely in either current or potential future land-use scenarios. EPA also did not identify any risk to the environment associated with the Site.

Risks to human health were calculated as the chance that an

individual would experience adverse health effects solely as the result of exposure to site-related contaminants. Based upon the evaluation of current exposure to contaminants at the Site, all of the estimated maximum cancer risks are acceptable. EPA calculated the most probable risk under current conditions, exposure through soil ingestion or skin contact, to be approximately one in ten-thousand. EPA also determined that contaminants found in surface/subsurface soils are not at present affecting ground water or showing signs of mobility.

EPA believes that there is reasonable certainty that the Revere site will continue in the future to be used for industrial rather than residential purposes. EPA's recommendation of No Action for the Site is based on this belief.

Finally, EPA determined that there is no significant present or potential future risk from groundwater moving beneath the surface. Due to the specific nature of the soils and site-related contaminants, concentrations of contaminants are unlikely to migrate below the uppermost soil depths or to produce significant subsurface concentrations. EPA believes that a future well installed in either of the existing aquifers is unlikely to pose a risk to human health.

EPA recognizes that there is always a measure of uncertainty in the characterization of any Superfund site. For this reason, EPA will monitor the Site by sampling for five years. EPA will then evaluate the need for additional monitoring.

The decision by EPA not to pursue further action at the Site is not a determination that no action is warranted under other federal or state regulations and statutes. In addition, EPA has the authority to revisit the No Action decision even if the Site is removed from the NPL. This could occur if future conditions indicate that an unacceptable risk to human health or the environment would result from the exposure to contaminants at the Site.

## II. BACKGROUND ON COMMUNITY INVOLVEMENT AND CONCERNS

Site history (see Section II in the Record of Decision)

### History of Community Involvement

Based on interviews of town officials and residents conducted by EPA, the community has in general exhibited a low level of interest in the Revere Textile site. Residents recalled seeing pigment wastes being dumped into the Moosup River prior to the fire of 1980 but had never taken action against the facility owners. One resident, who was employed with the CTDEP in the early 1970s, stated that he had tried to persuade the Revere Textile Prints Corporation to use water-based rather than oil-based dyeing agents in their operations.

Town officials and some residents were concerned that the site presented a safety hazard to children and teenagers who frequented it. They were also concerned about the site's aesthetic problems. They suggested that the buildings be demolished and any pits be filled. Town



officials were also interested in developing a small commercial mall at the site, and in locating a long-term-care residential community adjacent to the site on Main Street.

Town officials and residents were concerned about preserving the quality of the municipal water supply, particularly as a municipal well is located approximately 300 feet west of the western border of the site, across the Moosup River.

EPA has been conducting a community relations program in Sterling since the fall of 1990. This program has included preparing a Community Relations Plan, holding public informational meetings, posting signs at the site indicating its status, producing fact sheets, issuing the Proposed Plan, and providing a 30-day comment period to allow the public to review and comment on it. EPA has also maintained information repositories at the EPA Records Office in Boston and at the Sterling Public Library in Oneco, CT, to provide easy access to reports and other documents pertaining to the site. Please refer to Attachment A for a complete list of formal community relations activities conducted for the Revere Textile Prints Corporation Superfund site.

### III. SUMMARY OF PUBLIC COMMENTS AND AGENCY RESPONSES

This Responsiveness Summary addresses comments received by EPA during the public comment period (August 21 to September 19, 1992).

#### Part I - Local and State Officials' Comments

No comments were received by EPA at the public hearing. The following includes written comments received from the State of Connecticut Department of Environmental Protection and EPA's responses to those comments:

##### Comment No. 1:

The State of Connecticut's Department of Environmental

Protection commented that "[u]nder the Summary of Site Risks section, (page 14 of the [August 1992] Proposed Plan), the statement that there was no identified risk to the environment is inappropriate, and should either be deleted entirely or modified to be consistent with risk statements elsewhere in the Proposed Plan (page 7 for example)".

**EPA Response:**

The August 1992 Proposed Plan (the Plan) is a document outlining the plan EPA proposed for remediation of the Revere Textile Prints Corporation Superfund Site (the Site). The Plan was put forth to the public in order to allow the public the opportunity to comment on any and all aspects of the remediation plan. All comments received within the designated comment period time were responded to in this Responsiveness Summary and taken into account as appropriate in the drafting of the ROD for the Site.

The Proposed Plan is not a draft document but is a final put forth for public comment, and as such cannot be amended. However, as a result of the above CTDEP comment, Section VI (Summary of Site Risks) of the Record of Decision for the Site, explains in detail, the environmental risks which exist to the extent that CERCLA applies to contamination present at the Site.

The decision by EPA not to pursue further action at the Site is not a determination that no action is warranted under other federal or state regulations and statutes. In addition, EPA has the authority to revisit the No Action decision even if the Site is removed from the NPL. This could occur if future conditions indicate that an unacceptable risk to human health or the environment would result from the exposure to contaminants at the Site.

