FINAL DECISION AND RESPONSE TO COMMENTS ON PROPOSED CORRECTIVE MEASURES UNDER RCRA SECTION 7003

Quebecor Printing Atglen, Incorporated
West Sadsbury, Pennsylvania

I. INTRODUCTION

A. Background

The United States Environmental Protection Agency ("EPA") presents this Final Decision and Response to Comments ("Final Decision") completed under the authority of the Resource Conservation and Recovery Act, 42 U.S.C. Sections 6901 et seq., ("RCRA"). The purpose of the Final Decision is to describe the Corrective Measure selected by EPA to address releases of hazardous waste and/or hazardous constituents at the Quebecor Printing Atglen, Incorporated ("Quebecor") facility, located in West Sadsbury Township, Chester County, Pennsylvania ("Facility"), and to present the concerns and issues raised during the public comment period and respond to all significant comments received by EPA regarding the proposed Corrective Measure. A map, showing the general location of the Facility, can be found in Attachment 1.

In April 1990, EPA completed an Environmental Priorities Initiative Preliminary Assessment ("Assessment") for the Facility. As a result of the Assessment, benzene, toluene, ethylbenzene, xylene, tetrachloroethylene, bis(2-ethylhexyl) phthalate, cyanide, and lead contaminants were identified at the Facility. On March 29, 1991, EPA and Quebecor entered into an Administrative Order on Consent ("Order") pursuant to Section 7003 of RCRA which required that Quebecor conduct a RCRA Facility Investigation("RFI") and a Corrective Measures Study("CMS") to determine the nature and extent of the contamination and identify alternatives for remediation. Quebecor has now completed the study and investigation. The Order also imposed Interim Measures requiring the pumping and treatment of contaminated groundwater at the facility. Quebecor continues to implement the Order's Interim Measures.

On October 29, 1993, the Facility experienced a release of toluene solvent from a broken underground storage tank pipeline in the bulk ink storage area approximately one hundred feet northwest of the Underground Storage Tank(UST) area. Quebecor notified EPA and the Pennsylvania Department of Environmental Protection("PADEP") of the release. This release was referred to in the SB as the "September 1993 spill", which, for clarity will be referred to herein as the "Line Leak." (See Attachment 2)

In November 1993, Quebecor began remediation of the 1993 Line Leak under the supervision of the PADEP in accordance with its UST Closure Requirements as set forth in the Pennsylvania Storage Tank and Spill Prevention Act of July 6, 1989, as amended, 35 P.S. Sections 6021.101 et seq. EPA Region III has coordinated Quebecor's remediation work undertaken pursuant to EPA's 1991 Order with the Line Leak UST remediation being supervised by PADEP.

Based on the results of the RFI, CMS, and other relevant information, EPA issued a Statement of Basis("SB") for the Facility on May 17, 1995. In the SB, EPA identified and evaluated corrective measures alternatives to mitigate or eliminate releases of hazardous waste and/or hazardous waste constituents in soil in the underground storage tank and railroad siding areas of the Facility and in groundwater beneath the Facility.

The SB proposed deferring all soil clean-up activities for the underground storage tank area that Quebecor had begun in November 1993 to PADEP, except for the submittal of post clean-up sampling results to EPA which demonstrated that UST remediation goals had been achieved.

EPA proposed in-situ vapor extraction as the preferred corrective measure alternative to remediate the soil in the railroad siding area at the Facility. EPA proposed groundwater pump and treatment as the preferred corrective measure alternative to remediate the contaminated groundwater at the Facility. The SB specified confirmatory soil and periodic groundwater monitoring and reporting requirements. EPA also proposed restrictions to the Facility's deed to prevent installation of drinking water wells into the groundwater.

A summary of the preferred corrective measures identified in the SB follows:

Soil

1. UNDERGROUND STORAGE TANK AREA

Submit for EPA review and approval a post-UST removal/soil excavation soil sampling and analysis plan to demonstrate attainment of the soil clean-up standards.

2. RAILROAD SIDING AREA

Conduct in-situ soil vapor extraction and volatilized gas treatment with granulated activated carbon ("GAC") filtration and/or incineration in accordance with the Clean Air Act, 42 U.S.C. Section 7401, et seq. ("CAA").

Groundwater

1. Construct a pump and treat system; treat the contaminated groundwater utilizing air stripping with GAC or incineration for the exhaust gases in accordance with the CAA; treat the groundwater discharge in accordance with the requirements of the Clean Water Act, 33 U.S.C. Section 1251 et seq. ("CWA").

2. Continue to operate the Interim Measures Pump and Treat system as required by the Order until the new system described above in sub-section 1 is operational.

Institutional Controls

Impose a restriction in the deed to the Facility property to prevent the installation of on-site drinking water wells. Require periodic monitoring and reporting of data to track compliance with media clean-up standards.

B. Interim Measures

On November 29, 1995, after further discussions with PADEP, EPA determined that soil and groundwater remediation of the Line Leak release (other than the excavation of the underground storage tanks themselves) would be better addressed under the

Interim Measures provisions of EPA's 1991 Order. Consequently, EPA requested that Quebecor submit a work plan to address the Line Leak remediation.

After review of Quebecor's Interim Measures Workplan, EPA has determined that, due to the similarity and proximity of the contaminants associated with the Line Leak area to the contaminants found at the rest of the Facility during the RFI, remediation of the Line Leak area will be incorporated into the preferred corrective measure.

C. Coordination with PADEP

PADEP is the lead agency for administrative activities related to removal of USTs (i.e., 30-day notification of underground storage tank removal, soil sampling requirements, and UST closure report). All soil and groundwater corrective action/remediation for the Facility set forth in this Final Decision will be completed under EPA authority.

D. Public Comments

For the SB which contained EPA's preferred corrective measures alternative, EPA held a public meeting on November 29, 1994 and thirty-day public comment period which began on May 17, 1995. EPA has reviewed all comments received at the public meeting and during the thirty (30) day public comment period, as well as additional comments submitted by Quebecor in its August 22, 1996 and September 18, 1996 letters prior to the final selection of the Corrective Measure in this Final Decision. Quebecor submitted written comments to EPA during and after the public comment period proposing corrective measure alternatives and suggesting a need to change EPA's preferred Corrective Measure. However, no additional alternatives were proposed that had not been considered in the CMS. The comments, questions, and EPA's responses to such comments, are discussed below.

