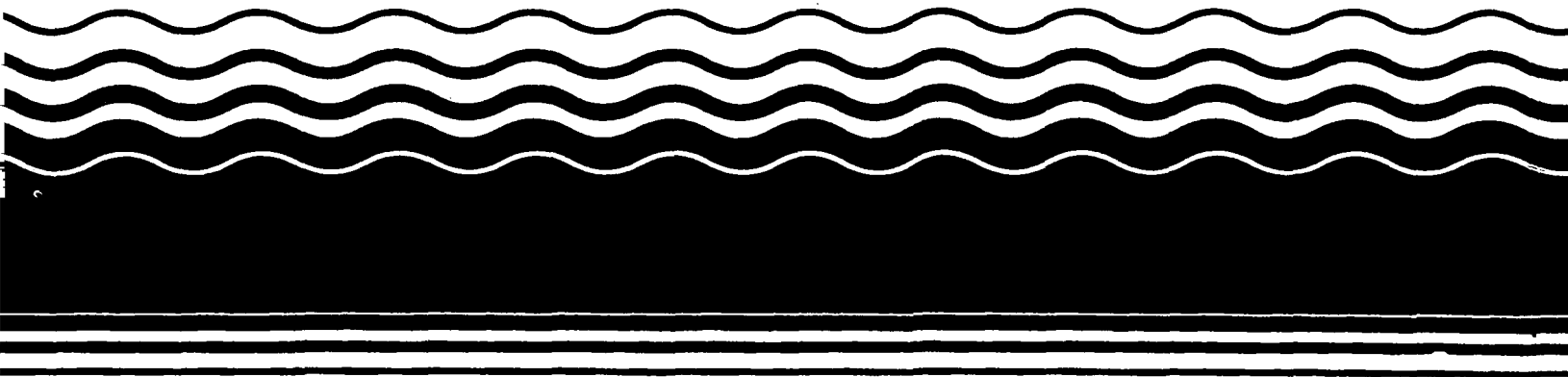


**PB97-963122
EPA/541/R-97/062
November 1997**

**EPA Superfund
Record of Decision Amendment:**

**Recticon/Allied Steel Corp.,
East Coventry Twp., PA
8/29/1997**



**RECORD OF DECISION AMENDMENT
RECTICON/ALLIED STEEL SUPERFUND SITE**

DECLARATION

SITE NAME AND LOCATION

Recticon/Allied Steel Superfund Site
Parker Ford, Chester County, Pennsylvania

STATEMENT OF BASIS AND PURPOSE

This decision document presents the amended final selected remedial action for the Recticon/Allied Steel Superfund Site ("the Site"). The original remedial action selected in the Record of Decision ("ROD") issued by EPA in June 1993 and the amended remedial action selected in this ROD Amendment were selected in accordance with the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 ("CERCLA"), as amended by the Superfund Amendments and Reauthorization Act of 1986 ("SARA") and the National Oil and Hazardous Substances Pollution Contingency Plan ("NCP"). This ROD Amendment is based on the Administrative Record for the Site.

The Commonwealth of Pennsylvania has assisted EPA in the review of reports and Site evaluations for the Site. The Commonwealth concurs with this ROD Amendment.

ASSESSMENT OF THE SITE

Pursuant to duly delegated authority, I hereby determine pursuant to Section 106 of CERCLA, 42 U.S.C. § 9606, that actual or threatened releases of hazardous substances from this Site, if not addressed by implementing the response action selected in this Record of Decision Amendment ("ROD Amendment"), may present an imminent and substantial endangerment to the public, health, welfare, or environment.

DESCRIPTION OF AMENDED SELECTED REMEDY

In a June 1993 ROD, EPA required the following actions to be taken to address contamination at the Site in accordance with CERCLA and the NCP:

- Installation of a Municipal Waterline.
- Excavation and Off Site Disposal of Contaminated Soils.
- Extraction & Treatment of Ground Water with Discharge to the Schuylkill River.

- Long-Term Ground Water Monitoring.
- Verification Sampling to Determine the Source and Extent of Copper and Zinc.
- Performance of a Phase I Archeological Survey.

This ROD Amendment modifies only two of the above elements:


- Ground water performance standards will be MCLs. The contaminated ground water plume will be pumped and treated until MCLs for the contaminants of concern, including, trichloroethene, tetrachloroethene, vinyl chloride, 1,1 dichloroethene, 1,2 dichloroethane, and 1,2 dichloroethene, are achieved.
- Excavation with off-Site disposal of contaminated soil is no longer required. However, EPA is requiring that institutional controls be implemented to prohibit soil excavation on the Recticon property and prohibit any new wells on the property until ground water performance standards are met.

