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EPA Superfund
Record of Decision Amendment:

NORWOOD PCBS
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NORWOOD, MA
05/17/1996

RECORD OF DECISION AMENDMENT
NORWOOD PCB SUPERFUND SITE

SITE NAME AND LOCATION

Norwood PCB Superfund Site
Norwood, Massachusetts

STATEMENT OF PURPOSE

This decision document presents an amendment to the United States Environmental Protecting Agency's ("EPA") selected remedial action chosen in a Record of Decision signed on September 29, 1989 ("the 1989 ROD") for the Norwood PCB Superfund Site, in Norwood, Massachusetts. This amended selected remedy was chosen in accordance with the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 ("CERCLA"), as amended, 42 U.S.C § 9601, et seq., and is consistent, to the extent practicable, with the National Oil and Hazardous Substances Pollution Contingency Plan ("NCP"), 40 CFR Part 300. This amendment is made in accordance with Section 117 of CERCLA, 42 U.S.C § 9617, and 40 CFR § 300.435(c)(2)(ii). The Regional Administrator has been delegated the authority to approve this amendment to the Record of Decision. The Regional Administrator has further delegated this authority to the Director of the Office of Site Remediation and Restoration.

The Commonwealth of Massachusetts has concurred on this amended selected remedy and determined, through a detailed evaluation, that the amended selected remedy is consistent with Massachusetts laws and regulations.

STATEMENT OF BASIS

This decision is based on the Administrative Record compiled for this Site which was developed in accordance with Section 113(k) and Section 117 of CERCLA and 40 CFR 300.435(c)(2). The Administrative Record is available for public review at the Morrill Memorial Library in Norwood, Massachusetts and at the EPA Region I Office of Site Remediation and Restoration Records Center in Boston, Massachusetts. The attached index (Attachment A) identifies the items which comprise the Administrative Record upon which the selection of the remedial action is based.

DESCRIPTION OF THE ORIGINAL REMEDY

The remedial action selected in the 1989 ROD consisted of:

1) Groundwater extraction and treatment;
2) Excavation, treatment via Solvent Extraction, and subsequent re-disposal of contaminated soils and sediments; and,
3) Remediation of the Grant Gear building.

DESCRIPTION OF THE AMENDED SELECTED REMEDY

The amended remedy will consist of:

1) Demolition of the Grant Gear building;
2) Consolidation of contaminated soil, and soil and sediment form Meadow Brook, onto a portion of the Grant Gear property;
3) Removal of "hot spot" of contamination below the water table;
4) Covering of the most heavily contaminated areas of the Grant Gear property with an asphalt cap and covering of other areas with clean fill material;
5) Periodic monitoring to assess performance and protectiveness of the remedy;
6) Inspections and maintenance of the cap & cover; and,
7) Continued on-Site groundwater extraction and treatment.

DECLARATION

The amended selected remedy is protective of human health and the environment, attains applicable and relevant and appropriate requirements ("ARARs") and is cost effective. The amended selected remedy includes statutory waivers under the Toxic Substances Control Act ("TSCA") pertaining to four components for TSCA chemical waste landfills. The amended selected remedy utilizes alternate treatment technologies or resource recovery technologies to the maximum extent practicable. However, the amended selected remedy does not satisfy the preference for treatment which permanently and significantly reduces the toxicity, mobility, or volume of the hazardous substances as a principal element.

This amended selected does not change the groundwater portion of the 1989 ROD, except that removal of the "hot spot" of contamination will likely remove a source of downgradient groundwater contamination. This amended selected remedy does not re-analyze the remedy selection criteria, such as overall protection of human health and the environment and attainment of ARARs, pertaining to the groundwater portion of the remedy. Because the amended selected remedy will still result in hazardous substances remaining on-Site, a review will be conducted periodically (at a minimum, every five years) to ensure that the remedy continues to provide adequate protection of human health and the environment.

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RECORD OF DECISION AMENDMENT
NORWOOD PCB SUPERFUND SITE

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DECISION SUMMARY

I. INTRODUCTION

Site Name: Norwood PCB Superfund Site
Site Location: Norwood, Norfolk County, Massachusetts

Authority: CERCLA Section 117 and 40 CFR 300.435(c)(2)(ii)

Date of Original Record of Decision: September 29, 1989

Administrative Record: This Amended Record of Decision as well as documents supporting this decision document will become part of the Administrative Record for the Site.

The Administrative Record is available for public review at the following information repositories:

Morrill Memorial Library
Walpole Street, Norwood, MA 02062
(617) 769-0020
Hours: Monday-Thursday 9:00 am - 9:00 pm,
Friday 10:00 am - 5:00 pm,
Saturday 9:00 and - 5:00 pm,
and Sunday 1:00 pm - 5:00 pm

and,

EPA Records Center
90 Canal Street, Boston, MA 02114
(617) 573-5729
Hours: Monday-Friday 10:00 am- 1:00pm,
2:00 pm - 5:00 pm.

II. SITE DESCRIPTION

The Norwood PCB Site is located approximately 14 miles southwest of the City of Boston. The Site consists of several parcels of land including industrial/commercial properties and associated parking areas. To the north, the Site is bordered by and includes Meadow Brook and its banks, to the east by the heavily commercial U.S. Route 1 and the Dean Street access road, to the south by Dean Street, and to the west by the residential Pellana Road. Figures 1 and 2 illustrate the Site location and vicinity.

Two residential areas exist near the Site. To the west, approximately 26 homes border the Site on Dean Street and Pellana Road. The other residential area is to the north, beyond Meadow Brook and a wooded area. Assuming an average of 3.8 residents per home, there are approximately 3040 residents living within a ½ mile radius of the Site.

To the east of the Site is the heavily traveled U.S. Route 1. Properties along U.S. Route 1 in the vicinity of the Site are primarily commercial, and include automobile dealerships, equipment rental business, a pet shop, restaurants, and gasoline stations. A restaurant, a

Direct Tire dealership and a Mobil gasoline station are located to the southeast of the Site, near the Dean Street access road and Route 1. A shopping plaza, a car wash and two restaurants are located across Dean Street to the south of the Site.

The northern portion of the Site is a small wooded area drained by Meadow Brook. Meadow Brook is a shallow stream approximately 12 feet wide and 6 to 12 inches deep near the Site. The Brook serves as a drainageway for over 900 acres of densely developed land and discharges into the Neponset River approximately 1,600 feet downstream of the Site. Four piles of sediment previously dredged from the stream (dredge piles) are located on the south bank of the Brook, between Route 1 and Kerry Place. The Town of Norwood has scheduled the Brook for additional dredging and restoration between Dean Street and Meadow Brook Road (3,000 lin. ft.) to reduce the frequency of flooding upstream of the Site. Figure 3 shows the extent of the 100-year flood plain.

All residential and commercial properties within or adjacent to the Site are supplied with water from the Norwood municipal system. The town is provided with public water through a connection to the Massachusetts Water Resource Authority ("MWRA") system. An undetermined number of residences in the area reportedly use private groundwater wells to supply water for gardening and lawn sprinklers.

A more complete description of the Site can be found in Chapter 1 of the RI Report (Ebasco, 1989).

III. PURPOSE OF THE AMENDED RECORD OF DECISION

The purpose of the Amended Record of Decision is to formally specify changes to the previously issued Record of Decision. The Amended Record of Decision describes the changes adapted and presents an evaluation of the changes in relation to the technologies which were selected in the original Record of Decision. In addition, it presents the rationale for changing the Record of Decision, the Commonwealth of Massachusetts and public perspectives on the change, and a Responsiveness Summary which is EPA's response to public comment on the change.

IV. SITE HISTORY AND ENFORCEMENT ACTIVITIES

A. Site History

Contamination at the Norwood PCB Site originated from disposal practices of the parties who owned property at the Site or operated businesses in the building located on the property now owned by John and Robert Hurley, Trustees of the Grant Gear Realty Trust. The building was constructed in 1942 by Bendix Aviation Corporation, which produced navigational control systems and conducted other activities. In October 1947, the land was purchased by Tobe Deutschman Corporation, which manufactured electrical equipment at the Site, including capacitors and transformers. The property was purchased in October 1956 by Cornell-Dubilier Electronics, Inc. ("CDE"), which also manufactured electrical equipment at the facility. In January 1960, the property was briefly owned by Maryvale Corporation, and was then purchased by Jack Harold, and Leonard Friedland (collectively the "Friedland Brothers"). The Friedland Brothers leased the property to Federal Pacific Electric Company ("FPE"), which held the lease on the property until October 1979. During the period from 1960 to 1979, FPE operated a business at the Site, and sublet portions of the facility to CDE and to Arrow Hart Corporation, a predecessor to Cooper Industries, Inc. ("Cooper") which also manufactured electrical equipment at the facility. Interpretation of aerial photographs form 1952 through 1978 shows that the Site fencing extended to Dean Street, encompassing a vacant lot and the then-Norwood Hyundai automobile dealership, now a Direct Tire dealership (Bionetics

Corporation, 1984). Throughout this period, the western portion of the Site was undeveloped and used for storage of materials by the owners/operators of the facility.

In 1979, the Site was subdivided. The northeastern portion of the Site, approximately 9 acres, was purchased by Grant Gear Reality Trust which leased the facility to Grant Gear Works, Inc., to produce gears for industry. The southern and western portions of the Site, approximately 16 acres, were purchased by Paul Birmingham, Paul Reardon and Jack Reardon who further subdivided the property into seven lots and added an access road Kerry Place. The Reardons still retain four of the seven original lots. The lots are now occupied by commercial and light industrial buildings. One lot at the corner of Dean Street and Kerry Place remains vacant.

On April 1, 1983, the Massachusetts Department of Environmental Protection ("DEP"), then known as the Massachusetts Department of Environmental Quality Engineering, received a telephone call from a citizen living on Pellana Road reporting past industrial waste dumping and contamination in the then vacant field of Kerry Place between Pellana Road and the Grant Gear property. As a result of this call, an initial field investigation by DEP was conducted. On April 6, 1983, DEP sampled surficial soils and Meadow Brook sediments. The initial DEP investigations confirmed Polychlorinated Biphenyl ("PCB") contamination in soils. The DEP immediately moved to restrict public access to the field area and marked areas within the Grant Gear fence to alert workers of the possible danger. Because state funds were not available, the Commonwealth of Massachusetts requested EPA to provide support using Superfund money. EPA dispatched its Technical Assistance Team ("TAT") Contractor. Roy F. Weston, Inc., of Lexington. Massachusetts, to aid DEP in collecting confirmatory samples of the oil-stained areas along the western fence line and in other areas on both the Grant Gear and Reardon properties. Based on these findings, it was determined that an immediate removal action was appropriate to address all soils outside the Grant Gear property with PCB concentrations greater than 50 parts per million (ppm). The Agency planned to follow the removal action with a full Remedial Investigation designed to assess the nature and extent of the remaining contamination.

Beginning June 23, 1983, EPA (through its subcontractor, SCA Recycling Industries, Inc., of Braintree, Massachusetts) began removal of contaminated soils on the Site. A total of 518 tons of contaminated soil was removed and disposed of at the SCA Model City, New York landfill facility. The soils were removed from locations within the Kerry Place and Grant Gear properties. Reported excavation depths were up to 30 inches. During the removal action, water samples taken from the storm drain system behind the Grant Gear building indicated low levels of PCB contamination. This immediate removal action was completed on August 5, 1983.

In December 1983, the Site was reviewed by the EPA Field Investigation Team ("FIT") Contractor and evaluated, using the Hazard Ranking System, for possible listing on the National Priorities List ("NPL") of sites eligible for cleanup under the Superfund program. EPA proposed to add the Site to the Site to the NPL on October 15, 1984 (49 FR 40320), and the Site was added to the NPL on June 10, 1986 (51 FR 21099).

Based on the preliminary findings of a 1986 Wehran Engineering study for DEP and a 1986 GZA study performed for CDE, the DEP implemented an Interim Remedial Measure ("IRM") at the Site in January 1986. The IRM was considered necessary to limit access to areas of highest surface soil contamination within the fenced area of the Grant Gear property. Specifically, DEP's contractor installed a temporary cap over a 1.5 acre portion of the northwest and southwest corners of the Grant Gear property. The contaminated surface soils were covered with a filter fabric liner and 6 inches of crushed stone. The capped areas were enclosed with a 4 foot high wire mesh fence and the areas were delineated with yellow hazard tape.

The locations of the capped areas are shown on Figure 4.

In 1992 EPA began its remedial design phase for the cleanup, beginning with a series of "Pre Design Studies". Studies were completed in late 1992 and are summarized in a report prepared in January 1993 by Metcalf & Eddy, Inc. Final plans and specifications for the groundwater and soil/sediment portions of the cleanup as set forth in the 1989 ROD were completed in 1994.

Remedial action at the Site began in late 1994. Ebasco Constructors, Inc. (later known as Enserch Environmental and now as Foster-Wheeler Environmental) was issued a delivery order under the US Army Corps of Engineeers' Total Environmental Restoration Contract ("TERC") for construction and initial operation of the groundwater treatment facility. Construction of this facility was completed in late 1995 and the plant is currently in operation. In addition, a decontamination effort for equipment and machinery inside the Grant Gear building was conducted in 1995, as was the excavation of contaminated soils from four "outlier" areas located outside of the Grant Gear property. Planning and contracting activities for the soil/sediment solvent extraction remedy outlined in the 1989 ROD gave rise to the issues outlined in this ROD Amendment.

A more detailed description of the Site history can be found in the RI Report (Ebasco, 1989).

B. Enforcement History

The 1989 Record of Decision contains a comprehensive history of enforcement activities through 1989. Since that time, there have been several enforcement developments.

Pursuant to Section 122(e) of CERCLA, in March 1990, EPA sent special notice letters to CDE, FPE, Cooper, the Friedland Brothers, and the Town of Norwood. Subsequent negotiations seeking performance of the remedy selected in the 1989 ROD by those parties were unsuccessful, and in August, 1990, EPA issued an administrative order under Section 106 of CERCLA to CDE. FPE, Cooper, and the Friedland Brothers compelling those parties to perform the remedy. To date, the parties have not complied with that order.

In 1991, the United States entered into a settlement with Grant Gear Works, Inc. and John and Robert Hurley, whereby the Hurleys agreed to pay certain money to the government and provide access and institutional controls on property they control.

In 1992, the United States and the Commonwealth of Massachusetts initiated a lawsuit against CDE, FPE, Cooper, and the Friedland Brothers in federal court. In that lawsuit, the governments seek reimbursement of response costs, a declaratory judgment as to the defendants' liability for future response costs, and civil penalties and/or punitive damages for defendants' failure to comply with the 1990 Administrative Order.

In 1994, the United States and the Commonwealth entered into a settlement with the Friedland Brothers. That settlement required the Friedlands to pay certain money to the United States, and also required the Friedlands to assign to the United States and the Commonwealth certain proceeds of indemnification claims that they have against CDE, FPE, and Cooper.

Settlement negotiations with CDE, FPE, and Cooper have continued sporadically since the initiation of the governments' lawsuit in 1992. Negotiations related to the Site are also ongoing with John and Paul Reardon and the Town of Norwood.

Technical comments presented by several PRPs during the public comment period were submitted in writing. A summary of the PRP comments and EPA's responses to those comments are included

in the Responsiveness Summary in Appendix B of this ROD Amendment. In addition, these documents are included in the Administrative Record for the Site.

V. COMMUNITY RELATIONS HISTORY

Through the Site's history, community concern and involvement has been average. EPA has kept the community and other interested parties apprized of the Site activities through informational meetings, fact sheets, press releases and public meetings.

In June 1988, EPA released a community relations plan which outlined a program to address community concerns and keep citizens informed about remedial activities. On March 16, 1988, EPA held an information meeting in the Balch Elementary School to describe the plans for the Remedial Investigation and Feasibility Study.

On June 15, 1989, EPA held an informational meeting to discuss the results of the RI and the schedule that EPA and DEP planned to follow in selecting the Superfund remedy for the Site. A third informational meeting to present the Agency's Proposed Plan and the other cleanup alternatives presented in the Feasibility Study was held on August 10, 1989. During both meeting, EPA answered questions from the public.

On August 11, 1989, EPA began a 30 day public comment period to accept public comment on the alternatives presented in the Feasibility Study and the Proposed Plan and on the other documents which were a part of the Administrative Record for the Site. At that time, EPA made the Administrative Record available for public review at EPA's offices in Boston and at the Morrill Memorial Library in Norwood, Massachusetts. EPA published a notice and brief description of the Proposed Plan in the Daily Transcript on August 8, 1989 and made the plan available to the public at the Morrill Memorial Library. On August 24, 1989, the Agency held a public hearing to accept any oral comments. A transcript of this meeting and the comments and the Agency's response to comments are included in the responsiveness summary attached to the 1989 Record of Decision.

On May 24, 1994, EPA held a public meeting to announce the completion of the remedial design phase for the groundwater remediation and to address questions regarding the implementation of the remedy.

On August 7 and August 10, 1995, EPA held public meetings to outline new developments in the remedial action at the Site and to invite public comment on the approach to the soil cleanup portion of the Site remedy. The public was invited to comment on a potential change in the cleanup plan through August 18, 1995.

On February 22, 1996, EPA began a 30 day public comment period to accept public comment on the Proposed Amended Cleanup Plan and on the other documents which were a part of the Administrative Record for the Site. At that time, EPA made a supplement to the Administrative Record available for public review at EPA's offices in Boston and at the Morrill Memorial Library in Norwood, Massachusetts. EPA published a notice and brief description of the Proposed Amended Cleanup Plan in the Norwood Bulletin on February 21, 1996 and in the Patriot Ledger on February 22, 1996 and made the plan available to the public at the Morrill Memorial Library. On March 6, 1996, the Agency held a public hearing to accept oral comments. A transcript of this meeting is included as Attachment D to this ROD Amendment and the comments and the Agency's responses are included in the Responsiveness Summary, which is included as Attachment B to this ROD Amendment.

VI. SUMMARY OF SITE CHARACTERISTICS AND REASONS FOR THE ROD AMENDMENT

A complete description of the Site characteristics can be found in the 1989 ROD.

The remedial action at the Site has been ongoing since late 1994. Since that time, EPA has partially completed cleanup activities. The Site support area has been fenced and constructed, the groundwater treatment plant has been constructed and is now operational, 57 pieces of machinery and equipment from inside the Grant Gear building have been decontaminated, and four "outlier" areas, small areas of soil contamination outside of the Grant Gear property, have been excavated. EPA also issued a request for proposal regarding the soil/sediment solvent extraction portion of the remedy as outlined in the 1989 ROD. Early in 1995, EPA received a proposal from its contractor for the implementation of this work. That proposal's cost greatly exceeded prior cost estimates as well as available funding for the project**1**. Also based upon that proposal, EPA believes that there would be difficulties in properly siting the appropriate solvent extraction facilities on the Site due to space constraints and safety issues. Based upon these revised cost estimates and siting constraints, EPA determined that it was necessary to amend the remedy for the Site.

Considering the need to amend the remedy for the Site and the amount of time elapsed since the original risk analysis to support the 1989 ROD, EPA also determined that the risk-based Site cleanup levels should be re-examined. Prior to release of the Proposed Amended Cleanup Plan, EPA performed a re-analysis of Site risks to assess the appropriateness of cleanup goals and to determine what revised human health risk calculations would be produced by current EPA methodologies and a approaches to risk assessments (developed since the 1989 Endangerment Assessment for the Site was completed). In addition, the anticipated future land use at the Site has been further clarified since the 1989 ROD, which resulted in changes to several exposure scenarios used in the risk calculations. The impact of these changes was also considered in EPA's re-analysis. Ecological risks at the Site also were re-examined to determine if any adjustments to cleanup levels driven by ecological risks were appropriate (mainly the Meadow Brook sediment/soil cleanup level.) Based on the clarification of future land use and changes in risk assessment methodologies, new cleanup goals were developed and proposed in the Proposed Amended Cleanup Plan, and now are adopted as part of this ROD Amendment. These new cleanup goals and their associated incremental carcinogenic risks after cleanup are discussed in Section VII.B.3. for each area of the Site and are summarized in Table 1.

VII. DESCRIPTION OF ALTERNATIVES

Section VII.A. outlines the alternatives evaluated in the 1989 ROD, and Section VII.B. describes the new elements of the amended selected remedy as adopted by this ROD Amendment.

A. Alternatives Evaluated in the 1989 ROD

The 1989 ROD evaluated five alternatives to address soil and sediment contamination at the Site. Four alternatives to address contamination of the Grant Gear drainage system were also evaluated. Finally, the 1989 ROD also evaluated four alternatives to address management of migration of contaminants through the groundwater.

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1 The 1989 ROD estimated the then present value of the soil/sediment solvent extraction remedy at $13.3 million (1989 dollars). The 1995 proposal estimated cost at $54.8 million.

The five alternatives to address soil and sediment contamination were as follows:

SC-1: Minimal action alternative
This alternative included fencing, institutional controls, public education programs, long-term monitoring, and five-year reviews.

SC-2: Containment Alternative
This alternative consisted of consolidating outlying contaminated soils and sediments under an impermeable cap constructed on-Site, long-term monitoring, and five-year reviews.

SC-3: Treatment alternative: On-Site Solvent Extraction
This alternative was chosen in the 1989 ROD as the remedy for source control. This alternative consisted of the excavation of contaminated soils and sediments, treatment on-Site using the innovative technology solvent extraction to extract contamination from the soil, and disposal of treated materials on-Site.

SC-4: Treatment Alternative: On-Site Dechlorination
This alternative consisted of the excavation of contaminated soils and sediments, treatment on-Site using a dechlorination technology to detoxify the PCB contamination, and disposal of treated materials on-Site.

SC-5: Treatment Alternative: On-Site Incineration
This alternative was chosen in the 1989 ROD as a contingent remedy to be employed if solvent extraction was determined no to be implementable or would not be effective in achieving cleanup levels. This alternative consisted of the excavation of contaminated soils and sediments, treatment on-Site using incineration, and disposal of treatment residuals on-Site.

The four alternatives to address contamination of the Grant Gear drainage system were as follows:

SC-A: No Action Alternative
This alternative assumed that the building use would continue without modification and without change of occupancy and included only long-term monitoring of contamination.

SC-B: Flushing/Cleaning of the Drainage System
This alternative involved the flushing and cleaning of the Grant Gear building's drainage system. This alternative was selected as a component of the overall building source control remedy in the 1989 ROD. The 1989 ROD stated that if flushing and cleaning was not able to meet cleanup goals, the drainage system would be contained and replaced, as discussed in alternative SC-C below.

SC-C: Containment of the Drainage System
This alternative involved flushing and cleaning of the drainage system, the subsequent filling of the pipes and manholes with concrete or slurry, and the installation of a new replacement drainage system. This alternative also included long-term monitoring, institutional controls, and five-year reviews.

SC-D: Removal of the Drainage System
This alternative involved the flushing and subsequent removal of all contaminated piping and manholes and disposal of these material off-Site. A new replacement drainage system would then be installed.

The remedy selected in the 1989 ROD for the Grant Gear building also called for the cleaning and sealing of roof surfaces and the decontamination of surfaces of machinery and equipment inside the building and building floor surfaces.

Management of migration (i.e. groundwater) alternatives from the 1989 ROD are not restated here because that component of the remedy remains essentially unchanged form the remedy selected in the 1989 ROD.

A full description of all the alternatives previously evaluated and selected for the Site can be found in the 1989 ROD, the Feasibility Study for the Norwood PCB Site (Ebasco, 1989), and the Grant Gear Building Feasibility Study Camp, Dresser, & McKee, 1989).

B. New Proposed Alternative/Amended Selected Remedy

In addition to the alternatives set forth in the 1989 ROD, EPA developed a new proposed alternative for the Site, which was set forth in the February, 1996 Proposed Amended Cleanup Plan. EPA believes that the new proposed alternative in a more suitable response to the revised cost estimates and siting constraints of solvent extraction, and the re-analysis of Site risks, as described in Section VI., than any of the alternatives from the 1989 ROD.

Following is a description of the new proposed alternative, as set forth in the February, 1996 Proposed Amended Cleanup Plan, and as further modified by EPA based on its own further analysis and on comments received from the Commonwealth, the Potentially Responsible Parties ("PRPs"), and the public. This ROD Amendment selects this new proposed alternative as the cleanup approach for the Site.

According to EPA guidance, there are three categories of Post-ROD remedy changes: "fundamental changes" to the ROD require a ROD Amendment; "significant changes" to a component of the remedy require an Explanation of Significant Differences, and "non-significant changes" require documentation to the EPA Site file. (See Interim Final Guidance on Preparing Superfund Decision Documents, OSWER Directive 9355.3-02, June, 1989).

Analyzed individually, not all of the five components of the proposed alternative discussed below constitute fundamental changes to the 1989 ROD. However, EPA believes that together these five components constitute the most important aspects of the proposed remedy change. Therefore, the February, 1996 Proposed Amended Cleanup Plan and this document subject all of these five components to the requirements for "fundamental changes" as set forth in EPA guidance documents. Other modifications to the remedy which are not fundamental changes to the remedy in the 1989 ROD but which do represent significant or non-significant changes are discussed in Sections XII and XIII of this document.

1. Demolish Grant Gear Building

The industrial building a the Site, known as the Grant Gear building will be demolished. Prior to demolition, appropriate asbestos abatement and disposal will be conducted. Once the demolition is completed, the debris material may be handled in several ways. First, PCB-contaminated building contents and debris may be consolidated on-Site in the subsurface boiler room area of the Grant Gear Building. Any such materials will be consolidated into this subsurface area in a manner which minimizes void space and will resist settling over time. Any PCB contaminated materials that cannot be placed in the boiler room due to space constraints, will be disposed of at an appropriate off-Site facility. Second, certain materials, such as structural steel, may also be subjected to federal Resource Conservation and Recovery Act ("RCRA") requirements. These materials will not be placed in the boiler room or elsewhere on the Site, but will be disposed of at an appropriate off-Site facility

complying with RCRA and TSCA requirements as necessary. Third, debris which may be uncontaminated, may be reused or recycled, as appropriate. For instance, certain block and brick from the building may be usable as part of the sub-base for the cap described in Section VII.B.4. Also, if deemed cost-effective, certain contaminated debris may be reused or recycled if properly decontaminated. Finally, any other material which may be inappropriate for on-Site disposal, or otherwise precluded from on-Site disposal by law or regulation, will be disposed of at an appropriate off-Site facility.

Sediment and sludge material from the property's drainage system manholes, including sediment from drainage system manholes stockpiled from previous excavation activities, will be removed from the Site and disposed of properly at an appropriate off-Site facility. The below grade portions of the drainage system will be filled with concrete or slurry and left in place under the cap described in Section VII.B.4. Existing building foundations will be left intact and covered by the cap. The underground fuel storage tank which serves the building's boiler will be decommissioned in accordance with applicable regulations.

This portion of the proposed alternative achieves the same remedial goals as described in the 1989 ROD; namely, to reduce risks from direct contact with contaminated surfaces in and on the Grant Gear building. The 1989 ROD selected decontamination of the interior surfaces of the building and decontamination or encapsulation of roof surfaces of the building and flushing and cleaning or containment and replacement of the building's drainage system so that use of the building could continue. Since that time, Grant Gear has ceased its operations on the property, and its in unlikely that the existing building will be used again. Considering this change in use and the limited effectiveness of decontamination, the proposed alternative includes demolition of the building.

2. Excavate Area of High Concentrations of Chlorinated Organic Compounds to Eliminate a Continuing Source of Groundwater Contamination

In order to further limit continued contamination of groundwater underlying the Site, a small "hot spot" of contaminated soil at or below the water table located on the west side of the Grant Gear building will be excavated. Contaminated soils exceeding 97 ppm of 1,2,4 trichlorobenzene (the soil cleanup level established in the 1989 ROD for this constituent in unsaturated soils) will be disposed of on-Site under the cap described in Section VII.B.4. or at an appropriate off-Site facility. As with all soils below the seasonal low water table, excavation of these soils was not addressed in the 1989 ROD. This additional item of work will remove contaminated soils located in the vicinity of highest groundwater contamination. Excavation of these soils will likely remove a source of downgradient groundwater contamination and should serve to lower overall contaminant levels in the groundwater underlying the Site, thus possibly resulting in a shorter and less costly groundwater cleanup.