II. THE SELECTED REMEDY

Based upon the findings of the RFI and other relevant information, EPA has determined that soil in the underground storage tank area and the railroad siding area as well as groundwater beneath the Facility require remediation. EPA is including the remediation of the Line Leak in the bulk ink

storage area as part of this Final Decision. EPA is also selecting excavation of the underground storage tanks and the associated soil and debris in the underground storage tank area; however, EPA is deferring implementation of this component of the corrective measure to PADEP. EPA is selecting in-situ soil vapor extraction to remediate the soil in the railroad siding area and the Line Leak area for the corrective measures for the Facility. EPA is selecting groundwater pump and treatment of the contaminated groundwater as the corrective measure alternative to remediate the contaminated groundwater at the Facility. Monitoring and reporting are components of the soil and groundwater corrective measures. EPA is also selecting institutional controls and continued operation and maintenance of the corrective measures. The selected remedy is described in greater detail below:

Soil

1. UNDERGROUND STORAGE TANK AREA

Excavate the underground storage tanks and associated soil and debris in accordance with the July 7, 1994 letter from PADEP (See Attachment 3).

2. RAILROAD SIDING AREA

Conduct in-situ soil vapor extraction and volatilized gas treatment with GAC filtration and/or incineration or other equivalent technology.

3. 1993 LINE LEAK AREA

Conduct in-situ soil vapor extraction and volatilized gas treatment with GAC filtration and/or incineration or other equivalent technology.

Groundwater

1. Continue to operate the Interim Measures Pump and Treat system in accordance with the terms of the 1991 Order until the system described in Subsection 2 below is operational.

2. Construct and operate an upgraded groundwater pump and treat system as approved by EPA. Treat contaminated

groundwater utilizing air stripping with GAC or incineration for the exhaust gases or other equivalent treatment options, as may be applicable.

Monitoring and Reporting

1. Upon completion of the soil remediation activities identified above, submit to EPA for review and approval sampling results that demonstrate attainment of the soil clean-up standards set forth in Section III, Table 1. Soil sampling protocols shall be developed in the design for the implementation of this Final Decision.

2. Conduct periodic groundwater monitoring and reporting of monitoring data to EPA until attainment of groundwater media cleanup standards set forth in Section III, Table 1, or modified groundwater media cleanup standards established by EPA on the basis of a finding by EPA of technical impracticability for any contaminant listed in Table 1 (see EPA's Response to Quebecor's Points 4.A, 4.B, and 8 in Section IV, Public Comments and EPA Responses). In addition to these general monitoring requirements, groundwater will be analyzed for tetrachloroethylene and bis(2-ethylhexyl)phthalate constituents on a semi-annual basis beginning with the operation of the new groundwater pump and treatment system for a period of two years after which EPA will review the data to determine if further sampling and analysis for these two constituents is necessary to protect human health and the environment. Periodic monitoring of the groundwater constituents shall be developed in the design for the implementation of this Final Decision.

Institutional Controls

Restrict the Facility deed to prohibit the installation of on-site drinking water wells until the attainment of the unmodified media cleanup standards. Attainment of modified cleanup standards resulting from an EPA determination of asymptotic conditions or technical impracticability is not considered attainment for the purpose of removing the drinking water well deed restriction.

Compliance with Federal, State, and Local Regulations

All corrective measures must be performed in accordance with applicable federal, state, and local laws and regulations.

III. MEDIA CLEAN-UP STANDARDS/POINTS OF COMPLIANCE

A. Media Cleanup Standards

Media cleanup standards are established at concentrations that ensure protection of human health and the environment and are set for each medium during the remedy selection process. In establishing the final cleanup standards for the Facility, EPA has considered the Maximum Contaminant Levels ("MCLs") established under the Safe Drinking Water Act, 42 U.S.C. Sections 300f et seq., and set forth at 40 CFR Part 141, Subpart B; the EPA Region III Risk Based Concentration ("RBC") Tables; the draft Commonwealth of Pennsylvania Cleanup Standards for Contaminated Soil ("CSCS"), December 1993; and cleanup standards established by the Commonwealth of Pennsylvania under the Land Recycling and Environmental Remediation Standards Act("Act 2 of 1995"), 35 P.S. Sections 6026.101-6026.908) enacted in July 1995, which replaced the draft CSCS. The cleanup standards for groundwater contained in EPA's Final Decision have not changed from those set forth in the SB. Although the soil cleanup standards have undergone a change from those set forth in the SB, this change will not have any adverse impact on human health, welfare or the environment. In addition, EPA has incorporated a process authorizing modifications to these media cleanup standards based on technical impracticability as set forth in EPA's Response to Quebecor's Points 4.A, 4.B, and 8 in Section IV, Public Comments and EPA Responses.

MCLs are the maximum federally permissible levels of contaminants in water delivered to any user of a public water system. RBCs are media specific screening levels developed by EPA Region III for the protection of human health. Act 2 establishes statewide human health cleanup standards for soil and other media for facilities in Pennsylvania being remediated under Pennsylvania laws.

For the reasons set forth in this Final Decision, the groundwater cleanup standards remain as proposed in the SB. (See Section III, Table 1, below.) Groundwater shall be pumped and treated, and monitored on a periodic basis, until attainment of the media cleanup standards set forth in Section III, Table 1, or modified groundwater media cleanup standards established by EPA on the basis of a finding of technical impracticability for any contaminant set forth in Table 1. (See EPA's Response to Quebecor's Points 4.A, 4.B, and 8 in Section IV, Public Comments and EPA Responses). Attainment may be demonstrated for a specific parameter at a specific sampling point if the original or modified media cleanup standard for that parameter is not exceeded at that sampling point for two consecutive years of quarterly sampling. In addition to these general monitoring requirements, groundwater will be analyzed for tetrachloroethylene and bis(2-ethylhexyl)phthalate constituents on a semi-annual basis for a period of two years after which EPA will review the data to determine if further sampling and analysis for these two constituents is necessary to protect human health and the environment.

Although the soil cleanup standards have been revised, they remain below the EPA RBC acceptable levels to protect human health from direct exposure to contaminated soil. EPA believes that the original soil standards contained in the SB may have been overly conservative for protection of human health and the environment. EPA has determined that these revised soil cleanup standards are protective of human health through direct exposure; are protective of groundwater; are, in this case, consistent with Act 2 of 1995; and therefore do not represent a significant change in the Selected Remedy. The final media cleanup standards for the Facility are set forth in Table 1, below.