This ROD Amendment does not modify the remaining requirements under the June, 1993 ROD. Construction and operation of the ground water extraction and treatment system to prevent contaminated ground water from entering the Schuylkill River, installation of the waterline, long term monitoring, verification sampling for copper & zinc and a phase I archeological survey are still required.

STATUTORY DETERMINATIONS

The amended selected remedy is protective of human health and the environment and is cost effective. EPA believes that the amended selected remedy will comply with all Federal and State requirements that are legally applicable or relevant and appropriate to the remedial action. The amended selected remedy utilizes a permanent solution to the maximum extent practicable and satisfies the statutory preference for a remedy that employs treatment that reduces toxicity, mobility, or volume.

Because this amended remedy will result in hazardous substances remaining onsite above health-based levels, a review by EPA will be conducted within five years after initiation of the remedial action to ensure that the remedy continues to provide adequate protection of human health and the environment.



Abraham Ferdas, Acting Director
Hazardous Waste Management Division
Region III

8/29/97

Date

**Record of Decision Amendment
for the
Recticon/Allied Steel Site
Parker Ford, Pennsylvania**

BACKGROUND

The U.S. Environmental Protection Agency ("EPA") is issuing this Record of Decision Amendment to memorialize changes to the Record of Decision ("ROD") issued in June 1993 for the Recticon/Allied Steel Superfund Site ("Site") located in East Coventry Township, Chester County, Pennsylvania. EPA is making two changes to the 1993 ROD: (1) replacing excavation and off-site disposal of contaminated soil with institutional controls limiting future use of the Recticon property; and (2) changing the ground water clean up standards to the Maximum Contaminant Limits ("MCLs") established under the Safe Drinking Water Act 42 U.S.C. § § 300f-300j-26

This ROD amendment summarizes information obtained from the Remedial Investigation and Feasibility Study ("RI/FS") completed for the 1993 ROD, and relevant information obtained since then, to explain the need for the changes.

The Recticon/Allied Steel Site consists of two properties located on the northwest and southeast corners of the intersection of Route 724 and Wells Road in Parker Ford, PA (*see* Figures 1 & 2). From 1974 to 1981, the Recticon Corporation, a subsidiary of Rockwell International Corporation manufactured silicon wafers for the semiconductor industry on one of the properties. A customized, pressurized steel vessel fabricating business was operated until 1988 at another portion of the Site owned by Allied Steel since 1970.

In the 1993 ROD, EPA required the following actions to be taken to address contamination at the Site in accordance with the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended by the Superfund Amendments and Reauthorization Act of 1986, U.S.C. § 9601 *et al.* ("CERCLA"), and the National Oil and Hazardous Substances Pollution Contingency Plan ("NCP"):

- Installation of a Municipal Waterline.
- Excavation and Off Site Disposal of Contaminated Soils.
- Extraction & Treatment of Ground Water with Discharge to the Schuylkill River.
- Long-Term Ground Water Monitoring.

- Verification Sampling to Determine the Source and Extent of Copper and Zinc.
- Performance of a Phase I Archeological Survey.

A Responsible Party ("RP") has been complying with an EPA Unilateral Administrative Order ("UAO") issued on March 24, 1994 to implement the 1993 ROD.

This ROD Amendment modifies only two of the above elements: the requirement to excavate and dispose off-site of a small volume of soil on the former Recticon portion of the Site, and the requirement to achieve background levels as the ground water clean up performance standards in accordance with the relevant and appropriate Pennsylvania Department of Environmental Protection ("PADEP") requirements at the time of the 1993 ROD. This Proposed ROD Amendment does not modify the remaining requirements under the 1993 ROD. Construction and operation of the ground water extraction and treatment system to prevent contaminated ground water from entering the Schuylkill River, installation of the waterline, long term monitoring, verification sampling for copper & zinc and a phase I archeological survey are still required.

REASONS FOR ISSUING ROD AMENDMENT

Ground Water Performance Standards

At the time EPA issued the 1993 ROD, the Agency considered MCLs, the maximum permissible level of contaminants allowed in water delivered to any user of a public water system, to be appropriate ground water performance standards. However, since the Commonwealth had more stringent standards in place, the ground water performance standards in the 1993 ROD were based on the Commonwealth's requirements. Under Section 264.97(I) and (j) and 264.100(a)(9) of Title 25 of the PA Code, the Commonwealth required ground water to be cleaned up to "background" levels. Since that time, the Commonwealth's requirements have changed. On May 19, 1995, Governor Ridge signed into law the Land Recycling and Environmental Remediation Standards Act ("Act 2"). Act 2 became effective on July 18, 1995 and established MCLs as the protective ground water performance standards to be used in the Commonwealth of Pennsylvania. Based on this change, EPA is hereby revising the ground water performance standards from "background" to MCLs, which EPA had previously determined to be protective of human health.