Comment No. 2:

The State of Connecticut's Department of Environmental Protection commented that "[i]n the last paragraph on page 15 of the Proposed Plan, there is a discussion of the State's authority to address the underground storage tanks and the petroleum contamination at the Site. This discussion fails to recognize the State's statutory authority to control, prevent or abate the pollution to the waters of the State. The Proposed Plan contains no clear acknowledgement of the authority of the Commissioner of Environmental Protection to address any potential source of pollution to the waters of the State, as provided by section 22a-432 of the Connecticut General Statutes. As written, the Proposed Plan implies that the State's authority to address contamination at the Site is limited to the petroleum tanks and contamination excluded from action under CERCLA. This is not the case. The contamination identified by the EPA as warranting no further remedial action under CERCLA may be found by the Commissioner of Environmental Protection to constitute a potential source of pollution to the waters of the State. The statutory authority of the Commissioner is in no way limited by any actions proposed or taken by EPA, or any statements, interpretations or decisions made or proposed by EPA concerning the conditions at the Revere Textile Prints Site."

EPA Response:

EPA agrees that the decision by EPA not to pursue further action at the Site under CERCLA is not a determination that no action is warranted under other federal or state regulations and statutes.

**Part II - Potentially Responsible Parties' Comments**

No comments were received by EPA either at the public hearing or in

writing during the public comment period.

#### IV. REMAINING CONCERNS

As stated in the Proposed Plan, EPA will monitor ground water quarterly during the first year and semi-annually for the next four years to confirm that no unacceptable exposures will occur in the future. The analytical methods used for monitoring must be capable of achieving very low detection limits due to the present low concentration of contaminants at the Site. In addition, area sediments will be analyzed during this period. The site will also be reviewed at least once every five years to confirm that the decision to take no action remains protective.

APPENDIX C

Public Hearing Transcript

1 UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

2 REGION I

3 Boston, Massachusetts

4  
5 ----- x

6 IN THE MATTER OF:

7  
8 Revere Textile Prints

9 Superfund Site,

10 Sterling, Connecticut

11 ----- x

12  
13 ADMINISTRATIVE PUBLIC HEARING

14 VOLUME I

15 DATE: September 2, 1992

16 TIME: 7:30 p.m.

17 PLACE: Robert P. Jordan Community Center

18 50 Main Street

19 Sterling, Connecticut 06377

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22 COPLEY COURT REPORTING  
23 101 Tremont Street  
24 Boston, Massachusetts 02108  
(617) 423-5841

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APPEARANCES:

Dennis Gagne -- Chief of the Connecticut  
Superfund Section for the  
United States Environmental  
Protection Agency, Region I

Eric van Gestel -- Site Manager for the  
Environmental Protection  
Agency

Jim Sebastian -- Region I's Community  
Relations Coordinator for  
the Environmental Protection  
Agency

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<u>SPEAKER</u>	<u>PAGE</u>
Dennis Gagne	4
Eric van Gestel	7



P R O C E E D I N G S

1  
2  
3 MR. GAGNE: Good evening. My name  
4 is Dennis Gagne. I'm Chief of the Connecticut  
5 Superfund Section for the U.S. EPA in Boston.

6 Because of the rather small turnout here,  
7 we decided we are going to change the 'agenda a  
8 little bit. We won't keep everybody here too  
9 long. We will be having a public hearing which  
10 is required of us.

11 Before we get into the public hearing, we  
12 would like to entertain any questions that  
13 anybody may have, anyone from the audience,  
14 about what is happening in the superfund  
15 process.

16 Eric van Gestel is here; I'm here; Jim  
17 Sebastian, who is our community relations  
18 coordinator is here if there are any specific  
19 questions on the process site that you would  
20 like to discuss with them before we get into the  
21 official hearing.

22 Being a hearing, we will not be answering  
23 questions as part of the hearing. We will only  
24 be taking comments that will be responded to at

1 a later date. We are trying to give you any  
2 opportunity that you may have now to make  
3 comments.

4 Hearing no questions, I'd like to begin  
5 the public hearing then. As I said before, I'm  
6 Dennis Gagne. I'm chairman of the hearing.  
7 Also present tonight and on the hearing panel is  
8 Eric van Gestel; Jim Sebastian; Richard Willey,  
9 our hydrogeologist; and also Tom Riscassi, the  
10 DEP site manager.

11 The purpose of this hearing is to  
12 formally accept your comments on the Revere  
13 Textile Remedial Investigation and the proposed  
14 plan. The R.I. and the proposed plan were made  
15 public on August 21st, 1992 of this year, and  
16 copies were placed in the administrative record  
17 for the Revere Textile site which are located  
18 both in the Sterling Public Library and at the  
19 EPA Records Center which is located in our  
20 offices in Boston. The public comment period  
21 began August 21st and will end on September  
22 19th.

23 Before beginning, I would like to  
24 describe quickly the format of the hearing.

1 Eric is going to give a quick overview of the  
2 proposed plan, and following his presentation we  
3 will accept any oral comments you may wish to  
4 make for the record.