Table 1

Media Cleanup Standards

CONSTITUENT	Soil (ppm)	Groundwater (ppm)
Benzene	n/a	0.005
Toluene	100	1.0
Bis(2-ethylhexyl)phthalate	n/a	0.006
Ethylbenzene	70	n/a

Tetrachloroethylene	n/a	0.005
Xylene	1000	n/a

n/a = not applicable

B. Compliance with Media Cleanup Standards

Pursuant to this Final Decision, media cleanup standards shall be attained throughout the area of soil and groundwater contamination. Specific soil sampling locations shall be selected, subject to EPA approval, to demonstrate compliance with the media cleanup standard for soil. The SB proposed media cleanup standards for groundwater and compliance monitoring points to measure progress towards obtaining media clean-up standards. The compliance monitoring points were selected by EPA to provide sufficient data to monitor and evaluate the overall effectiveness of the remediation and demonstrate compliance with the SB media cleanup standards. EPA has reviewed the additional data submitted with the Facility's June 15, 1995 letter,(Attachment 4), and has determined that, because no contaminants have been detected offsite since 1989 and because no offsite migration of contaminants is anticipated, the placement of offsite groundwater monitoring points at the adjacent Engel property is not necessary. The onsite groundwater monitoring locations will detect any contaminant migration that might move towards the Engel property. In addition, the final groundwater remediation system should prevent any offsite plume migration. Thus, EPA is not requiring off-site monitoring. The following onsite monitoring wells may be used to demonstrate compliance with the media cleanup requirement for groundwater: (see Attachment 5)

1.	MW3*	6.	MW12
2.	MW4*	7.	MW13
3.	MW8	8.	RW-1*
4.	MW9	9.	RW-2
5.	MW10	10.	S-3

Because the asterisked wells MW3, MW4, and RW-1 are located in or near the anticipated area of storage tank excavation, there is the potential for destruction of these wells. In the final design plans for this remedy, it may be necessary to consider replacement of such wells, as appropriate.

C. Final Remedy Selection Criteria

The Selected Remedy was evaluated against the four general standards for corrective measures (overall protection of standards of human health and the environment, attainment of clean-up standards, source control, and compliance) and the five selection decision factors (long term reliability and effectiveness, reduction in toxicity, mobility and volume, short- and long term effectiveness, implementability, and cost) as presented in the EPA Guidance on RCRA Corrective Action Decision Documents: The Statement of Basis Final Decision and Response To Comments, OSWER Directive 9902.6, February 1991. The Selected Remedy presents the best choice of all the corrective measures alternatives considered. For EPA's analysis of these factors see Section IX of the SB.

IV. PUBLIC COMMENTS AND EPA RESPONSES

EPA held a public meeting in Parkersburg, Pennsylvania, to discuss the SB on November 29, 1994. EPA also held a thirty day public comment period for the public to raise any issues relating to the remedy that EPA proposed in the SB. The public comment period began on May 17, 1995 and ended June 16, 1995. EPA considered all comments received during the public meeting and public comment period, as well as comments received by Quebecor after the close of the public comment period. These comments, and EPA's responses thereto, are set forth below.

A. Comments Received During the Public Meeting

EPA received one comment during the public meeting held on November 29, 1994 at the Parkesburg Community Building, Parkesburg, PA, as follows:

Comment: A Resident commented, "As of this moment, there has not been any poisoning or anything noticed at all, has there?"

EPA Response: In 1988, the solvent released from the Facility due to a spill, flowed across the site and offsite into Engel Pond where fish and plant life were destroyed. The Engel Pond was remediated by Quebecor. The pond was revegetated, restocked

with fish and biota were gradually reintroduced into the pond. The RFI, completed in 1994, did not detect any contaminants in the pond above EPA drinking water standards and there have no other incidents of fish and vegetation destruction since the 1988 solvent release (see EPA Response to Comment 12 in Section IV). Although the RFI also evaluated other offsite locations, contaminates of concern were not detected in any offsite groundwater, surface water or soil.

B. Written Public Comments Received

Only Quebecor submitted written comments to EPA. EPA received Quebecor's June 15, 1995 letter (See Attachment 4), which presents Quebecor's initial comments on the EPA SB.

EPA has met with PADEP and Quebecor to ensure consistency between the state's UST and EPA's Corrective Action programs. EPA's Final Decision coordinates soil and groundwater remediation for the UST and RCRA corrective action programs at the Facility (See EPA's June 13, 1996 letter, Attachment 6, and Quebecor's August 22, 1996, and September 18, 1996 letters, Attachments 7 and 8). All Quebecor's comments are addressed below and are indicated by letter, section, item and page number with EPA's response immediately below.

1. June 15, 1995 General Comments and August 22, 1996 letter, page 1, General Comments and SECTION 1, INTRODUCTION.

Quebecor presents general comments concerning the cost of remediation of the Facility in spite of the low level of risk demonstrated by its risk assessment. Quebecor indicates that there are no direct exposure pathways to any contaminant and cites the SB notations that contaminants are in the subsurface soil and the contaminated groundwater for which there is no direct exposure pathway. Quebecor objects to the EPA risk assessment and disagrees with the potential cancer and non-cancer health risks documented in the EPA risk assessment. Quebecor also presents general comments concerning feasibility of remediation to MCLs and suggests the development of alternate concentration limits(ACLs) for remediation of the Facility.

EPA Response: It is EPA's position that RCRA requires the remediation of *potential*, as well as actual, threats to human health and the environment from the onsite contamination. (See

EPA Guidance on the use and Issuance of Administrative Orders under Section 7003 of RCRA, issued September 24, 1984). The RFI documentation and the EPA risk assessment of the contamination demonstrate the *potential* risk to human health and the environment which would be presented by the leaching of hazardous constituents from contaminated soil to groundwater used as a potential potable water source, and air stripper emissions which are expected to have a non carcinogenic hazardous index equal to 3.3 versus the EPA standard of 1.00. (See Attachment 9, August 11, 1995 EPA Memorandum). The RFI data indicates that the onsite groundwater contamination will not migrate offsite to down gradient receptors (i.e., Valley Creek) for approximately twenty three(23) years; however, until the contamination is mitigated, it will continue to pose a threat to human health and the environment. (See Section III. A. for final Media Cleanup Standards.)

2. June 15, 1995 and August 22, 1996 letter, General Comments SECTION 2, DEVELOPMENT OF ALTERNATIVE CONCENTRATION LIMITS, page 1.