Table 1 lists the "background" ground water performance standards identified in the 1993 ROD and the MCLs which will be the new ground water extraction and treatment performance standards. The "background" levels listed represent the detection limits for the analytical methods to be used to measure the concentration of the contaminants present in the ground water.

Table 1.
MCLs and 1993 ROD Background Performance Standards

Contaminant	MCL (ppb)	Background Detection Limit (ppb)	Method
tetrachloroethylene	5	0.03	601/602
trichloroethylene	5	0.12	601/602
vinyl chloride	2	0.18	601/602
1,1 - dichloroethylene	7	0.13	601/602
1,2 - dichloroethane	5	0.03	601/602
cis-1,2-dichloroethylene	70	0.12	524.2

¹ Method 601/602 40 CFR Part 136
 Method 524.2 40 CFR Part 141

Soil Performance Standards

Since no applicable or relevant and appropriate requirements (“ARARs”) existed to establish the appropriate cleanup level for soils at the Site, the soil performance standards in the 1993 ROD were based on the amount of contamination that could remain in the soil without further contributing to ground water contamination above “background” concentrations. Hence, the Commonwealth’s background ground water cleanup standards were also used to develop the soil performance standards set forth in the 1993 ROD. Modeling was performed during the Feasibility Study to determine the appropriate residual soil concentration. Based on this modeling, a soil performance standard was established requiring excavation of soil with concentrations of trichloroethylene (“TCE”) above 320 parts per billion (“ppb”). The estimated TCE concentration that could remain in soil without resulting in ground water contamination above the MCL, using the same modeling approach, is 1,600 ppb.

The Remedial Investigation for the 1993 ROD identified one sampling location, R/A7, (see Figure 3) on the former Recticon portion of the Site with elevated levels of TCE in the subsurface soil. The levels of TCE identified in that sample were 1,400 ppb, respectively, whereas the estimated TCE concentration that could remain in soil without resulting in ground water contamination above MCLs is 1,600 ppb, as stated above. Therefore, if MCLs are used in the modeling to determine the appropriate residual soil concentrations, no cleanup action is required for subsurface soil. Accordingly, this ROD Amendment eliminates the requirement in

the 1993 ROD to excavate soil from the Recticon portion of the Site and dispose it off-site. EPA is requiring that institutional controls be implemented to prohibit soil excavation on the Recticon property in the vicinity of the soil sample location R/A7 and prohibit any new wells on the property until ground water performance standards are met. The controls will be implemented through deed restrictions, and/or other appropriate means. In addition, EPA will reevaluate soil alternatives if, during the Five Year Review, EPA determines that the soil in the area of R/A7 is acting as a continuing source of ground water contamination and is preventing the achievement of ground water performance standards.

COMPARATIVE ANALYSIS

EPA evaluated the remedy selected in the 1993 ROD and the amended remedy selected in this ROD Amendment against the nine criteria specified in the NCP. These nine criteria are categorized into three groups: threshold criteria that must be satisfied for a cleanup plan to be considered further; primary balancing criteria used to weigh the tradeoffs or advantages and disadvantages of the alternatives; and modifying criteria used to consider input from the state and local community. Each of the nine criteria are described below:

Threshold Criteria:

- ***Overall protection of human health and the environment:*** Whether the remedy provides adequate protection and how risks posed through each pathway are eliminated, reduced, or controlled through treatment, engineering controls, or institutional controls.
- ***Compliance with applicable or relevant and appropriate requirements ("ARARs"):*** Whether or not a remedy will meet all ARARs of Federal and State environmental statutes and/or whether there are grounds for invoking a waiver. Whether or not the remedy complies with advisories, criteria and/or guidance that may be relevant.

Primary Balancing Criteria:

- ***Long-term effectiveness and permanence:*** The ability of the remedy to afford long term, effective and permanent protection to human health and the environment along with the degree of uncertainty that the alternative will prove successful.
- ***Reduction of toxicity, mobility, or volume through treatment:*** The extent to which the alternative will reduce the toxicity, mobility, or volume of the contaminants causing the Site risks.
- ***Short-term effectiveness:*** The short-term risk or impact to the community, on-site workers, and the environment that may be posed during construction and implementation of the alternative.

- **Implementability:** The technical and administrative feasibility of a remedy, including the availability of materials and services needed to implement that remedy.
- **Cost:** Includes estimated capital, operation and maintenance, and net present worth costs.