5 Anyone who would like to make a  
6 statement, as you see, we have a reporter here,  
7 I would like you to come forward and speak  
8 clearly so we can get everything in. I don't  
9 think we will have this problem, but so that  
10 everyone who wishes to have a chance to speak, I  
11 will limit comments to 15 minutes. As I said, I  
12 don't think we will have a problem.

13 The text, in its entirety, will be  
14 transcribed of any of your comments and will  
15 become part of the hearing record.

16 I would also encourage anybody that would  
17 like to comment, to submit comments to us in  
18 writing, and we will also make that part of the  
19 hearing record if we receive them tonight. If  
20 you don't submit comments tonight, you can also  
21 send them to us in the mail, as long as they're  
22 postmarked by September 19th, and the address  
23 can be found on page two of the proposed plan  
24 which we have plenty of copies of up here.

1           At the conclusion of the hearing you  
2           can -- we'll be hanging around for a while so we  
3           can answer any questions you may have either  
4           about the hearing process, about the submission  
5           of written comments or any technical questions  
6           you may have about the site. All the comments  
7           we receive tonight and those that we receive in  
8           the mail will be responded to in a responsive  
9           summary. This will be included with the  
10          decisions document or the record of decision  
11          that EPA prepares at the conclusion of the  
12          comment period.

13                 With that, Eric, would you like to give a  
14          brief overview?

15                         MR. VAN GESTEL: I'm just going to  
16          describe the no action alternative in brief. No  
17          construction activities will be associated with  
18          the no action decision. However, monitoring  
19          would be performed to provide information  
20          regarding the nature of ground water and  
21          sediment in the event that any changes should  
22          occur.

23                         At a minimum, quarterly monitoring for  
24          the first year followed by semi-annual

1 monitoring for the next four years would be  
2 performed to confirm that no unacceptable  
3 exposures will occur in the future. The need  
4 for additional monitoring wells will be  
5 examined. These, plus a subset of the existing  
6 monitoring wells, and the public supply well  
7 would be selected as ground water monitoring  
8 points.

9 Due to the present low concentration of  
10 contaminants at the site, the analytical methods  
11 that would be used for ground water must be  
12 capable of achieving very low detection limits.  
13 In addition to the monitoring and consistent  
14 with CERCLA, which means Comprehensive  
15 Environmental Response, Compensation, and  
16 Liability Act, the site would be reviewed at  
17 least once after five years to confirm that the  
18 decision to take no action remains protected  
19 with human health in the environment.

20 MR. GAGNE: I would like to now  
21 accept any comments you may have. Hearing none,  
22 I would like to thank everybody for coming this  
23 evening and remind you that the comment period  
24 ends September 19th and all written comments

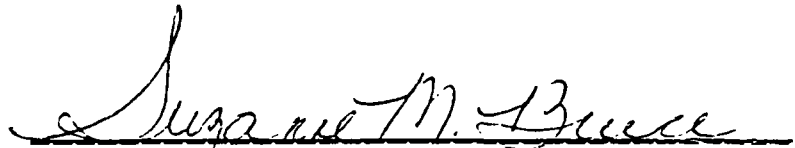
1 must be postmarked by that date. And I hereby  
2 declare this hearing as closed. We'll be happy  
3 to stick around and formally discuss anything  
4 you would like to at this point in time.

5 (Whereupon the hearing was concluded at  
6 7:50 p.m.)

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C E R T I F I C A T E

I, Suzanne M. Bruce, Professional Shorthand Reporter, do hereby certify that the foregoing transcript, Volume I, is a true and accurate transcription of my stenographic notes taken on Wednesday, September 2, 1992.

  
Suzanne M. Bruce  
Professional Shorthand Reporter

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APPENDIX D

State Letter of Concurrence





STATE OF CONNECTICUT  
DEPARTMENT OF ENVIRONMENTAL PROTECTION

165 CAPITOL AVENUE HARTFORD, CONNECTICUT 06106



September 30, 1992

Timothy R.E. Keeney

Commissioner

Ms. Julie Belaga  
Regional Administrator  
US EPA Region I  
JFK Federal Building  
Boston, MA 02203

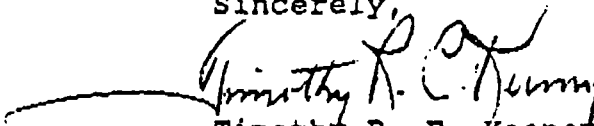
Dear Ms. <sup>Julie</sup>~~Belaga~~

The Connecticut Department of Environmental Protection (DEP) concurs with the federal Environmental Protection Agency's (EPA) decision to take no further remedial action at this time under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) at the Revere Textile Prints Superfund Site in Sterling, Connecticut. EPA's proposal includes provisions for monitoring surface and ground waters potentially affected by the site for a minimum period of five years to ensure that no unanticipated impacts occur. The decision is described in detail in the Proposed Plan dated August, 1992.