It is not certain whether the contaminants in these soils would exceed regulatory limits set forth by RCRA regulations. If they do exceed these limits, the hot spot soils would be designated as hazardous wastes under RCRA. Disposal of RCRA hazardous wastes under the cap would require compliance with RCRA requirements, such as RCRA Subtitle C hazardous waste landfill requirements. These RCRA requirements would add significant expense to the proposed alternative and are otherwise not necessary for the proposed alternative to be protective. Therefore, the proposed alternative includes removal of these soils to an appropriate off-Site facility if these soils are determined to be hazardous under RCRA.

3. Excavate and consolidate contaminated soils from portions of Grant Gear property and from other surrounding properties, including contaminated soils and sediments from Meadow Brook, and restore the Brook consistent with the Town's flood control project

The 1989 ROD set a PCB cleanup level of 10 parts per million (ppm) for surficial and subsurface soils located on commercial/industrial parcels. This ROD Amendment, based on a recalculation of the risk assessment (described in more detail below), sets PCB cleanup levels for soils outside of the area to be capped with the asphalt cap at 40 ppm at the surface (top one foot) and 70 ppm in the subsurface (soils one foot to six feet deep). Likewise, this ROD Amendment changes the PCB cleanup level for the wooded area north of the Grant Gear property from 1 ppm in surface and subsurface soils to 10 ppm at the surface and 50 ppm in the subsurface. The cleanup plan relative to Meadow Brook remains essentially unchanged (i.e., cleanup level of 1 ppm PCBs), except contamination above 1 ppm PCBs may be left in place provided that it is adequately encapsulated by the materials to be placed on the bottom and sideslopes of the Brook as part of its restoration. Figure 5 shows the general Site locations where these different cleanup levels apply.

Following is an outline of the consolidation activities to be conducted. These items are organized according to area:

Soils on Commercial or Industrial Properties

Surficial soils (top 1 foot) exceeding 40 parts per million (ppm) and subsurface soils (1 foot to 6 foot depth) exceeding 70 ppm PCBs located on portions of the Grant Gear property as well as on commercial properties adjacent to the Grant Gear property will be excavated and placed in the area to be capped, or left in place and capped, as described in Section VII.B.4. Soils from prior excavation activities already stockpiled on the Site will be placed in the area to be capped or covered, depending on contaminant concentrations, as described in Section VII.B.4. Soils located on commercial properties adjacent to the Grant Gear property which are currently covered with pavement or other permanent ground cover will be considered subsurface soils; i.e. since contaminant concentrations in these soils are below the commercial/industrial property subsurface soil cleanup level (70 ppm PCBs), no excavation is required in these areas.

Reducing the concentrations of residual contaminants to these 40 ppm and 70 ppm levels will result in an incremental carcinogenic lifetime risk level of 1.3 x 10-5 for surficial soils and 1.2 x 10-5 for subsurface soils. These risk levels are based upon future commercial/ industrial land use exposure assumptions associated with an on-Site worker (e.g., landscaper) for the surficial soils and a construction worker for the subsurface soils. In addition, EPA believes that the placement of the cover described in Section VII.B.4. over areas excavated to these cleanup levels will further reduce potential risks associated with direct contact with, and incidental ingestion of, contaminated soils. Risks associated with direct contact with, and incidental ingestion of, soils exceeding these 40ppm and 70 ppm levels will be eliminated by construction of the cap.

Soil in Wooded Areas North of Grant Gear Property

Surficial soils exceeding 10 ppm PCBs and subsurface soils exceeding 50 ppm PCBs in the wooded areas directly adjacent to Meadow Brook will be excavated. These contaminated soils and sediments will be consolidated onto a portion of the Grant Gear property, and placed in the area to be capped or covered, as described in Section VII.B.4.

Reducing the concentrations of residual contaminants to these 10ppm and 50 ppm levels will result in an incremental carcinogenic lifetime risk level of 5 x 10-6 for surficial soils and 8.3 x 10-6 for subsurface soils. These risk levels are based upon exposure assumptions associated with an older child (age 6 - 16) playing in this area for the surficial soils and a construction worker for the subsurface soils. In addition, the surficial soil cleanup level in this area will protect aquatic life in Meadow Brook from potential erosion of contaminants.

Soils and Sediment in Meadow Brook and its Banks

Soils and sediments exceeding 1 ppm PCBs located in Meadow Brook and its banks (including the Dean Street Culvert, as necessary) will be excavated. To achieve this cleanup level, the Brook and its banks will be excavated to depths consistent with the Town's Meadow Brook Flood Control Project ("MBFCP") from the portion of the Brook adjacent to the Grant Gear property to the entrance to the Dean Street culvert. Although it is not expected that extensive quantities of contaminated sediment exist in the Dean Street culvert, additional sampling will be conducted to ensure that no sediments exceeding the 1 ppm cleanup level remain in this culvert. If sampling results indicate that there are sediments exceeding 1 ppm PCBs in this culvert, this material will be excavated. Al contaminated soils and sediments from the Brook will be consolidated onto a portion of the Grant Gear property, and placed in the area to be capped or covered, depending on contaminant concentration, as described in Section VII.B.4.

As in the 1989 ROD, Meadow Brook will be restored in a manner consistent with the MBFCP. Therefore, while the target cleanup level for Brook soils and sediments is 1 ppm, the Brook will be excavated only to the extent necessary to meet the final contours of the MBFCP. The bottom and slope material (such as stone or concrete block) to be installed as part of the MBFCP will cover any contaminated soils and sediments which may be at depths greater than the MBFCP contours. Depending on final sideslope grades, some portions of the Brook's banks may be restored with vegetation. In order to ensure that any residual contamination in these vegetated areas is also adequately covered in place, excavation will continue in these areas to a depth of one foot deeper than the final restoration grade. Restoration will then include replacement of these soils with one foot of clean material, providing a barrier over soils which may still exceed the Brook cleanup level. All materials used in restoration of the Brook will be sufficient to provide the necessary protectiveness for this portion of the remedy.

EPA believes that it is cost-effective, more permanent and effective in the long-term, and more easily implementable to excavate all soils and sediment necessary to meet the restored MBFCP contour rather than excavate a limited amount of material, conduct extensive sampling to determine areas requiring additional excavation, and repeat this process several times. Achievement of the 1 ppm cleanup level throughout the Brook could prove difficult, could require multiple excavations in portions of the Brook, and could extend far deeper than the contour required by the MBFCP. By linking the remedial action and the final MBFCP contours, EPA is ensuring that all contamination above 1 ppm, is either removed or covered by the restored Brook bottom and slopes and that this is a permanent remedy which will not have to be re-excavated or otherwise disturbed by the Town or others for implementation of the MBFCP. Restoration in accordance with the MBFCP also enhances the overall protectiveness of the proposed alternative by virtually eliminating risk of flood waters displacing on-Site contaminants.

The remediation of Meadow Brook will reduce risk to mammals, rodents, and aquatic organisms that inhabit the Meadow Brook area from exposure to contaminants through the skin, by ingestion, or through the food chain. The target level of 1 ppm PCBs is based upon toxicological literature which documents the sublethal toxic effects of PCB tissue levels of 1 ppm in aquatic organisms. The degree of protection afforded by this level will be met either directly through excavation activities, or thorough the added protectiveness provided by the cover materials installed consistent with the MBFCP. In addition, remediation of the Brook consistent with the MBFCP will result in a significant reduction of risk to children exposed to PCB contaminated sediments in Meadow Brook, resulting in an incremental carcinogenic lifetime risk level of 5 x 10-7. Remediation of Meadow Brook will also reduce the levels of carcinogenic Polyaromatic Hydrocarbons ("cPAHs") in the Brook and minimize the risk to children and environmental receptors exposed to any cPAH-contaminated sediments

through direct contact and ingestion.

Residential Area North of Meadow Brook and Adjacent Wooded Area

The 1989 ROD set a residential PCB cleanup standard of 1 ppm. Adherence to this standard would require some excavation of surface soils in residential properties directly adjacent to Meadow Brook. At the request of local residents, EPA agreed to reexamine the need for cleanup in the residential area north of Meadow Brook. Based upon further sampling and evaluation of existing data, EPA has concluded that the low levels of contamination found in this residential area (consisting of eight residential properties) which was originally slated to be excavated does not require remedial action. 56% of the samples collected contain below 1 ppm PCBs and 99% of the samples collected in this area contain below 10 ppm PCBs. The highest level of PCBs detected in surficial samples in this residential area was 16 ppm, representing an incremental carcinogenic lifetime risk level of 1 x 10-4, which is within EPA's acceptable risk range. The risks associated with these levels of contamination indicate neither an unacceptable human health nor ecological risk. Therefore, no remedial action is planned in this area.

4. Cover/Cap parts of the Site

A multi-layered barrier (cap) will be constructed over the portions of the Grant Gear property which are contaminated above the 10 ppm and/or 70 ppm PCB cleanup levels and/or where other soils and sediments exceeding 40 ppm PCBs were consolidated. Since there will be no RCRA wastes disposed of under the cap or cover, the cap and cover need not comply with RCRA Subtitle C hazardous waste landfill requirements. However, since they will contain soil contaminated with greater than 50 ppm PCBs, the cap and cover will comply with TSCA chemical waste landfill requirements, as discussed in Section XI.**2** Moreover, this cap will eliminate exposure pathways by preventing people from coming into contact with the contaminated soil either by direct exposure (touching) or by incidental ingestion (accidentally eating) and will limit the amount of rain infiltrating the contaminated soil on the property. The cap will also cover the slab and foundation of the building to be demolished according to Section VII.B.1., above. The cap(s) over the contaminated soils will be a minimum of one foot in thickness overall, will include an asphalt binding course and an asphalt wearing surface totaling no less than six inches, and will include a geotextile fabric which will also serve as a visible barrier between the contamination below and the cap itself. The cap design over the building slab may be somewhat different from that covering the contaminated soils if no contaminated soils are backfilled over the existing slab. If no contaminated soils if no contaminated soils are backfilled over the existing slab. If no contaminated soils are backfilled over the existing slab, the cap over the contaminated Grant Gear Building slab and foundation will include an asphalt binding course and an asphalt wearing surface totaling no less than four inches. Otherwise, the cap over the building slab will conform to the requirements for the cap over the contaminated soils. The cap will be designed to minimize required maintenance, and will be of sufficient thickness and durability to ensure its long-term effectiveness, and will include appropriate storm water management system(s).

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2 In part, Section XI. describes the manner in which the TSCA chemical waste landfill requirements apply to the Site, including how certain TSCA requirements may be waived so long as the remedy poses no unreasonable risk to health or the environment.

As stated in Section VII.B.3., in order to further minimize the overall risk from residual levels of contamination in these areas, cover(s) consisting of approximately one foot of clean fill material will be placed on areas which have been excavated as part of the remedy but which will not be capped. The cover(s) will consist of approximately one foot of clean fill material and will be properly graded and will include a surface layer of crushed stone or other suitable material as part of the 1 foot depth. The cover(s) will also include a geotextile fabric which will serve as a visible barrier between the contamination below and the cover(s). This cover material will minimize direct contact with these materials and also will limit the risk from direct contact with cPAHs which may be present in some of the materials excavated from the Brook. All contaminated soils and sediments removed from areas outside of the Grant Gear property and brought for disposal on the Grant Gear property will be placed in an area to be either capped or covered.

The design and construction of the cap(s) and cover(s) will consider the effects of the freeze/thaw cycle on long-term performance: consider the effects of settling, subsidence, ad erosion on performance; ensure the durability ad long-term reliability of the design and its components (e.g., the durability and reliability of any synthetic materials and of any joints in such materials); and, provide adequate plans and procedures to assure quality control during installation. In addition, cap design and construction activities will be conducted: (i) in accordance with Applicable or Relevant and Appropriate Requirements ("ARARs"); (ii) to minimize maintenance requirements; (iii) to promote drainage; (iv) to minimize erosion, abrasion, the generation of dust or other airborne particulates, or other nuisance conditions, and (v) with a top slope appropriate to accommodate future use. Existing monitoring wells or extraction wells which are not to be abandoned will be extended to meet the new grade of the cap(s) and/or cover(s).

EPA anticipates that the Site may be redeveloped and seeks to facilitate appropriate redevelopment through this remedy. Therefore, changes may be made to the cap and/or cover to support the future use of the Site, provided that the remedy remains protective. Also, the cap design may be modified to provide for "clean corridors" of non-contaminated soil, in order to facilitate future placement of extraction wells and associated piping, as well as utility and infrastructure hookups, provided that the protectiveness of the remedy is not diminished.

If redevelopment occurs at the same time as remedy implementation, new, privately owned buildings may be constructed in conjunction with, or potentially in lieu of, construction of portions of the cap and/or cover. New structures which utilize concrete slab construction may substitute for the cap or cover in certain portions of the Site, so long as they are equally or more protective than the cap or cover.

If redevelopment occurs after the remedy is implemented, it may entail breaching and/or reconfiguring of the cap and cover, as well as removal of some or all of the concrete slab of the Grant Gear building left in place by this remedy. All such future activities will maintain the overall protectiveness of the remedy, and will be conducted in accordance with all pertinent laws and regulations.

The potential remedy modifications to facilitate redevelopment that are described in the paragraphs above are not all-inclusive. Other modifications may be considered as necessary for a particular redevelopment project. Any redevelopment will be implemented in a manner that does not compromise the overall protection of human health and the environment afforded by the remedy.

5. Maintain the Integrity of the Cap and Cover and Overall Protectiveness of the Remedy

Regular inspections will be conducted and all necessary remedy maintenance will be performed to ensure that the integrity of the remedy is not compromised over time.

Formal activity and use restrictions will be established for the Site. The goals of these restrictions will be to restrict activities and uses which are inconsistent with the exposure assumptions the new proposed alternative is based upon and to restrict any activities or uses that may compromise the integrity of the remedy while providing for future redevelopment of the Site property to the maximum extent practicable. Formulation of proper restrictions will consider whether the existing restrictions implemented in connection with the Grant Gear consent decree meet these goals, and will also consider requirements pursuant to Chapter 21E of the Massachusetts General Laws and the Massachusetts Contingency Plan activity and use limitation provisions. If appropriate, the existing restrictions may be revised.

In addition, periodic groundwater monitoring, surface water monitoring, and inspection of the restored Brook may be necessary to ensure that the remedy remains protective. As required by CERCLA Section 121(c), no less than every five years, Site conditions will be reviewed to assess whether the cleanup action remains protective.

During these periodic reviews, EPA will also evaluate the effectiveness and the necessity of continuing the extraction and treatment of the groundwater. Based on information generated during these reviews, this groundwater extraction and treatment system will either be continued or shut down.

VII. COMPARATIVE ANALYSIS OF ALTERNATIVES

A. Evaluation Criteria

Section 121(b)(1) of CERCLA presents several factors that, at a minimum, EPA is required to consider in its assessment of alternatives. Building upon these specific statutory mandates, the National Contingency Plan articulates nine evaluation criteria to be used in assessing the individual remedial alternatives. These criteria and their definitions are as follows:

Threshold Criteria

The two threshold criteria described below must be met in order for the alternatives to be eligible for selection in accordance with the NCP.

1. Overall protection of human health and the environment addresses whether or not a remedy provides adequate protection and describes how risks posed through each pathway are eliminated, reduced or controlled through treatment, engineering controls, or institutional controls.

2. Compliance with applicable or relevant and appropriate requirements (ARARs) addresses whether or not a remedy will met all of the ARARs of other Federal and State environmental laws and/or provide grounds for involving a waiver.

Primary Balancing Criteria

The following five criteria are utilized to compare and evaluate the elements of one alternative to another that meet the threshold criteria.

3. Long-term effectiveness and permanence addresses the criteria that are utilized to assess alternatives for the long-term effectiveness and permanence they afford, along with the degree of certainty that they will prove successful.

4. Reduction of toxicity, mobility, or volume through treatment addresses the degree to which alternatives employ recycling or treatment that reduces toxicity, mobility, or volume, including how treatment is used to address the principal threats posed by the Site.

5. Short-term effectiveness addresses the period of time needed to achieve protection and any adverse impacts on human health and the environment that may be posed during the construction and implementation period, until cleanup goals are achieved.

6. Implementability addresses the technical and administrative feasibility of a remedy, including the availability of materials and services needed to implement a particular option.

7. Cost includes estimated capital and Operation and Maintenance ("O&M") costs, as well as present-value costs.

Modifying Criteria

The modifying criteria are used on the final evaluation of remedial alternatives generally after EPA has received public comment on the Proposed Plan.

8. State Acceptance addresses the State's position and key concerns related to the preferred alternative and other alternatives, and the State's comments on ARARs or the proposed use of waivers.

9. Community Acceptance addresses the public's general response to the alternatives described in the Proposed Plan.

B. Summary of the Comparative Analysis of Alternatives

The following is a summary of the comparative analysis of three remedial options for source control: (1) the proposed alternative, consolidation and capping, described in Section VII.B. of this document: (2) the selected remedy in the 1989 ROD, solvent extraction; and, (3) the contingent remedy in the 1989 ROD, on-Site incineration, according to the nine criteria. Two remedial options for the Grant Gear building are also analyzed: the proposed alternative's demolition of the Grant Gear building and the 1989 ROD's decontamination of the building. In accordance with EPA guidance, this ROD Amendment does not reconsider alternatives that were not selected in the 1989 ROD.

Since the groundwater component of the remedy is essentially unchanged from the 1989 ROD, those aspects of the remedy are not analyzed in this section.

1. Overall Protection of Human Health and the Environment

Source Control

The proposed capping alternative will provide overall protection of human health and the environment by preventing direct contact, ingestion, and inhalation of Site contaminants. In addition, both the solvent extraction and incineration remedies outlined in the 1989 ROD, if properly and successfully implemented, would provide overall protection of human health

and the environment.

Grant Gear Building

The amended selected remedy will provide overall protection of human health and the environment since demolition of the building will prevent direct contact, ingestion and inhalation of contaminants on surfaces of the building. Due to limitations in its effectiveness, the decontamination alternative selected in the 1989 ROD would need to incorporate encapsulation of contaminants, resulting in residual risk remaining within the building.

2. Compliance with Federal and State Applicable or Relevant and Appropriate Requirements (ARARs)

Source Control

If properly implemented and able to meet performance objectives, the proposed capping and consolidation alternative, solvent extraction, and incineration would all attain ARARs.

Grant Gear Building

The proposed building demolition alternative will attain ARARs. However, it is not certain that the decontamination alternative selected in the 1989 ROD would attain ARARs. Based on information gathered from investigations conducted after the 1989 ROD and on experience gained while decontaminating 57 pieces of equipment/machinery inside the Grant Gear building, EPA believes that the decontamination alternative may not attain PCB cleanup criteria outlined in the TSCA Spill Cleanup Policy (40 C.F.R. Part 761 Subpart G).

3. Long-Term Effectiveness and Permanence

Source Control

If properly implemented, the proposed capping alternative, solvent extraction, and incineration would all provide long-term effectiveness and permanence. Incineration, by destroying hazardous contaminants, and solvent extraction, by extracting contaminants for off-Site disposal, would minimize residual risks at the Site. The capping alternative minimizes residual risks by creating a barrier that eliminates exposure to Site contaminants through pathways such as touching or eating. While capping does not destroy contaminants or remove them from the Site, it achieves acceptable risk reduction by eliminating the exposure pathways, i.e., dermal contact with or ingestion of contaminated soils.

The 1989 ROD expressed concern that a capping alternative (Alternative SC-2 in the 1989 ROD) may not be sufficiently permanent and protective in the long-term. Since that time EPA has gained considerable experience in cap design, construction, and long-term maintenance, greatly increasing EPA's degree of certainty that the capping alternative will be successful at the Site. Although not as permanent and effective in the long-term as a complete removal of contamination or the reduction of all contaminant levels to below risk-based standards, if properly implemented and maintained, the capping alternative will be an effective remedy and is appropriate based upon Site-specific factors such as the nature of contaminants and the expected future land use at the Site. Furthermore, institutional controls have proven effective on the Site to date, and will be modified as necessary to ensure that the remedy remains protective during any change in land use.

Grant Gear Building

The proposed building demolition alternative will eliminate any residual risks from building contaminants, since the building itself will be eliminated. All contaminated building materials will either be disposed of off-Site in accordance with pertinent laws and regulations or disposed of under the cap, thereby eliminating exposure pathways to these contaminants. In contrast, the building decontamination alternative from the 1989 ROD would not as effectively reduce residual risks. Even if the building were decontaminated, the ultimate reuse of the property would most likely require building demolition. Pre design studies have shown that not all building surfaces can be cleaned to acceptable contaminant levels during decontamination. Rather, surfaces such as the steel beams and concrete floor may need to be encapsulated. This could result in ultimate re-exposure to these contaminants during a future building demolition.

The 1989 ROD had contemplated that the building's drainage system would be flushed and cleaned to meet the PCB discharge criteria set forth in the 989 ROD. The 1989 ROD further stipulated that, if flushing and cleaning were ineffective in achieving discharge criteria, the drainage system would be encapsulated and a new drainage system constructed. Pre-design studies have shown that flushing and cleaning would likely be ineffective, thus requiring encapsulation and replacement of the drainage system. The demolition option therefore achieves the same result, encapsulation of the drainage system, but avoids the task of replacing the system for a building that likely will never be used again.

4. Reduction of Toxicity, Mobility and Volume Through Treatment

Source Control

The solvent extraction and incineration processes would both reduce toxicity, mobility, or volume of contaminants through treatment. Although the proposed alternative does not involve treatment, the mobility of contaminants will be reduced by placing them under a cap which will limit water infiltration through the waste. Excavation of the "hot spot" of contaminated soil will further reduce groundwater contamination. Furthermore, virtually all contaminated material from Meadow Brook and its banks will be removed which will eliminate the threat of migration off-Site during flood events.

Grant Gear Building

The proposed building demolition alternative will employ treatment to reduce contamination on any materials that are deemed salvageable. However, the remaining materials will be consolidated under the cap. The building decontamination alternative from the 1989 ROD would have provided for treatment of a greater quantity of building material; however, it has subsequently been determined that a significant portion of building material could not be effectively decontaminated.

Neither alternative employs treatment with respect to the building drain system.

5. Short-term Effectiveness

Source Control

The proposed capping alternative will entail excavation of approximately 25 percent of the total volume of soil that would be excavated under the incineration and solvent extraction alternatives. Also, the solvent extraction and incineration alternatives would excavate the highest levels of contaminated soils on the Site. Therefore, the solvent extraction and

incineration alternatives would present a greater potential risk to the community from fugitive airborne emissions and volitization of contaminants. Site workers would also be at a greater risk from this highly contaminated material. The solvent extraction process also would require on-Site temporary storage and use of flammable chemicals, presenting further risks. While appropriate measures would be taken to mitigate all risks associated with any remedial action, the above mentioned risks would exist for approximately three years with the incineration and solvent extraction alternatives. By contrast, the proposed alternative's estimated duration is one year (or two construction seasons), and the nature of the work is simple earth-moving and paving, which presents fewer risks to the community or Site workers during implementation.

While not risks to the community per se, the solvent extraction and incineration alternatives have the potential for creating nuisances as a result of operating 24 hours a day. Also, the solvent extraction process (and possibly the incineration process) would likely require a stone crushing process, which would likely generate significant additional noise.

Grant Gear Building

The demolition of the Grant Gear building may cause some short-term undesirable noise impact to the surrounding community. However, due to the short duration of demolition activities (four months), it is expected that these impacts will be minimal. Appropriate steps will be taken to minimize any risks associated with the disassembling of contaminated building parts.

The building remedy outlined in the 1989 ROD would also present short-term risks due to the use of solvents in the decontamination process. Also, it will take significantly longer to complete (one year) than the demolition alternative.

6. Implementability

Source Control

The proposed capping alternative is fully implementable at the Site. Standard earth moving techniques and equipment will be used, and the cap design is generally straightforward and easily constructable.

While at the time of the 1989 ROD EPA believed that solvent extraction was implementable at the Site, recently acquired information indicates that this may not be so. Space limitations at the Site would make it difficult to properly locate and construct the necessary facilities. Although the solvent extraction technology has been proven on a pilot scale and solvent extraction vendors appear able to successfully "scale-up" their process to a commercial scale required for a large site cleanup, it does not appear that the Norwood Site is an appropriate site for solvent extraction due to space constraints at the Site, the amount of time necessary to fabricate and deliver the appropriate treatment equipment to the Site, and the high cost of the proposal received.

The 1989 contingent remedy, incineration, is a proven treatment technology. However, at the required scale for the Site, incineration would require preparation, treatment, and stockpile facilities similar to solvent extraction, and, therefore, space limitations could constrain implementation of that remedy at the Norwood Site.

Grant Gear Building

Demolition of the Grant Gear building is fully and easily implementable. Prior experience with the decontamination of certain machinery and equipment from inside the building raises

concerns about the ability to properly decontaminate all building surfaces. Information gathered during EPA's pre-design studies demonstrates that, due to more widespread contamination than originally anticipated and the limitations of decontamination, several surfaces could not be adequately decontaminated and could only be encapsulated.

7. Cost

Source Control

The proposed capping alternative is the least expensive of the alternatives being compared, with an estimated total cost of $7.4 million.**3** The solvent extraction and incineration alternatives are significantly more expensive, with estimated total costs for EPA implementation of $54.8 million and $40.1 million, respectively.

Grant Gear Building

Both the proposed demolition alternative and the building decontamination alternative from the 1989 ROD can be implemented for a comparable amount of money. The estimated total costs for EPA to implement demolition versus decontamination (including, in each case, costs already incurred for decontamination 57 pieces of machinery and equipment) are $4.0 million and $3.8 million, respectively. However, the decontamination cost estimate does not include potential costs for future maintenance of encapsulated surfaces or disposal costs for building materials when the structure is ultimately demolished.

8. State Acceptance

The Commonwealth of Massachusetts concurs with the proposed capping and building demolition alternatives as the amended selected remedy in this ROD Amendment. A copy of the Commonwealth's Declaration of Concurrence is attached as Appendix C.

9. Community Acceptance

EPA held an informational meeting and public hearing in Norwood, Massachusetts on March 6, 1996. At that meeting, four commenters made statements for the record. In addition, five separate written comment letters were submitted to EPA. The official transcript of the March 6, 1996 hearing is included as Attachment D. See the Responsiveness Summary (Attachment B) for a summary of the comments and EPA's responses.

A few area residents, including some Town of Norwood officials, were concerned that the proposed alternative may not be sufficiently protective, and was being proposed due to a lack of EPA funding. They also worried that monitoring of the remedy may not occur as described in the Proposed Amended Cleanup Plan. The Town of Norwood Board of Health inquired about who will be responsible for maintenance of the cap. It also asked about the thickness of the cap. Another resident asked how much taxpayer money has been spent on the Site to date, and how much will be recouped. Finally, another resident expressed support for the plan, and hopes that the plan can be approved and implemented quickly.

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3 This is EPA's best estimate of the cost EPA would incur to implement all activities described in Section VII.B.2. through VI.B.5., above.

EPA also held an informal public comment period in August, 1995, in conjunction with release of its "Invitation for Public Comment on Approach to Soil Cleanup" at the Site. That document outlined a conceptual consolidation and capping remedy as a modified approach for the Site. For the most part, public reaction to the modified approach was favorable at that time, with no outright opposition to the plan. The community expressed frustration about the length of time spent on the Site, and was also concerned about the government's ability to ensure long-term maintenance of a cap.

IX. THE AMENDED SELECTED REMEDY

The amended remedy selected in this document is the proposed alternative described in section VII.B. This amended selected remedy is the result of a re-evaluation of material contained in the Administrative Record for the 1989 ROD, as well as analysis of new Site conditions and new information developed since 1989 which has been added to the Administrative Record. EPA believes that the amended selected remedy represents the best balance among the evaluation criteria when compared to the alternatives selected in the 1989 ROD.