Quebecor proposes the American Society of Test Materials Risk Based Corrective Action with its use of alternate concentration limits("ACLs") for remediation of the site. Quebecor justifies the use of ACLs on the basis of its risk assessment of the Quebecor facility.

EPA's Response: Quebecor's risk assessment does not consider potential threats to human health and the environment due to onsite contamination which may migrate offsite to other areas. RCRA Section 7003 authorizes EPA to remediate potential threats as well as actual threats. See EPA Guidance on the Use and Issuance of Administrative Orders under Section 7003 of RCRA, issued September 26, 1984. In light of EPA's supplemental risk assessment, Quebecor's risk analysis omissions, and EPA's Groundwater Strategy, EPA does not agree that the use of ACLs is appropriate at the Facility.

EPA presents its methodology for determining corrective action media cleanup standards for groundwater remediation at a RCRA facility in the RCRA Corrective Action for Solid Waste Management Units(SWMUs) at Hazardous Waste Management Facilities, Proposed Rulemaking, Fed. Reg. 30798 (July 27, 1990)("Proposed Subpart S"), and EPA's Groundwater Protection Strategy

("Groundwater Strategy"), 55 Fed. Reg. 30829 (August, 1984). As stated in the preamble to Proposed Subpart S at 55 Federal Register 30829, and proposed 40 CFR Section 264.525(d)(2)(ii), EPA may determine that groundwater remediation to an established media cleanup standard for a given hazardous waste and/or a hazardous constituent is not necessary only if the facility demonstrates that the groundwater:

1) is not a current or potential source of drinking water, and

2) is not hydraulically connected with waters to which hazardous constituents are migrating or are likely to migrate in a concentration(s) greater than an action level(s) specified according to Proposed 40 CFR Section 264.522.

According to Proposed Subpart S, which generally relies on EPA's groundwater strategy, groundwater is not generally considered a potential drinking water source if the water is heavily saline, contains total dissolved solids ("TDS") levels over 10,000 parts per million (mg/l), or is otherwise contaminated beyond levels that allow cleanup using methods reasonably employed in public water system treatment. Such groundwater is described as a "Class III aquifer". Such groundwater also must not migrate to Class I or II groundwater (as those classes of groundwater are defined in the Strategy) or have a discharge to surface water that could cause degradation. See Federal Register at 30829.

After review of the above criteria, EPA has determined that the groundwater at the Facility is a potential drinking water source that should be cleaned up to the media cleanup standards which are set forth in the Table 1, below. Indeed, the groundwater beneath and migrating from the Facility meets none of the criteria established by the Strategy and set forth in Proposed Subpart S for a Class III aquifer. The treatment methodology set forth in the SB in fact represents commonly available wastewater treatment technology. In addition, the contaminated groundwater has the potential to migrate to Valley Creek which could cause environmental degradation. As part of the selected remedy, institutional controls will be employed at the Facility to help protect human health and the environment. These controls shall be eliminated when the media cleanup standards are achieved. Attainment of modified media cleanup

standards based on a determination by EPA of technical impracticabilty does not qualify as attainment for the purpose of removing the drinking water well deed restriction. EPA will evaluate the need for continued site remediation as groundwater quality improves.

3. June 15, 1995 and August 22, 1996 letter, page 1. Specific Comment Nos. 1, 2, & 3:

Quebecor objects to the EPA SB as a "unilateral EPA action" which is not supported by the administrative record. Quebecor further comments that EPA approved the Facility's risk assessment in its RFI report and subsequently revised the risk assessment when the Agency issued the SB. Quebecor also objects to risks being calculated on the basis of exposures that "do not exist" and "are not reasonably likely".

EPA Response: Quebecor's risk assessment was submitted as a part of its October 22, 1993 RFI Report. The report indicates a cancer risk of 1.6E-08, which is substantially below the cancer risk subsequently calculated by EPA. The RFI Report established that contamination exists in onsite groundwater and subsurface soil resulting from the release of hazardous constituents at the Facility. EPA provided Quebecor with the opportunity to complete its assessment of the impact of releases at and from the Facility on human health and ecological systems("risk assessment") in accordance with EPA Risk Assessment Guidance for Superfund, Volume I - Human Health Evaluation Manual (Part A), EPA 540/1-89/002. However, in the RFI Report, Quebecor submitted a risk assessment which did not completely quantify the associated potential risks. EPA agrees that it accepted the incomplete but otherwise acceptable risk assessment within the RFI Report for the purpose of Quebecor's satisfaction of its legal obligations under the Order. EPA's acceptance did not constitute a determination that the conclusions in Quebecor's risk assessment were correct or binding on EPA. Subsequently, EPA supplemented the RFI risk assessment submitted by Quebecor to include an evaluation of all risks in accordance with EPA risk assessment guidelines. The EPA risk assessment demonstrated that the potential cancer risk at the Facility was 2.54E-04 and the Hazard Index of non-cancer risk was 62.5, both of which are in excess of EPA acceptable risk levels of 1.00E-04, and 1.00, respectively. (See SB, Attachment 1, Page 11.)

As a result of the June 1995 comment, EPA revisited its risk assessment and confirmed that the potential future risk is in excess of the aforementioned acceptable risk levels. In fact, the revisited risk calculation presents the potential cancer risk at the Facility as 2.27E-04 and the Hazard Index of non-cancer risk is 129. (See Attachment 9.)

4. June 15, 1995 and August 22, 1996 letter, page 1. Specific Comment No. 4:

Quebecor considers the EPA media cleanup standards "erroneously stringent and technically impractical" since its risk assessment does not demonstrate any substantial risk.

EPA Response: The final media clean-up standards for this site have been revised to reflect additional data. See EPA Response to Comments No. 2 and No. 3 in this Section.

5. June 15, 1995 and August 22, 1996 letter, page 1. Specific Comment No. 5:

Quebecor objects to PCE and DEHP being included in the chemicals of concern because PCE and DEHP were only detected twice during the RFI.

EPA Response: EPA acknowledges that groundwater monitoring data subsequent to the RFI do not indicate the presence of PCE and DEHP contaminants. DEHP is a common laboratory contaminant and may be introduced into the samples during analysis. As a part of this Final Decision, EPA is therefore requiring semi-annual groundwater compliance monitoring, for two years, for PCE and DEHP to determine if further sampling is necessary. If these compounds are not detected in any of these sample rounds, EPA may determine that these chemicals may be omitted from all future sampling events. (See Section III.A. Media Cleanup Standards)

6. June 15, 1995 and August 22, 1996 letter, page 1. Specific Comment No. 6:

Quebecor objects to conducting remediation under two regulatory agencies, EPA and PADEP, which may present Quebecor with "competing and conflicting demands". Quebecor also requests clarification of the use of EPA Region III Risk Based Concentration(RBCs) Tables for soil cleanup standards and

identifies an incorrect reference to the EPA RBCs in the SB, Table 2.