DEP and EPA are aware that there are contaminants remaining in soil and groundwater at the site. DEP recognizes that EPA's no remedial action decision is based on the results of risk assessment calculations which EPA is required to use as a basis for its remedial action decision. DEP is also aware that the Town of Sterling, as owner of the site, has implemented institutional controls to minimize the potential for contact with contaminants on site. DEP and EPA are in agreement that there are waste materials on site, including but not limited to solid wastes and petroleum product tanks, which are outside the purview of CERCLA and must be dealt with under other state and/or federal authorities.

Concurrence with EPA's selected remedy for the Revere Textile Prints Site shall in no way affect the Commissioner's authority to institute any proceeding to prevent or abate violations of law, prevent or abate pollution, recover costs and natural resource damages, and to impose penalties for violations of law, including but not limited to violations of any permit issued by the Commissioner.

Sincerely,

  
Timothy R. E. Keeney  
Commissioner

TREK:CAL:hc

APPENDIX E

Administrative Record Index

Revere Textile Prints  
Corporation

NPL Site Administrative Record

Index

Compiled: September 16, 1991  
Updated: August 14, 1992  
ROD Signed: September 30, 1992

Prepared for

Region I  
Waste Management Division  
U.S. Environmental Protection Agency

With Assistance from

**AMERICAN MANAGEMENT SYSTEMS, INC.**

One Bowdoin Square, 7th Floor • Boston, Massachusetts 02114 • (617) 557-2000

Revere Textile Prints Corporation  
NPL Site Administrative Record

(ROD Signed September 30, 1992)

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- 2.0 Removal Response
  - 2.2 Removal Response Reports
  - 2.3 Sampling and Analysis Data
  - 2.9 Action Memoranda
- 3.0 Remedial Investigation (RI)
  - 3.1 Correspondence

**Volume II**

- 3.2 Sampling and Analysis Data
- 3.4 Interim Deliverables

**Volume III**

- 3.4 Interim Deliverables (cont'd.)

**Volume IV**

- 3.6 Remedial Investigation (RI) Reports

**Volume V**

- 3.6 Remedial Investigation (RI) Reports (cont'd.)

**Volume VI**

- 3.6 Remedial Investigation (RI) Reports (cont'd.)

**Volume VII**

- 3.7 Work Plans and Progress Reports
- 4.0 Feasibility Study (FS)
  - 4.9 Proposed Plans for Selected Remedial Action

Revere Textile Prints Corporation  
NPL Site Administrative Record

(ROD Signed September 30, 1992)

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  - 5.4 Record of Decision (ROD)
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- 11.0 Potentially Responsible Party (PRP)
  - 11.9 PRP-Specific Correspondence
- 13.0 Community Relations
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  - 13.3 News Clippings/Press Releases
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- 14.0 Congressional Relations
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- 17.0 Site Management Records
  - 17.8 State and Local Technical Records

## **Introduction**

This document is the Index to the Administrative Record for the September 30, 1992 Record of Decision (ROD) for the Revere Textile Prints Corporation National Priorities List (NPL) site. Section I of the Index cites site-specific documents and Section II cites guidance documents used by EPA staff in selecting a response action at the site.

The Administrative Record is available for public review at EPA Region I's Office in Boston, Massachusetts, and at the Sterling Public Library, 1110 Plainfield Pike, Oneco, Connecticut 06373. This Index contains confidential documents that are available only for judicial review. Questions concerning the Administrative Record should be addressed to the EPA Region I site manager.

The Administrative Record is required by the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), as amended by the Superfund Amendments and Reauthorization Act (SARA).

## Section I

### Site-Specific Documents

# ADMINISTRATIVE RECORD INDEX

for the

## Revere Textile Prints Corporation NPL Site

(ROD Signed: September 30, 1992)

### 1.0 Pre-Remedial

#### 1.17 FIT Progress Reports

1. Trip Report on a Visit to the Revere Textile Prints Corporation Site. Thomas Woodard and Dan Sandhaus, NUS Corporation (May 6, 1985). Concerning the April 4, 1985 residential well sampling trip.

### 2.0 Removal Response

#### 2.2 Removal Response Reports

1. "Final Site Assessment." Roy F. Weston, Inc. (December 1989).

#### 2.3 Sampling and Analysis Data

1. Memorandum from Suresh Srivastava, Joseph Montanaro, and Richard Siscanaw, EPA Region I to Daniel Granz and Edward Kim, EPA Region I (February 2, 1988). Concerning the gas chromatography - mass spectrometry analysis of extractable organics in soils and sediments.