The amended selected remedy is a fundamental change in the approach for remediating contaminated soil at the Site (Source Control). The amended selected remedy also presents changes regarding the remediation of the Grant Gear building, as well as other differences. EPA is not changing the cleanup approach in the 1989 ROD for addressing contaminated groundwater at the Site (Management of Migration) except to clarify that periodic reviews of the groundwater will be conducted to determine the need for continued groundwater extraction and treatment over time.

All other aspects of the 1989 ROD not addressed in this document remain unchanged.

X. DOCUMENTATION OF CHANGES FROM THE PROPOSED AMENDED CLEANUP PLAN

EPA published a Proposed Amended Cleanup Plan in February, 1996. The remedy selected. in this ROD Amendment differs from the proposed plan in some respects. First, the Proposed Amended Cleanup Plan did not identify cleanup levels for the "hot spot". This ROD Amendment specifies a cleanup level of 97 ppm 1,2,4-trichlorobenzene for these soils. This cleanup level is based upon a cleanup level for this constituent originally set froth in the 1989 ROD.

The Proposed Amended Cleanup Plan also stated that the sediments and/or sludges excavated from drainage system manholes would be disposed of "properly". This ROD Amendment clarifies that this material, as well as RCRA regulated materials from the Grant Gear building, will be disposed of off-Site in accordance with all applicable laws and regulations.

Also, this ROD Amendment contains greater discussion regarding the possible redevelopment of the Site, and specific measures that will be taken to attain certain ARARs.

These changes, while appropriate clarifications, do not represent any significant differences from the Proposed Amended Cleanup Plan.

XI. STATUTORY DETERMINATIONS

The amended selected remedy for implementation at the Norwood PCB Superfund Site is consistent with CERCLA and, to the extent practicable, the NCP. The amended selected remedy is protective of human health and the environment, attains ARARs and is cost effective. Additionally, the emended selected remedy utilizes alternate treatment technologies or resource recovery technologies to the maximum extent practicable. However, the amended

selected remedy does not satisfy the statutory preference for treatment which permanently and significantly reduces the mobility, toxicity or volume of hazardous substances as a principal element.

The Amended Selected Remedy is Protective of Human Health and the Environment

The amended selected remedy at this Site will reduce the risks posed to human heath and the environment by eliminating, reducing or controlling exposures to human and environmental receptors through excavation engineering controls, and institutional controls; more specifically, the source control component of the amended selected remedy will address all soils and sediments contaminated at concentrations exceeding protective human health and environmental levels by either excavation, capping, or covering, and will address contaminated building surfaces by demolishing the structure and consolidating the material on-Site or disposing or recycling the material off-Site. At the conclusion of remedial activities, risks at the Site will be reduced to within EPA's acceptable risk range, as discussed in Section VII.B. and as indicated in Table 1. The cap will eliminate exposure pathways by preventing people from coming into contact with contaminated soil either by direct exposure (touching) or by incidental ingestion (accidentally eating) and will limit the amount of rain infiltrating the contaminated soil on the property. The cover will be placed over materials contaminated with less than 40 ppm PCBs at surface, or 70 ppm PCBs at depth (and thus not posing and unacceptable risk) to further reduce the risk posed by this material. Remediation of the wooded area will reduce risks to a child or construction worker to acceptable levels, and the Meadow Brook cleanup will restore that area to levels protective of children, plants, and animals. A comprehensive maintenance and monitoring program and controls on future land use will ensure that the remedy remains protective over time.

A complete description of the Site risks cam be found in the 1989 ROD, the 1989 Endangerment Assessment, other documents in the amended Administrative Record, and in Table 1.

The Amended Selected Remedy Complies with Applicable or Relevant and Appropriate Requirements (ARARs)

The amended selected remedy will attain applicable or relevant and appropriate federal and state requirements that apply to the Site. Environmental laws and regulations which are ARARs for the source control remedy are listed in Table 2. Since this ROD Amendment does not alter the management of migration component of the 1989 ROD, ARARs pertaining to that portion of the remedy are not listed in Table 2. Major ARARs pertinent to this ROD Amendment are discussed in this section.

<u>PCB disposal requirements promulgated under TSCA</u>

The 1989 ROD deemed PCB disposal requirements promulgated under TSCA as applicable to the Site because of the presence of soil and sediments contaminated with PCBs in excess of 50 ppm. Under TSCA regulations, soil contaminated with PCBs may be disposed of by incineration or in a chemical waste landfill. 40 C.F.R. § 761.60(a)(4). Additionally, PCB wastes which require incineration may be disposed of by an alternate destruction technology that achieves an equivalent level of performance to incineration. 40 C.F.R. § 761.60(e).

Like the remedy selected in the 1989 ROD, the amended selected remedy will result in a chemical waste landfill subject to the TSCA regulations contained at 40 C.F.R. § 761.75. However, in the 1989 ROD, EPA also determined that waiver of several of the regulatory requirements pertaining to chemical waste landfills was justified. As explained in the EPA Guidance on Remedial Actions for Superfund Sites with PCB Contamination (OSWER Directive No.

9355.4-01, August 1990) (the "PCB Guidance") some requirements specified under TSCA may not always be appropriate for existing waste disposal sites like those addressed by CERCLA. The PCB Guidance states that when this case exists, the waiver of certain chemical waste landfill requirements may be appropriate. These requirements can be waived when it can be demonstrated that a waiver will not present an unreasonable risk of injury to health or the environment. 40 C.F.R. § 761.75(c)(4). In accordance with the PCB Guidance, the 1989 ROD waived several chemical waste landfill requirements, including requirements that (i) chemical waste landfills be constructed only in certain low permeability clay conditions (40 C.F.R. § 761.75 (b)(1)); (ii) a synthetic membrane liner be used at the Site (40 C.F.R. § 761.75(b)(2)); and (iii) the bottom of the landfill be 50 feet above the historic high water table (40 C.F.R. § 761.75(b)(3)). These TSCA statutory waivers are maintained in this ROD Amendment. Additionally, for the reasons stated below, the requirements, relating to leachate collection (40 C.F.R. § 761.75(b)(7)) are also waived in this ROD Amendment.

TSCA regulations do not contain any requirements for closure of chemical waste landfills. However, as described in this ROD Amendment, contaminated soil will be placed under either a multi-layered cap or one foot of clean fill, depending on the level of contamination. These surficial barriers will provide added protectiveness beyond that contemplated by the TSCA regulations. The cap will eliminate all exposure pathways to the most highly contaminated soils, thereby eliminating the risks posed by those soils. Soils at 40 ppm PCBs at the surface, and 70 ppm PCBs at depth, are within EPA's acceptable risk range. (See Table 1). The one foot cover over these materials will further reduce potential risks associated with direct contact with, and incidental ingestion of, these materials. Long-term operation and maintenance of the cap and cover will ensure that there is no future re-exposure to contaminants. Risks posed by migration of PCBs to the groundwater will be minimal, due to the chemical nature of PCBs (which tend to bind to the organic matter in soil) and the excavation of the "hot spot" of soil below the water table contaminated with semi-volatile organic compounds (which might otherwise act to desorb the PCBs from the soil into the groundwater). Also, continued operation of the groundwater treatment plant will ensure the capture of any PCBs or other contaminants that migrate away from the capped area through the groundwater. Furthermore, available data indicates that the groundwater plume is not expanding, and drinking water for all area residents is provided by the Norwood municipal water system, which is unaffected by Site contaminants.

For these reasons, EPA has determined that the amended selected remedy will not present an unreasonable risk of injury to health or the environment, and that the amended selected remedy may waive the above-cited TSCA requirements.

The factors discussed above ensure that there will be no unreasonable risk of injury to health or the environment if certain TSCA requirements are waived. Considering this information, the Regional Administrator continues to exercise the waiver authority contained in the TSCA regulation at 40 C.F.R. § 761.75(c)(4), and continues to waive the following requirements of the TSCA chemical waste landfill requirements: (i) that chemical waste landfills be constructed only in certain low permeability clay conditions (40 C.F.R. § 761.75 (b)(1)); (ii) that a synthetic membrane liner be used at the Site (40 C.F.R. § 761.75(b)(2)); and (iii) that the bottom of the landfill be 50 feet above the historic high water table (40 C.F.R. § 761.75(b)(3)). Additionally, the Regional Administrator also exercises the waiver authority to waive requirements relating to leachate collection (40 C.F.R. § 761.75(b)(7)). The findings and waivers of the Regional Administrator are contained in Attachment E.

Commonwealth of Massachusetts Hazardous Waste Regulations

Massachusetts hazardous waste regulations, which are similar to regulations under the federal Resource Conservation and Recovery Act ("RCRA"), are applicable to the Site. Under the

federal regulatory program, PCBs are managed by TSCA, and are not regulated under RCRA; under the Commonwealth's hazardous waste regulations, PCBs above 50 ppm are a regulated hazardous waste. Compliance with TSCA, however, satisfies the requirements of the Commonwealth's hazardous waste regulations with respect to on-site management and on-site disposal of PCBs, pursuant to 30 CMR 30.501(3)(a) and 310 CMR 40.0031(5). Accordingly, on-Site management and on-Site disposal of PCBs will be governed by TSCA. It is anticipated that this approach will avoid potentially duplicative or inconsistent application of ARARs (as between federal TSCA regulations and the Commonwealth's hazardous waste regulations).

Other Laws and Regulations

In addition to the environmental provisions listed in Table 2, other laws and regulations will be complied with during the conduct of the remedy. While not specifically relating to environmental actions, and therefore not ARARs, compliance with these laws and regulations is mandatory for any industrial activity. Such requirements may include, but are not limited to, pertinent regulations pursuant to the Occupational Health and Safety Act and Department of Transportation regulations.

The Amended Selected Remedy is Cost-Effective

In the Agency's judgment, the amended selected remedy is cost-effective, (i.e., the remedy affords overall effectiveness proportional to its costs). In selecting this amended remedy, once EPA identified alternatives that are protective of human health and the environment and than attain, or, as appropriate, waive ARARs, EPA evaluated thee overall effectiveness of each alternative by assessing the relevant three criteria--long term effectiveness and permanence; reduction in toxicity, mobility, and volume through treatment; and short term effectiveness, in combination. in this assessment, EPA determined that the consolidation and capping portion of the amended selected remedy, solvent extraction, and incineration all provide overall effectiveness, albeit through different means. However, the costs of these three options are quite different. The cost estimates for the consolidation and capping portion of the amended selected remedy, solvent extraction, and incineration, are $7.4 million, $54.8 million, and $40.1 million, respectively. Based upon this disparity, EPA believes that the consolidation and capping portion of the amended selected remedy is cost effective while the solvent extraction and incineration alternatives are not. With respect to the Grant Gear building, the amended selected remedy provides overall effectiveness while the decontamination alternative does not. The cost estimate for the demolition remedy is $4.0 million, which EPA believes to be cost-effective for this portion of the amended selected remedy.

The following estimates of cost and construction duration are inclusive of the work to complete all aspects of the Source Control and building demolition cleanup at the Norwood PCB Superfund Site, and are, unless otherwise noted, costs, for EPA implementation of actions to be performed subsequent to this ROD Amendment.

Consolidation, Capping and Covering of Soils and Sediments
(including remediation and restoration of Meadow Brook):

- Estimated Time for Design and Construction: 9 - 15 months
- Estimated Capital Cost: $ 7,200,000
- Estimated Operation and Maintenance Cost: $ 200,000
- Estimated Total Cost (Net Present Value): $ 7,400,000

Demolition of Grant Gear Building (including disposal of contents):
Estimated Time for Planning and Demolition: 6 months
Estimated Capital Cost: $ 2,800,000
Estimated Operation and Maintenance Cost: $0 (Incorporated into cap maintenance cost)
Cost of Prior Machinery/Equipment Decontamination Effort: $ 1,200,000
Estimated Total Cost (Net Present Value): $ 4,000,000

The Amended Selected Remedy Utilizes Permanent Solutions and Alternative Treatment or Resource Recovery Technologies to the Maximum Extent Practicable

Once the Agency identified those alternatives that attain or, ad appropriate, waive ARARs and that are protective of human health and the environment, EPA identified which alternative utilizes permanent solutions and alternative treatment technologies or resource recovery technologies to the maximum extent practicable. This determination was made by deciding which one of the identified alternatives provides the best balance of trade-offs among alternatives in terms of: 1) long-term effectiveness and permanence; 2) reduction of toxicity, mobility or volume through treatment; 3) short-term effectiveness; 4) implementability; and 5) cost. The balancing test emphasized long-term effectiveness and permanence and the reduction of toxicity, mobility and volume through treatment; and considered the preference for treatment as a principal element, community and state acceptance, and the bias against off-Site land disposal of untreated waste. The amended selected remedy provides the best balance of trade-offs among the alternatives.

Consistent with the NCP, EPA believes that at his Site long-term effectiveness is more fundamental to the overall protectiveness of the remedy than the degree of treatment employed. Considering Site circumstances, a reduced level of treatment technologies is preferable, and the amended selected remedy employs such technologies to the maximum extent practicable while preserving the permanence and protectiveness of the remedy.

The Amended Selected Remedy does not Satisfy the Preference for Treatment which Permanently and Significantly Reduces the Toxicity, Mobility or Volume of the Hazardous Substances as a Principal Element

The principal element of the amended selected remedy is the on-Site capping and containment of contaminated soils and sediment. Treatment is not employed because it was determined not to be practicable for this Site, considering the summary of the comparative analysis of alternatives, as described in Section VII.B., above. Therefore, the amended selected remedy does not satisfy the preference for treatment as a principal element. Nonetheless, the amended selected remedy reduces Site risks to acceptable levels.

XII. EXPLANATION OF SIGNIFICANT DIFFERENCES FROM 1989 RECORD OF DECISION

In addition to the items discussed in Section VII.B. above, the amended selected remedy selected in this document contains other differences from the 1989 ROD. These differences do not represent fundamental changes from the remedy selected in the 1989 ROD, and are not subject to the requirements for a ROD Amendment. However, the modifications in this Section are significant differences from the 1989 ROD. These differences were explained in EPA's February, 1996 Proposed Amended Cleanup Plan, which was published in accordance with CERCLA Section 117(d). The following discussion of the these significant differences in this document is presented in compliance with CERCLA Section 117(c).

A. Decontamination of Only Selected Equipment and Machinery Surfaces; Disposal/Recycling of Remaining Building Contents

Soon after Grant Gear announced its shutdown, EPA tasked a contractor, through the US Army Corps of Engineers, to decontaminate certain machines and equipment inside the building which were to be sold by Grant Gear. This effort included the solvent washing of accessible exterior surfaces of these machines and sampling of the cleaned surfaces to demonstrate compliance with the PCB Spill Cleanup Policy (40 CFR Part 761 Subpart G) cleanup level of 10 micrograms per 100 square centimeters.

Based upon the high cost and labor-intensive nature of this decontamination effort, this work was suspended after the cleaning of 57 major pieces of equipment and several accessories. Approximately $1.2 million was spent on this effort. It has been determined that it is not cost-effective to decontaminate the remaining machines and, since Grant Gear Works has shut down, disposal or recycling (via a smelter) of any items remaining in the building will be equally protective of human health and the environment, at a substantially reduced cost. Therefore, prior to initiation of the building demolition, any remaining contaminated machinery/equipment inside the building will be recycled at an off-Site smelting facility or disposed of either on- or off-Site.

B. Increase of Estimated Cost of Groundwater Remediation

In August 1994, the US Army Corps of Engineers awarded a delivery order under its TERC contract for approximately $9 million for construction and initial operation (2 years) of the facilities for extraction and treatment of contaminated groundwater. Cost growth and changes executed during construction increased this figure to approximately $11 million. The current overall estimate for the groundwater cleanup, including the approximate present value of an additional 10 to 20 years of operation of this treatment plant, is approximately $19.2 million.

XII. DOCUMENTATION OF NON-SIGNIFICANT CHANGES TO 1989 RECORD OF DECISION

The following remedy modification represents neither a fundamental nor significant change from the remedy selected in the 1989 ROD. This minor modification is included in this ROD Amendment so that all changes to the remedy are described in one document.

As set forth in the 1989 ROD, contaminated groundwater underlying the Site will be collected and treated. To accomplish this task, a number of groundwater extraction wells have been and will be installed which will extract contaminated groundwater and treat it in the on-Site groundwater treatment facility which utilizes processes to precipitate and filter groundwater, as well as air stripping and carbon adsorption operations. Treated water will be discharged to Meadow Brook. This treatment plant started operating in December 1995.

At the conclusion of all other Site cleanup activities (soil/sediment remedy and building demolition), the need for continued groundwater extraction and treatment will be evaluated. If it is determined at that time that groundwater extraction and treatment should continue, this decision will be revisited once again at each periodic review of the remedy (no less than every five years). If its is determined that groundwater extraction and treatment need not continued, the groundwater treatment plant will be decommissioned.

This portion of the remedy remains essentially unchanged from the 1989 ROD. As part of the design and construction of the groundwater treatment plant, which was recently completed, some changes were made. A series of extraction wells were designed and constructed in lieu of a trench system as originally contemplated by the 1989 ROD. On-Site re-charge of treated

water was deemed infeasible and, instead, treated water will be discharged to Meadow Brook. Further information regarding the use of extraction wells and the change from re-charge to discharge to surface water are summarized in a report prepared in January 1993 by Metcalf & Eddy, Inc. and other documents in the Administrative Record.

XIV. STATE ROLE

The Commonwealth of Massachusetts has reviewed the various alternatives and has indicated its support for the amended selected remedy. The Commonwealth believes that the amended selected remedy is in compliance with applicable or relevant and appropriate Commonwealth Environmental laws and regulations. The Commonwealth of Massachusetts concurs with the amended selected remedy for the Norwood PCB Superfund Site. A copy of the declaration of concurrence from the Commonwealth is included as Attachment C.

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<IMG SRC 0196125D>
<IMG SRC 0196125E>

TABLE 1 - SOIL/SEDIMENT CLEANUP LEVELS

Location (excludes areas to be capped)	Cleanup Standard After Cleanup Standards are Achieved	Incremental Carcinogenic Risk Calculation	Exposed Individual Used in Risk
Surface Soils (top 1 foot) on Commercial/Industrial Properties*	40 parts per million PCBs	1.3 x 10-5 (1.3 in 100,000)	worker exposure (e.g., landscaper)
Subsurface Soils (1 foot - 6 foot) on Commercial/Industrial Properties*	70 parts per million PCBs	1.2 x 10-5 (1.2 in 100,000)	construction worker exposure
Surface Soils (top 1 foot) in wooded area on both sides of Meadow Brook	10 parts per million PCBs	5 x 10-6 (5 in 1,000,000) and ecological risk	older child (age 6-16) exposure; and aquatic life in brook and river
Subsurface Soils (1 foot - 6 foot) in wooded area on both sides of Brook	50 parts per million PCBs	8.3 x 10-6 (8.3 in 1,000,000)	construction worker exposure
Meadow Brook bottom, slopes, banks, and culverts between Kerry Place and Neponset River	1 part per million PCBs	5 x 10-7 (5 in 10,000,000) and ecological risk	older child exposure: and aquatic life in Brook and River
Organic "hot spot" at or below water table in western portion of Grant Gear property	97 parts per million 1,2,4-trichloro-benzene	Based upon risks in groundwater and leaching model (see 1989 ROD)	protection of groundwater

* Remaining areas which exceed these levels will be capped. Cover(s) will be placed over remaining soils in other uncapped areas on Grant Gear property.

TABLE 2
ARARs AND CRITERIA, ADVISORIES, AND GUIDANCE
NORWOOD PCB SUPERFUND SITE, NORWOOD, MASSACHUSETTS
AMENDED RECORD OF DECISION

AUTHORITY	REQUIREMENT	STATUS	REQUIREMENT SYNOPSIS	ACTION TAKEN TO ATTAIN ARARs
CHEMICAL SPECIFIC ARARs:				
Federal Criteria, Advisories, and Guidance	Technical Basis for Deriving Sediment Quality Criteria for Non-ionic Organic Contaminants for the Protection of Benthic Organisms Using Equilibrium Partitioning (EPA-822-R-93-011)	To be Considered	This guidance is used to establish criteria to protect the aquatic organisms in streams and to determine environmental risks.	The criteria established were used to evaluate risks to aquatic organisms exposed to contaminated water entrained within the sediment and to set sediment cleanup levels.
	Federal Ambient Water Quality Criteria	Relevant and Appropriate	Federal AWQC are criteria for protection of human health and aquatic organisms which have been developed for carcinogenic and noncarcinogenic compounds.	AWQC were used to characterize risks to fresh water aquatic life in Meadow Brook. AWQC are developed under the Clean Water Act (CWA) as guidelines from which states develop water quality standards.
	EPA Carcinogenic Assessment Group Potency Factors	To be Considered	Potency factors are developed by the EPA from Health Effects Assessments or Evaluation by the Carcinogenic Assessment Group.	EPA Carcinogenic Potency Factors were used to complete the individual incremental cancer risk resulting from exposure to site contaminants.
	EPA Risk Reference Doses (RfDs)	To be Considered	RfDs are does levels developed by the EPA for non-carcinogenic effects.	EPA RfDs were used to characterize risks due to exposure to contaminants on site.
LOCATION SPECIFIC ARARs				
Federal Regulatory	Wetlands Executive Order (EO 11990	Applicable	Under this regulation, Federal agencies are required to minimize the destruction, loss, or degradation of wetlands, and preserve and enhance natural and beneficial values of wetlands.	Excavation and restoration of Meadow Brook will include all practicable means of minimizing harm to wetlands. Wetlands protection considerations will be incorporated into the planning and decision-making about remedial action.

	Floodplains Executive Order (EO 11988)	Applicable	Federal agencies are required to reduce the risk of flood loss, to minimize the impact of floods, and to restore and preserve the natural and beneficial values of floodplains. has occurred in the Meadow Brook Floodplain. The remedy includes brook restoration in accordance with the Meadow Brook Flood Control Project, greatly increasing the beneficial value of the floodplain.	The remedial action will be designed to keep all activities out of the floodplain to the greatest extent practicable. Also, substantial non Site related development
State Regulatory Requirements	Massachusetts Wetlands Protection Act (M.G.L. c.131 Section 40: 310 CMR 10.00)	Applicable	These regulations outline the requirements necessary to work within 100 feet of a wetland.	Wetlands disturbed by excavation will be restored consistent with the approved Meadow Brook Flood Control Project
ACTION SPECIFIC ARARs				
Federal Regulatory	Resource Conservation and Recovery Act (RCRA), Subtitle C (40 CFR 260-262)	Applicable	RCRA regulates the generation, transport, storage, treatment, and disposal of hazardous waste. CERCLA specifically requires (in Section 121(d)(3) that hazardous substances from response actions be disposed of at facilities in compliance with Subtitle C of RCRA.	Wastes generated as part of remedial action will be characterized and handled in accordance with applicable RCRA regulations to the extent that such regulations are not duplicative of the authorized State program. This includes materials from "hot spot" excavation and drainage manhole sludge.
	TSCA Storage Requirements (40 CFR 761.65)	Applicable	Outlines requirements for temporary TSCA regulated waste storage including specific design requirements.	Proper design considerations will be implemented to insure that all temporary storage of TSCA-regulated waste satisfies the requirements of the regulations.
	TSCA Chemical Waste Landfill	Applicable	Establishes standards for PCB landfills including provisions for the Regional Administrator to waive requirements.	Consolidation and capping of soils, sediments, and demolition debris will either comply with this regulation, or will include waivers for clay soils, synthetic liner, 50 feet to water table, and leachate collection.

	TSCA PCB Spill Cleanup Policy (40 CFR 761 Subpart G)	To be Considered	Establishes guidelines on the decontamination of PCB spills.	In the course of demolition. Contaminated materials inside and on surfaces of the building which cannot be decontaminated in accordance with the policy will be disposed of at an appropriate off-site facility or disposed of on-site.
	Guide on Remedial Actions at Superfund Sites with PCB Contamination (OSWER Directive 9355.4-01, August 1990)	To be Considered	Sets forth guidelines for developing remedial actions for PCBs	The selected cleanup plan in consistent with the goals of this guidance.
	National Emissions Standards for Hazardous Air Pollutants (NESHAPS) Requirements, Clean Air Act, Section 112 (40 CFR Part 61)	Relevant and Appropriate	Specifies 189 hazardous air pollutants from specified source activities.	Sampling at the Site has indicated the presence of several potential hazardous air pollutants such as asbestos, PCBs, and trichlorobenzene. Site remediation is a designated source category. Remedial activities will be designed to ensure compliance with promulgated NESHAP regulations.
	Clean Water Act (CWA) - Section 404 Dredge and Fill Requirements (33 USC 1344; 40 CFR Part 230)	Applicable	Under this requirement, no activity that adversely affects a wetland shall be permitted if a practicable alternative that has less effect is available.	Impacts to wetlands will be mitigated by use of silt curtains or sedimentation basins. There is no practicable alternative to excavation of Meadow Brook. The brook will be restored consistent with the Town's approved flood control project.
	Fish and Wildlife Coordination Act 16 USC 661	Applicable	This act requires that before undertaking any Federal action that causes the modification of any body of water or affects fish and wildlife, the following agencies must be consulted: the appropriate State agency exercising jurisdiction over wildlife resources and the US Fish and Wildlife Service	Throughout their involvement with this Site, EPA and MA DEP have consulted with their wildlife resource counterparts and informed them of Site activities.
State Regulatory Requirements	Massachusetts Groundwater Protection Regulations 310 CMR 6.04(2) and 6.04(6)	Relevant and Appropriate	These regulations detail the requirements for a groundwater monitoring program to be implemented at the site.	A groundwater monitoring program will be instituted to assess impacts of "ho spot" excavation and to monitor performance of the capping remedy.

Massachusetts Waterways Regulations (M.G.L. c,21 Sections 26-53; 314 CMR (9.00)	Applicable	Regulates the water quality certification of dredging and disposal of dredged material.	Dredging of sediments will be implemented according to regulations, including constant monitoring of downstream waters during implementation to control migration of contaminated sediments.
Massachusetts Ambient Air Quality Standards 310 CMR 6.00	Applicable	These regulations specify emissions standards for particulates and lead.	All activities will be conducted in a manner to minimize the generation of dust or other hazardous emissions.
Site Assignment Regulation for Solid Waste Facilities 310 CMR 16.05(3)(I)	Applicable	Specifications for on-site demolition facilities and disposal requirement for demolition debris.	Demolition activities and any subsequent crushing operations will be conducted using best management practices and will be carried out in a manner which will not pose a nuisance or cause uncontrolled discharge of pollutants to air, water, or other natural resource.
Solid Waste Management Facility Regulations 310 CMR 19.060 (2),(4)&(5)	Applicable	Requirements for the determination of beneficial use of solid waste material.	Brick and block debris from demolition of the building may be beneficially used on the Site. Substantive requirement of these regulations will govern the determination as to whether these materials may be reused.
Solid Waste Management Facility Regulations 310 CMR 19.061 (3)(a)	Applicable	Classification of asbestos demolition.	Regulated asbestos material from the building demolition will be handled in accordance with applicable regulations.
Solid Waste Management Facility Regulations 310 CMR 19.061 (6)(a)&(b)	Applicable	Management requirements for special wastes and requirements for handling asbestos wastes.	Regulated asbestos material from the building demolition will be handled in accordance with applicable regulations.
Massachusetts Air Pollution Control Regulations 310 CMR 7.09	Applicable	Regulations specific to control of odor and requirements for handling asbestos wastes. fugitive dust emissions.	Odors and fugitive dust will be controlled by water sprays, suppressants, or by other engineering controls.
Massachusetts Air Pollution Control Regulations 310 CMR 7.10	Applicable	This regulation specifies requirements for suppression of noise during construction activities.	Construction and demolition activities will be conducted in a manner which does not produce unnecessary or excessive noise.