EPA Response: EPA and PADEP responsibilities are addressed in Section IC of this Final Decision. As it has in the past, EPA will continue to coordinate with PADEP to ensure that the remedy set forth in this Final Decision does not conflict with any site remediation being pursued under PADEP's UST programs.

EPA has reviewed the soil cleanup standards presented in the SB and has determined that at Section VIII, the SB should be revised and incorporated into this Final Decision as follows to correct the reference to RBCs:

> "Media cleanup standards for this Facility are set forth in the Final Decision. Media cleanup standards are based on EPA's Safe Drinking Water Act MCLs and are consistent with the Pennsylvania cleanup standards set forth in Act 2."

7. June 15, 1995 and August 22, 1996 letter, page 2. Specific Comment No. 7:

Quebecor restates its position regarding the elimination of PCE and DEHP from the chemicals of concern onsite.

EPA Response: See EPA Response to Comment No. 5 in this Section.

8. June 15, 1995 and August 22, 1996 letter, page 2. Specific Comment No. 8:

Quebecor comments that EPA's requirement for approval of soil sampling plans suggests that EPA does not intend to delegate real authority to PADEP on soil remediation.

EPA Response: See EPA Response to Comment No. 6.

9. June 15, 1995 and August 22, 1996 letter, page 2. Specific Comment No. 9:

Quebecor provides additional information to correct the description of the UST remedial measures referenced in the SB.

EPA Response: EPA has determined that the SB, Page 5; first paragraph under "II. PROPOSED CORRECTIVE MEASURES", third sentence should be revised and incorporated into this Final Decision as follows:

> "The Facility began undertaking remediation in the vicinity of the UST area in accordance with PADER requirements in 1985 and later, in accordance with the interim measures section of the Administrative Consent Order, EPA Docket Number RCRA-3-003IH, issued by EPA, March 29, 1991."

10. June 15, 1995 and August 22, 1996 letter, page 2. Specific Comment No. 10:

Quebecor requests use of other applicable control technology to eliminate the air emissions from the selected remedy.

EPA Response: EPA has determined that equivalent technology may be considered in the design of the remedy, and, in the SB, Page 6, the first paragraph following "RAILROAD SIDING AREA" is revised and incorporated into this Final Decision as follows:

> "Conduct in-situ soil vapor extraction and volatilized gas treatment with granulated activated carbon (GAC) filtration, incineration, or other equivalent treatment options in accordance with applicable federal, state and local regulations."

11. June 15, 1995 and August 22, 1996 letter, page 2. Specific Comment No. 11:

Quebecor requests that deed restrictions be placed at only the 15 acres which are the industrialized portions of the fifty seven acre property.

EPA Response: Deed restrictions will be established for the entire property to ensure that drinking water wells will not be installed on site and shall continue until the contaminants of concern are within the media cleanup standards specified in Section III, Table 1, above, for two consecutive years. A media cleanup standard modification due to technical impracticability is not deemed attainment of these standards for purposes of removing any such deed restrictions.

12. June 15, 1995 and August 22, 1996 letter, page 2. Specific Comment No. 12.:

For clarity, Quebecor comments that the discussion of solvent atop the groundwater and the initiation of corrective measures at Engel Pond, should be separated into different paragraphs and requests changes in the SB, Page 7, third paragraph after "C. Previous Investigations".

EPA Response: EPA has determined that the statement concerning the solvent atop the groundwater is appropriately discussed at SB, III. D, Interim Measures/Stabilization. In the SB, Page 7, third paragraph after "C. Previous Investigations", EPA is revising this paragraph and incorporating it into this Final Decision as follows because the discussion in this paragraph is redundant with that contained in Section III. D. of the SB:

> "In response to this spill, Maxwell implemented corrective measures at Engel Pond which included liquid vacuum extraction from the impacted areas, pond aeration, pond monitoring and sampling. The Engel pond was subsequently restored with indigenous pond and stream biota. [Delete the following sentence in the SB from the above revision: "However, the RFI data indicated the presence of the solvent atop the groundwater at the facility. (See Section D., Interim Measures, below)."]

13. June 15, 1995 and August 22, 1996 letter, page 2, Specific Comment No. 13:

Quebecor comments that the Environmental Priorities Initiative Assessment of the Facility does not make any specific references to releases to the environment by Quebecor. Quebecor also restates its comments concerning EPA inclusion of DEHP and PCE at the Facility as contaminants of concern and the inclusion of lead and cyanide as contaminants of concern while lead and cyanide have not been part of any process at the Facility.

EPA Response: In the July 15, 1985 Federal Register, EPA defined a release at page 28713 as "... any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the environment." On May 8, 1990, EPA completed its Environmental Priorities Initiative Assessment of the Facility. The Assessment includes the

following (Administrative Record page numbers are indicated as AR 000000 etc.):

AR220001-220058. Preliminary Assessment, 23 October 1989;

AR220059-220080. Site Visit Summary Report, 8 May 1990;

AR270001-270112. Inorganic Data Validation Report, dated August 29, 1990, and.

AR270113-270137. Organic Data Validation Report, 7 September 1990;

The Assessment includes the following specific references to releases from the Facility to the environment:

AR 220014. EPA Preliminary Assessment - March 1989 Chlorinated solvent wastewater release.

AR 220015. EPA Preliminary Assessment - November 1988, an estimated 3,500 - 5000 gallons of solvent, including but not limited to toluene and xylene, overflowed, eventually discharging into a marshy area and a neighboring pond to the west-southwest of the plant.

AR220016. EPA Preliminary Assessment - October 1989. Approximately 75 to 100 gallons of solvent were discharged into a drainage swale on the property located south-west of the air stripper system. December 1986, an estimated 700 gallons of lactol solvent(toluene and xylene) were released onto the ground in the area of the pump house.

AR220029. 10/9/85 Incident Report. Solvent discovered in onsite monitoring wells.

AR220031. 1/10/86 Incident Report. Estimated 200 gallons of solvent spilled onsite from open valve.

AR220033. 10/21/86 Incident Report. Onsite release of 75-100 gallons of Lactol(press solvent).