*The Memorandum cited below as entry number 2 is CONFIDENTIAL and is available only for judicial review. The attached sampling data, however, is available for public review.*

2. Memorandum from Daniel S. Granz, EPA Region I to Ivan Rios, EPA Region I (March 15, 1988). Concerning the attached results from soil, groundwater, surface water, and sediment sampling done on April 28, 1987.
3. Memorandum from Mary Jane M. Cuzzupe and Scott Clifford, EPA Region I to Carol Goldsberry, EPA Region I (August 10, 1989). Concerning the purgeable organic analysis.
4. Memorandum from Hui Wang, Richard Siscanaw, and Suresh Srivastava, EPA Region I to Carol Goldsberry, EPA Region I (August 30, 1989). Concerning the gas chromatography - mass spectrometry analysis of extractable organics in soils and sediments.
5. Memorandum from Delon Maas, Joseph Montanero, Nathan Raines, and Richard Siscanaw, EPA Region I to Carol Goldsberry, EPA Region I (September 7, 1989). Concerning the gas chromatography - mass spectrometry analysis of extractable organics in soils and sediments.

#### 2.9 Action Memoranda

1. Memorandum from Thomas C. Condon, EPA Region I to Julie Belaga, EPA Region I (March 22, 1990). (The Enforcement Section of the Memorandum is Withheld as CONFIDENTIAL).



### 3.0 Remedial Investigation (RI)

#### 3.1 Correspondence

1. Letter from Jeremiah P. Morrison, Town of Sterling to Ivan Rios, EPA Region I (October 21, 1987). Concerning a request for a copy of the latest analysis of water samples taken from the site.
2. Letter from Ivan Rios, EPA Region I to Jeremiah P. Morrison, Town of Sterling (October 27, 1987). Concerning transmittal of the requested water sampling information.
3. Letter from Trenton Wright, Town of Sterling to Margaret Leshen, EPA Region I (February 22, 1989). Concerning the desire to beautify the area adjacent to the site and questions regarding on-site sampling.
4. Letter from Robert P. Jordan, Town of Sterling to Edward J. Conley, EPA Region I (January 17, 1990) and the attached signed "Consent for Access to Property." Concerning notification that the Town of Sterling wishes to cooperate with EPA to remove the barrels remaining at the site and that the Town has hired the services of attorney Alan Kosloff of Tarlow, Levy, Harding, & Droney.
5. Letter from Trenton Wright, Town of Sterling to Eric van Gestel, EPA Region I (June 29, 1990). Concerning notification that the Town of Sterling is planning for a second well for future industrial growth and the request that EPA promptly conduct sampling in the area.
6. Letter from Thomas W. RisCassi, State of Connecticut Department of Environmental Protection to Eric van Gestel, EPA Region I (October 5, 1990). Concerning the attached State Police report on the March 1, 1980 fire at the site.
7. Letter from Trenton Wright, Town of Sterling to Eric van Gestel, EPA Region I (October 15, 1990). Concerning the status of the recommendation that fences and warning signs be erected at the site.
8. Telephone Notes Between Charlie Foster, Alliance Technologies Corporation and Eric van Gestel, EPA Region I (October 16, 1990). Concerning vandalism at the site and the subsequent delays that will be incurred.
9. Telephone Notes Between Trenton Wright, Town of Sterling and Eric van Gestel, EPA Region I (October 18, 1990). Concerning the reply to the October 15, 1990 letter regarding fences and warning signs at the site.
10. Telephone Notes Between Trenton Wright, Town of Sterling and Eric van Gestel, EPA Region I (December 18, 1990). Concerning the request for sampling data from the well draw test.
11. Letter from Neil Cook, Town of Sterling to Eric van Gestel, EPA Region I (March 9, 1992). Concerning future land uses at the site.

#### 3.2 Sampling and Analysis Data

1. "Final Sampling and Analysis Plan," TRC Companies, Inc. (September 1990).
2. Comments Dated November 2, 1990 from Eric van Gestel, EPA Region I on the September 1990 "Final Sampling and Analysis Plan." TRC Companies, Inc.
3. Letter from Paul A. Hughes, TRC Companies, Inc. to Eric van Gestel, EPA Region I (December 12, 1990). Concerning the attached technical memorandum suggesting changes to the September 1990 "Final Sampling and Analysis Plan." TRC Companies, Inc.
4. Letter from Paul A. Hughes, TRC Companies, Inc. to Eric van Gestel, EPA Region I (December 17, 1990). Concerning the attached "Data Validation Scope of Services."

## 3.2 Sampling and Analysis Data (cont'd.)

5. Letter from Paul A. Hughes, TRC Companies, Inc. to Eric van Gestel, EPA Region I (December 20, 1990). Concerning the attached technical memorandum suggesting changes to the September 1990 "Final Sampling and Analysis Plan," TRC Companies, Inc.
6. Letter from Eric van Gestel, EPA Region I to Paul A. Hughes, TRC Companies, Inc. (December 28, 1990). Concerning approval of the December 12, 17, and 20, 1990 technical memoranda suggesting changes to the September 1990 "Final Sampling and Analysis Plan," TRC Companies, Inc.
7. "Phase III Groundwater (Monitoring and Drinking) Well Sampling Plan." EPA Region I (Summer 1992).