Massachusetts Air Pollution Control Regulations 310 CMR 7.15(1)(a)	Applicable	Applicable standards for asbestos demolition	Asbestos demolition will be conducted in accordance with applicable regulations.
Massachusetts Air Pollution Control Regulations 310 CMR 7.15(1)(c)	Applicable	Procedures for asbestos emission control. Cites procedures to prevent visible or particulate emissions to the ambient air space.	Asbestos demolition will be conducted in accordance with applicable regulations.
Air Pollution Control Regulations 310 CMR 7.15(1)(d)	Applicable	Cites requirements for the use of air cleaning equipment in demolition activities involving asbestos.	Asbestos demolition will be conducted in accordance with applicable regulations.
Air Pollution Control Regulations 310 CMR 7.15(1)(e)	Applicable	Cites requirements involved in the collection. processing, packaging, transporting, transferring or disposing of any asbestos-containing wastes.	Regulated asbestos material from the building demolition will be handled in accordance with applicable regulations.
Hazardous Waste Regulations 310 CMR 30.00	Applicable	Regulations governing the generation, treatment, storage, and disposal of hazardous wastes	These regulations will be followed in conducting the cleanup, as applicable, Portions of these regulations which are specific to on-Site remediation of PCBs are not applicable since PCB remediation will be implemented through TSCA.
Hazardous Waste Regulations 310 CMR 30.125(b)	Applicable	Requirements for Toxic Characteristic Leaching Procedure (TCLP).	Wastes generated for off-site disposal as part of remedial action will be characterized and handled in accordance with applicable RCRA regulations. This includes materials from "hot spot" excavation and drainage manhole sludge.
Hazardous Waste Regulation 310 CMR 30.302	Applicable	Requirements for any generator of a waste to determine if the waste is hazardous.	Wastes generated for off-site disposal as part of remedial action will be characterized and handled in accordance with applicable RCRA regulations. This includes materials from "hot spot" excavation and drainage manhole sludge.
Fire Prevention Regulations: Tanks and Containers 527 CMR 9.07	Applicable	Requirements for the removal or abandonment and, if appropriate, the filling in place, of underground tanks.	Underground tanks will be appropriately removed or abandoned according to the regulations.
Guide to Regulations for Using or Processing Asphalt, Brick and Concrete Rubble.	To be Considered	Identifies the provisions of the solid waste regulations that pertain to recycling/reusing rubble.	This guidance will be consulted for ABC demolition activities.

ATTACHMENT A

RECORD OF DECISION AMENDMENT
NORWOOD PCB SUPERFUND SITE

ADMINISTRATIVE RECORD INDEX

ROD signed: September 29, 1989
ROD Amendment Signed: May 17, 1996

Index

Prepared By
EPA New England
Office of Site Remediation and Restoration
U.S. Environmental Protection Agency

With Assistance From
ads
2070 Chain Bridge Road
Vienna, VA

Introduction

This document is the Index to the ROD Amendment for the Norwood PCB Administrative Record signed: May 17, 1996. Although not expressly listed in the Index, all documents contained in the September 29, 1989 ROD Administrative Record are incorporated by reference herein, and are expressly made a part of this ROD Administrative Record. Section I sites site-specific documents, and Section II cites guidance documents used by EPA staff in selecting a response action at the site. Site-specific documents in the Administrative Record are in order by the Document Number included at the end of each citation.

In Section I, documents identified in the Title as [Available in Records Center] are oversized reports and are separately available for review in the EPA-New England's Canal Street Records Center, by appointment only.

The Administrative Record is available for public review at EPA New-England's Records Center at 90 Canal St., Boston, Massachusetts, and at the Morrill Memorial Library, Walpole Street, Norwood, Massachusetts, 02062. Questions concerning the Administrative Records should be addressed to the EPA-New England site manager.

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

Norwood PCB
NPL Site Administrative Record

Table of Contents

Section I
Site-Specific Documents

ADMINISTRATIVE RECORD INDEX
NORWOOD PCBS
All Operable Units

03.10 REMEDIAL INVESTIGATION - ENDANGERMENT ASSESSMENTS

Title: Re-evaluation of Soil Cleanup Levels for the Norwood PCB Superfund Site.
Addressee: FILE
Authors: ROBERT G. CIANCIARULO - EPA NEW ENGLAND/ OSRR
Date: January 31, 1996
Format: LETTER, MEMORANDUM, NOTE No. Pgs: 2
AR No. 03.10.1 Document No. 004453

Title: Review of Remedial Alternative Evaluation.
Addressee: ROBERT G. CIANCIARULO - EPA NEW ENGLAND/ OSRR
Authors: SUSAN C. SVIRSKY - EPA NEW ENGLAND/ OSRR
Date: December 11, 1995
Format: LETTER, MEMORANDUM, NOTE No. Pgs: 3
AR No. 03.10.2 Document No. 004454

Title: Draft Cleanup Levels for Surface and Subsurface Soil at Grant Gear Property.
Addressee: ROBERT G. CIANCIARULO - EPA NEW ENGLAND/ OSRR
Authors: ANN-MARIE BURKE - EPA NEW ENGLAND/ OSRR
Date: December 18, 1995
Format: LETTER, MEMORANDUM, NOTE No. Pgs: 3
AR No. 03.10.3 Document No. 004460

Title: Evaluation of Cleanup Levels.
Addressee: ROBERT G. CIANCIARULO - EPA NEW ENGLAND/ OSRR
Authors: ANN-MARIE BURKE - EPA NEW ENGLAND/ OSRR
Date: December 15, 1995
Format: LETTER, MEMORANDUM, NOTE No. Pgs: 7
AR No. 03.10.4 Document No. 004461

Title: Comments Pertaining to the PAH Contamination at the Norwood Superfund Site.
Addressee: ANN-MARIE BURKE - EPA NEW ENGLAND/ OSRR
Authors: KENNETH W. BROWN - EPA NATIONAL EXPOSURE RESEARCH LAB
Date: February 1, 1996
Format: LETTER, MEMORANDUM, NOTE No. Pgs: 35
AR No. 03.10.5 Document No. 004517

ADMINISTRATIVE RECORD INDEX
NORWOOD PCBS
All Operable Units

04.09 FEASIBILITY STUDY - PROPOSED PLANS FOR SELECTED REMEDIAL ACTION

Title: Proposed Amended Cleanup Plan.
Authors: EPA NEW ENGLAND/ OSRR
Date: February 1996
Format: FACT SHEET, PRESS RELEASE No. Pgs: 15
AR No. 04.09.1 Document No. 004484

05.01 RECORD OF DECISION - CORRESPONDENCE

Title: Department of Environmental Protection,
Concurrence with the ROD Amendment.
Addressee: LINDA M. MURPHY - EPA NEW ENGLAND/ OSRR
Authors: JAMES C. COLMAN - MASSACHUSETTS DEP
Date: May 16, 1996
Format: LETTER, MEMORANDUM, NOTE No. Pgs: 3
AR No. 05.01.1 Document No. 004520

05.02 RECORD OF DECISION - ARARS

Title: Applicable, Relevant and Appropriate Requirements.
Addressee: ROBERT G. CIANCIARULO - EPA NEW ENGLAND/ OSRR
Authors: JAY NAPARSTEK - MASSACHUSETTS DEP
Date: April 10, 1996
Format: LETTER, MEMORANDUM, NOTE No. Pgs: 3
AR No. 05.02.1 Document No. 004505

05.03 RECORD OF DECISION - RESPONSIVENESS SUMMARIES

Title: Comments on Soil/Sediment Cleanup Plan.
Addressee: ROBERT G. CIANCIARULO - EPA NEW ENGLAND/ OSRR
Authors: RESIDENTS
Format: LETTER, MEMORANDUM, NOTE No. Pgs: 2
AR No. 05.03.1 Documents No. 04486

Title: Comments on Soil/Sediment Cleanup Plan.
Addressee: ROBERT G. CIANCIARULO - EPA NEW ENGLAND/ OSRR
Authors: RESIDENTS
Format: LETTER, MEMORANDUM, NOTE No. Pgs: 1
AR No. 05.03.2 Document No. 004487

Title: Comments on Soil/Sediment Cleanup Plan.
Addressee: ROBERT G. CIANCIARULO - EPA NEW ENGLAND/ OSRR
Authors: RESIDENTS
Format: LETTER, MEMORANDUM, NOTE No. Pgs: 1
AR No. 05.03.3 Document No. 004488

ADMINISTRATIVE RECORD INDEX
NORWOOD PCBS
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Title: Comments on Soil/ Sediment Cleanup Plan.
Addressee: ROBERT G. CIANCIARULO - EPA NEW ENGLAND/ OSRR
Authors: RESIDENTS
Format: LETTER, MEMORANDUM, NOTE No. Pgs: 1
AR No. 05.03.4 Document No. 004489

Title: Comments on Soil/Sediment Cleanup Plan.
Addressee: ROBERT G. CIANCIARULO - EPA NEW ENGLAND/ OSRR
Authors: RESIDENTS
Format: LETTER, MEMORANDUM, NOTE No. Pgs: 1
AR No. 05.03.5 Document No. 004490

Title: Comments on Soil/Sediment Cleanup Plan.
Addressee: ROBERT G. CIANCIARULO - EPA NEW ENGLAND/ OSRR
Authors: RESIDENTS
Format: LETTER, MEMORANDUM, NOTE No. Pgs: 1
AR No. 05.03.6 Document No. 004491

Title: Comments on Soil/Sediment Cleanup Plan.
Addressee: ROBERT G. CIANCIARULO - EPA NEW ENGLAND/ OSRR
Authors: RESIDENTS
Date: August 18, 1995
Format: LETTER, MEMORANDUM, NOTE No. Pgs: 3
AR No. 05.03.7 Document No. 004492

Title: Transmittal Letter Concerning Board of Selectmans' Vote to Refer Residents Letters to the EPA.
Addressee: ROBERT G. CIANCIARULO - EPA NEW ENGLAND/ OSRR
Authors: JULIA A. LIDDY - TOWN OF NORWOOD
Date: August 17, 1995
Format: LETTER, MEMORANDUM, NOTE No. Pgs: 2
AR No. 05.03.8 Document No. 004493

Title: Preliminary Comments on Proposed Revision to Site Remedy.
Addressee: ROBERT G. CIANCIARULO - EPA NEW ENGLAND/ OSRR
Authors: LAWRENCE FELDMAN - GZA GEOENVIRONMENTAL, INC.
Date: August 18, 1995
Format: LETTER, MEMORANDUM, NOTE No. Pgs: 10
AR No. 05.03.9 Document No. 004494

Title: Comments on Soil/Sediment Cleanup Plan.
Addressee: ROBERT G. CIANCIARULO - EPA NEW ENGLAND/ OSRR
Authors: RESIDENTS
Date: August 13, 1995
Format: LETTER, MEMORANDUM, NOTE No. Pgs: 1
AR No. 05.03.10 Document No. 004495

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Title: Comments on Soil/ Sediment Cleanup Plan.
Addressee: ROBERT G. CIANCIARULO - EPA NEW ENGLAND/ OSRR
Authors: RESIDENTS
Date: August 8, 1995
Format: LETTER, MEMORANDUM, NOTE No. Pgs: 1
AR No. 05.03.11 Document No. 004496

Title: Comments on Soil/Sediment Cleanup Plan.
Addressee: ROBERT G. CIANCIARULO - EPA NEW ENGLAND/ OSRR
Authors: RESIDENTS
Date: August 8, 1995
Format: LETTER, MEMORANDUM, NOTE No. Pgs: 1
AR No. 05.03.12 Document No. 004497

Title: Comments on Soil/Sediment Cleanup Plan.
Addressee: ROBERT G. CIANCIARULO - EPA NEW ENGLAND/ OSRR
Authors: RESIDENTS
Date: August 4, 1995
Format: LETTER, MEMORANDUM, NOTE No. Pgs: 1
AR No. 05.03.13 Document No. 004498

Title: Comments on Proposed Amended Cleanup Plan.
Addressee: ROBERT G. CIANCIARULO - EPA NEW ENGLAND/ OSRR
Authors: DANIEL P.B. SMITH
Date: February 24, 1996
Format: LETTER, MEMORANDUM, NOTE No. Pgs: 1
AR No. 05.03.14 Document No. 004507

Title: Comments on Proposed Amended Cleanup Plan.
Addressee: ROBERT G. CIANCIARULO - EPA NEW ENGLAND/ OSRR
Authors: CAMERON F. KERRY - MINTZ, LEVIN, COHEN, & FERRIS P.C.
Date: March 29, 1996
Format: LETTER, MEMORANDUM, NOTE No. Pgs: 1
AR No. 05.03.15 Document No. 004506

Title: Comments on Proposed Amended Cleanup Plan.
Addressee: ROBERT G. CIANCIARULO - EPA NEW ENGLAND/ OSRR
Authors: CRAIG H. CAMPBELL - MINTZ, LEVIN, COHEN, & FERRIS P.C.
Date: March 22, 1996
Format: LETTER, MEMORANDUM, NOTE No. Pgs: 10
AR No. 05.03.16 Document No. 004308

Title: Comments on Proposed Amended Cleanup Plan.
Addressee: ROBERT G. CIANCIARULO - EPA NEW ENGLAND/ OSRR
Authors: GZA GEOENVIRONMENTAL, INC.
Date: March 22, 1996
Format: LETTER, MEMORANDUM, NOTE No. Pgs: 44
AR No. 05.03.17 Document No. 004509

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Title: Comments on Proposed Amended Cleanup Plan.
Addressee: ROBERT G. CIANCIARULO - EPA NEW ENGLAND/ OSRR
Authors: URSULA C. FECHEK
Date: March 21, 1996
Format: LETTER, MEMORANDUM, NOTE No. Pgs: 1
AR No. 05.03.18 Document No. 004510

Title: Comments on Proposed Amended Cleanup Plan.
Addressee: ROBERT G. CIANCIARULO - EPA NEW ENGLAND/ OSRR
Authors: PHYLLIS M. BOUCHER - NORWOOD BOARD OF HEALTH
Date: March 13, 1996
Format: LETTER, MEMORANDUM, NOTE No. Pgs: 1
AR No. 05.03.19 Document No. 004511

Title: Response to Board of Selectmens' Comments on Proposed Amended Cleanup Plan.
Addressee: GARY M. LEE - TOWN OF NORWOOD
Authors: ROBERT G. CIANCIARULO - EPA NEW ENGLAND/ OSRR
Date: March 14, 1996
Format: LETTER, MEMORANDUM, NOTE No. Pgs: 2
AR No. 05.03.20 Document No. 004518

Title: "Conceptual Utility Plan, Grant Gear Property - Providence Highway," Supplemental Comments of Grant Gear.
Addressee: ROBERT G. CIANCIARULO - EPA NEW ENGLAND/ OSRR
Authors: NORWOOD ENGINEERING
Date: May 1, 1996
Format: MAP, BLUEPRINT, PHOTO, NE No. Pgs: 2
AR No. 05.03.21 Document No. 004522

05.04 RECORD OF DECISION - RECORD OF DECISION

Title: Declaration of the Record of Decision Amendment, Norwood PCB Superfund Site.
Authors: LINDA M. MURPHY - EPA NEW ENGLAND/ OSRR
Date: May 17, 1996
Format: TITLED DOCUMENT (REPORT, No. Pgs: 99
AR No. 05.04.1 Document No. 004519

Title: Regional Administrator's Findings and Waivers Under Regulations of the Toxic Substances Control Act.
Authors: PATRICIA MEANEY - EPA REGION I
Date: May 17, 1996
Format: LETTER, MEMORANDUM, NOTE No. Pgs: 1
AR No. 05.04.2 Document No. 004521

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05.06 RECORD OF DECISION - COST REPORTS AND INVOICES

Title: Rough Cost Estimate for Building and Soil Incineration Remedy.
Addressee: FILE
Authors: ROBERT G. CIANCIARULO - EPA NEW ENGLAND/ OSRR
Date: January 31, 1996
Format: LETTER, MEMORANDUM, NOTE No. Pgs: 6
AR No. 05.06.1 Document No. 004455

.02 REMEDIAL DESIGN - SAMPLING AND ANALYSIS DATA

Title: Sampling and Analysis Report for the Demolition of the Grant Gear Building.
Addressee: U.S. ARMY CORP. OF ENGINEERS
Authors: FOSTER WHEELER ENVIRONMENTAL CORPORATION
Date: September 1995
Format: REPORT No. Pgs: 404
AR No. 06.02.1 Document No. 004456

Title: Sampling Report and Technical Memorandum for Disposal Strategy of GGB Material.
Addressee: BRIAN BAKER - U.S. ARMY CORP. OF ENGINEERS
Authors: EVERETT WASHER - FOSTER WHEELER ENVIRONMENTAL CORPORATION
Date: September 20, 1995
Format: LETTER, MEMORANDUM, NOTE No. Pgs: 2
AR No. 06.02.2 Document No. 004457

Title: Technical Memorandum - Grant Building Disposal Strategy.
Addressee: EPA NEW ENGLAND/ OSRR
Date: September 19, 1995
Format: MISCELLANEOUS No. Pgs. 31
AR No. 06.02.3 Document No. 004458

06.04 REMEDIAL DESIGN - REMEDIAL DESIGN DOCUMENTS

Title: Pre-Design Study Final Reports. Vol I - Field Investigations. [Available at Records Center]
Addressee: EPA REGION I
Authors: METCALF & EDDY
Date: January 1993
Format: REPORT No. Pgs: 297
AR No. 06.04.1 Document No. 004104

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Title: Pre-Design Study Final Reports. Vol. 2 - Hydrogeologic Investigations. [Available at Records Center]
Addressee: EPA REGION I
Authors: METCALF & EDDY
Date: January 1993
Format: REPORT No. Pgs: 483
AR No: 06.04.2 Document No. 004106

Title: Pre-Design Study Final Reports. Vol. 3 - Bench-Scale Treatability Study Report. [Available at Records Center]
Addressee: EPA REGION I
Authors: METCALF & EDDY
Date: January 1993
Format: REPORT No. Pgs: 49
AR No. 06.04.3 Document No. 004107

Title: Pre-Design Study Final Reports. Vol. 4 - Solvent Extraction Treatability Study Report. [Available at Records Center]
Addressee: EPA REGION I
Authors: METCALF & EDDY
Date: January 1993
Format: REPORT No. Pgs: 272
AR No. 06.04.4 Document No. 004108

Title: Specifications for Groundwater Remediation - Volume I, Final Submittal. [Available at Records center]
Addressee: EPA REGION I
Authors: METCALF & EDDY
Date: May 1994
Format: REPORT No. Pgs: 529
AR No. 06.04.5 Documents No. 004499

Title: Specifications for Groundwater Remediation - Volume II, Final Submittal. [Available at Records Center]
Addressee: EPA REGION I
Authors: METCALF & EDDY
Date: May 1994
Format: REPORT No. Pgs: 482
AR No. 06.04.6 Document No. 004500
*Attached to Document No. 004499 In 06.04

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Title: Specifications for Soil Remediation - Volume I, Final 100% Submittal. [Available at Records Center]
Addressee: EPA REGION I
Authors: METCALF & EDDY
Date: August 1994
Format: REPORT No. Pgs: 388
AR No. 06.04.7 Document No. 004502

Title: Specifications for Soil Remediation - Volume II, Final 100% Submittal. [Available at Records Center]
Addressee: EPA REGION I
Authors: METCALF & EDDY
Date: August 1994
Format: REPORT No. Pgs: 402
AR No. 06.04.8 Document No. 004503
*Attached to Document No. 004502 In 06.04

06.06 REMEDIAL DESIGN - WORK PLANS AND PROGRESS REPORTS

Title: Groundwater Remediation - Site Plans. [Available at Records Center]
Addressee: EPA REGION I
Authors: U.S. ARMY CORP. OF ENGINEERS
Date: May 1994
Format: MAP, BLUEPRINT, PHOTO, NE No. Pgs: 24
AR No. 06.06.1 Document No. 004501
*Attached to Document No. 004499 In 06.04

Title: Soil Remediation - Site Plans. [Available at Records Center]
Addressee: EPA REGION I
Authors: U.S. ARMY CORP. OF ENGINEERS
Date: August 1994
Format: MAP, BLUEPRINT, PHOTO, NE No. Pgs: 23
AR No. 06.06.2 Document No. 004504
*Attached to Document No. 004502 In 06.04

07.02 REMEDIAL ACTION - SAMPLING AND ANALYSIS DATA

Title: Area 5 Soil Sampling Program - Sampling and Analysis Report [Draft].
Addressee: U.S. ARMY CORP. OF ENGINEERS
Authors: FOSTER WHEELER ENVIRONMENTAL CORPORATION
Date: January 29, 1996
Format: REPORT No. Pgs: 51
AR No. 07.02.1 Document No. 004459

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07.04 REMEDIAL ACTION - ARARS

Title: Letter Regarding the Discharge Point for Effluent from the Groundwater Treatment Plant into the Neponset River and Meadow Brook.
Addressee: CHRISTOPHER TUREK - U.S. ARMY CORP. OF ENGINEERS
Authors: ROBERT G. CIANCIARULO - EPA NEW ENGLAND/ OSRR
Date: July 21, 1995
Format: LETTER, MEMORANDUM, NOTE No. Pgs: 3
AR No. 07.04.1 Document No. 004462

07.06 REMEDIAL ACTION - WORK PLANS AND PROGRESS REPORTS

Title: Summary Final Report - Equipment Decontamination.
Addressee: U.S. ARMY CORP. OF ENGINEERS
Authors: FOSTER WHEELER ENVIRONMENTAL CORPORATION
Format: REPORT No. Pgs: 2
AR No. 07.06.1 Document No. 004463

Title: Preliminary Work Approach to Support an Order of Magnitude Estimate for Off-property Soil Evaluation and Capping of Contaminated Area on Grant Gear.
Addressee: U.S. ARMY CORP. OF ENGINEERS
Authors: ENSERCH ENVIRONMENTAL
Format: MISCELLANEOUS No. Pgs: 6
AR No. 07.06.2 Document No. 004464

Title: Draft Work Plan for Soil Remediation.
Addressee: U.S. ARMY CORP. OF ENGINEERS
Authors: FOSTER WHEELER ENVIRONMENTAL CORPORATION
Date: May 1995
Format: REPORT No. Pgs: 115
AR No. 07.06.3 Document No. 004465

Title: Final Work Plan and Cost Estimate - Groundwater Remediation.
Addressee: MICHELLE KEWER - U.S. ARMY CORP. OF ENGINEERS
Authors: J. GARRY CUSACK - EBASCO
Date: August 3, 1994
Format: LETTER, MEMORANDUM, NOTE No. Pgs: 3
AR No. 07.06.4 Document No. 004466

07.07 REMEDIAL ACTION - COST REPORTS AND INVOICES

Title: Order of Magnitude Estimate for Meadow Brook Remediation.
Addressee: BRIAN BAKER - U.S. ARMY CORP. OF ENGINEERS
Authors: EVERETT WASHER - ENSERCH ENVIRONMENTAL
Date: December 19, 1995
Format: LETTER, MEMORANDUM, NOTE No. Pgs: 2
AR No. 07.07.1 Document No. 004467

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Title: Public Voucher for Purchases and Services Other Than Personal.
Addressee: RAYMOND J. MARCHINI - EBASCO
Authors: GORDON G. SPANEK, CHARLES W. COE - EPA/ CINCINNATI FINANCIAL MANAGEMENT CTR
Date: December 11, 1995
Format: COST DOCUMENTATION No. Pgs: 2
AR No. 07.07.2 Document No. 004468

Title: Public Voucher for Purchases and Services Other Than Personal.
Addressee: RAYMOND J. MARCHINI - EBASCO
Authors: GORDON G. SPANEK, CHARLES W. COE - EPA/ CINCINNATI FINANCIAL MANAGEMENT CTR
Date: December 11, 1995
Format: COST DOCUMENTATION No. Pgs: 2
AR No. 07.07.3 Document No. 004469

Title: Cost Summary for All Tasks.
Format: COST DOCUMENTATION No. Pgs: 1
AR No. 07.07.4 Document No. 004470

10.06 ENFORCEMENT - PRP-SPECIFIC NEGOTIATIONS

Title: Letter Outlining Cornell-Dubilier's Concern for Cashout Settlement and Increased Cost for Remedy
Addressee: - EPA NEW ENGLAND/ OSRR
Authors: JAMES R. KAPLAN - CORNELL/DUBILIER ELECTRONICS
Date: April 24, 1995
Format: LETTER, MEMORANDUM, NOTE No. Pgs: 1
AR No. 10.06.1 Document No. 004471

10.11 ENFORCEMENT - PRP ENFORCEMENT WORK PLANS

Title: Remedial alternative Evaluation.
Addressee: VARIOUS
Authors: GZA GEOENVIRONMENTAL, INC.
Date: November 27, 1995
Format: REPORT No. Pgs: 276
AR No. 10.11.1 Document No. 004472

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11.09 POTENTIALLY RESPONSIBLE PARTY - PRP - PRP-SPECIFIC CORRESPONDENCE

Title: Letter Stating Cornell-Dubilier's Concurrence with Cooper Industries' Request that EPA Reconsider Groundwater Remedy.
Addressee: ROBERT G. CIANCIARULO - EPA NEW ENGLAND/ OSRR
Authors: ROBERT S. SANOFF - FOLEY HOAG & ELLIOT
Date: October 30, 1995
Format: LETTER, MEMORANDUM, NOTE No. Pgs: 1
AR No. 11.09.1 Document No. 004473

Title: Letter Stating Federal Pacific Electronics' Concurrence with Cooper Industries' Request that EPA Reconsider Groundwater Remedy.
Addressee: ROBERT G. CIANCIARULO - EPA NEW ENGLAND/ OSRR
Authors: HOWARD T. WEIR - MORGAN, LEWIS & BOCKIUS
Date: October 17, 1995
Format: LETTER, MEMORANDUM, NOTE No. Pgs: 1
AR No. 11.09.2 Document No. 004474

Title: Letter Concerning EPA's Failure to Consider Parties' Comments On Proposed Revisions to Site Remedy.
Addressee: ROBERT G. CIANCIARULO - EPA NEW ENGLAND/ OSRR
Authors: DANIEL RIESEL - SIVE, PAGET & RIESEL, P.C.
Date: October 11, 1995
Format: LETTER, MEMORANDUM, NOTE No. Pgs: 3
AR No. 11.09.3 Document No. 004475

Title: Letter Stating Confirmation of Understanding that Site Remediation will Include Demolition of Grant Gear Building.
Addressee: ROBERT G. CIANCIARULO - EPA NEW ENGLAND/ OSRR
Authors: ROBERT J. HURLEY - GRANT GEAR
Date: December 1, 1994
Format: LETTER, MEMORANDUM, NOTE No. Pgs: 1
AR No. 11.09.4 Document No. 004476

Title: Letter Confirming Cease of Operation at Grant Gear Site and Decision to Demolish Building.
Addressee: ROBERT J. HURLEY - GRANT GEAR
Authors: ROBERT G. CIANCIARULO - EPA NEW ENGLAND/ OSRR
Date: November 29, 1994
Format: LETTER, MEMORANDUM, NOTE No. Pgs: 1
AR No. 11.09.5 Document No. 004477

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13.01 COMMUNITY RELATIONS - CORRESPONDENCE

Title: Letter Regarding Area to be Excavated.
Addressee: RESIDENTS
Authors: ROBERT G. CIANCIARULO - EPA NEW ENGLAND/ OSRR
Date: September 5, 1995
Format: LETTER, MEMORANDUM, NOTE No. Pgs: 4
AR No. 13.01.1 Document No. 004478

13.03 COMMUNITY RELATIONS - NEWS CLIPPINGS/PRESS RELEASES

Title: "Neighbors Say Leave Grant Site Alone."
Authors: BILL ARCHAMBEAULT - DAILY TRANSCRIPT
Date: September 1, 1995
Format: NEWSPAPER No. Pgs: 1
AR No. 13.03.1 Document No. 004479

Title: EPA Environmental News - EPA Invites Public Comment on Amended Cleanup Plan for Norwood PCB Superfund Sites.
Addressee: FILE
Authors: EPA NEW ENGLAND/ OSRR
Date: February 22, 1996
Format: FACT SHEET, PRESS RELEASE No. Pgs: 1
AR No. 13.03.2 Document No. 004513

Title: "The U.S. Environmental Protection Agency Invites Public Comment on the Proposed Amended Cleanup Plan for the Norwood PCB Superfund Site."
Addressee: FILE
Authors: EPA NEW ENGLAND/ OSRR
Date: April 18, 1996
Format: NEWSPAPER No. Pgs: 1
AR No. 13.03.3 Document No. 004515

Title: "The U.S. Environmental Protection Agency Invites Public Comment on the Proposed Amended Cleanup Plan for the Norwood PCB Superfund Site.:
Addressee: FILE
Authors: EPA NEW ENGLAND/ OSRR
Date: February 21, 1996
Format: NEWSPAPER OR MAGAZINE CLI No. Pgs: 1
AR No. 13.03.4 Document No. 004516

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13.04 COMMUNITY RELATIONS - PUBLIC MEETINGS

Title: Public Meeting/Hearing Sign In Sheet.
Addressee: FILE
Authors: EPA NEW ENGLAND/ OSRR
Date: March 6, 1996
Format: MISCELLANEOUS No. Pgs: 2
AR No. 13.04.1 Document No. 004512

Title: Public Meeting and Hearing - Proposed Amended Cleanup Plan.
Addressee: FILE
Authors: EPA NEW ENGLAND/ OSRR
Date: March 6, 1996
Format: MISCELLANEOUS No. Pgs: 19
AR No. 13.04.2 Document No. 004514

13.04 COMMUNITY RELATIONS - FACT SHEETS

Title: EPA Invites Public Comment on Approach to Soil Cleanup.
Addressee: FILE
Authors: EPA NEW ENGLAND/ OSRR
Date: August 1995
Format: FACT SHEET, PRESS RELEASE No. Pgs: 15
AR No. 13.05.1 Document No. 004485

14.01 CONGRESSIONAL RELATIONS - CORRESPONDENCE

Title: Letter Addressing Concerns of Residents Regarding
Clearing and Excavation of Portions of Wooded Area.
Addressee: JOHN MOAKLEY - U.S.CONGRESS-HOUSE
Authors: JOHN P. DEVILLARS - EPA REGION I
Date: October 3, 1995
Format: LETTER, MEMORANDUM, NOTE No. Pgs: 2
AR No. 14.01.1 Document No. 004480

Title: Letter Regarding Receipt of Residents' Letter.
Addressee: JOHN MOAKLEY - U.S.CONGRESS-HOUSE
Authors: JOHN P. DEVILLARS - EPA REGION I
Date: September 19, 1995
Format: LETTER, MEMORANDUM, NOTE No. Pgs: 1
AR No. 14.01.2 Document No. 004481

Title: Residents Complaint.
Addressee: JOHN P. DEVILLARS - EPA REGION I
Authors: JOE MOYNIHAN - U.S.CONGRESS-HOUSE
Date: August 25, 1995
Format: LETTER, MEMORANDUM, NOTE No. Pgs: 1
AR No. 14.01.3 Document No. 004482

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17.07 SITE MANAGEMENT RECORDS - REFERENCE DOCUMENTS

Title: New Bedford Harbor - Initial Successful Bid Cost.
Addressee: EPA NEW ENGLAND/ OSRR
Authors: U.S. ARMY CORP. OF ENGINEERS
Format: COST DOCUMENTATION No. Pgs: 1
AR No. 17.07.1 Document No. 004483

Section II
Guidance Documents

EPA guidance documents may be reviewed at EPA-New England Canal St. Records Center, Region I, Boston, Massachusetts.