Modifying Criteria:

- **State Acceptance:** Whether the State concurs with, opposes, or has not commented on the preferred remedial alternative.
- **Community Acceptance:** Whether the public agrees with the preferred remedial alternative (this will be assessed in the Record of Decision following a review of the public comments received on the Administrative Record and the ROD Amendment).

The following summary discusses the changes to performance standards and elimination of soil excavation called for in this ROD Amendment in terms of the nine evaluation criteria, noting how these changes compare to the originally selected remedy.

Overall Protection of Human Health and the Environment

The remedy selected in the 1993 ROD and the revised remedy called for in this ROD Amendment meet the established remedial action objectives of the 1993 ROD, and achieve carcinogenic risks within or below EPA's target risk range (i.e., 1×10^{-4} to 1×10^{-6}). The remedial investigation indicates that the contaminated soils are located nine (9) to eleven (11) feet below the ground surface and are at levels that do not pose a human health risk based on dermal contact and ingestion. However, rainfall infiltration into soils can cause hazardous substances to continue to leach into the ground water. Because of this possibility, EPA developed a soil clean up level which would protect human health by removing contaminated soil that had the potential to cause unacceptable ground water contamination. Since ground water that meets MCLs is protective of human health, a soil cleanup level of 1,600 ppb for TCE is protective in that it will not prevent the restoration of ground water to MCLs in a reasonable time frame. Institutional controls such as deed restrictions to prevent any future excavation of soil on the Recticon property provide an additional level of protection in the long term by preventing any possible exposure to contaminated soil.

Compliance with Applicable or Relevant and Appropriate Requirements (ARARs)

CERCLA requires that remedial actions meet ARARs of other federal and state environmental laws, or that there be grounds for invoking a waiver. These laws may include, but are not limited to, the Toxic Substances Act, the Clean Water Act, the Safe Drinking Water Act, and the Resources Conservation and Recovery Act. A "legally applicable" requirement is one

which would directly apply to the response action. A "relevant and appropriate" requirement is one that, while not "applicable", is designed to apply to problems sufficiently similar that their application is appropriate

At the time of the 1993 ROD, the Commonwealth of Pennsylvania identified Section 264.97(I) and (j) and 264.100(a)(9) of Title 25 of the PA Code as an ARAR for the Site. Under the NCP, EPA is required to consider state ARARs that are more stringent than federal requirements. Since the Commonwealth regulations required that ground water be cleaned up to a more stringent level, the ground water and soil performance standards in the 1993 ROD conformed to these more stringent standards. For this ROD Amendment, PADEP has identified the Land Recycling and Environmental Remediation Standards Act, 95 Pa. Laws 2 ("Act II"), as an ARAR for this remedy; however, EPA has determined that Act II does not on the facts and circumstances of this remedy, impose any requirements more stringent than the federal standards. Accordingly, ground water cleanup Maximum Contaminant Levels and non-zero Maximum Contaminant Level Goals as set forth in accordance with Section 300g-1 of the Safe Drinking Water Act, 42 U.S.C. Section 1412, and its implementing regulations at 40 C.F.R. Part 141 are relevant and appropriate. Therefore, both the 1993 ROD remedy and the revised remedy recommended in this ROD Amendment comply with ARARs.

Long-Term Effectiveness and Permanence

Both the 1993 ROD remedy and the remedy recommended in this ROD Amendment will provide long-term effectiveness and permanence. The remedial investigation indicates that the contaminated soils are located nine (9) to eleven (11) feet below the ground surface and are at levels that do not pose a human health risk based on dermal contact and ingestion. However, institutional controls such as deed restrictions to prevent the excavation of soil in this location in the future will provide an inexpensive additional level of protection in the long term by preventing the soil from reaching any potential receptors in the future. EPA's preference to use treatment to address the principle threats is met by the treatment of ground water as discussed under the ground water alternatives in the 1993 ROD.

Reduction of Toxicity, Mobility or Volume through Treatment

Both the 1993 ROD remedy and the remedy changes described in this ROD Amendment will reduce the toxicity, mobility and volume of contaminants in ground water at the Site through ground water extraction and treatment. While the 1993 ROD remedy also required excavation and off-site disposal of soil with TCE concentrations exceeding 320 ppb, contaminants present in the soil would not have been treated to reduce the toxicity, mobility or volume. Therefore, the 1993 ROD remedy does not provide any significant increase in the reduction of toxicity, mobility or volume through treatment than the revised remedy.

Short-term Effectiveness

The remedy changes in this ROD Amendment offers a greater degree of short-term effectiveness than the 1993 ROD remedy because short-term risks associated with excavation and transportation of contaminated soil are avoided. However, the short-term risks associated with excavation could be readily controlled, so both remedies are effective in the short term.