*Additional Sampling and Analysis Data and Chain of Custody forms for the Remedial Investigation (RI) may be reviewed, by appointment only, at EPA Region I, Boston, Massachusetts.*

## 3.3 Scopes of Work

1. Cross-Reference: Letter from Paul A. Hughes, TRC Companies, Inc. to Eric van Gestel, EPA Region I (December 17, 1990). Concerning the attached "Data Validation Scope of Services" [Filed and cited as entry number 4 in 3.2 Sampling and Analysis Data].

## 3.4 Interim Deliverables

1. "Draft Final Report - Health and Safety Plan," TRC Companies, Inc. (August 1990).
2. "Technical Directive Memorandum - Phase IIA - Final Report," TRC Companies, Inc. (December 1991).
3. "Technical Directive Memorandum - Phase IIA - Final Report - Appendices," TRC Companies, Inc. (December 1991).

## 3.6 Remedial Investigation (RI) Reports

1. "Final Remedial Investigation Report." TRC Companies, Inc. (September 1992).
2. "Final Remedial Investigation Report - Appendices A - D," TRC Companies, Inc. (September 1992).
3. "Final Remedial Investigation Report - Appendices E - G," TRC Companies, Inc. (September 1992).
4. "Final Remedial Investigation Report - Appendices H - N," TRC Companies, Inc. (September 1992).

## 3.7 Work Plans and Progress Reports

1. "Final RI/FS Work Plan," TRC Companies, Inc. (July 1990).
2. "Final Report - Scoping Document," TRC Companies, Inc. (August 1990).

## 4.0 Feasibility Study (FS)

## 4.9 Proposed Plans for Selected Remedial Action

1. "Proposed Plan for the Revere Textile Prints Corporation Superfund Site." EPA Region I (August 1992).

## 5.0 Record of Decision (ROD)

## 5.3 Responsiveness Summary

1. Cross-Reference: Responsiveness Summary is an attachment to the September 30, 1992 "Record of Decision," EPA Region I [Filed and cited as entry number 1 in 5.4 Record of Decision (ROD)].

*The following citations indicate documents received by EPA Region I during the formal public comment period.*

2. Comments Dated September 18, 1992 from Edward C. Parker, State of Connecticut Department of Environmental Protection on the August 1992 "Proposed Plan for the Revere Textile Prints Corporation Superfund Site." EPA Region I.

## 5.4 Record of Decision (ROD)

1. "Record of Decision," EPA Region I (September 30, 1992).

## 10.0 Enforcement

## 10.3 State and Local Enforcement Records

1. Letter from John Rose Jr., Byrne, Shechtman & Slater (Attorney for J. Kenneth Lynch Sr.) to Richard Webb, State of Connecticut Department of the Attorney General (July 11, 1983). Concerning an update of the site cleanup and the negotiations between J. Kenneth Lynch and Howard Glick.
2. Letter from Charles W. Young, TRC Companies, Inc. to Joshua Nemzer, EPA Region I (December 18, 1990). Concerning a request for EPA approval of the attached "Application for Authorization to Create a Temporary Emergency Discharge of Contaminated Groundwater." State of Connecticut Department of Environmental Protection (Revised April 10, 1990).
3. Letter from Eric van Gestel, EPA Region I to Thomas W. RisCassi, State of Connecticut Department of Environmental Protection (February 27, 1991) with the attached tank product analysis. Concerning notification that the underground storage tanks and any problems surrounding them would fall under the jurisdiction of the State's Underground Storage Tank Enforcement Program.

## 10.7 EPA Administrative Orders

1. Administrative Order for Removal Action, *In the Matter of Revere Textile Prints Site*, Town of Sterling Connecticut, Respondent, Docket No. I-90-1034 (May 31, 1990).

## 11.0 Potentially Responsible Party (PRP)

## 11.9 PRP-Specific Correspondence

1. Letter from Ivan Rios, EPA Region I to Jeremiah P. Morrison, Town of Sterling (October 13, 1987). Concerning transmittal of information on the Superfund program.
2. Letter from Margaret Leshen, EPA Region I to Trenton Wright, Town of Sterling (February 23, 1989). Concerning transmittal of information on testing that has been done at the site.

## 11.9 PRP-Specific Correspondence (cont'd.)

3. Letter from Robert P. Jordan and Trenton Wright, Town of Sterling to Merrill S. Hohman (December 7, 1989). Concerning the request for a copy of the results of the July 11, 1989 drum sampling and the delay in the notification of potentially responsible parties.
4. Letter from Suzanne M. Batchelor, Tarlow, Levy, Harding & Droney (Attorney for Town of Sterling) to Eric van Gestel, EPA Region I (March 30, 1990). Concerning the possibility that the site may not be contaminated to the degree that it causes a threat to humans or the environment and the suggestion that the site be removed from the National Priorities List without a major cleanup effort.