1. U.S. Environmental Protection Agency. Office of Emergency and Remedial Response. Guidance on Remedial Actions for Superfund Sites with PCB Contamination (OSWER Directive No. 9355.4-01), August 1990. [2014]
2. U.S. Environmental Protection Agency. Office of Solid Waste and Emergency Response. A Guide on Remedial Actions at Superfund Sites With PCB Contamination (OSWER Directive No. 9355.4-01 FS), August 1990. [C254]

Norwood PCB
NPL Site Administrative Record
Index

Compiled: August 11, 1989
ROD Signed: September 29, 1989

Prepared for

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

With Assistance from

EBASCO SERVICES, INC.
211 Congress Street, Boston, Massachusetts 02110

Introduction

This document is the Index to the Administrative Record for the Norwood PCB 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 Regions I's office in Boston, Massachusetts, and at the Morrill Memorial Library, Walpole Street, Norwood, Massachusetts, 02062. 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
Norwood PCB NPL Site

1.0 PRE-REMEDIAL

1.14 FIT Contract

1. "Massachusetts FIT Contract - Work and Cost Plan Proposal Grant Gear Company - Problem Evaluation Study - Site Response Assessment - Site Management Plan," Wehran Engineering (June 6, 1985).

1.18 FIT Technical Direction Documents (TDDs) and Associated Records

1. "Geophysical Survey," Weston Geophysical Corporation for NUS Corporation (July 1984). NOTE: Oversize Maps and figures are available for review at EPA, Region I, Boston, Massachusetts.

2. "Field Investigation of the Norwood Site, Norwood, Massachusetts," NUS Corporation (September 10, 1984).

2.0 REMOVAL RESPONSE

2.1 Correspondence

1. Letter from Anthony D. Cortese, Massachusetts Department of Environmental Quality Engineering to Paul Keough, EPA Region I (June 16, 1983). Concerning immediate removal action at the Norwood PCB site.
2. Memorandum from David McIntyre, EPA Region I to Richard T. Leighton, EPA Region I (August 5, 1983). Concerning immediate removal action at the Dean Street site.
3. Memorandum from Frank W. Lilley, EPA Region I to Dave McIntyre, EPA Region I (September 15, 1983). Concerning Norwood II Airborne PCB investigation.
4. Letter from Richard Chalpin, Massachusetts Department of Environmental Quality Engineering to William E. Baird, WEB Engineering Associates, Incorporated (February 14, 1984). Concerning review of four reports entitled "Kerry Place, Norwood, Lots #1, #2, #3, and #4; Report of On Site Investigation of Possible Chemical Contamination," dated February 1, 1984.
5. Letter from Cameron Kerry, Mintz, Levin, Cohn, Ferris, Glovsky & Popeo (Attorney for Grant Gear Works, Incorporated) to Susan Bernard, Massachusetts Office of the Attorney General (January 28, 1986). Concerning recent site activities relating to on-site car storage and soil sampling.

2.4 Pollution Reports (POLREPs)

1. POLREP 1, (June 28, 1983).
2. POLREP 2, (July 1, 1983).
3. POLREP 3, (July 11, 1983).
4. POLREP 4, (July 12, 1983).
5. POLREP 5, (July 29, 1983).
6. POLREP 6. (August 3, 1983).

2.5 On-Scene Coordinator Report

1. "On-Scene Coordinator's Report," (June - August, 1983). Including Attachments 1 - 21. (Confidential business information redacted.)

3.0 REMEDIAL INVESTIGATION (RI)

3.1 Correspondence

1. Notice from Bartley King, Norwood Board of Health and John Carroll, Norwood Board of Selectmen to the residents of Meadowbrook area (June 28, 1983). Concerning analysis of soil samples.
2. Notice from Bartley King, Norwood Board of Health and John Carroll, Norwood Board of Selectmen to residents of Meadowbrook area (June 29, 1983). Concerning analysis of soil samples.
3. Memorandum from John Figler, EPA Region I to Merrill S. Hohman, EPA Region I (August 2, 1983). Concerning Norwood PCB Blood Results.
4. Notice from Patricia Talbot, Norwood Board of Health and Bernard Cooper, Norwood Board of Selectmen to residents of Meadowbrook area (August 12, 1983). Concerning PCB test results.
5. Letter from Robert Hurley, Grant Gear Works, Incorporated to Leonard Pagnotto, Massachusetts Department of Labor and Industries (December 7, 1983). Concerning letter of November 29, 1983.
6. Letter from David Christiani, Edward Baker, and Elizabeth Avenil Norfolk County Hospital to Robert Hurley, Grant Gear Works, Incorporated (September 24, 1984). Concerning group results of PCB analysis of Grant Gear Works, Incorporated employees.
7. Letter from James C. Colman, Massachusetts Department of Town Manager (October 8, 1985). Concerning the presence of Environmental Quality Engineering to John J. Carroll, Norwood Polychlorinated Biphenyl (PCB) contaminated material on and around property owned by Grant Gear Reality Trust.
8. Letter from James Colman, Massachusetts Department of Environmental Quality Engineering to John Hannon, Massachusetts Department of Environmental Management (January 15, 1986). Concerning analytical results on water and sediment samples/Meadow Brook.
9. Letter from Susan M. Bernard, Department of the Attorney General to Janine M. Sweeney, Morgan, Lewis & Bockius (Attorney for Federal Pacific Electric); Cameron F. Kerry, Mintz Levin, Cohn, Ferris Glovsky & Popeo (Attorney for Grant Gear

Works, Incorporated); Robert F. Sanoff, Foley, Hoag & Eliot (Attorney for Cornell-Dubilier Electronics, Incorporated); Anton T. Moehrke, Wright & Moehrke (February 11, 1986). Concerning clients' agreement to prepare a scope of work for a Remedial Investigation/Feasibility Study at the Grant Gear Works Superfund site.

10. Letter from Cameron F. Kerry, Mintz, Levin, Cohn, Ferris, Glovsky & Popeo (Attorney for Grant Gear Works, Incorporated) to Philip R. Boxell, EPA Region I (July 11, 1986). Concerning EPA's decision not to include any remedial investigation of PCB contamination inside the industrial plant located at the site.
11. Letter from Susan M. Bernard, Department of the Attorney General to Janine M. Sweeny, Morgan, Lewis & Bockius (Attorney for Federal Pacific Electric); Cameron F. Kerry, Mintz, Levin, Cohn, Ferris, Glovsky & Popeo (Attorney for Grant Gear Works, Incorporated); Robert F. Sanoff, Foley, Hoag & Eliot (Attorney for Cornell-Dubilier Electronics, Incorporated); Anton T. Moehrke, Wright & Moehrke (July 15, 1986). Concerning DEQE and EPA review of RI/FS Scope of Work at the Norwood Superfund Site.
12. Letter from Susan M. Bernard, Department of the Attorney General to Janine M. Sweeny, Morgan, Lewis & Bockius (Attorney for Federal Pacific Electric); Cameron F. Kerry, Mintz, Levin, Cohn, Ferris, Glovsky & Popeo (Attorney for Grant Gear Works, Incorporated); Robert F. Sanoff, Foley, Hoag & Eliot (Attorney for Cornell-Dubilier Electronics, Incorporated); Anton T. Moehrke, Wright & Moehrke (August 14, 1986). Concerning DEQE and EPA review of RI/FS Scope of Work at the Norwood Superfund Site.
13. Letter from Thomas McMahon, Massachusetts Department of Environmental Quality Engineering to John Hannon, Massachusetts Department of Environmental Management (September 26, 1986). Concerning application for Water Quality Certification.
14. Letter from Cameron F. Kerry, Mintz, Levin Cohn, Ferris Glovsky & Popeo (Attorney for Grant Gear Works, Incorporated) to Honorable Joyce London Alexander, United States Magistrate (November 25, 1986). Concerning Hurley et al., v. Cornell-Dubilier Electronics, Incorporated et al., Civil Action No. 85-1417-MC.
15. Letter from Susan M. Bernard, department of the Attorney General to Honorable Joyce London Alexander, United States Magistrate (November 28, 1986). Concerning response to Cameron F. Kerry's letter of November 25, 1986.
16. Letter from Cameron F. Kerry, Mintz, Levin, Cohn, Ferris, Glovsky & Popeo (Attorney for Grant Gear Works, Incorporated) to Honorable Joyce London Alexander, United States Magistrate (December 3, 1986). Concerning response to letters dated November 25 and 28, 1986.
17. Letter from Cameron F. Kerry, Mintz, Levin Cohn, Ferris, Glovsky & Popeo (Attorney for Grant Gear Works, Incorporated) to Philip R. Boxell, EPA Region I (December 3, 1986). Concerning Grant Gear Works' involvement in expediting a prompt remedy at the Norwood PCB site.
18. Letter from Laurie Burt, Foley, Hoag & Eliot (Attorney for Cornell-Dubilier Electronics, Incorporated) to Lee Breckenridge, EPA Region I (December 9, 1986). Concerning handling of the Cornell-Dubilier Electronics, Incorporated proposal to perform

the Remedial Investigation and Feasibility Study at the Grant Gear Works Site.

19. Letter from William F. Cass, Massachusetts Department of Environmental Quality Engineering to Merrill Hohman, EPA Region I (March 16, 1987). Concerning the Department of Environmental Quality Engineering's decision to refer the lead for the Norwood PCB site to EPA.
20. Letter from James C. Colman, Massachusetts Department of Environmental Quality Engineering to Robert F. Sanoff, Foley Hoag & Eliot (Attorney for Cornell-Dubilier Electronics, Incorporated) (March 18, 1987). Concerning the conditional offer by Cornell-Dubilier Electronics, Incorporated to perform the Remedial Investigation and Feasibility Study at the Norwood Superfund site.
21. Letter from Marvin Rosenstein, EPA Region I to John J. Hannon, Massachusetts Department of Environmental Management (August 11, 1987). Concerning flood and erosion control project.

3.2 Sampling and Analysis Data

* Sampling and analysis data for the Remedial Investigation may be reviewed, by appointment only, at EPA Region I, Boston, Massachusetts.

3.4 Interim Deliverables

1. "Interim Report on Drainage System Contamination," Camp Dresser & McKee Incorporated (January 19, 1988).
2. Memorandum from Susan Henderson, Camp, Dresser & McKee to A. Quaglieri, Camp, Dresser & McKee (February 17, 1988). Concerning soil boring under floor slab in Grant Gear Works building.

3.6 Remedial Investigation (RI) Reports

1. "Draft Report - Summary of Field Work - Norwood PCB Site," CDM, Incorporated (September 28, 1988). (Confidential business information redacted.)
2. "Final Remedial Investigation Report," ICF Incorporated for Ebasco Services Incorporated, Volumes I and II (June 1989).
3. "Grant Gear Indoor Survey Results, Norwood PCB Site, Norwood, Massachusetts" EPA Region I (June 1989).

3.7 Work Plans and Progress Reports

1. "Technical Oversight for EPA TES III - Work Plan," CDM Federal Programs Corporation (December 18, 1987).
2. "Work Plan - Remedial Investigation and Feasibility Study," ICF Incorporated for Ebasco Services Incorporated (December 1987).
3. "Plan for Soil Sampling Below Slab on Grade at Grant Gear, Incorporated, Norwood, Massachusetts," Camp, Dresser & McKee, Incorporated (January 1988). (Confidential business information redacted.)
4. "Plan for Video Examination of Drains at Grant Gear

Incorporated - Norwood Massachusetts," Camp Dresser & McKee Incorporated (January 1988). (Confidential business information redacted.)

5. "Grant Gear Indoor Survey Work Plan," EPA Region I (April 1989).

3.9 Health Assessments

1. Cross-reference: Notice from Patricia Talbot, Norwood Board of Health, and Bernard Cooper, Norwood Board of Selectmen to residents of Meadowbrook area (August 12, 1983). Concerning PCB test results. (Filed and cited as entry number 4 in 3.1 Correspondence.)
2. Letter from David Christiani and Nancy Fox, Norfolk County Hospital to Robert Hurley, Grant Gear Works, Incorporated (August 29, 1983). Concerning transmittal of attached "Report of PCB Blood Levels among Grant Gear Employees," Norfolk County Hospital.
3. Letter from Leonard Pagnotto, Massachusetts Department of Labor and Industries to Jack Lawler, Grant Gear Works, Incorporated (November 29, 1983). Concerning transmittal of attached letter report on health hazards to Grant Gear Works, Incorporated employees.
4. Cross-reference: Letter from Robert Hurley, Grant Gear Works, Incorporated to Leonard Pagnotto, Massachusetts Department of Labor and Industries (December 7, 1983). Concerning letter of November 29, 1983. (Filed and cited as entry number 5 in 3.1 Correspondence.)
5. "PCB Exposure Assessment in Norwood," Martha Steele, Division of Environmental Heath Assessment, Massachusetts Department of Public Health (February 22, 1984).
6. Letter from David Christiani, Edward Baker, and Elizabeth Averill, Norfolk County Hospital to Robert Hurley, Grant Gear Works, Incorporated (August 29, 1984). Concerning transmittal of attached "Report of Follow-up PCB Study at Grant Gear," Norfolk County Hospital (August 29, 1984).
7. Cross-reference: Notice from Bartley King, Norwood Board of Health, and John Carroll, Norwood Board of Selectmen to residents of Meadowbrook area (June 29, 1983). Concerning analysis of soil samples. (Filed and cited as entry number 2 in 3.1 Correspondence.)

3.10 Endangerment Assessments

1. "Final Endangerment Assessment Report," ICF Incorporated for Ebasco Services Incorporated (August 1989).

4.0 FEASIBILITY STUDY (FS)

4.1 Correspondence

1. Letter from Cameron Kerry, Mintz, Levin Cohn, Ferris, Glovsky & Popeo (Attorney for Grant Gear Works, Incorporated) to David Fierra, EPA Region I, and William Gaughan, Massachusetts Department of Environmental Protection (August

24, 1989). Concerning transmittal of "Evaluation of Discharge Options for the Grant Gear Site, Norwood, Massachusetts" ENSR Consulting and Engineering (August 1989). [("Evaluation of Discharge Options for the Grant Gear Site," (August 1989) is file and cited as entry number 4 in 4.6 Feasibility Study (FS) Reports.)]

4.4 Interim Deliverables

1. "Oversight at Grant Gear - Norwood Massachusetts - During Pipeline Video Taping," CDM Federal Programs Corporation (March 15, 1988).
2. "Trip Report - Grant Gear Building, Norwood, Massachusetts, Dye Testing of Sewer Connection," CDM Federal Programs Corporation (April 12, 1988).

4.6 Feasibility Study (FS) Reports

1. Letter Report from Charles Martin and Jeffrey Lawson, ERT to Cameron Kerry, Mintz, Levin, Cohn, Ferris, Glovsky & Popeo (Attorney for Grant Gear Works, Incorporated) (June 10, 1988). Concerning summary evaluation of drainage line remedial actions.
2. "Feasibility Study Report," ICF Incorporated for Ebasco Services Incorporated (August 1989).
3. "Draft Feasibility Study for the Grant Gear Building, Norwood PCB Site, Norwood, Massachusetts," Camp, Dresser & McKee (August 17, 1989).
4. "Evaluation of Discharge Options for the Grant Gear Site - Norwood, MA," ENSR Consulting Engineering (August 1989). (Confidential business information redacted.)

Comments received by EPA Region I during the formal public comment period on the Feasibility Study and Proposed Plan are filed and cited in 5.3 Responsiveness Summaries.

4.7 Work Plans and Progress Reports

1. Cross-Reference: "Work Plan - Remedial Investigation and Feasibility Study," ICF Incorporated for Ebasco Services Incorporated (December 1987) (Filed and cited as entry number 2 in 3.7 Work Plans and Progress Reports.)

4.9 Proposed Plans for Selected Remedial Actions

1. "EPA Proposes Clean-up Plan for the Norwood PCB Site," EPA Region I (August 1989).
2. Memorandum from Jane Downing, EPA Region I to File (August 14, 1989). Concerning Grant Gear Works' machinery and office equipment clean-up goal.

Comments received by EPA Region I during the formal public comment period on the Feasibility Study and Proposed Plan are filed and cited in 5.3 Responsiveness Summaries.

5.0 RECORD OF DECISION

5.1 Correspondence

1. Letter from Janine Sweeney, Morgan, Lewis & Bockius (Attorney for Federal Pacific Electric Company) to Paul Keough, EPA Region I (August 31, 1989). Concerning extension of comment period.
2. Letter from Robert Sanoff, Foley, Hoag & Eliot (Attorney for Cornell-Dubilier Electronics, Incorporated) to Jane Downing, EPA Region I (September 6, 1989). Concerning extension of comment period.
3. Letter from Merrill Hohman, EPA Region I to Janine Sweeney, Morgan, Lewis & Bockius (Attorney for Federal Pacific Electric Company) (September 12, 1989). Concerning EPA's response to Sweeney's request for extension of the comment period.
4. Letter from Richard McAllister, EPA Region I to Robert Sanoff, Foley, Hoag & Eliot (Attorney for Cornell-Dubilier Electronics, Incorporated) (September 13, 1989). Concerning EPA's response to Sanoff's request to extend the comment period.

5.2 Applicable or Relevant and Appropriate Requirements (ARARs)

1. Cross-Reference: Letter from Massachusetts Department of Environmental Protection to EPA Region I concerning state concurrence with selected remedy and attainment of state ARARs is Appendix C of the Record of Decision [filed and cited as entry number 1 in 5.4 Record of Decision (ROD)].

5.3 Responsiveness Summary

1. Cross-Reference: Responsiveness Summary is Appendix A of the Record of Decision [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 August 5, 1989 from Faye Siegfriedt, Norwood resident, on the August 1989 Norwood PCB Proposed Plan - "EPA Proposes Clean-up Plan for the Norwood PCB Site," EPA Region I.
3. Comments Dated August 29, 1989 from John Carroll, Norwood Town Manager, on the August 1989 Proposed Plan - "EPA Proposes Clean-up Plan for the Norwood PCB Site," EPA Region I. NOTE: "Specifications for the Meadow Brook Flood Control Project," may be reviewed, by appointment only, at EPA Region I, Boston, Massachusetts.
4. Letter from Cameron Kerry, Mintz, Levin, Cohn, Ferris, Glovsky & Popeo (Attorney for Grant Gear Works, Incorporated) to Jane Downing, EPA Region I (September 8, 1989) with attached index. Concerning inclusion of additional documents in the Norwood PCB Site Administrative Record.
5. Comments Dated September 11, 1989 from Robert Sanoff, Foley, Hoag & Eliot (Attorney for Cornell-Dubilier Electronics, Incorporated) on the August 1989 Norwood PCB "Final

Feasibility Study Report," ICF Incorporated for Ebasco Services Incorporated.

6. Comments Dated September 11, 1989 from Leslie Ritts, Morgan, Lewis & Bockius (Attorney for Federal Pacific Electric) on the June 1989 Norwood PCB "Final Remedial Investigation Report," ICF Incorporated for Ebasco Services Incorporated, on the August 1989 Norwood PCB "Final Feasibility Study Report," ICF Incorporated for Ebasco Services Incorporated, and on the August 1989 Norwood PCB "Final Endangerment Assessment Report," ICF Incorporated for Ebasco Services Incorporated.
7. Comments Dated September 12, 1989 from Cameron Kerry, Mintz, Levin, Cohn, Ferris, Glovsky and Popeo (Attorney for Grant Gear Works, Incorporated) on the August 1989 Proposed Plan - "EPA Proposes Clean-up Plan for the Norwood PCB Site," EPA Region I.
8. Letter from Dale Young, Massachusetts Department of Environmental Protection to Jane Downing, EPA Region I (September 27, 1989). Concerning Massachusetts Department of Environmental Protection's comments on the Norwood PCB site Proposed Plan.

5.4 Record of Decision (ROD)

1. "Record of Decision - Remedial Alternative Selection," EPA Region I (September 29, 1989).

9.0 STATE COORDINATION

9.1 Correspondence

1. Letter from Richard Chalpin, Massachusetts Department of Environmental Quality Engineering to John J. Carroll, Norwood Town Manager (March 6, 1985). Concerning a brief history and update on the status of the Norwood PCB hazardous waste site,

10.0 ENFORCEMENT

10.1 Correspondence

1. Letter from Charles W. Stenholm, United States House of Representatives, Committee on Small Business to Michael Deland, EPA Region I (July 23, 1985). Concerning the testimony of Robert J. Hurley, President of Grant Gear Works, Incorporated, before the House Small Business Committee.
2. Letter from Samuel L. Silverman, United States Department of Justice, United States Attorney, District of Massachusetts to Cameron F. Kerry, and Michael S. Gardener, Mintz, Levin. Cohn, Ferris, Glovsky & Popeo (Attorney for Grant Gear Works, Incorporated) (October 11, 1985). Concerning John F. Hurley, et al., v. Cornell-Dubilier Electronics, Incorporated et al., Civil Action No. 85-1417-MC.
3. Letter from Thomas C. McMahon, Massachusetts Department of Environmental Quality Engineering to Joseph Dorsett, Jr., Certified Engineering and Testing Co., Incorporated (March 16,

1987). Concerning response to Joseph Dorsett, Jr's letter of February 23, 1987.

10.3 State and Local Enforcement Records

1. Memorandum from A. Charles Lincoln, EPA Region I to Robert DiBiccaro, EPA Region I (March 14, 1984). Concerning transmittal of Proposed Civil Complaint against Cooper Industries, Arrow Hart Division, Hartford, Connecticut.
2. Complaint, Director of the Division of Water Pollution Control v. Kelek Division of Arrow-Hart, Incorporated, Suffolk County Superior Court.

10.4 Interviews Depositions, and Affidavits.

1. Affidavit of Arthur F. Hurley (February 8, 1985).
2. Affidavit of Joseph Lewis (June 6, 1985).

10.6 PRP-Specific Negotiations

1. Letter from Michael Gardener, Mintz. Levin, Cohn, Ferris, Glovsky & Popeo (Attorney for Grant Gear Works, Incorporated0 to Samuel Silverman, United States Office of the Attorney General, and Stephen Leonard, Massachusetts Office of the Attorney General (June 27, 1985). Concerning Hurley, et al., v. Cornell-Dubilier Electronics, Incorporated.
2. Letter from Cameron F. Kerry, Mintz, Levin, Cohn, Ferris, Glovsky & Popeo (Attorney for Grant Gear Works, Incorporated) to Michael R. Deland, EPA Region I (March 31, 1987). Concerning Norwood PCB site.
3. Letter from Larry S. Snowhite, Mintz, Levin, Cohn, Ferris, Glovsky & Popeo (Attorney for Grant Gear Works, Incorporated) to Gene A. Lucero, EPA Washington (April 6, 1987). Concerning final settlement of Grant Gear Works' potential civil liability to federal government arising from the release of PCBs at the Grant Gear Works site.
4. Letter from Cameron F. Kerry, Mintz, Levin, Cohn, Ferris, Glovsky & Popeo (Attorney for Grant Gear Works, Incorporated) to Gene Lucero, EPA Washington (July 21, 1987). Concerning Norwood PCB site Innocent Landowner Settlement.
5. Letter from Gene Lucero, USEPA to Cameron Kerry, Mintz, Levin, Cohn, Ferris, Glovsky & Popeo (Attorney for Grant Gear Works, Incorporated) (August 11, 1987). Concerning innocent landowner settlement issues.
6. Letter from Cameron Kerry, Mintz, Levin, Cohn, Ferris, Glovsky & Popeo (Attorney for Grant Gear Works, Incorporated) to Richard McAllister, EPA Region I (April 28, 1988). Concerning Grant Gear Works, Incorporated settlement issues.
7. Letter from Cameron Kerry, Mintz, Levin, Cohn, Ferris, Glovsky & Popeo (Attorney for Grant Gear Works, Incorporated) to Michael Deland, EPA Region I, John DEVILLARS, Massachusetts Executive Office of Environmental Affairs, and Daniel Greenbaum, Massachusetts Department of Environmental Quality Engineering (April 24, 1989). Concerning innocent landowner settlement.

10.7 Administrative Orders

1. Administrative Order, In the Matter of Grant Gear Works Incorporated and Grant Gear Realty Trust, Norwood, Massachusetts, Docket No. 89-05 (December 16, 1988).

10.8 Consent Decrees

1. Consent Agreement and Order, In the Matter of Cornell-Dubilier Electronics, Incorporated, Commonwealth of Massachusetts, Department of Environmental Quality Engineering (August 29, 1985).