AR220035. 12/23/86 Incident Report. 700 gallon onsite release of Lactol.

AR220037. 3/29/89 Incident Report. Estimated 500 gallon discharge from its wastewater treatment plant, and,

AR331021-331037. Quebecor's 11/2/93 letter and report of 2800 gallons of solvent lost through the broken underground solvent transfer line.

The August 29, 1990 Inorganic Data Validation report identifies cyanide contamination in soil sample MCCX15 collected at location SW2 at 228 ug/l. The September 7, 1996 Organic Data Validation reports for sampling at the Facility detected DEHP in sediment sample CCW51 collected at location SD1 at 1600 ug/l. DEHP was also identified in a sample collected during the RFI. Although the Assessment detected cyanide and the RFI detected DEHP contaminants twice at monitoring wells MW-5 and MW-12, EPA has determined that these contaminants were most likely attributed to laboratory analysis error since there is no indication of a release of these two constituents at the Facility. EPA has determined that the last paragraph of Page 7 of the SB should be revised and incorporated into this Final Decision as follows:

> "In April 1990, EPA completed an Environmental Priorities Initiative Preliminary Assessment ("Assessment") for the Facility. According to the Assessment, benzene, toluene, ethylbenzene, xylene, tetrachloroethylene, bis(2-ethylhexyl) phthalate, cyanide, and lead have been identified in samples taken from the facility."

14. June 15, 1995 and August 22, 1996 letter, page 2. Specific Comment No. 14:

Quebecor provides information which clarifies the amount and location of the Line Leak, and requests clarification of agency oversite and remediation of this release.

EPA Response: Remediation of the Line Leak will be coordinated with PADEP and completed as specified in the Selected Remedy. EPA agrees with the data provided by Quebecor. EPA has determined that the first full paragraph on page 8 of the SB should be revised and incorporated into this Final Decision as follows:

"On October 29, 1993, there was a 2,800-gallon spill of solvent in the area west of the bulk ink storage building area. This area is approximately seventy-five feet northwest of the UST area."

15. June 15, 1995 and August 22, 1996 letter, page 3. Specific Comment No. 15:

Quebecor provides data which clarifies the operation of the 1986 pump and treat program instituted as a result of a spill.

EPA Response: Based on Quebecor's information, which contains a more accurate statement about the discharge from the underground storage tanks than is set forth in the SB, EPA has determined that under "Interim Measures/Stabilization", the first sentence of paragraph 1 on page 8 of the SB should be revised and incorporated into this Final Decision as follows:

"As a result of the 1985 Lactol discharge from the underground storage tanks, by the end of August 1986, Diversified (and later Quebecor) implemented a groundwater recovery pump and treatment system to contain the solvent and prevent any further migration of the contaminated groundwater plume from the Facility."

16. June 15, 1995 and August 22, 1996 letter, page 3. Specific Comment No. 16:

Quebecor provided data and requests clarification to the SB's reference to the Facility's use of granulated activated carbon in its air stripper treatment system.

EPA Response: Based on Quebecor's information, which contains a more accurate description of the air stripper treatment design than is set forth in the SB, EPA has determined that page 8 of the SB, first paragraph under "Interim Measures/ Stabilization", last sentence, should be revised and incorporated into this Final Decision as follows:

"In 1993, the air stripper tower was upgraded to include granular activated carbon unit as a final polish to the air stripper effluent water, prior to its discharge."

17. June 15, 1995 and August 22, 1996 letter, page 3. Specific Comment No. 17:

Quebecor provides data to clarify the SB's reference to the number of monitoring wells used in the RFI.

EPA Response: Based on Quebecor's information, which contains a more precise breakdown of the RFI onsite monitoring well network than that set forth in the SB (which had referred to 31 monitoring wells), EPA has determined that the first sentence of paragraph 1 on page 9 of the SB, should be revised and incorporated into this Final Decision as follows:

> "Groundwater was evaluated during the RFI through a onsite groundwater monitoring well network comprised of twenty-eight onsite monitoring wells and four offsite residential drinking water sources that were monitored by GES during the RFI."

18. June 15, 1995 and August 22, 1996 letter, page 3. Specific Comment No. 18:

Quebecor requests a clarification in the SB's statement of the direction of groundwater flow.

EPA Response: EPA agrees with Quebecor that the direction of groundwater flow at the Facility is more accurately described as flowing southwest rather than south as is stated in the SB. Based on the RFI and information supplied by Quebecor, EPA clarifies the direction of groundwater flow in the third sentence of the first paragraph of page 9 of the SB, after "1. Groundwater", should be revised and incorporated into this Final Decision as follows:

> "Groundwater generally flows toward the southwest and discharges into Valley Creek."

19. June 15, 1995 and August 22, 1996 letter, page 3. Specific Comment No. 19:

Quebecor provides data to correct the SB's cost estimates for the soil venting remedy.

EPA Response: EPA agrees that the original cost estimates in the SB should be revised because Quebecor's reanalysis of these costs is based on the new soil media cleanup standards set forth in Section III, Table 1 of this Final Decision. Therefore, the reference on page 14 of the SB, first paragraph after 5, BIOLOGIC ENHANCEMENT BY SOIL VENTING, the fourth sentence, is revised and incorporated into this Final Decision as follows:

> "Capital cost is $172,500 and O&M cost is between $449,800 to $695,400".

20. June 15, 1995 and August 22, 1996 letter, page 3. Specific Comment No. 20:

Quebecor proposes compliance monitoring frequencies and comments that the EPA points of compliance are not acceptable.

EPA Response: See Section III.B. of this Final Decision.

21. June 15, 1995 and August 22, 1996 letter, page 3. Specific Comment No. 21:

Quebecor states that three compliance monitoring points will be destroyed during remediation.

EPA Response: EPA may require the replacement of monitoring points destroyed during remediation. This will be taken into account during development of the Final Design.

22. June 15, 1995 and August 22, 1996 letter, page 3. Specific Comment No. 22:

Quebecor states that the Engel Pond monitoring points should be removed.

EPA Response: EPA concurs. See discussion of Engel Pond in Section III.B. of this Final Decision.

23. June 15, 1995 and August 22, 1996 letter, page 4. Specific Comment No. 23:

Quebecor provides clarification on the status of the 1991 Order Interim Measures Pump and Treat remediation in the underground storage tank field area and assumes that there is not

an officially approved UST(removal) Work Plan.

EPA Response: See Section II of this Final Decision.