## 13.0 Community Relations

## 13.1 Correspondence

1. Letter from Merrill S. Hohman, EPA Region I to Robert P. Jordan, Town of Sterling (November 2, 1989). Concerning an update of site activity.
2. Letter from Earl A. Roberts, Autumn Acres Farm to Eric van Gestel, EPA Region I (March 13, 1990). Concerning notification that the citizens of Sterling are planning to beautify the site by removing deteriorated buildings and planting trees and flowers and that EPA's consent is required.
3. Letter from Eric van Gestel, EPA Region I to Earl A. Roberts, Autumn Acres Farm (March 21, 1990) with attached information on the Superfund program. Concerning the response to the March 13, 1990 letter and the denial of consent to raze the buildings on the site due to the possibility of contamination.
4. Letter from Trenton Wright, Town of Sterling to Eric van Gestel, EPA Region I (March 23, 1990). Concerning the attached newspaper article and the question of whether or not metaTrace is related to TRC Companies, Inc.
5. Letter from Rudolph Bauzak to Eric van Gestel, EPA Region I (August 8, 1990). Concerning the request that Town money not be used to clean up the site.

## 13.3 News Clippings/Press Releases

1. "Sterling Mill Site Survey Reveals Toxins," Norwich Bulletin - Norwich, CT (July 12, 1989).
2. "The United States Environmental Protection Agency Invites Public Comment on the Proposed No Action Plan for the Revere Textile Prints Superfund Site in Sterling, Connecticut and Announces the Availability of the Administrative Record." Norwich Bulletin - Norwich, CT (August 20, 1992).

## 13.4 Public Meetings

1. Letter from Eric van Gestel, EPA Region I to Neil Cook, Town of Sterling (August 24, 1992). Concerning confirmation of the September 2, 1992 Public Meeting.
2. Public Hearing Overhead Slides, EPA Region I (September 2, 1992).
3. Cross-Reference: Public Hearing Transcript is an attachment to the September 30, 1992 "Record of Decision," EPA Region I [Filed and cited as entry number 1 in 5.4 Record of Decision (ROD)].

## 14.0 Congressional Relations

### 14.1 Correspondence

1. Letter from Sam Gejdenson, Member of the U.S. House of Representatives to Merrill S. Hohman, EPA Region I (March 2, 1989). Concerning a request for the status of the site cleanup.
2. Letter from Sam Gejdenson, Member of the U.S. House of Representatives to Michael R. Deland, EPA Region I (June 14, 1989). Concerning a request that a decision be made regarding the partially destroyed buildings at the site.
3. Letter from Christopher J. Dodd, Member of the U.S. Senate to Michael R. Deland, EPA Region I (June 20, 1989). Concerning a request for the status of the site cleanup.
4. Letter from Paul G. Keough, EPA Region I to Christopher J. Dodd, Member of the U.S. Senate (September 27, 1989). Concerning an update on the status of the site cleanup.
5. Letter from Paul G. Keough, EPA Region I to Sam Gejdenson, Member of the U.S. House of Representatives (September 27, 1989). Concerning an update on the status of the site cleanup.

## 17.0 Site Management Records

### 17.2 Access Records

1. Cross-Reference: Letter from Robert P. Jordan, Town of Sterling to Edward J. Conley, EPA Region I (January 17, 1990) and the attached signed "Consent for Access to Property." Concerning notification that the Town of Sterling wishes to cooperate with EPA to remove the barrels remaining at the site and that the Town has hired the services of attorney Alan Kosloff of Tarlow, Levy, Harding, and Droney [Filed and cited as entry number 4 in 3.1 Correspondence].

### 17.8 State and Local Technical Records

1. "Draft Hydrogeologic Investigation of the 'Kenneth Lynch Property.'" Leggett, Brashears & Graham, Inc. for Byrne, Shechtman & Slater (Attorney for J. Kenneth Lynch Sr.) (July 1984).
2. Letter from Ozzie Torres, Anderson-Nichols to Denis Cunningham, State of Connecticut Department of Environmental Protection (July 31, 1985). Concerning the attached "Application for Permit - Connecticut Water Diversion Policy Act."
3. "Hydrogeologic Report Regarding the Potential Impacts of Increasing Groundwater Withdrawal from the Moosup River Aquifer in Sterling, Connecticut." BCI Geonetics, Inc. (June 30, 1988).

Section II  
Guidance Documents

## GUIDANCE DOCUMENTS

EPA guidance documents may be reviewed at EPA Region I, Boston, Massachusetts.