Implementability

The remedy changes in this ROD Amendment can be implemented more readily than the 1993 ROD remedy for two reasons. First, extraction and treatment of ground water to achieve MCLs may be more attainable than treatment to "background." Second, the revised remedy no longer requires soil excavation and off-site disposal.

Cost

The remedy changes in this ROD Amendment avoids the cost associated with soil excavation and off-site disposal required under the 1993 ROD remedy. The estimated present worth cost for these activities in the 1993 ROD was \$40,261. The revised costs would be those costs associated with obtaining the appropriate deed restrictions.

State Acceptance

PADEP has assisted EPA in the review of reports and Site evaluations for the Site. The Commonwealth concurs with this ROD Amendment.

Community Acceptance

EPA issued a Proposed ROD Amendment on January 31, 1997. The Proposed ROD Amendment was announced in local newspapers, as well as through distribution of the Proposed ROD Amendment to all parties on EPA's mailing list for the Recticon/Allied Steel Site. The official comment period on the Proposed ROD Amendment extended from January 31, 1997 through March 1, 1997. A public meeting on the Proposed ROD Amendment was held on February 13, 1997 at the East Coventry Township Building, East Coventry, Pennsylvania. The limited number of comments received orally at the public meeting and in writing during the public comment period are referenced in the Responsiveness Summary attached to the ROD Amendment.

In summary, the revised changes in this ROD Amendment provide the best balance of trade-offs among the alternatives evaluated with respect to the nine criteria above. Based on the information available at this time, EPA believes the revised remedy would protect human health and the environment, would comply with ARARs, and be cost-effective.