24. June 15, 1995 and August 22, 1996 letter, page 4. Specific Comment No. 24:

Quebecor provides clarification concerning the SB's discussion of soil permeability.

EPA Response: Quebecor correctly indicates that the word "intermolecular" in the SB's soil permeability on page 18 should be "interparticular". Based on Quebecor's information, EPA has determined that the second sentence, first paragraph of page 18 of the SB should be revised and incorporated into this Final Decision as follows:

> "However, the low permeability of the soils at the Facility severely limits the efficiency of these alternatives at this facility because the interparticular spacing of the soil particles restricts the passage of the VOC molecules."

25. June 15, 1995 and August 22, 1996 letter, page 4. Specific Comment No. 25:

Quebecor restates its comments on the ineffectiveness of groundwater pump and treat technology to remediate groundwater and recommends that ACLs be considered for site-specific media cleanup standards.

EPA Response: EPA believes that groundwater treatment is necessary and appropriate for this site. Details of the groundwater treatment system are discussed in Quebecor's August 22, 1996 letter to EPA (Exhibit A) and EPA's responses to that letter (See Points 4, 4.B, and 8 and EPA's responses thereto).

26. June 15, 1995 and August 22, 1996 letter, page 4. Specific Comment No. 26:(Comment Withdrawn)

In the June 1995 letter, Quebecor presents technical clarification on biological enhancement by soil venting control technology,(SW-5), as stated in the SB. In the August 1996 letter, Quebecor withdrew the comment.

EPA Response: No response necessary.

27. June 15, 1995 and August 22, 1996 letter, page 4. Specific Comment No. 27:

Quebecor presents additional cost data which indicates that certain remedial measures set forth in the SB are more expensive than EPA initially estimated in that document.

EPA Response: After reviewing the CMS and the additional cost data, EPA has determined that the SB's proposed remedial alternatives may be more expensive than initially estimated by EPA. Further, this Final Decision includes remediation of the Line Leak area and UST area tank and soil excavation activities which were not included in the costs for the relevant remedial alternatives in the SB. Based on this additional data, page 22, first paragraph, fourth sentence of the SB is revised and incorporated into this Final Decision as follows:

> "The estimated total project cost, including capitol costs and operation and maintenance cost of EPA's proposed Corrective Measures Alternative, is $325,000(GW-1), $1,498,700(GW-2), and $536,100(SW-2), which totals $2,359,800. The total project cost for the EPA selected remedy may vary to account for, among other things, remediation cost for the Line Leak area, UST area tank removal, variations in the final number of points of compliance, variations in final contaminants of concerns, and estimated length of time to achieve media cleanup standards. The combined project cost for all aspects of remediation for the railroad siding area, the UST area, and the Line Leak area including the additional cost for the UST area tank removal($94,000) and soil and debris excavation($324,000) is estimated to be $2,777,800."

Quebecor August 22, 1996 letter
Exhibit A, Remedy Term Sheet

In the Quebecor August 22, 1996 letter, at Exhibit A, Remediation Term Sheet, Quebecor presents its response to EPA's June 13, 1996 remediation outline. Each point is presented below with EPA's response.

Tank Farm Area

Quebecor proposed the following remedial activities for the Tank Farm Area:

Quebecor's Point 1. Removal of UST and related soils (see work plan for the underground storage tanks submitted by Groundwater & Environmental Services on behalf of Quebecor to PADEP on 7 July 1994; accepted by PADEP by letter dated 28 July 1994).

EPA Response to Quebecor's Point 1: EPA concurs. See Section II of this Final Decision.

Quebecor's Point 2. Removal of separate-phase solvent (if present) from subsurface during the UST removal by vacuum-truck withdrawal from the open UST excavation.

EPA Response to Quebecor's Point 2: EPA concurs. See Section II of this Final Decision.

Quebecor's Point 3. Each tankfield (northern and southern) will be backfilled with gravel and an extraction well will be installed in each tankfield to be used as a recovery point. Extracted fluids will be directed to a solvent/water separator; water will then be discharged to an air stripper for treatment and discharge. Soil will be sampled prior to backfilling the tankfield area. Discharge from the air stripper shall be in accordance with appropriate federal, state and local laws and regulations.

EPA Response to Quebecor's Point 3: EPA accepts this conceptual design for the line leak area. The SB did not contain a discussion of the line leak area. This design helps protect human health and the environment from contaminants located in that area. The final design will be submitted with the design for the Selected Remedy. See Section II of this Final Decision.

Quebecor's Point 4.A. Groundwater pump and treat for toluene from existing recovery wells should continue until attainment of either of the below conditions: (i) media cleanup standards ("MCS"), as defined below, or (ii) asymptotic levels, as defined below.

Definition of Media Cleanup Standards

Constituent	Soil (ppm) RBCs	Groundwater (ppm) MCLs
Benzene	n/a	0.005
Toluene	0.5	1.0
Ethylbenzene	1.0	n/a
Xylene	0.7	n/a

Attainment will be achieved for a sampling point if MCS are not exceeded for that sampling point for two consecutive years of quarterly samples. However, Quebecor will not be required to sample on a quarterly basis except to assemble evidence of attainment. Prior to such time, Quebecor would sample on an annual basis.

EPA Response to Quebecor's Point 4.A:

Groundwater pump and treat from recovery and monitoring wells will continue until: (i)achievement Media Cleanup Standards (MCSs)for all constituents as defined in Section III.A ,or (ii)achievement of modified Media Cleanup Standards which are established based on a finding of Technical Impractability (e.g. a demonstration by Quebecor that asymptotic levels have been reached) by EPA.

See EPA Response to Quebecor Point 4.B below for a definition of "asymptotic levels".

Quebecor's Point 4.B. <u>Definition of Asymptotic Levels</u>

Following removal of the immiscible floating phase of the contaminant plume, continuation of the groundwater remediation at a particular well shall be deemed to be technically impracticable from an engineering perspective when the groundwater monitoring data from at least eight (8) consecutive quarterly samples from that well, analyzed for the contaminant(s) of concern for which a waiver is sought, are subjected to a statistical analysis that fails to show a decrease in such contaminant at a statistical probability of 0.05. Notwithstanding anything to the contrary herein, including in the section entitled "Technical Impracticability", if Quebecor makes this showing, (i) it will not be required to describe any additional or alternate actions

not be required to describe any additional or alternate actions that it will take for that contaminant of concern, (ii) EPA will modify the MCS for groundwater for that contaminant of concern, and (iii) EPA will direct termination of the then existing groundwater extraction system for each well where the foregoing demonstration has been made.