11.0 POTENTIALLY RESPONSIBLE PARTY (PRP)

11.12 PRP-Related Documents

1. Letter from Joseph Nassif, Monsanto Company to Cameron Kerry, Mintz, Levin, Cohn, Ferris, Glovsky & Popeo (Attorney for Grant Gear Works, Incorporated) (July 3, 1984). Concerning PCB sales by Monsanto to previous owners of Grant Gear site.
2. Cross-reference: Affidavit of Arthur F. Hurley (February 8, 1985). (Filed and cited as entry number 1 in 10.4 Interviews, Depositions, and Affidavits.)
3. Letter from Stokley Towles, Brown Brothers Harriman & Company to Robert Hurley, Grant Gear Works, Incorporated (March 4, 1985). Concerning financing.
4. Cross-reference: Affidavit of Joseph Lewis (June 6, 1985). (Filed and cited as entry number 2 in 10.4 Interviews, Deposition, and Affidavits).
5. Statement of Robert J. Hurley, Grant Gear Works, Incorporated, before the Committee on Judiciary, United States Senate (June 10, 1985). Concerning effect of Superfund law on Grant Gears's business.
6. Letter from Alan Wardyga, Old Stone Bank to Robert Hurley, Grant Gear Works, Incorporated (June 14, 1985). Concerning financing.
7. Letter from Nicholas Mavroules, Member of Congress, Subcommittee on General Oversight and the Economy, and Charles Stenholm, Member of Congress, Subcommittee on Energy, Environment and Safety, United States House of Representatives to Robert J. Hurley, Grant Gear, Incorporated (July 1, 1985). Concerning the hearing to be held on July 15, 1985 to review the impact of the current Superfund law on small businesses.
8. Statement of Robert J. Hurley, Grant Gear Works, Incorporated, before the Committee on Small Business, Subcommitteess on General Oversight and the Economy, and Energy, Environment and Safety, United States House of Representatives (July 15, 1985). Concerning the effect of Superfund law on Grant Gear's business.
9. Letter from Michael Gardener, Mintz, Levin, Cohn, Ferris, Glovsky & Popeo (Attorney for Grant Gear Works, Incorporated) to Stephen Leonard, Massachusetts Office of the Attorney General (July 17, 1985). Concerning Grant Gear's financial situation.
10. Letter from Debbie Freedman, Massachusetts Industrial Services Program to Robert Hurley, Grant Gear Works, Incorporated (September 5, 1985). Concerning financing.
11. Letter from Edward McSweeney, EPA Region I to Robert Hurley

Grant Gear Works, Incorporated (November 18, 1986). Concerning Grant Gear NPDES permit application.

12. Letter from Thomas McMahon, Massachusetts Department of Environmental Quality Engineering to Joseph Dorsett, Certified Engineering and Testing Company, Incorporated (March 16, 1987). Concerning Grant Gear NPDES permit.
13. Letter from Thomas McMahon, Massachusetts Department of Environmental Quality Engineering to Robert Hurley, Grant Gear Works, Incorporated (January 26, 1988). Concerning Grant Gears NPDES permit.
14. "Authorization to Discharge Under the National Pollutant Discharge Elimination System," State Permit No. MA 0029262, EPA Region I and Massachusetts Department of Environmental Quality Engineering (January 29, 1988).
15. Latter from Margaret Sheehan, Massachusetts Office of the Attorney General to Cameron Kerry, Mintz, Levin, Cohn, Ferris Glovsky & Popeo (Attorney for Grant Gear Works, Incorporated) (April 5, 1988). Concerning Grant Gear's application for a waiver from anti-degredation provisions of the Massachusetts Clean Waters Act regulations.
16. Letter from Cameron Kerry, Mintz, Levin, Cohn, Ferris, Glovsky & Popeo (Attorney for Grant Gear Works, Incorporated) to Thomas McMahon, Massachusetts Department of Environmental Quality Engineering (April 15, 1988). Concerning application for anti-degredation variance.
17. Letter from Paul Dekker, Certified Engineering & Testing Company Incorporated to Joanne Robbins, Mintz, Levin, Cohn, Ferris, Glovsky & Popeo (Attorney for Grant Gear Works, Incorporated) (April 15, 1988). Concerning lab results for water samples collected at Grant Gear Works, Incorporated.
18. Letter from Thomas McMahon, Massachusetts Department of Environmental Quality Engineering to Robert Hurley, Grant Gear Works, Incorporated (May 24, 1988). Concerning application for variance to authorize discharges to Meadow Brook.
19. Cross-reference: Letter Report from Charles Martin and Jeffrey Lawson, ERST to Cameron Kerry, Mintz, Levin, Cohn, Ferris, Glovsky & Popeo (Attorney for Grant Gear Works, Incorporated) (June 10, 1988). Concerning summary evaluation of drainage line remedial actions. (Filed and cited as entry number 1 in 4.6 Feasibility Study (FS) Reports.)
20. Letter from Cameron Kerry, Mintz, Levin Cohn, Ferris, Glovsky & Popeo (Attorney for Grant Gear Works, Incorporated) to Thomas McMahon, Massachusetts Department of Environmental Quality Engineering (June 28, 1988). Concerning application for antidegredation variance.
21. Letter from Thomas McMahon, Massachusetts Department of Environmental Quality Engineering to Cameron Kerry, Mintz, Levin, Cohn, Ferris, Glovsky & Popeo (Attorney for Grant Gear Works, Incorporated) (July 18, 1988). Concerning Grant Gear Works' request for extension to provide arguments for variance.
22. Letter from Marian Rambelle and Jeffrey Lawson, ERST to Cameron Kerry, Mitz, Levin, Cohn, Ferris, Glovsky & Popeo (Attorney for Grant Gear Works, Incorporated) (August 12, 1988). Concerning PCB sampling plan at Grant Gear Works property.

23. Letter from Cameron Kerry, Mintz, Levin, Cohn, Ferris, Glovsky & Popeo (Attorney for Grant Gear Works, Incorporated) to Thomas McMahon, Massachusetts Department of Environmental Quality Engineering (August 12, 1988). Concerning Grant Gear's application for anti-degredation variance.
24. Letter from Thomas McMahon, Massachusetts Department of Environmental Quality Engineering to Cameron Kerry, Mitz, Levin, Cohn, Ferris, Glovsky & Popeo (Attorney for Grant Gear Works, Incorporated) (August 26, 1988). Concerning Grant Gear Works' request for variance.
25. Letter from Jane Downing, EPA Region I to Cameron Kerry, Mintz, Levin, Cohn, Ferris, Glovsky & Popeo (Attorney for Grant Gear Works, Incorporated) (August 30, 1988). Concerning review of PCB Sampling Plan at Grant Gear Works Incorporated.
26. Memorandum from Cameron Kerry, Mitz, Levin, Cohn, Ferris, Glovsky & Popeo (Attorney for Grant Gear Works, Incorporated) to Thomas McMahon, Judith Perry, Dale Young, Massachusetts Department of Environmental Quality Engineering; Jane Downing, Richard McAllister, Joan Jouzaitis, EPA Region I; Margaret Sheehan, Office of the Attorney General; Massachusetts Water Authority; Executive Office of Transportation; Commissioner of Public Works; Town of Norwood Board of Selectmen; Metropolitan Area Planning Council; Robert Hurley; John Hurley; Joanne Robbins (August 31, 1988). Concerning Grant Gear Works, Incorporated NPDES permit application.

27. Letter from Cameron Kerry, Mintz, Levin, Cohn, Ferris, Glovsky & Popeo (Attorney for Grant Gear Works, Incorporated to Thomas McMahon, Massachusetts Department of Environmental Quality Engineering (August 31, 1988). Concerning Grant Gear Works request for variance.
28. Letter from Cameron Kerry, Mintz, Levin, Cohn, Ferris, Glovsky & Popeo (Attorney for Grant Gear Works, Incorporated) to Jane Downing, EPA Region I (September 1, 1988). Concerning review of PCB sampling at Grant Gear Incorporated.
29. Letter from Cameron Kerry, Mintz, Levin, Cohn, Ferris, Glovsky & Popeo (Attorney for Grant Gear Works, Incorporated) to Thomas McMahon, Massachusetts Department of Environmental Quality Engineering (September 7, 1988). Concerning application for NPDES permit and antidegredation variance.
30. Letter from Elisabeth Goodman, Massachusetts Department of Public Works to Cameron Kerry, Mitz, Levin, Cohn, Ferris, Glovsky & Popeo (Attorney for Grant Gear Works, Incorporated) (September 13, 1988). Concerning Grant Gear Works' possible permit application to discharge storm drainage into state highway drainage system.
31. Letter from David Fierra, EPA Region I to Robert Hurley, Grant Gear Works, Incorporated (September 30, 1988). Concerning denial of NPDES permit No. MA 0029262.
32. Letter from Cameron Kerry, Mintz, Levin, Cohn, Ferris, Glovsky & Popeo (Attorney for Grant Gear Works, Incorporated) to David Fierra, EPA Region I (October 11, 1988). Concerning NPDES permit No. MA 0029262 denial

33. Letter from David Fierra, EPA Region I to Robert Hurley, Grant Gear Works, Incorporated (November 7, 1988). Concerning Grant Gear, Incorporated, Norwood, Massachusetts NPDES permit application No. MA 0029262 denial.
34. Letter from Cameron Kerry, Mintz, Levin, Cohn, Ferris, Glovsky & Popeo (Attorney for Grant Gear Works, Incorporated) to David Fierra, EPA Region I and William Gaughan. Massachusetts Department of Environmental Quality Engineering (December 30, 1988). Concerning Grant Gear Works, Incorporated and Grant Gear Realty Trust, Docket No. 89-05
35. Letter from Cameron Kerry, Mintz, Levin, Cohn, Ferris, Glovsky & Popeo (Attorney for Grant Gear Works, Incorporated) to David Fierra, EPA Region I, and William Gaughan, Massachusetts Department of Environmental Quality Engineering (January 6, 1989). Concerning transmittal of attached "Revised Sampling Plan," ENSR Consulting and Engineering (January 3, 1989).
36. Letter from Robert Chrusciel, Norwood Engineering Company, Incorporated to Robert Hurley, Grant Gear Works, Incorporated (January 18, 1989). Concerning roof drainage study.
37. Letter from Cameron Kerry, Mintz, Levin, Cohn, Ferris, Glovsky & Popeo (Attorney for Grant Gear Works, Incorporated) to David Fierra, EPA Region I, and William Gaughan, Massachusetts Department of Environmental Quality Engineering (January 20, 1989). Concerning Grant Gear Works, Incorporated and Grant Gear Realty Trust, Docket No. 89-05.
38. Letter from Cameron Kerry, Mintz, Levin, Cohn, Ferris, Glovsky & Popeo (Attorney for Grant Gear Works, Incorporated) to John Healey, EPA Region I (February 1, 1989). Concerning approval of sampling plan.
39. Letter from Cameron Kerry, Mintz, Levin, Cohn, Ferris, Glovsky & Popeo (Attorney for Grant Gear Works, Incorporated) to David Fierra, EPA Region I (February 14, 1989). Concerning sampling plan.
40. Letter from Cameron Kerry, Mintz, Levin, Cohn, Ferris, Glovsky & Popeo (Attorney for Grant Gear Works, Incorporated) to David Fierra, EPA Region I, and William Gaughan, Massachusetts Department of Environmental Quality Engineering (March 21, 1989). Concerning stormwater sampling.
41. Letter from Cameron Kerry, Mintz, Levin, Cohn, Ferris, Glovsky & Popeo (Attorney for Grant Gear Works, Incorporated) to David Fierra, EPA Region I and William Gaughan Massachusetts Department of Environmental Quality Engineering (April 4, 1989). Concerning progress on sediment and stormwater sampling.
42. Letter from Dianne Chabot, Mintz, Levin, Cohn, Ferris, Glovsky & Popeo (Attorney for Grant Gear Works, Incorporated) to David Fierra, EPA Region I, and William Gaughan, Massachusetts Department of Environmental Quality Engineering (May 19, 1989). Concerning progress report.
43. Letter from Dianne Chabot, Mintz, Levin, Cohn, Ferris, Glovsky & Popeo (Attorney for Grant Gear Works, Incorporated) to David Fierra. EPA Region I and William Gaughan. Massachusetts Department of Environmental Quality Engineering (June 15, 1989). Concerning Administrative Order Docket No. 89-05.

44. Letter from Cameron Kerry, Mintz, Levin, Cohn, Ferris, Glovsky & Popeo (Attorney for Grant Gear Works, Incorporated) to David Fierra, EPA Region I and William Gaughan, Massachusetts Department of Environmental Quality Engineering (June 29, 1989). Concerning availability of Grant Gear's draft report required by Administrative Order.
45. Letter from Mark Stein, EPA Region I to Cameron Kerry, Mintz, Levin, Cohn, Ferris, Glovsky & Popeo (Attorney for Grant Gear Works, Incorporated) (July 5, 1989). Concerning Grant Gear Works, Incorporated Clean Water Act Administrative Order No. 89-05
46. Letter from Dianne Chabot, Mintz, Levin, Cohn, Ferris, Glovsky & Popeo (Attorney for Grant Gear Works, Incorporated) to David Fierra, EPA Region I and William Gaughan, Massachusetts Department of Environmental Quality Engineering (July 19, 1989). Concerning Administrative Order No. 89-05.
47. Cross-reference: Letter from Cameron Kerry, Mintz, Levin, Cohn, Ferris, Glovsky & Popeo (Attorney for Grant Gear Works, Incorporated) to David Fierra, EPA Region I, and William Gaughan, Massachusetts Department of Environmental Quality Engineering (August 24, 1989). Concerning transmittal of "Evaluation of Discharge Options for the Grant Gear Site," ENSR Consulting and Engineering (August 1989). (Field and cited as entry number 1 in 4.1 Correspondence.)

13.0 COMMUNITY RELATIONS

13.2 Community Relations Plans

1. "Interim Final Draft Community Relations Plan, Norwood PCB Site." ICF Incorporated for Ebasco Services Incorporated (June 1988).
2. "Final Community Relations Plan for the Norwood PCB Site," ICF Incorporated for Ebasco Services Incorporated (September 1989).

13.3 New Clippings/Press Releases

1. "Senator Kennedy Announces Director of Centers for Disease Control to Visit Norwood, Massachusetts," Office of Senator Edward M. Kennedy of Massachusetts (June 23, 1983).
2. Bellotti and DEQE Negotiate for Private Study of PCB Site. EPA Region I (August 29, 1985).
3. "DEQE Announces Interim Measure at Norwood PCB Site." EPA Region I (December 9, 1985).
4. "The Environmental Protection Agency Will Hold a Public Meeting to Discuss Current Work in Progress at the Norwood Superfund Site in Norwood, Massachusetts," Environmental News - EPA Region I (March 3, 1987).
5. "EPA Announces Public Meeting to Explain Results of the Remedial Investigation and Endangerment Assessment for the Norwood PCB Superfund Site," Environmental News - EPA Region I (June 8, 1989).
6. "Public Meeting to Explain Proposed Cleanup Plan for the Norwood PCB Superfund Site," Environmental News - EPA Region I (August 3, 1989).
7. "United States Environmental Protection Agency Invites Public

Comments on the Feasibility Study and Proposed Plan for the Norwood PCB site in Norwood, Massachusetts and Announces the Availability of the Site Administrative Record," The Patriot Ledger - Quincy, Massachusetts (August 4, 1989).

8. "United States Environmental Protection Agency Invites Public Comments on the Feasibility Study and Proposed Plan for the Norwood PCB site in Norwood, Massachusetts and Announces The Availability of the Site Administrative Record," The Daily Transcript - Dedham, Massachusetts (August 9, 1989).
9. Media Advisory, Environmental News - EPA Region I (August 18, 1989). Concerning announcement of public hearing to accept oral comments on the cleanup alternatives for Norwood PCB site.

13.4 Public-Meetings

1. Meeting Notes, October 23, 1984 Norwood Board of Selectmen's meeting on the Norwood PCB site.
2. "Hazard Assessment, Norwood PCB Site, Norwood, Massachusetts," Public meeting for the Norwood PCB site, EPA Region I (March 1988).
3. EPA Region I Meeting Notes, Norwood Community Workgroup meeting for the Norwood PCB site (April 24, 1989). Concerning purpose of the community work group and discussions on information EPA could provide to citizens.

13.5 Fact Sheets

1. Cross-reference: Notice from Bartley King, Norwood Board of Health, and John Carroll, Norwood Board of Selectmen to residents of the Meadow Brook area (June 28, 1983). (Field and cited as entry number 1 in 3.1 Correspondence.)
2. Cross-reference: Notice from Bartley King, Norwood Board of Health, and John Carroll, Norwood Board of Selectmen to residents of the Meadow Brook area (June 29, 1983). Concerning analysis of soil samples. (Filed and cited as entry number 2 in 3.1 Correspondence.)
3. "EPA Sampling Activities Begin at Norwood PCB Site," Superfund Program Fact Sheet, EPA Region I (November 1987).
4. "EPA Completes Field Investigation at the Norwood PCB Site," Superfund Program Information Updated, EPA Region I (November 1988).
5. "EPA Announces the Results of the Remedial Investigation and Endangerment Assessment," Superfund Program Fact Sheet, Norwood PCB Site, EPA Region I (June 1989).

14.0 CONGRESSIONAL RELATIONS

14.1 Correspondence

1. Letter from Michael R. Deland, EPA Region I to Honorable John J. Moakley, United States House of Representatives (July 13, 1983). Concerning response to letter dated June 22, 1983 regarding the discovery of PCB contamination in Norwood, Massachusetts.

2. Cross-reference: Statement of Robert J. Hurley, Grant Gear Works, Incorporated, before the Committee on Judiciary, United States Senate (June 10, 1985). (Filed and cited as entry number 5 in 11-12 PRP-Related Documents.)
3. Cross-reference: Letter from Nicholas Mavroules, Member of Congress, Subcommittee on General Oversight and the Economy, and Charles Stenholm, Member to Congress, Subcommittee on Energy, Environment and Safety, United States House of Representatives to Robert J. Hurley, Grant Gear Works, Incorporated (July 1, 1985). (Filed and cited as entry number 7 in 11.12 PRP-Related Documents.)
4. Cross-reference: Statement of Robert J. Hurley, Grant Gear Works, Incorporated, before the Committee on Small Business, Subcommittees on General Oversight and the Economy, and Energy, Environment and Safety, United States House of Representatives (July 15, 1985). (Filed and cited as entry number 8 in 11.12 PRP-Related Documents.)
5. Meeting Notes, Jane Downing, EPA Region I and Edward M. Kennedy, Member of the United States Senate, Michael Deland EPA Region I, John Caroll, Norwood Town Manager, Daniel Greenbaum, Massachusetts Department of Environmental Quality Engineering, and Massachusetts Department of Public Heath Staff (April 5, 1989). Concerning Town of Norwood's concerns about clean-up and flood control project.
6. Letter from Edward M. Kennedy, Member of the United States Senate to Michael Deland, EPA Region I (May 3, 1989). Concerning discussions at meeting with Town of Norwood official about cleanup.

16.0 NATURAL RESOURCE TRUSTEE

16.1 Correspondence

1. Letter from Gordon E. Beckett, United States Department of the Interior Fish and Wildlife Service to John C. Keane, EPA Region I (September 14, 1987). Concerning receipt of Trust Notification Form for the Norwood PCB site.
2. Letter from Kenneth Finkelstein, National Oceanic and Atmospheric Administration to Jane Downing, EPA Region I (September 20, 1989). Concerning PCB sediment criterion.

16.4 Trustee Notification Form and Selection Guide

1. Letter from Merrill S. Hohman, EPA Region I to William Patterson, Department of the Interior (August 19, 1987). Concerning EPA documentation of release or threatened release of hazardous substances, pollutants or contaminants at Norwood PCB site.

16.5 Technical Issue Papers

1. "A Discussion of PCB Target Levels in Aquatic Sediments," National Oceanic and Atmospheric Administration and EVS Consultants, Incorporated (January 8, 1988).

17.0 SITE MANAGEMENT RECORDS

17.4 Site Photographs/Maps

The Record cited in entry number 1 may be reviewed, by appointment only, at EPA Region I, Boston, Massachusetts.

1. "Site Analysis - Norwood PCB Site," EPIC (April 1984).

17.7 Reference Documents

1. "Site Investigation, Grant Gear Incorporated, Norwood, Massachusetts," E.C. Jordan Company (June 1983).
2. "Kerry Place Norwood, Lot #1 Report of On Site Investigation of Possible Chemical Contamination," WEB Engineering Associates. Incorporated (January 20, 1984).
3. "Kerry Place Norwood, Lot #2 Report of On Site Investigation of Possible Chemical Contamination," WEB Engineering Associates, Incorporated (January 20, 1984).
4. "Kerry Place Norwood, Lot #3 Report of On Site Investigation of Possible Chemical Contamination," WEB Engineering Associates, Incorporated (January 20, 1984).
5. "Kerry Place Norwood, Lot #4 Report of On Site Investigation of Possible Chemical Contamination," WEB Engineering Associates. Incorporated (January 20, 1984).
6. "Kerry Place Norwood, Lot #5a Report of On Site Investigation of Possible Chemical Contamination," WEB Engineering Associates, Incorporated (January 20, 1984).

17.8 State and Local Technical Records

1. Letter from James C. Colman, Massachusetts Department of Environmental Quality Engineering to John J. Carroll, Norwood Town Manager (October 31, 1985). Concerning understanding between Division of Solid and Hazardous Waste and the Division of Waterways in the meeting held in the Division's Boston office.
2. Letter from James C. Colman, Massachusetts Department of Environmental Quality Engineering to John Hannon, Division of Waterways (January 15, 1986). Concerning response action to levels of contaminants found in the water and sediments of Meadow Brook.
3. Certificate of the Secretary of Environmental Affairs on the Environmental Notification Form, Massachusetts Office of Environmental Affairs (May 9, 1986).
4. Property Location Plan, Meadow Brook Improvement Project, Norwood, Massachusetts (July 1986).
5. Public Notice, Department of the Army, New England Division, Corps of Engineers (January 22, 1987).

18.0 INITIAL REMEDIAL MEASURE (IRM) RECORDS

18.1 Correspondence

1. Letter from Cameron Kerry, Mintz, Levin, Cohn, Ferris, Glovsky & Popeo (Attorney for Grant Gear Works, Incorporated) to Susan Bernard, Massachusetts Office of the Attorney General (August 19, 1985). Concerning GZA study.
2. Letter from Cameron Kerry, Mintz, Levin, Cohn, Ferris, Glovsky & Popeo (Attorney for Grant Gear Works, Incorporated) to Susan Bernard, Massachusetts Office of the Attorney General (August 23, 1985). Concerning GZA study.
3. Letter from Robert Hurley, Grant Gear Works, Incorporated to James Colman, Massachusetts Department of Environmental Quality Engineering (September 10, 1985). Concerning GZA study.
4. Letter from William F. Cass, Massachusetts Department of Environmental Quality Engineering to Merrill S. Hohman, EPA Region I (October 11, 1985). Concerning request for transfer of responsibility for managing remedial activities at Norwood to Massachusetts Department of Environmental Quality Engineering.
5. Letter from James C. Colman, Massachusetts Department of Environmental Quality Engineering to Heather Ford, EPA Region I (December 11, 1985). Concerning DEQE belief that an Initial Remedial Measure (IRM) should be implemented at Norwood site.
6. Letter from James C. Colman, Massachusetts Department of Environmental Quality Engineering to Robert S. Sanoff, Foley Hoag & Eliot (Attorney for Cornell-Dubilier Electronics, Incorporated) (January 15, 1986). Concerning Initial Remedial Measure (IRM).

SECTION II

GUIDANCE DOCUMENTS

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

General EPA Guidance Documents

1. "Appendix D - Protection of Wetlands: Executive Order 11990," 42 Federal Register 26961 (1977)/

2. Memorandum from John W. Lyon toxic Substance Division, USEPA to Sanford W. Harvey, Jr., Enforcement Division, EPA Region IV (August 3, 1979). Concerning applicability of PCB regulations to spills which occurred prior to the effective date of the 1978 regulation.

3. U.S. Environmental Protection Agency. Office of Emergency and Remedial Response. Community Relations in Superfund: A Handbook (Interim Version) (EPA/540/G-88/002), June 1988.

4. U.S. Environmental Protection Agency. Office of Emergency and Remedial Response. Guidance for Conducting Remedial Investigations and Feasibility Studies Under CERCLA (EPA/540/G-89/004) (OSWER Directive 9355.3-01) October 1988.

5. "National Oil and Hazardous Substances Pollution Contingency Plan," Code of Federal Regulations (Title 40, Part 300), 1985.

6. U.S. Environmental Protection Agency. Office of Emergency and Remedial Response. Superfund Remedial Design and Remedial Action Guidance (OSWER Directive 9355.0-4A), June 1986.

7. U.S. Environmental Protection Agency. Office of Research and Development. Hazardous Waste Engineering Research Laboratory. Handbook for Stabilization/Solidification of Hazardous Wastes (EPA/540/2-86/001), June 1986.

8. Comprehensive Environmental Response, Compensation, and Liability Act of 1980, amended October 17, 1986.

9. U.S. Environmental Protection Agency. Office of Emergency and Remedial Response. Superfund Public Health Evaluation Manual (OSWER Directive 9285.4-1), October 1986.

10. U.S. Environmental Protection Agency. Office of Solid Waste and Emergency Response. Interim Guidance on Superfund Selection of Remedy (OSWER Directive 9355.0-19), December 24, 1986.

11. U.S. Environmental Protection Agency. Office of Solid Waste and Emergency Response. Data Quality Objectives for Remedial Response Activities: Development Process (EPA/540/G-87/003), March 1987.

12. "Part 761 - Polychlorinated Biphenyls (PCBs) Manufacturing, Processing, Distribution in Commerce, and Use Prohibits," Code of Federal Regulations (40 CFR Part 761), 1987.

13. Memorandum from J. Winston Porter to Addresses ("Regional Administrators, Region I-X; Regional Counsel, Regions I-X; Director, Waste Management Division, Regions I, IV, V, VII, and VIII; Director, Emergency and Remedial Response Division, Region II; Director Hazardous Waste Management Division, Regions III and VI; Director Toxics and Waste Management Division, Region IX; Director, Hazardous Waste Division, Region X; Environmental Services Division Directors, Region I, VI, and VII"), (July 9, 1987). Concerning interim guidance on compliance with applicable or relevant and appropriate requirements.

14. U.S. Environmental Protection Agency. Office of Health and Environmental Assessed. A Compendium of Technologies Used in the Treatment of Hazardous Waste (EPA/625/8-87/014), September 1987.

15. Memorandum from Denise M. Keehner, Chemical Regulation Branch, USEPA to Bill Hanson, Site Policy and Guidance Branch, USEPA (October 14, 1987). Concerning comments on the PCB Contamination-Regulatory and Policy Background Memorandum.

16. "Guidelines for PCB Levels in the Environment," The Hazardous Waste Consultant, pp. 26-32 (January/February 1988.)

17. Memorandum from Christopher Zarba, USEPA to Jane Downing, EPA Region I (April 11, 1988). Concerning the application of interim sediment criteria values at Sullivan's Ledge Superfund Site.

18. U.S. Environmental Protection Agency. Office of Emergency and Remedial Response. Draft Guidance on Remedial Actions for Contaminated Groundwater at Superfund Sites (OSWER Directive 9283.1-1), April 1988.

19. "Supplemental Risk Assessment Guidance for the Superfund Program, EPA Region I (June 1989).

20. "Summary of the Requirements: Land Disposal Restrictions Rute," EPA Region I.

Norwood PCB NPL Site-Specific Guidance Documents

1. U.S. Environmental Protection Agency. Office of Health and Environmental Assessment. Development of Advisory levels of Polychlorinated Biphenyls (PCBs) Cleanup (OHEA-E-187), May 1986.

2. "Project Summary: PCB Sediment Decontamination - Technical/Economic Assessment of Selected Alternative Treatments." Ben H. Carpenter, EPA Region V (March 1987).

3. "PCB Spill Cleanup Policy," (40 CFR Part 761), Federal Register (April 2, 1987).

4. "Sediment Quality Values Refinement: 1988 Update and Evaluation of Puget Sound AET," PTI Environmental Services for Tetra Tech, Incorporated (September 1988).