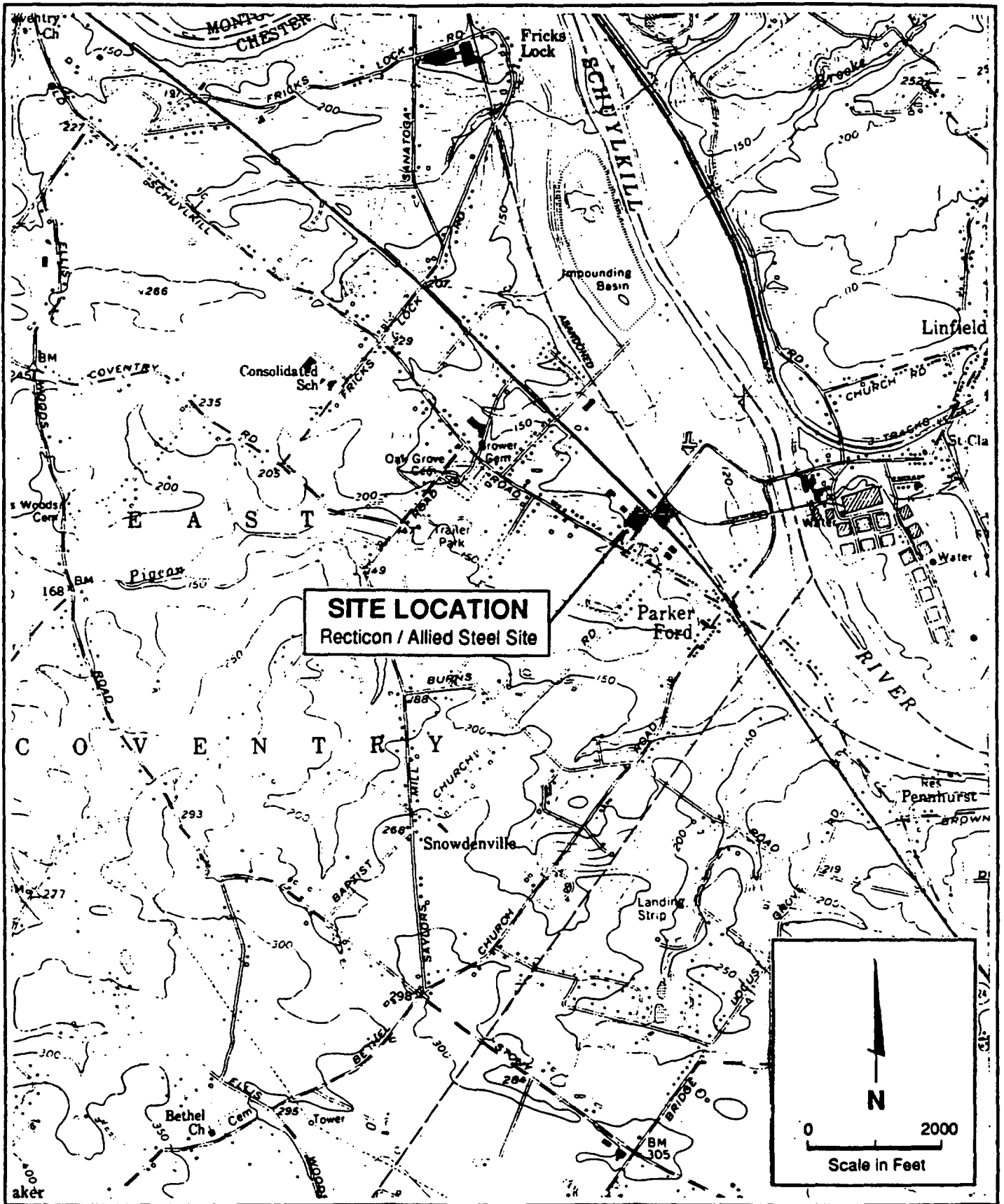
ROD AMENDMENTS

- Ground water performance standards will be MCLs. The contaminated ground water plume will be pumped and treated until MCLs for the contaminants of concern are achieved.
- Excavation with off-Site disposal of contaminated soil in the area of sampling location R/A7 is no longer required. However, EPA is requiring that institutional controls be implemented to prohibit soil excavation on the Recticon property in the vicinity of the soil sample location R/A7 and prohibit any new wells on the property until ground water performance standards are met. The controls will be implemented through deed restrictions, and/or other appropriate means. In addition, EPA will reevaluate soil alternatives if, during the Five Year Review, EPA determines that the soil in the area of R/A7 is acting as a continuing source of ground water contamination and is preventing the achievement of ground water performance standards.