The appropriate model for the statistical analysis shall be that of an exponential function whose concentration decreases with time. The exponential model shall be calibrated using linear regression with time on the logarithms of the contaminant concentration data. A one-tailed hypothesis test on the regression slope shall be used to determine whether there is a significant downward trend; no particular power requirement shall be imposed for detection of the significant downward trend. When the regression slope for any contaminant from at least eight (8) consecutive quarterly samples is not significantly less than zero, (with the probability of Type I error less than 0.05), the groundwater concentration of that contaminant will be deemed asymptotic with time.

EPA Response to Quebecor Point 4.B: Definition of Asymptotic Levels

EPA substantially agrees with Quebecor's proposal and incorporates it into this Final Decision with minor modifications as follows:

> "Any demonstration of technical impracticability submitted to EPA which asserts that asymptotic levels have been reached for a specific contaminant shall be subject to statistical analyses. The results of the statistical analysis will be used to determine whether there exists a significant downward trend in the concentrations of any contaminant with respect to time.
>
> The following approach is required for the statistical analysis to determine asymptotic levels:
>
>> Following removal of the immiscible floating phase of the contaminant plume, continuation of the groundwater remediation at a particular well at the Facility shall be deemed to be technically impracticable when the groundwater monitoring data from at least eight(8)

consecutive quarterly samples, analyzed for each contaminant of concern, are subjected to a regression analysis that fails to show a decrease in each such contaminant at a statistical probability of 0.05.

The appropriate model for the analysis shall be that of an exponential function whose concentration decreases with time. The exponential model shall be calibrated using linear regression with time on the logarithms of the contaminant concentration data. A one-tailed hypothesis test on the regression slope shall be used to determine whether there is a significant downward trend. When the regression slope for any contaminant, based on the most recent consecutive eight (8) quarters of groundwater monitoring data, is not significantly less than zero, (with the probability of Type I error less than 0.05), the groundwater concentration of that contaminant will be deemed asymptotic with time.

Attainment of any modified MCS shall be demonstrated as set forth in Section III.A (Media Cleanup Standards).

Railroad Siding Area

Quebecor proposed the following remedial activities for the Railroad Siding Area:

Quebecor's Point 5. High-vacuum total phase extraction system for removal of vapors and fluids from subsurface. Quebecor to present a proposed design for discussion with EPA.

EPA Response to Quebecor Point 5: EPA concurs with this conceptual design. See Section II of this Final Decision.

Quebecor's Point 6. Groundwater pump and treat as stated in Point 4, above.

EPA Response to Quebecor Point 6: See EPA response to Point 4, above and Section II of this Final Decision.

For Entire Site

Quebecor proposed the following for Deed Restriction:

Quebecor's Point 7. Deed restriction prohibiting installation of drinking water wells shall continue until groundwater monitoring data demonstrates attainment of Safe Drinking Water Act Maximum Contaminant Levels.

EPA Response to Quebecor's Point 7: EPA essentially concurs. See Section II of this Final Decision and EPA Response to Comment 11. This Final Decision's groundwater media cleanup standards set forth in Section III, Table 1, are primarily based on the Safe Drinking Water Act's MCLs. Therefore, attainment with the groundwater media cleanup standards set forth in Section III should also result in attainment of the Safe Drinking Water Act's MCLs. Nonetheless, should the applicable MCLs be revised in the future, the Final Decision's groundwater media cleanup standards must still be achieved before this Final Decision's deed restrictions become inapplicable. Of course, if the applicable MCLs become less stringent in the future, that may be sufficient cause to request EPA to modify the deed restriction requirement in this Final Decision. Any such proposed modification would be subject to applicable regulations and policies concerning public participation before EPA could make a final decision on the requested modification.

Technical Impracticability

Quebecor proposed the following language for technical impracticability:

Quebecor's Point 8. The work performed by Quebecor shall continue until achievement of the MCS for both soil and groundwater unless it is determined, to EPA's satisfaction, that (i) those standards are technically impracticable from an engineering perspective; or (ii) the MCS need not be met in view of the nature and extent of the risk posed by the Facility.

After a minimum of three (3) years after the commencement of soil remediation and operation of the groundwater pump and treatment system, Quebecor may request that EPA waive compliance with one or more media cleanup standards based upon a demonstration by Quebecor that achievement of such media cleanup standard is technically impracticable from an engineering perspective. The request shall include:

(i) an identification of each media cleanup standard for which a waiver is sought;

(ii) the technical basis for the determination that it is technically impracticable from an engineering perspective; and

(iii)a description of any additional or alternate actions proposed to be taken by Quebecor. EPA shall review the petition and supporting documentation and shall determine whether to waive compliance with the media cleanup standard(s); and whether existing soil remediation and operation of the existing groundwater extraction system shall be modified or terminated in whole or in part. EPA shall provide Quebecor with a written notice of its decision.

EPA Response: Technical Impracticability

EPA substantially agrees with Quebecor's technical impracticability proposal. However, since the risk prong of Quebecor's proposed technical impracticability test is unrelated to what is practicable from an engineering perspective, EPA has not adopted this element of Quebecor's proposed standard. The remaining portion of Quebecor's proposed technical impracticability test is incorporated into this Final Decision with minor modifications as follows:

"Implementation of the selected remedy shall continue until achievement of each media cleanup standard.

After a minimum of three (3) years after the commencement of soil remediation and operation of the groundwater pump and treatment system, EPA may modify one or more media cleanup standards based upon a demonstration that achievement of such media cleanup standard is technically impracticable from an engineering perspective. The demonstration shall include:

(i) an identification of each media cleanup standard for which a modification is sought;

(ii) the technical basis for the determination that it is technically impracticable from an engineering perspective to attain the media cleanup standard in question; and

(iii) a description of any additional or alternate actions proposed to be taken to prevent migration of, or exposure to, the contaminant for which modification of the media cleanup standard is sought.

On the basis of such demonstration and any other relevant information, EPA shall determine whether to modify a media cleanup standard and shall provide written notice of its decision.

V. DECLARATION

Based on the Administrative Record compiled for this Corrective Action, I have determined that the selected Corrective Measure as set forth in the Statement of Basis and modified or clarified by the Final Decision herein is appropriate and will be protective of human health and the environment.

Date: JUN 16 1997

W. Michael McCabe
Regional Administrator
U.S. Environmental Protection Agency
Region III