5. Letter from Lanny D. Weirner, Resources Conservation Company to Angelo L. Massullo, ICF Technology, Incorporated (December 16, 1988). Concerning technical paper entitled "Basic Extractive Sludge Treatment (B.E.S.T.)* - Demonstrated Available Technology."

6. "PCB Sediment Decontamination Processes Selection for Test and Evaluation," Ben H. Carpenter, Engineering Research Applications, and Donald L. Wilson, EPA Region V (1988).

7. "Evaluation of the B.E.S.T.* Solvent Extraction Sludge Treatment Technology Twenty-Four Hour Test," Gerard W. Sudell, Enviresponse, Incorporated.

ATTACHMENT B

RECORD OF DECISION AMENDMENT
NORWOOD PCB SUPERFUND SITE
RESPONSIVENESS SUMMARY

This Responsiveness Summary documents public comments regarding the proposed amendment to the 1989 Record of Decision (ROD) expressed during the public comment period. The summary also documents EPA's responses to the comments that were received. The public comment period for the amendment to the 1989 ROD for the Norwood PCB Superfund Site began on February 22 and ended on March 22, 1996. EPA held an official Public Hearing on March 6, 1996 at 7:30 p.m. at Memorial Hall in the Norwood Town Hall to accept oral comments on this proposed amendment ot the 1989 ROD. Four oral comments were received at the public hearing. Written comments were also accepted. EPA received five written comment letters. The comments and responses are summarized below:

Part I - Comments by Local Officials

1. One Town of Norwood Selectman and the Town's Board of Health asked about whose responsibility it would be for future maintenance and repair of the asphalt cap. These officials were concerned that, if EPA would not retain responsibility for maintenance and repair of the cap, there would not be enforcement power to ensure the future integrity of the cap. The Selectman was also concerned that the Town would be expected to maintain and repair the cap.

EPA Response: These are several means by which long-term operation and maintenance may be performed. First, if the remedy in performed by private parties, those parties would be required to assume the obligation as part of an enforceable consent decree. Second, a future redeveloper may undertake the obligation as part of acquisition and redevelopment of the property. Finally, at sites where no private party is available to perform long-term operation and maintenance the National Contingency Plan provides that states perform this obligation.

2. The Town Selectman expressed confusion and frustration at the change in cleanup levels and asked whether EPA has now changed its opinion regarding the dangers posed by the Site based solely on cost considerations.

EPA Response: Human health risk assessment is a relatively "young" science. As such, substantial progress has been made over the past several years and risk assessment methods, assumptions, and techniques have been refined during that time. When EPA decided to take a fresh look at the remedy at the Site, it decided that the cleanup levels should also be re-examined based upon advances in risk assessment. The revised cleanup levels being adopted are a result of this re-examination. Also, more current assumptions regarding future use of the Site were incorporated into the re-examination. By using exposure assumptions which better reflect the expected future use of the Site, more appropriate cleanup levels are derived. Furthermore, EPA's regulations governing the cleanup of Superfund Sites, the National Contingency Plan (NCP), specifies an "acceptable risk range" which is used to determine the need for action and, if action is required, to determine the extent to which cleanup should be conducted. This acceptable risk range represents the probability of cancer occurring in individuals exposed at a hazardous waste site and spans a 10-4 to 10-6 risk. The revised cleanup levels for the Norwood Site are roughly at the midpoint of this risk range. The newly proposed cleanup levels are also generally consistent with cleanup levels that would be derived under the Commonwealth's "Massachusetts Contingency Plan", Chapter 21E program, were this a state site rather than a federal site. EPA still believes that the

contamination at the Site poses a serious health threat if left unaddressed. EPA also believes that the amended remedy will adequately address this threat and result in a remedy that protects human health and the environment. Regarding cost issues, see response to Comment No. 40.

3. The Town's Board of Health expressed concern about the depth of the cap. The Board also stated that this concern is even more relevant if high levels of contamination are capped on Site.

EPA Response: The primary threats posed by PCBs at the Site are from direct exposure (touching) or by incidental ingestion (accidental eating). EPA believes that the asphalt cap proposed is of sufficient thickness to serve as an adequate barrier from these threats. Furthermore, the cap will be designed to resist cracking and to minimize maintenance. Also, at a minimum, the entire cap and cover will be inspected annually for wear, cracks, or other damage, and all necessary repairs will be conducted in a timely manner. The cap and cover will also include a geotextile fabric which, in addition to providing additional stability to the cap and cover, will serve as an additional barrier between the cap and the underlying soils.

Part II - Citizen Comments

4. One citizen expressed concern about EPA's ability to assure future monitoring and inspections of the cap. This citizen also stated that this cleanup should include removal of dirt and the proposed remedy was not adequate.

EPA Response: See response to Comments No. 1 and No. 2 in Part I above.

5. Two citizens expressed frustration with the slow pace of the cleanup.

EPA Response: The national average for Superfund cleanups from the date a site is first listed on the National Priorities List (NPL) to the date when construction activities are completed is 12 to 14 years. The Norwood PCB Superfund Site was listed on the NPL in 1986; hence, 10 years has elapsed. Elapsed time notwithstanding, EPA believes that the amended selected remedy can be completed quickly and with limited difficulty. It is expected that all constructions activities associated with this amended selected remedy will be completed by 1997.

6. One citizen asked for the total amount spent by the government at this Site to date and how much of that will be recouped.

EPA Response: As of March 1996, the date of EPA's most recent cost summary, EPA has incurred approximately $18.7 million relative to the investigation, study, planning, enforcement, and cleanup of the Norwood PCB Superfund Site. Approximately $2 million has been collected from current and prior owners of the property. EPA has filed a lawsuit in federal court against other former owners and operators of the property to recoup additional response costs (see Site History and Enforcement Activities section in the ROD Amendment).

7. One citizen expressed support of the plan to demolish the building and cap the Site.

EPA Response: No response required.

8. One citizen expressed concern about Meadow Brook and future flooding of the Brook and expressed a desire to see the Brook remediated.

EPA Response: The amended selected remedy remains consistent with the 1989 ROD which addresses cleanup of contaminated sediment in Meadow Brook. Furthermore, as stated in the 1989 ROD, after excavation of the Brook, it will be restored in a manner consistent with the Town's Meadow Brook Flood Control Project.

9. One citizen expressed concern that the Town was running out of developable land and that the remedy should allow future redevelopment of this Site.

EPA Response: The cap will be constructed in a manner which will allow its use and will allow flexibility for the placement of new structures on the property, even in areas slated for capping. The cap design may also include the placement of "clean utility corridors" to further enhance redevelopment potential as well as protectiveness of the capping remedy. See also, responses to Comment Nos. 35 through 37 and No. 44, below.

10. One citizen discussed the dangers of PCBs and their accumulation in fat cells of mammals. This commenter stated disagreement with any opinions stating that PCBs do not pose a health risk.

EPA Response: EPA has never contended that PCBs do not pose a health threat. PCBs are a group of manmade chemicals that contain 209 different compound with varying harmful effects. EPA considers PCBs probable human carcinogens, based on sufficient evidence of carcinogenicity in animals. In addition, noncarcinogenic adverse effects have been noted in humans or animals exposed to varying PCB mixtures in the following biological systems;

- skin
- gastrointestinal
- liver
- neurological
- blood
- endocrine
- reproductive
- muscular
- immunological
- developmental

Potential adverse health effects from PCBs have been evaluated in the human health risk assessment for this Site.

11. One citizen stated that a "cosmetic cap" cannot assure that natural forces will not leach pollutants into the community's water supplies and stated a preference for more thorough cleanup.

EPA Response: The cap is not merely "cosmetic." See Section VII.B.4. of the ROD Amendment for a discussion of the components of the cap and cover. Also see section XI of the ROD Amendment for a discussion of how the amended selected remedy is protective of human health and environment.

The Site does not present any threat to local water supplies. Groundwater underlying the Site discharges to the adjacent Meadow Brook. The groundwater treatment plant which recently began operation at the Site serves to intercept contaminated groundwater flowing in the direction of Meadow Brook, extracts it from the aquifer and treats the contamination prior to discharge. Use restrictions on the Site prohibit the extraction of groundwater underlying the Site for drinking water use. Therefore, EPA believes that this remedy will protect against direct contact with contamination as well as the spread of contamination in the future.

Part III - Potentially Responsible Party Comments

Comments by GZA GeoEnvironmental, Inc. on behalf of Cooper Industries, Inc., Cornell Dubilier Electronics, Inc., and Federal Pacific Electric Company

12. These PRTs supported the general thrust of EPA's proposed amended cleanup plan based upon its cost-effectiveness, implementability, and protectiveness.

EPA Response: No response required.

13. These PRPs do not believe that polynuclear aromatic hydrocarbons (PAHs) should be considered Site-related chemicals of concern.

EPA Response: EPA reviewed the statistical evaluation provided by GZA and Cambridge Environmental, Inc. (CED) and determined that the available information did not support the conclusion that the PAH contamination at the Site was due to highway traffic. See February 1, 1996 memorandum from Kenneth W. Brown Director of EPA's Technology Support Center, included in the Administrative Record for this ROD Amendment. While EPA still considers PAHs potential contaminants of concern at the Site, no specific cleanup levels have been set for these compounds. Since the highest concentrations of PAHs are expected to be removed during excavation of sediments in and adjacent to Meadow Brook as apart of the amended ROD, the risks associated with these compounds should be reduced to protective levels.

14. These PRPs pointed out that the figure provided as part of the Proposed Amended Cleanup Plan, the "Conceptual Outline of Soil Clean-up Levels and Extent of Cap" is intended to delineate areas where cleanup levels apply rather than areas proposed for excavation.

EPA Response: This comment is correct. The figure provided in the Proposed Amended Cleanup Plan and included as a figure in the ROD Amendment delineates general areas where specific cleanup levels will apply and is expected to be broader than the actual area or areas requiring excavation.

15. These PRPs contend that there is no clear basis for the 1 ppm cleanup criterion of Meadow Brook. The PRPs contend that a PCB cleanup level of 10 ppm would be protective for Meadow Brook.

EPA Response: The 1 ppm clean-up level established in the 1989 ROD and the ROD Amendment is based upon the calculation of a sediment concentration using Site-specific total organic carbon (TOC) data that would be protective of aquatic life using the sediment quality criteria approach. This method is outlined in "Technical Basis for Deriving Sediment Quality Criteria for Non-ionic Organic Contaminants for the Protection of Benthic Organisms Using Equilibrium Partitioning, EPA-822-R-93-011". This methodology is appropriate for Meadow Brook, classified by the Commonwealth of Massachusetts as a Class B water which shall be capable of supporting aquatic life.

16. These PRPs state that if the Brook sediments are excavated to accommodate the Brook cross-section as set forth in the Town's Meadow Brook Flood Control Project (MBFCP), a 1 ppm sediment cleanup level would not be warranted since the flood control project provides for restored bottom and slope materials.

EPA Response: EPA believes that it is acceptable to leave some contaminated materials in the Brook so long as these materials are adequately covered by restored bottom and slope materials planned for as part of the MBFCP. Were the MBFCP not planned, EPA would require excavation of all soils and sediments exceeding the 1 ppm criterion in the Brook. EPA believes that it is more cost-effective and more easily implementable to excavate all soils and sediment necessary to meet the restored MBFCP contour rather than excavate a limited amount of material, conduct extensive sampling to determine areas requiring additional excavation, and repeat this process several times. Achievement of the 1 ppm cleanup level

throughout the Brook could prove difficult and could require multiple excavations in portions of the Brook, and could extend far deeper that the contour being proposed by the MBFCP. See also response to Comment No. 17, below.

17. In reference to the restoration of Meadow Brook, these PRPs stated that the purpose and the scope of the remedy should be to satisfy CERCLA criteria, not promote public works projects.

EPA Response: Excavation of the Brook, and restoration consistent with the MBFCP, is consistent with the remedial objectives of CERCLA. It ensures the protectiveness of the remedy to ecological receptors in a more cost-effective and easily implementable manner that complete excavation to 1 ppm PCBs. The MBFCP also ensures the proper drainage of surface waters through the Site, which is essential considering that, at the completion of remedial activities, wastes will remain in place on-Site. See also response to Comment No. 16, above, and Section VII.B.3 of the ROD Amendment, Soils and Sediment in Meadow Brook and its Banks.

18. These PRPs contend that EPA provided no basis for its 10 ppm PCB cleanup criteria of the wooded areas adjacent to Meadow Brook. They state that their contractor CEI derived a cleanup level of 50 ppm for surficial soils in this area. The PRPs agreed that the proposed 50 ppm cleanup level of subsurface soils in this area should be adequate, although they do not anticipate contact with subsurface soils. The PRPs state that the 10 ppm surficial cleanup level is too conservative and unnecessary and will destroy more of the buffer of trees located along the northern edge of the Brook.

EPA Response: The 10 ppm PCB cleanup level for this area was based upon EPA's recalculation of the risk assessment considering the current land use and a reasonable future use for this area. The exposed individual was assumed to be an older child (age 6-16) who might frequent this are 3 days per week for 6 moths per year. The 10 ppm cleanup level for PCBs represents a 5 x 10-6 cancer risk level for this receptor. In addition, this cleanup level is set at 10 ppm in order to be protective of aquatic life in the Brook should soils from this area erode into the Brook. Notwithstanding, restoration of this area and of Meadow Brook should be done in such a way as to minimize any erosion from this area since soils exceeding the Brook cleanup level of 1 ppm PCBs may still remain in place in this wooded area. EPA does not believe that the overall extent of excavation will be increased dramatically by selecting a 10 ppm cleanup level for surficial soils rather than 50 ppm. Conversely, by increasing this cleanup level to 10 ppm from 1 ppm as set forth in the 1989 ROD, the volume of contaminated soils, and the areal extent of the wooded area which must be disturbed are greatly reduced, retaining much of the wooded buffer north of the Brook. Regarding the cleanup level for subsurface soils in this wooded area, EPA believes that a cleanup level for these soils is proper. The 50 ppm cleanup level set for this area is based upon a construction exposure scenario since sewer lines run adjacent to the Brook in this area which could require repair or replacement in the future.

19. These PRPs state their belief that a reduction in the size of the cap would further enhance the property's redevelopment potential.

EPA Response: While EPA does anticipate that the actual capped area on the Grant Gear property will be minimized to encourage development of the parcel, EPA does not believe that the areal extent of the cap is the only consideration for development potential. The final cap design must ensure that slopes of the capped area do not make this area unusable for parking or for construction of new structures in this area. Furthermore, adequate drainage must be installed to ensure that the capped area drains stormwater properly and does not merely divert this water to other portions of the property which are now unpaved (since these areas will likely be included in any future development plans). However, EPA notes

that cap design issues, such as proper drainage and slope, are essential to ensure the long-term effectiveness and permanence and overall protectiveness of the cap, future Site development notwithstanding.

20. These PRPs state that the cap design should account for differences between areas of contaminated soils and the contaminated building slab.

EPA Response: EPA agrees with this comment. Although not specifically discussed in the Proposed Amended Cleanup Plan, EPA contemplates that the cap design over the areas of the most heavily contaminated soils will be more substantial than the cap to be placed over the building slab, provided that no contaminated soils are consolidated onto the slab.

21. These PRPs recommended that the cap be graded with a gentle slope and designed such that runoff from the property will sheet flow to adjacent vegetated areas or to the street.

EPA Response: These issues are largely design issues which will be addressed when the plans and specifications for the cap are prepared. As discussed in response to Comment No. 10 above, the cap should be designed with a gentle slope to ensure its long-term effectiveness and permanence and suitability for future development of the property; also, adequate drainage should be included as part of the cap design and construction. However, EPA believes that it may not be appropriate to design the cap to merely shed stormwater to adjacent areas or to the street. Drainage from the capped area(s) should be designed consistent with state and local codes, standard practices, and applicable or relevant and appropriate requirements ("ARARs").

22. These PRPs recommended that the feasibility and cost-effectiveness of decontamination approaches to some demolition debris be examined. These PRPs contend that selective decontamination and salvaging of specific building media, such as structural steel beams, may be feasible and cost-effective.

EPA Response: EPA will not preclude the analysis of the feasibility and cost-effectiveness of selective decontamination of certain building demolition debris. Debris from the demolition will be handled in the most protective, implementable, and cost-effective manner. Specifically addressing the issue of the structural steel beams, it appears that due to contamination by PCBs and high levels of lead due to the presence of lead-based paint on the surface of these beams, disposal, rather than decontamination and salvaging of this steel, is the most cost-effective solution. However, EPA will not preclude re-examination of this issue should other parties assume responsibility for conducting the cleanup, and demonstrate its cost-effectiveness.

23. These PRPs requested clarification of issues relating to EPA's proposal to dispose of building debris under the cap: whether the cap can accommodate the debris, whether the subgrade boiler room is available for disposal of these materials, and what wastes are involved.

EPA Response: EPA plans to use the "basement" portion of the Grant Gear building for consolidation of TSCA regulated demolition debris. Materials which may cause settling or other difficulties for on-Site disposal in this area may be excluded from disposal in this basement area. Materials which would be considered hazardous wastes under the federal RCRA regulations would be precluded from on-Site disposal. Asbestos containing materials may only be disposed of in this on-Site area if allowed by federal and state regulations. Certain building materials are not expected to contain regulated levels of contamination. These materials, namely certain concrete block and brick debris, may be usable as a portion of the

sub-base of the cap to be constructed as part of the remedy. Once the basement area of the building is filled with contaminated debris, voids should be filled to avoid settling and the entire area should be sealed with concrete (matching the surface of this area with the existing building slab). This area will then be placed under the cap which will cover the building slab.

24. These PRPs conceptually support the plan to demolish the building. However, these PRPs contend that the cost difference between demolition of the structure and decontamination and continued use of the structure should not be considered a CERCLA cost but a cost to improve the property for development purposes.

EPA Response: EPA believes that demolition of the building is the appropriate CERCLA response. Demolition of the Grant Gear building is a more permanent and more readily implementable remedy. Based upon cost estimates set forth in the Proposed Amended Cleanup Plan and the ROD Amendment, the capital costs for demolition and decontamination are essentially equal (approximately $200,000 difference). These costs do not take into account future expenses which would be required for maintenance or repair of areas which would need to be encapsulated under the decontamination alternative or future monitoring to ensure success of the decontamination effort. The decontamination cost estimate also does not include any costs associated with future remedial costs (i.e., ultimate demolition of the building) which may need to be incurred if the building is allowed to remain standing under this remedial action. Overall, EPA believes that the demolition of the Grant Gear building represents a better overall balance of the nine CERCLA criteria for remedy selection that the decontamination alternative. Therefore, EPA considers all costs to be incurred relative to the demolition of the building to be CERCLA costs.

25. These PRPs recommended placing contaminated from inside the Grant Gear building in the subgrade boiler room area of the building.

EPA Response: EPA concurs with this recommendation. It appears that these machines/ equipment cannot be recycled in compliance with TSCA due to the levels of PCBs on their surfaces and, therefore, would require disposal. These machines/equipment may be disposed of in the "basement" area of the Grant Gear building along with other debris from the demolition of the building. Prior to disposal of these items, it may be necessary to drain any liquids from reservoirs inside certain machines and ensure that these machines/equipment are not otherwise unsuitable for disposal on-Site.

26. These PRPs asked whether more than one "hot spot" exists.

EPA Response: EPA does not believe that a second "hot spot" like the one discussed in the Proposed Amended Cleanup Plan exists. The "hot spot" discussed in that Plan is believed to be in the general vicinity of soil boring SS-012.

27. These PRPs requested additional information regarding the "hot spot" excavation of chlorinated organic compounds, including information about contaminants, volume estimates and disposal options.

EPA Response: EPA anticipates that this "hot spot" excavation will entail the excavation of saturated soils from an area west of the Grant Gear building (located near soil boring SS-012) to a cleanup level of 97 ppm 1,2,4-trichlorobenzene. This material should be characterized to determine if it would be considered hazardous waste under RCRA and disposed of at an appropriate off-Site facility if it is a hazardous waste. If it can be demonstrated that on-Site disposal of this material will not pose a threat due to volatile and semi-volatile contaminants and that it would not be considered hazardous under RCRA, these

"hot spot" soils may be disposed of on-Site. EPA has not generated a volume estimate for this material but does not expect that this area will require extensive excavation.

28. These PRPs state that the planned "hot spot" excavation could be performed in place of, rather than in addition to, the current groundwater treatment system.

EPA Response: While EPA agrees that the proposed "hot spot" excavation may, in fact, benefit the cleanup of the groundwater at the Site, EPA cannot assume that this "hot spot" excavation will make continued groundwater extraction and treatment unnecessary. In order to evaluate the potential beneficial impacts on groundwater due to the "hot spot" excavation, the remedy calls for the evaluation of the need for continued groundwater extraction and treatment and/or expansion of the network of extraction wells at the conclusion of other remedial action work and periodically thereafter.

29. These PRPs expressed disappointment that EPA did not choose to reevaluate and revise the groundwater remedy for the Site. These PRPs contend that the "hot spot" excavation and future monitoring of groundwater can provide equivalent protection with less disruption and at substantially lower cost.

EPA Response: Construction of the groundwater treatment facility has been completed; the plant now operates as an automated or one-man operation and is not believed to be causing any noise or other nuisance which may be considered a disruption to the community. Regarding the cost of the groundwater remedy, the bulk of monies for the groundwater remedy have already been expended in constructing the plant and EPA believes strongly that continued operation of the now-completed plant is justified unless and until a periodic review demonstrates that the plant may be shut down. The first periodic review should take place in 1997.

30. These PRPs contend that groundwater treatment at this Site is not necessary based upon Massachusetts Contingency Plan guidelines, water quality standards, EPA's Groundwater Protection Strategy, and risk.

EPA Response: Under the current regulatory framework, EPA continues to use the federal classification for this aquifer which states that this is a potential future source of drinking water. The Massachusetts Contingency Plan comprises the State's cleanup regulations, which are not the determining guidelines for this decision. EPA believes that, if the aquifer is to be considered a future drinking water source then, contrary to the contention by these PRPs, a significant risk does exist since groundwater contaminant concentrations exceed drinking water standards. As noted above, federal groundwater classification would still consider this aquifer a potential future source of drinking water. One cannot conclude from the fact that surface water samples did not contain contaminants exceeding water quality criteria that groundwater does not require remediation. The surface water data were not collected to determine the influence of groundwater discharge to Meadow Brook, and are insufficient to do so. A more appropriate screening approach would be to compare groundwater concentration date to water quality criteria to determine if there could be an impact from groundwater discharge to the Brook.

31. These PRPs contend that the precipitation/filtration and catalytic oxidizer systems in the current groundwater treatment plant are not necessary.

EPA Response: EPA has just recently begun operation of the groundwater treatment facility and believes that it is premature to fully assess the efficacy of certain unit operations in the treatment plant. EPA will, throughout the life of the groundwater treatment plant, endeavor to optimize performance and implement cost-savings measures so long as overall

performance and protectiveness of the treatment plant is not compromised. The full network of extraction wells planned a sprat of the design have yet to be installed; therefore, because the characteristics of the influence to the plant may change upon completion of these wells, it is premature to make major process changes in the plant. Furthermore, since use of the plant may be necessary to treat water with varying influence characteristics generated during other remedial activities, EPA further believes that it would be inappropriate to make major process changes at this time.

32. These PRPs requested additional explanation of the $19.2 million cost figure presented for the groundwater remedy at the Site.

EPA Response: In the fall of 1994, the US Army Corps of Engineers, on behalf of EPA, awarded a "delivery order" to its TERC contractor for approximately $8.9 million for the construction of the groundwater treatment facility and two years of operation. During construction, that figure increased due to typical cost growth for this type of project and due to changes made during construction. It is now estimated that the capital costs of the treatment plant, all extraction wells, and the initial two years of operation will total approximately $11 million. An additional $8.2 million figure represents an estimate of the present value of an additional ten to twenty years of operation of this treatment plant at a cost similar to that being spent for its current operation. This is the basis for the $19.2 million figure stated in the Proposed Amended Cleanup Plan.

33. These PRPs state that the current underground piping serving the groundwater treatment facility may have to be reconfigured to accommodate the capping activities.

EPA Response: EPA does not see the connection between existing underground piping and the capping remedy. Existing underground piping constructed as part of the groundwater treatment remedy does not extend into any area expected to require excavation as part of the ROD Amendment. Should existing well vaults lie in areas along the edges of the area to be capped, the covers of these vaults can be raised to meet the new grade. This work will be done as part of the capping remedy.

34. These PRPs propose that the groundwater remedy be re-evaluated at least semi-annually and that the system be shut down if "its substantial costs do not provide added protection."

EPA Response: In the ROD Amendment, EPA states that the groundwater remedy will be re-evaluated at the completion of remedial action (expected in 1997) and again at each periodic review (EPA must conduct such periodic reviews at least once every five years but may, in its discretion, conduct reviews more frequently). EPA believes that semi-annual evaluations will be too frequent since several rounds of quarterly groundwater monitoring results will likely need to be reviewed in order to make any determination regarding suspension of groundwater treatment.

Comments by Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C. on behalf of Grant Gear, Inc.

35. This PRP stated its general support for EPA's inclusion of beneficial re-use of the Site as a component of the amended remedy, but does not believe that the proposed ROD Amendment will in fact permit re-use.

EPA Response: EPA desires to assist in the beneficial reuse of contaminated properties. However, beneficial reuse, while a desideratum, is not one the nine evaluation criteria for remedy selection set forth in the National Contingency Plan (40 CFR Part 300.430(e)(9)(iii)).

Currently, there are no specific redevelopment plans for the property, so it is difficult to assess the extent to which any proposed redevelopment might be coordinated with the CERCLA remedy at the Site. Once EPA receives a specific redevelopment proposal, it will work with the proponent in an effort to address the proponent's concerns while maintaining the remedy's consistency with the NCP.

36. This PRP is concerned that the slope of the landfill may make it impossible for anyone to build a structure on it.

EPA Response: The slope of the cap and cover to be installed as part of the remedy will be appropriate to ensure that the remedy is protective, and that the cap and cover meet the standards and specifications set forth in the ROD Amendment. However, EPA believes that the resulting slopes will also be compatible with a variety of reuse options.

37. This PRP believes that the revised remedy's landfill design should incorporate a subsurface utility grid. This grid would accommodate the water, sewer, electrical and telephone needs of a future developer.

EPA Response: The subsurface utility grid contemplated by Grant Gear would add significant expense to the remedy for the sole benefit of Grant Gear, and would diminish the cost-effectiveness of the remedy. The costs of such extensive modifications to the Site should be borne by either the Site owners or a prospective redeveloper. However, EPA anticipates that the Site may be ultimately redeveloped, and that redevelopment may include utility installation. Therefore, the Amended ROD provides that "clean corridors" may be installed through the cap. These corridors would minimize the disturbance of contaminated material during any future utility installation, thereby enhancing the overall protectiveness and long-term effectiveness of the remedy.

38. This PRP notes that the remedy set forth in the Proposed Amended Cleanup Plan does not meet the CERCLA statutory preference for treatment as a component of the remedy.

EPA Response: Section 121(b)(1) of CERCLA states: "Remedial actions in which treatment which permanently and significantly reduces the volume, toxicity or mobility of the hazardous substances, pollutants and contaminants is a principal element, are to be preferred over remedial actions not involving such treatment." This statutory preference is incorporated into one of the nine evaluation criteria for remedy selection set forth in the NCP at 40 CFR Part 300.430(e)(9)(iii). 40 CFR Part 300.430(e)(9)(iii)(D) requires evaluation of remedial alternatives in terms of "reduction of toxicity, mobility or volume through treatment." In this ROD Amendment, EPA evaluated the amended selected remedy and other alternatives according to all nine criteria. The amended selected remedy represents the best balance of factors among the evaluation criteria among the alternatives evaluated.

39. This PRP believes that EPA should "take" the Grant Gear property and pay the property owners just compensation. This PRP notes that this was suggested to EPA in comments on the 1989 ROD.