In accordance with Section 117 of CERCLA, 42 U.S.C. § 9617, the ROD Amendment, and background documentation for the Recticon/Allied Steel Site are available to the public in the Administrative Record. In accordance with Section 300.825 (a) (2) of the NCP, this ROD Amendment will become part of the Administrative Record File. For a detailed description of the Site background and Site characteristics, see the 1993 ROD, Feasibility Study ("FS"), and this ROD Amendment. The Administrative Record is available for review at the following locations:

East Coventry Township Building
855 Ellis Woods Road
Pottstown, Pennsylvania 19465

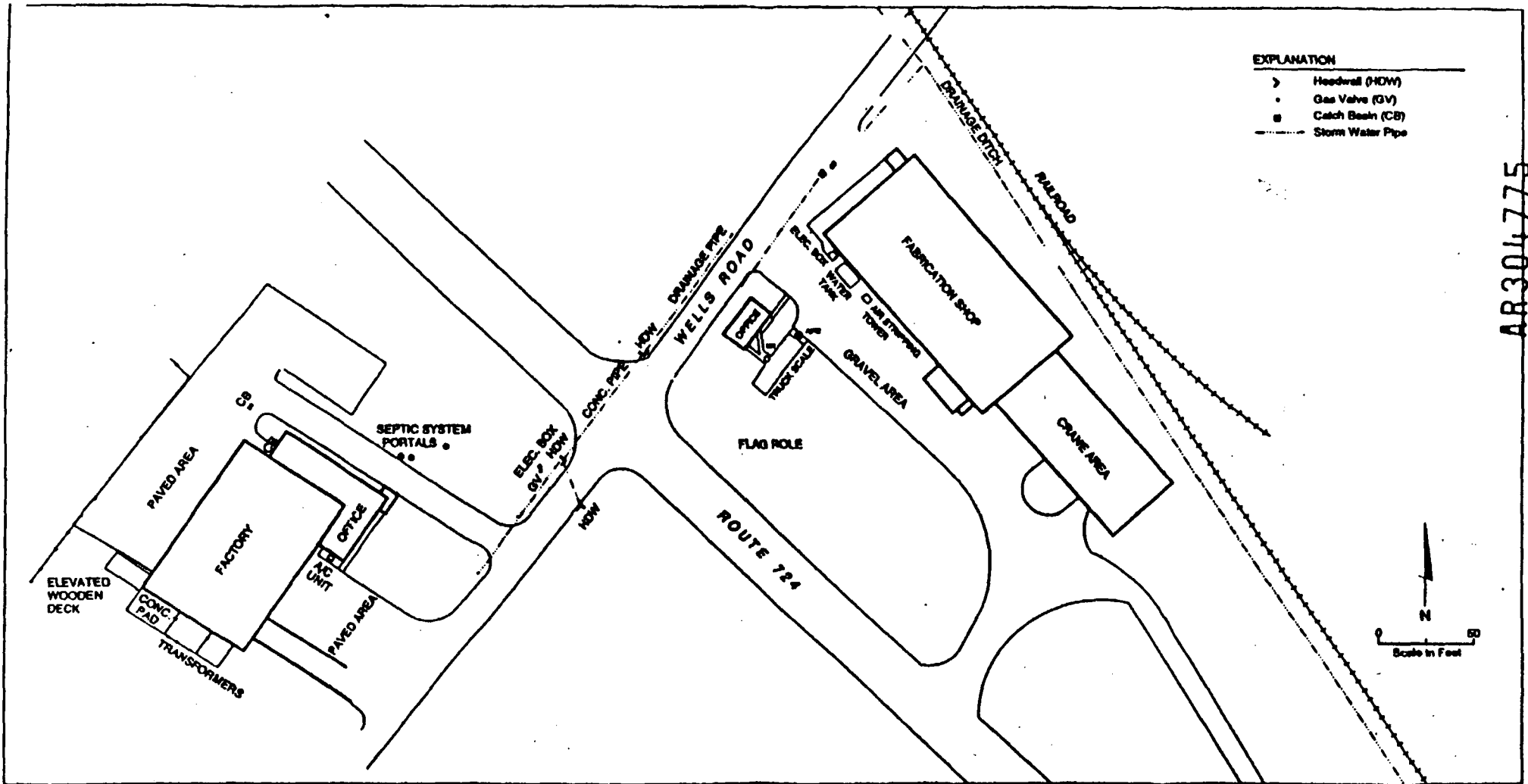
U.S. EPA Region III
841 Chestnut Bldg.
Philadelphia, PA 19107
(215) 566-3157
Contact: Anna Butch