### General EPA Guidance Documents

1. U.S. Environmental Protection Agency. Office of Pesticides and Toxic Substances. Asbestos Containing Materials in School Buildings - Part 1. March 1979.
2. U.S. Environmental Protection Agency. Office of Pesticides and Toxic Substances. Asbestos Containing Materials in School Buildings - Part 2. March 1979.
3. "Final and Proposed Amendments to the National Oil and Hazardous Substances Pollution Contingency Plan." Code of Federal Regulations (Title 40, Part 300), September 8, 1983.
4. "National Oil and Hazardous Substances Pollution Contingency Plan." Code of Federal Regulations (Title 40, Part 300), 1985.
5. "National Oil and Hazardous Substances Pollution Contingency Plan." Federal Register (Vol. 55, No. 46), March 8, 1990.
6. U.S. Environmental Protection Agency. Office of Emergency and Remedial Response. Community Relations in Superfund: A Handbook (Interim Version) (EPA/HW-6), September 1983.
7. "National Emission Standards for Hazardous Air Pollutants Asbestos Regulations." Code of Federal Regulations (Title 40, Part 61), April 5, 1984.
8. U.S. Environmental Protection Agency. Environmental Monitoring Systems Laboratory. Soil Sampling Quality Assurance User's Guide (EPA/600/4-84/043), May 1984.
9. U.S. Environmental Protection Agency. Office of Ground-Water Protection. Ground-Water Protection Strategy (EPA/440/6-84/002), August 1984.
10. "Guidelines Establishing Test Procedures for the Analysis of Pollutants Under the Clean Water Act: Final Rule and Interim Final Rule and Proposed Rule." Federal Register (Vol. 49, No. 209), October 26, 1984.
11. U.S. Environmental Protection Agency. Environmental Criteria and Assessment Office. Health Effects Assessment for Asbestos, November 1984.
12. U.S. Environmental Protection Agency. Office of Emergency and Remedial Response. Guidance Document for Cleanup of Surface Tank and Drum Sites (OSWER Directive 9380.0-3), May 28, 1985.
13. U.S. Environmental Protection Agency. Office of Pesticides and Toxic Substances. Guidance for Controlling Asbestos-Containing Materials in Buildings (EPA/560/5-85/024), June 1985.
14. U.S. Environmental Protection Agency. Office of Solid Waste and Emergency Response. Guidance on Remedial Investigations under CERCLA (Comprehensive Environmental Response, Compensation, and Liability Act) (EPA/540/G-85/002), June 1985.
15. U.S. Environmental Protection Agency. Office of Solid Waste and Emergency Response. Guidance on Feasibility Studies under CERCLA (Comprehensive Environmental Response, Compensation, and Liability Act) (EPA/540/G-85/003), June 1985.

16. U.S. Environmental Protection Agency and Michigan Department of Natural Resources. Field Screening for Organic Contaminants in Samples from Hazardous Waste Sites. April 2, 1986.
17. Record of Decision. Kellogg-Deering Well Field. Norwalk, Connecticut. EPA Region I. Boston, Massachusetts. September 25, 1986.
18. U.S. Environmental Protection Agency. Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended October 17, 1986.
19. U.S. Environmental Protection Agency. Office of Emergency and Remedial Response. Superfund Public Health Evaluation Manual (EPA/540/1-86/060, OSWER Directive 9285.4-1). October 1986.
20. U.S. Environmental Protection Agency. Office of Emergency and Remedial Response. Superfund Federal-Lead Remedial Project Management Handbook (EPA/540/G-87/001, OSWER Directive 9355.1-1). December 1986.
21. U.S. Environmental Protection Agency. Office of Ground-Water Protection. Guidelines for Ground-Water Classification under the EPA Ground-Water Protection Strategy. December 1986.
22. U.S. Environmental Protection Agency. Office of Emergency and Remedial Response. Superfund Glossary (WH/FS-86-007). Winter 1986.
23. "Polychlorinated Biphenyls (PCBs) Manufacturing, Processing, Distribution in Commerce, and Use Prohibitions." Code of Federal Regulations (Title 40, Part 761). July 1, 1987.
24. Memorandum from Henry L. Longest. U.S. Environmental Protection Agency Office of Emergency and Remedial Response to Directors, Waste Management Division, Regions I, IV, V, VI, VII, and VIII; Director, Emergency and Remedial Response Division, Region II; Directors, Hazardous Waste Management Division, Regions III and X; Directors, Toxics and Waste Management Division, Region IX (OSWER Directive 9355.0-20). July 23, 1987 (discussing RI/FS improvements).
25. Memorandum from Francis S. Blake. General Counsel, to J. Winston Porter, Assistant Administrator for Solid Waste and Emergency Response, July 31, 1987 (discussing the scope of the CERCLA petroleum exclusion under sections 101 (14) and 104 (a) (2)).
26. U.S. Environmental Protection Agency. Office of Solid Waste and Emergency Response. Draft Guidance on CERCLA Compliance with Other Laws Manual (OSWER Directive 9234.1-01). August 8, 1988.
27. U.S. Environmental Protection Agency. Office of Emergency and Remedial Response. Superfund Removal Procedures - Revision Number Three (OSWER Directive 9360.0-03B), February 1988.
28. U.S. Environmental Protection Agency. Office of Emergency and Remedial Response. Interim Final Guidance on Conducting Remedial Investigations and Feasibility Studies under CERCLA (Comprehensive Environmental Response, Compensation, and Liability Act), October 1988.
29. U.S. Environmental Protection Agency. Office of Solid Waste and Emergency Response. Risk Assessment Guidance for Superfund. Human Health Evaluation Manual Part A. July 1989.
30. "RCRA Regulations." Code of Federal Regulations (Title 40, Part 264). July 1989.