EPA Response: The remedial activities to be performed at the Site constitute a remediation of the Grant Gear property, not a taking. A potentially responsible party is not entitled to "just compensation" for property that is being returned to it in an improved condition.

Grant Gear decided, of its own accord, to stop operating its business in the building. Considering this cessation of use, and the unanticipated expenses and limitations associated with decontaminating the building and its contents, the presence of the building became an obstacle to successful remediation at the Site. The present state of the building also is an

obstacle to redevelopment at the Site; demolition will actually enhance the prospects of beneficial reuse of the property.

Grant Gear has expressly waived any claim that its property has been take, or that it is entitled to "just compensation." In a consent decree entered into between Grant Gear and the United States, United States v. The Grant Gear Works, Inc., et al, Grant Gear "agree[s] neither to interfere with ... response actions nor to take actions ... inconsistent with any response action selected by EPA and carried out by any person. [Grant Gear] recognize[s] that the implementation of response actions ... may interfere with Settling Defendant's use of the Trust Property and ... may interrupt normal operations .... [Grant Gear] agree[s], pursuant to Paragraph 17 herein, not to assert claims against the United States or the Hazardous Substances Superfund with respect to matters arising out of or relating to expenses incurred or work performed pursuant to this Consent Decree, and not to seek any other costs, or damages, including claims for business losses, property damages, takings or condemnation of real property, or attorneys' fees from the United States arising out of response activities at the Site." Consent decree at page 8, par. 5 (emphasis added). Also, at page 19, par. 7, the consent decree provides: "In consideration of the United States' covenants not to use ... [Grant Gear] agree[s] not to assert any causes of action, claims, or demands against the United States, or its contractors or employees, or the Hazardous Substances Superfund with respect to matters arising out of or relating to express incurred or payments made pursuant to this Consent Decree, or to seek any other costs, damages, including claims for business losses or property damage, or attorney's fees from the United States or its contractors or employees, arising out of response activities at the Site." (emphasis added). These waivers of claims and covenants by Grant Gear were for good consideration, namely Grant Gear resolving its CERCLA liability to the United States. Furthermore, these waivers and covenants broadly relate to "response activities," as opposed to only that remedy specifically selected in the 1989 ROD. In light of this language, Grant Gear cannot seriously contend that the amended selected remedy in this ROD Amendment somehow modifies or diminishes the effectiveness of its consent decree obligations.

40. This PRP states that EPA has not provided any valid reasons for changing the remedy. Instead, the PRP states that the remedy change seems born of EPA's desire to save money. EPA has been unsympathetic when privates parties have suggested this type of argument as a reason to modify a remedy. Now, when it suits EPA's purposes, EPA uses this argument to its own advantage.

EPA Response: Both the Proposed Amended Cleanup Plan and this ROD Amendment describe the considerable uncertainty regarding the efficacy an practicability of solvent extraction for this Site. Furthermore, cost considerations are a valid component of the 300.430(f)(1)(ii)(D). In some circumstances, PRPs seek to perform less expensive remedial remedy selection process. See NCP at 40 CFR Part 300.430(e)(9)(iii)(G), and 40 CFR Part alternatives that would also provide less protectiveness or otherwise not attain remedial objectives. In this instance, the less expensive amended selected remedy is also the alternative that presents the best balance among the nine evaluation criteria, as explained in the ROD Amendment.

41. This PRP questions the proposed remedy's excavation of the "hot spot" of VOC-contaminated soils. This PRP believes that placement of these soils on the Grant Gear property would require compliance with RCRA Subtitle C, which it does not believe EPA intends to do.

EPA Response: During the excavation of this "hot spot" material, it will be analyzed to determine if it constitutes a RCRA waste. If it does, it will be disposed of off-Site. If it does not, it may be relocated in a portion of the Site under the cap, yet above the water

table. In either scenario, there will be no disposal of RCRA waste on-Site, so a RCRA Subtitle C hazardous waste landfill is not required.

42. This PRP believes that the disposal of highly contaminated soils beneath the cap will require far greater reliance on institutional controls than was contemplated in the 1989 ROD. This will increase the costs and uncertainty to any party that otherwise may be interested in redeveloping the Site. Conversely, the property would have been much more valuable to the Site owners and any redeveloper if the cleanup had progressed according to the 1989 ROD.

EPA Response: Institutional controls were and remain an integral part of the remedy, as originally selected in the 1989 ROD and as part of this ROD Amendment. The existing institutional controls, recorded by Grant Gear pursuant to its settlement, are extremely strict, since even the 1989 ROD would not have eliminated all existing subsurface PCB contamination. See the Notice of Institutional Controls, attached to the consent decree entered into between Grant Gear and the United States in 1991; United States v. The Grant Gear Works, Inc., et al, at page 4, par. 1.c (no disturbance of contaminated untreated soils without EPA approval); at page 4, par.1.d (soils covering "disposal areas" not to be disturbed absent EPA approval). These and other restrictions in the Notice of Institutional Controls would apply to any activity at the Site even absent the ROD Amendment.

The Grant Gear building, in the 1989 ROD, was essentially a substitute for a cap of the soils beneath it. Therefore, existing institutional controls bar, without EPA approval, digging, drilling or excavation of the building floor (Notice of Institutional Controls, page 5, par. 1.e), and require prior approval of any excavation of the floor beyond a depth of six inches or a volume of 12 cubic inches (id. page 6, par. 2.a.). Thus, if the Grant Gear building would have been demolished as part of a redevelopment scheme prior to this ROD Amendment, the existing institutional controls would have been at least as onerous for Site activities as any institutional controls under the ROD Amendment, and perhaps more so, since under the 1989 ROD no cap would have covered the soils beneath the building footprint.

EPA does not owe any property owner a duty to maximize the post-cleanup value of the property to the owner. To the contrary, settlements with property owners typically attempt to recapture, as cost recovery, the value added by the cleanup so that a property owner does not obtain a "windfall" from a government-funded remediation. Moreover, there is no evidence that the property would have been more valuable under the 1989 ROD. By removing the outmoded Grant Gear building and placing the cap and cover over contaminated portions of the property, the amended selected remedy arguably makes the property more valuable to a developer.

43. This PRP believes that the ROD Amendment fundamentally changes the conditions upon wich Grant Gear entered into settlement with the United States in 1991. Specifically, the PRP states that the ROD Amendment now deprives Grant Gear of the value of machinery and equipment that was to have been decontaminated under the 1989 ROD, and the ROD Amendment, by capping contamination rather than treating it further reduces the value of the Grant Gear property.

EPA Response: The consent decree entered into between the United States and Grant Gear did not contemplate nor does it depend on, a particular remedy being selected. Although the recitals in the consent decree refer to the 1989 ROD (consent decree at page 2.), the decree clearly envisioned the possibility of additional or amended RODs. See, for example, consent decree at page 7, par. 4.a, (access granted for "the response action selected by EPA in the ROD or any subsequent remedy selected by EPA for the Site or any additional work deemed necessary by EPA to meet the objectives of any ROD"); page 7, par.4.c (for "any removal action"); page 7, par.y.g (assessing need for "additional response actions"); page 8, par.5

("Nothing in this Consent Decree shall in any manner restrict or limit the nature or scope of response actions which may be taken by EPA in fulfilling its responsibilities under federal and state law.") Considering the explicit language of the consent decree to which it willingly assented, Grant Gear now cannot claim to have acted in detrimental reliance upon the 1989 ROD.

As stated in the response to Comment No. 42 above, EPA does not owe any property owner a duty to maximize the post-cleanup value of the property to the owner. Modifications made to the building remedy pursuant to this ROD Amendment are consistent with the NCP, irrespective of whatever financial impact they may or may not have on Grant Gear, a potentially responsible party at the Site. However, the commenter seems to ignore the value of faster completion of the remedy to Grant Gear's redevelopment possibilities.

Finally, to any extent that the ROD Amendment may diminish Grant Gear's property value, it has explicitly waived any claim for such "loss of value." See also the response to Comment No. 39, above.

Part IV - Comments by Other Interested Parties

44. A consultant involved in the redevelopment of contaminated sites expressed support for the Proposed Amended Cleanup Plan as one that makes the Site more amenable to development. However, this commenter raised several technical issues relative to the remedy and its impact on redevelopment: (1) the Grant building slab to be left in place and capped over may present some difficulties for future development as some intrusions into this area or removal of portions of this slab may be necessary in the future; (2) the "phase B" groundwater extraction wells planned under the groundwater remediation may need to be relocated so that they are not within the footprint of a new structure; and, (3) it would be most beneficial to all parties if construction efforts relative to redevelopment were coordinated with cleanup efforts.

EPA Response: First, the amended plan will not prohibit future excavation into the capped area covering the slab (or other capped areas) nor will it preclude future removal of portions of the slab. This work, however, is not considered within the scope of the cleanup. Second, as discussed in the ROD amendment, at the conclusion of other remedial construction activities, the need to install the "phase B" wells will be re-evaluated. In the event that it is
decided to proceed with installation of these extraction wells, efforts will be made to locate
these wells so as not to interfere with new or planned structures. Third, EPA supports the concept of coordinated efforts between cleanup and development and will support efforts to achieve this goal, so long as the remedy remains protective.

ATTACHMENT C

RECORD OF DECISION AMENDMENT
NORWOOD PCB SUPERFUND SITE

COMMONWEALTH OF MASSACHUSETTS
DECLARATION OF CONCURRENCE LETTER

COMMONWEALTH OF MASSACHUSETTS
<IMG SRC 0196125F> EXECUTIVE OFFICE OF ENVIRONMENTAL AFFAIRS
DEPARTMENT OF ENVIRONMENTAL PROTECTION
ONE WINTER STREET, BOSTON MA 02108 (617) 292-5500

WILLIAM F. WELD
Governor

TRUDY COXE
Secretary

ARGEO PAUL CELLUCCI
Lt. Governor

DAVID B. STRUHS
Commissioner

May 16, 1996

Ms. Linda Murphy, Director
Office of Site Remediation and Restoration
U.S. Environmental Protection Agency
J.F.K. Building
Boston, MA 02203

Re: Concurrence with the ROD Amendment for the Norwood PCB Superfund site.

Dear Ms. Murphy:

The Department of Environmental Protection (Department) has reviewed the amended selected remedy recommended by the U.S. EPA for the Norwood PCB Superfund site located in Norwood, Massachusetts. Based on this review, the Department concurs with the amended selected remedy. The Department deems the amended remedy to be adequately regulated for purposes of compliance with 310 CMR 40.0000, the Massachusetts Contingency Plan.

Although the major portion of the amended selected remedy, consolidation and capping will not reduce the contaminant levels, it will achieve acceptable risk reduction by eliminating the exposure pathway. The exposure assumptions underlying the amended selected remedy will be maintained by the development of activity and use limitations. Because contamination is not being reduced in this remedy, where practicable, EPA's five year review process should include consideration of a more permanent remedy which may become available in the future.

The remedy as amended for the Norwood PCB Superfund site includes the following components:

- Demolition of the Grant Gear building;

- Removal and off-site disposal of sediments and sludge from drainage system manholes,

encapsulation of the drainage system;

- Consolidation of contaminated soil, and soil and sediment from Meadow Brook, onto a portion of the Grant Gear property;

- Restoration of Meadow Brook consistent with the Town's flood control project;

- Removal of a "hot spot" of contamination below the water table;

- Covering of the most heavily contaminated areas of the Grant Gear property with an asphalt cap and covering of the other property area with clean fill material;

- Establishment of activity and use restrictions to maintain the exposure assumptions underlying the remedy, and to protect the integrity of the remedy;

- Periodic ground water monitoring to assess performance and protectiveness of the remedy;

- Inspections and maintenance of the cap & cover; and

- Continued on-site ground water extraction and treatment.

The remedial action selected in the 1989 Record of Decision consisted of treatment of contaminated soils via Solvent Extraction, groundwater extraction and treatment, dredging and restoration of the Meadow Brook, implementation of institutional controls, and decontamination of the Grant Gear Building. This amended selected remedy does not change the groundwater portion of the original remedy, except that removal of the "hot spot" of contamination will likely remover a source of downgradient groundwater contamination.

The Department looks forward to working with the Environmental Protection Agency in implementing the amended selected remedy. If you have any questions or require additional information, please contact Martin J. Horne, Project Manager, at (617) 292-5716.

Very truly yours

<IMG SRC 0196125G>
James C.Colman
Assistant Commissioner
Bureau of Waste Site Cleanup

cc: Richard Chalpin, DEP NERO

ATTACHMENT D

RECORD OF DECISION AMENDMENT
NORWOOD PCB SUPERFUND SITE

OFFICIAL PUBLIC HEARING TRANSCRIPT
MARCH 6, 1996

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region I
John F. Kennedy Federal Building
Boston, Massachusetts 02203-0001

NORWOOD PCB SUPERFUND SITE
Proposed Amended Cleanup Plan

PUBLIC MEETING AND HEARING
Norwood Tall Hall
Norwood, Massachusetts

Wednesday, March 6, 1996
Public Meeting: 6:30 p.m. - 7:30 p.m.
Public Hearing: 7:30 p.m. - 8:00 p.m.

Dan Coughlin, Chief, EPA Massachusetts Superfund Section
Bob Cianciarulo, EPA Remedial Project Manager
Martin Horne, Massachusetts Department of Environmental Protection Project Manager
Major Brian Baker, US Army Corps Engineers Project Manager
Brian Rohan, EPA Case Attorney
CORR Van Alstine, EPA Community Involvement Coordinator

EATON COURT REPORTING SERVICES
Nancy L. Eaton, RPR, RMR, RDR
Guarding the Record Since 1966
Two Oliver Street, Eleventh Floor
Boston, MA 02109
617-388-7333

P R O C E E D I N G S

MR. COUGHLIN: I first have a short statement to make to get into the record, and then we will kick off this evening's public hearing.

My name is Dan Coughlin. I am Chief of the Massachusetts Superfund Section at the EPA in Boston. I welcome you to the public hearing on the amended proposed plan for the Norwood PCB Superfund Cleanup.

With me tonight is Bob Cianciarulo, the Remedial Project Manager for the EPA. He's right down front. He's making a presentation tonight. Also we have with us tonight Martin Horne from the Mass. DEP and several other folks all representing the agencies as well as the Department of Justice.

Now the purpose of tonight's hearing is to give the public an opportunity to comment on the EPA's proposed ammended cleanup strategy. We will be recording your comments, as you can see, this evening, and we will produce a printed transcript which will be part of the administrative records and used by the EPA to

make a final remedy decision.

If you wish to buy a copy of the transcript, you may make arrangements directly with the transcription service, and we have sheets up back available for you to get that address.

As I previously stated, if you wish to make a comment tonight, would you please pick up an index card, fill it out, and return it to Corrinne back there so that we can make sure that your name and affiliation, et cetera, is entered into the record correctly, and I will call on everyone in the order in which you have submitted the cards.

We typically reserve the right to limit peoples' comments to ten minutes. We usually have a large crowd when we do that, so I'm probably not going to do that but I ask you to be brief. If you think it's going to be a long comment, please try to summarize it, and give it to us in writing, the entire text, and you should submit it to us within the comment period.

Hopefully over the past hour, you had an

opportunity to talk to all of us, to look at our posters and have an appreciation of what we are proposing to do, and hopefully we addressed most of your questions.

I should make it clear to people that we will not be answering questions during the public hearing portion of this meeting tonight. We will be, rather, answering those questions in the responsiveness summary which will be issued with the proposed amended cleanup plan or the ammended record decision at a later date, but all questions and comments will be addressed in that order.

In addition to tonight's hearing, you may also submit written comments to the agency. You should do so by the end of the comment period, which ends on March 22, 1996. The address for submitting those comments is in the proposed plans which I think copies are available up back. I think perhaps you all have copies, but if you don't , you can get them up back, and I think there's also an E-mail address up there, too.

Finally let me remind you that there are

copies of the administrative record at the Morrill Memorial Library in Norwood and also at the EPA's Record Center in Boston and all are welcome to review the materials at either of those spots at your convenience during the normal business hours.

I guess we did leave one thing out. Before we get into the comments, Bob will give you a very quick overview of the minutes of the proposed plans, and then I will start taking comments. Any questions on how we are going to proceed?

If not, Bob, why don't you do your talk. Let me say thank you for coming. It's not a great night to be out, and I appreciate having you here tonight.

MR. CIANCIARULO: Thank you, Dan. I want to give you a quick overview of the proposed amendment. Hopefully you all had a chance to look at the plan that was mailed to everybody on the mailing list for this site.

For those of you not familiar with the cleanup, the project is basically divided into

three major phases: One, the cleanup of ground water underlying the site; the cleanup of the Grant Gear Building, and the major part of the cleanup, the cleanup of the soil and the sediments at the site.

If you recall back in August of 1995, EPA published a facts sheet, and we had two public meetings to basically get the public's feedback on an idea of the amended cleanup plan which involved capping of the soils as a major component versus the treatment of the soils, which was originally selected as a remedy in 1989.

This current proposed amended cleanup plan basically embodies that same approach we presented to you in August. In general, this plan calls for the demolition of the Grant Gear Building; the consolidation of contaminated soil from the Grant Gear and adjacent properties and soil sentiments from Meadow Brook onto a portion of the Grant Gear property, the removal of a hot spot of organic contamination located below the water table in the Western portion of the Grant Gear property,

then covering of the most heavily contaminated areas of the Grant Gear property with an asphalt cap, and covering other less contaminated areas with clean fill.

The plan would also call for regular inspections, monitoring and repairing, if necessary, the cap in the regular ground water monitoring and also calls for continued ground water extraction and treatment.

The ground water treatment plant at the site was completed in early 1996 - - late 1995, early 1996. It is currently in operation extracting and treating ground water under the site.

The amended plan also does change some cleanup levels at the site. These changes were made based on risk assessment methods and other information which basically has been improved and refined since those activities were done in 1989 when the original risk assessment was done.

However, the cleanup level for sentiments in Meadow Brook has not changed, and, consequently, the general cleanup level relative to Meadow Brook itself remains

consistent with the -- remains unchanged from the 1989 plan.

One of the outcomes of the August 1995 meeting was a strong message from local residents, a small area north of Meadow Brook, is that they wanted to take a second look at soil contamination in that area which we had slated for excavation.

Based on this feedback, we went and took an additional round of samples and also again as we looked at cleanup levels for the site in general, we looked at the appropriateness if the cleanup levels in that area.

Basically based on this new date and the existing data that was already collected from that area, it's been determined that the levels of contamination in this area do not pose an unacceptable risk to human health and environment, and, therefore, in this current proposal, no action will be taken in that residential area.

EPA is recommending this amended cleanup plan today. The major component of this which is consolidation and capping of the contaminated

soils because we believe the plan is protective of human health and environment, technically reliable, easily implementible, can be completed cost-effective manner.

EPA no longer believes that-the treatment alternatives selected in 1989, solvents extraction or the contingency remedy selected in 1989 and the on-site incineration, are implementable or cost-effective for this site.

Furthermore, based upon the fact that that site is to be reused for commercial and/or for industrial purposes in the future -- just as a note there is also a note attached to the deed for this property that prohibits the development of this land for residential use, so that is clearly ruled out. The proposed amended cleanup plan appears to be the choice best suited to the expected future use of this property.

Again, I encourage you to refer back to the February 1996 Proposed Amended Cleanup Plan for more information. I'm just trying to

give you a quick overview here. We look forward to receiving your input here both tonight and again in writing prior to the end of the comment period on March the 22nd. Thank you.

MR. COUGHLIN: Okay. I'm going to ask for comments. We ask that you come up to the microphone and speak very clearly into the microphone, if you would, and state your name clearly so once again we are correct in the record.

And the first comment is from Gary Lee, selectman from the town of Norwood.

COMMENT ONE: Thank you, Mr. Coughlin, Mr. Cianciarulo. My name is Gary Lee, selectman from the town of Norwood. Seeing that this is still a public comment period, I have two questions I would like addressed in writing and have you get back to us through the board, so we can get back to our neighbors and constituants.

By way of background, first of all, I think we all remember too well that Senator Kennedy gave his comments 13 years ago about the threat of PCBs in the environment.

As far back as '89, we sat down in Boston with the EPA and Senator Kennedy and others at which time they still continued to tell us what a threat the PCBs were in the town of Norwood.

One of the problems that people continued to have and the board's having in getting back to the people is that as far as three, four years ago when I was involved in this board, we were still told of the serious threat PCBs were to the environment, and they were so concerned about it that the only way to treat it was to excavate the soil, treat it and get it off the site.

Now there's a change of feeling because of the lack of funds in the EPA Superfund account. You're now telling us, and we are being lead to believe, it's all right just to dig it up, pave it over, cap it, and that's it. I think some people, including myself, are having a tough time understanding that. The message has been that it was such a threat over the years, so why is it okay now to dig it up and to cap it? I think I need that addressed

for my education so that we can get back to the people.

The second part of the question I would like to see addressed is, I think as the people take a look at these maps, we are concerned about when you say cap it over, are we going to be inheriting a large section of concrete cap or asphalt cap, such as three or four years from now are we going to have an overgrowth cap? Who is going to maintain it? Who is going to keep it? Is that a site that is going to be able to be sold on the subsequent market or is the town of Norwood going to inherit such an eyesore? Again, any written response given about that will help us, and I appreciate your time. Thank you.

MR. COUGHLIN: Rose Foley, please.

COMMENT TWO: As Mr. Lee has stated, this has been going on for 13 years, and I do own a piece of property that abuts the Grant Gear works. I'm there every day. I worked there every day.

For years off and on, there has been a lot going on but not on a constant basis. For

13 years I would like to know, do you have a figure of how much was spent to date at this time? I, as a taxpayer, would be interested in that, and how much is going to be recooped from whatever damage there is from this land? Thank you.

MR. COUGHLIN: Thank you. David Wright.

COMMENT THREE: Thank you, Mr. Coughlin. For the record, my name is David B. Wright. I'm the Director of Project Development for the firm of Caswell, Eichler & Hill, and my role within the firm is to account for the development of property that is contaminated on behalf of the clients.

In the interest of doing that, I would like to state for the record that I support the amended plan as is presented. I think it is still a difficult site to develop. It is a costly site to develop, but this amendment needs to allow some possibility of being developed as long as we can keep it within the market costs that would derive those decisions.

We are trying to assess that now in this process, and we came here tonight to hear and

talk about some details of the site. I will have a couple technical comments I would like to make into the record generally now and maybe follow-up with a more detailed letter in a letter form once we have finalized a rough plan for the site.

First of all, the slab, as is being maintained, poses some difficulties for redevelopment because you may not have a building exactly on that site in the same exact location, and that will require some, perhaps, frostwalls or other types of new foundation to be added that have to be put in, perhaps in the middle of that slab might be removed for things part of that slab might be removed for things like utility poles that are very shallow or vaults that are used for plumbing, heating and whatsoever so that it is easy to relocate a piece of equipment where things are stored and also you don't have to dig underground, you know, something of that sort that we don't want to do once the cap is put in place.

The Phase 1B wells are the new wells, the recovery wells, that are being proposed in

the market may also have to be relocated if this project is to go forward, slightly north or slightly south in relation to where we won't be contaminating the wells in the next building, and we can pump it out for maintenance and other things and just as we had for everything involved. That is something that we would like to enter into the record. We are not quite sure where they should be, but it would not be too much off from where they are working right now.

And finally the excavation of the foundation, if they are going to be done, time is everything in a commercial development. You are going to have crews working on the site. It would probably be best to have the same contractor if possible, excavate that trench for frostwalls, perhaps in building, and we would probably pay that cost or share it or whatever.

But basically I think that ought to be done and considered into the scheduling of the development so that we can expeditiously get into the property afterwards, and you can have OSHA-trained people on site, so we can have all

the contractors monitored unless this seems to be a logistical problem. And you can do that as a separate contract with the same contractor, so we can avoid some of the federal procurement problems.

It might be an option or we pay for a change order that you had issued as paying the difference. That is a suggestion we would like to pose in the record. Whether that can be done ... But again generally we support this concept.

It's a pleasure to have a chance to come up and say good things about an EPA proposal. In my whole career, I seem to be on the other side, and it's been very difficult for the EPA and for us because of the law. I think it is a fresh, good wind blowing in the right direction. And perhaps the town will come out with a site that is developed that will make sense for them, and the EPA will have a success story here for their headquarters. And that's the conclusion of my comment.

MR. COUGHLIN: Thank you. Stan Wasil.

COMMENT FOUR: Stan Wasil. I represent

that district, District 7, and I, like a lot of people here, want to see this thing come to an end, and it's not going to come to an end if we just keep changing plans all the time. We've done it now for 20 years, and I think now that you've done some cleaning up, I believe -- I feel very positive of this.

I think we should now start to knock that building down and hardtop it. Furthermore, I would like to see that brook cleaned up. That's very important because if there is a big flood and it backs up, it backs up into the storm drains and in some cases into the houses, and we don't want PCBs traveling around town. So that's my comment there.

I have another comment. I am very much concerned that the town is hurting for new development. That's one. It should be moved along. Also the Stop & Shop right in back there. That is sitting there, too, and it should not be, and I hope it is not going to be sitting around long.

So many people want to see that developed. It's a prime piece of property.

And that's my comment. I want to see this whole thing start to come to an end. I think we have overdone it. Thank you.

MR. COUGHLIN: Thank you. Well, those are all the cards I have. Is there anybody else who would like to make a statement for the record? We certainly urge you to do so.

If not, we would also encourage you to submit written comments to us. The written address is on the proposed plan. As I said, the comment period ends on the 22nd of March, and if you have any comments, please feel free to send them in. We will issue our final decision.

Again, I want to thank you all for coming out tonight, and I appreciate you coming here in the bad weather. And with that, I think we will close the public hearing for this site.

As you know, during the first hour, we invited you up to look at the posters, and we discussed questions with you. We welcome you to stay around and talk with us, if you like.

(The hearing was concluded at 8:00 p.m.)

CERTIFICATE

COMMONWEALTH OF MASSACHUSETTS

PLYMOUTH, SS.

I, Michelle J. Madden, Certified Shorthand Reporter, do hereby certify that the foregoing record, Pages 2 through 18, is a complete, accurate and true transcription of my stenographic notes taken in the aforementioned matter to the best of my skills and ability.

<IMG SRC 0196125H>

ATTACHMENT E

RECORD OF DECISION AMENDMENT
NORWOOD PCB SUPERFUND SITE

REGIONAL ADMINISTRATOR'S FINDINGS AND WAIVERS
UNDER REGULATIONS OF THE TOXIC SUBSTANCES CONTROL ACT

On or about this 17th day of May, 1996, the Director of the Office of Site Remediation and Restoration is approving a ROD Amendment for the Norwood PCB Site in Norwood, MA. Like the remedy selected in the original Record of Decision for the Site, signed September 29, 1989, the amended remedy selected in the ROD Amendment will result in a chemical waste landfill subject to regulations promulgated under the Toxic Substances Control Act. However, as set forth in 40 CFR 761.75(c)(4), certain regulatory requirements for chemical waste landfills may be waived in the discretion of the Regional Administrator if the Regional Administrator finds that such requirements are not necessary to protect against an unreasonable risk of injury to health and the environment. This waiver may be exercised only by the Regional Administrator.

The ROD Amendment waives the following four requirements for chemical waste landfills; (i) that chemical waste landfills be constructed only in certain low permeability clay conditions (40 C.F.R. § 761.75 (b)(1)); (ii) that a synthetic membrane liner be used at the Site (40 C.F.R § 761.75(b)(2)); (iii) that the bottom of the landfill be 50 feet above the historic high water table (40 C.F.R. § 761.75 (b)(3)), and (iv) that specific leachate monitoring/ collection systems be employed. The reasons for waiving these requirements are set forth in Section XI of the ROD Amendment, Statutory Determinations.

The factors discussed in Section XI of the ROD Amendment ensure that there will be no unreasonable risk of injury to health or the environment if the four TSCA chemical waste landfill requirements specified above are waived. Considering this information, I hereby exercise the waiver authority contained in the TSCA regulations at 40 C.F.R. § 761.75(c)(4), with respect to these four requirements.

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