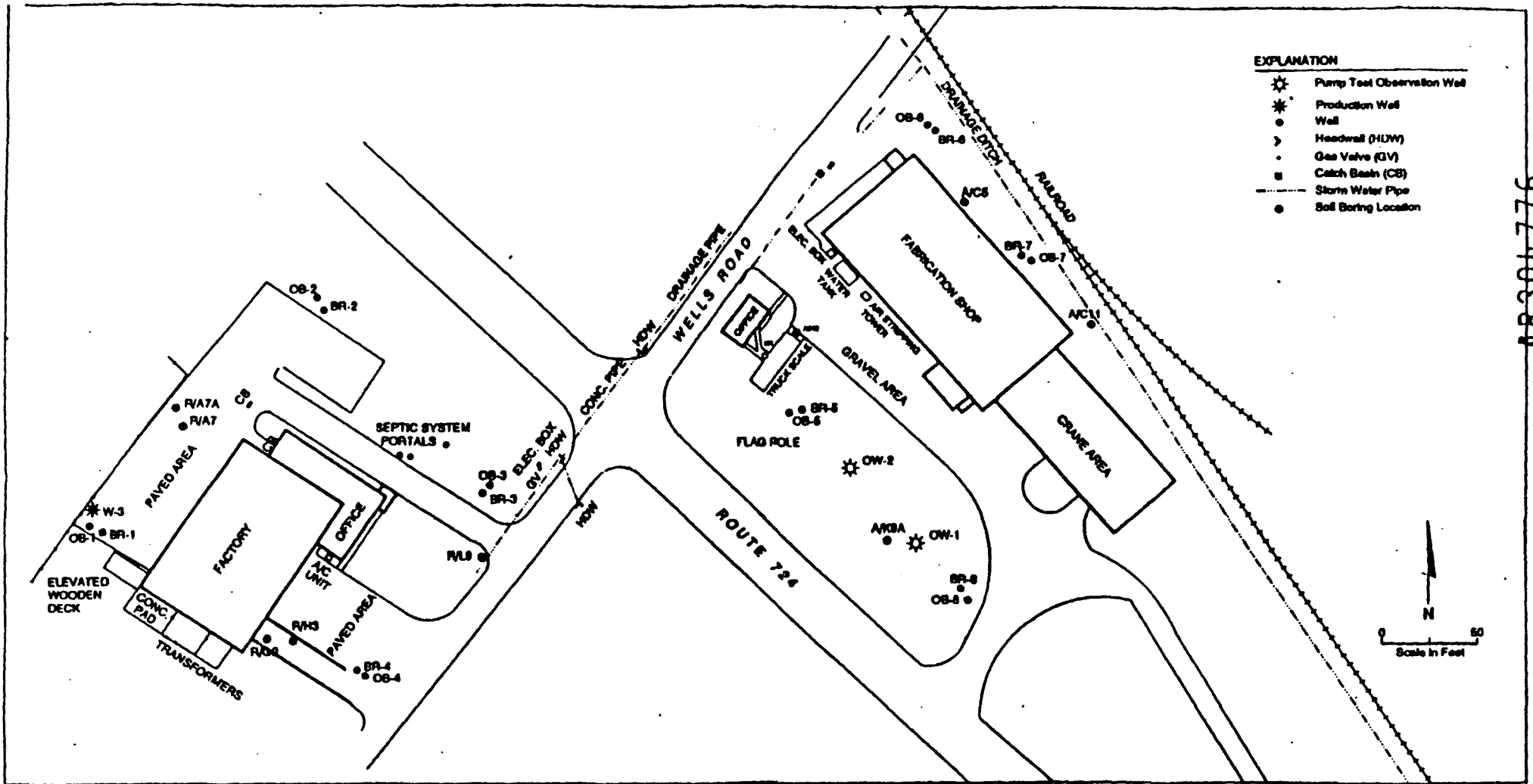


REFERENCE: USGS 7.5 Minute Quadrangle; Phoenixville, Pennsylvania, 1983.

SITE LOCATION MAP

Recticon / Allied Steel Site
 Parker Ford, Pennsylvania
 MARCH 1993





APPENDIX A

**RESPONSIVENESS SUMMARY
FOR THE RECORD OF DECISION AMENDMENT
AT THE
RECTICON/ALLIED STEEL SUPERFUND SITE
PARKER FORD, PENNSYLVANIA**

**Public Comment Period:
JANUARY 31, 1997 thru MARCH 1, 1997**

RECTICON/ALLIED STEEL SUPERFUND SITE

RESPONSIVENESS SUMMARY FOR THE PROPOSED ROD AMENDMENT

Overview

On January 31, 1997, EPA announced the opening of the public comment period and published its proposed ROD Amendment for the Recticon/Allied Steel Site, located in Parker Ford, Chester County, Pennsylvania.

EPA evaluated the proposed ROD Amendment giving consideration to nine key evaluation criteria:

- **Threshold criteria, including;**
 - Overall protection of human health and the environment;
 - Compliance with Federal, state, and local environmental and health laws;

- **Balancing criteria, including;**
 - Long-term effectiveness and permanence;
 - Reduction of mobility, toxicity, or volume of contaminants;
 - Short-term effectiveness;
 - Ability to implement;
 - Cost; and

- **Modifying criteria, including;**
 - State acceptance; and
 - Community acceptance.

EPA carefully considered state and community acceptance of the proposed ROD Amendment prior to reaching the final decision regarding the remedy.

The Agency's Final ROD Amendment is outlined below.

- **Ground water performance standards will be Maximum Contaminant Levels ("MCLs"). The contaminated ground water plume will be pumped and treated until MCLs for the contaminants of concern are achieved.**

- **Excavation with off-Site disposal of contaminated soil in the area of sampling location**

R/A7 is no longer required. However, EPA is requiring that institutional controls be implemented to prohibit soil excavation on the Recticon property in the vicinity of the soil sample location R/A7 and prohibit any new wells on the property. The controls will be implemented through deed restrictions, and/or other appropriate means. In addition, EPA will reevaluate soil alternatives if, during the Five Year Review, EPA determines that the soil in the area of R/A7 is acting as a continuing source of ground water contamination and is preventing the achievement of ground water performance standards.

A public comment period on the proposed ROD Amendment was held from January 31, 1997 to March 1, 1997. In addition, a public meeting was held on February 13, 1997. At this meeting, representatives from EPA answered questions about conditions at the Site and the proposed ROD Amendment under consideration.

SUMMARY OF COMMENTORS' ISSUES AND CONCERNS

This section provides a summary of commentors' issues and concerns, and expressly acknowledges and responds to those raised by the local community. The issues and concerns about the proposed ROD Amendment for the Recticon/Allied Steel Site received at the public meeting on February 13, 1997, and during the public comment period.

A citizen asked if the ground water treatment system would restore the ground water to maximum contaminant levels more quickly if the soil excavation in the area of sampling location R/A7 was still required?

EPA response:

Excavating the soil in the area of sampling location R/A7 would not allow faster restoration of the ground water at the Site. EPA shares citizens' interests in accelerating ground water clean up. However, based on modeling performed during the Feasibility Study, water moving through the contaminated subsurface soil would not transport unsafe levels of trichloroethylene to the ground water. The contaminants to be treated in the ground water extraction and treatment system are already present in the ground water beneath the Site. EPA has estimated that 25-30 years will be required to reduce the contaminant levels in the existing plume to the ground water standards. Predicting the actual time required to clean up ground water is difficult. Although EPA has not revised the estimated time frame for cleanup, the revised ground water treatment performance standards could be attainable earlier than the original "background" levels in the 1993 ROD.

A citizen asked what cost savings there would be as a result of the proposed ROD amendment changes. The citizen also inquired as to who was actually realizing the cost savings.

EPA Response:

The remedy changes in the proposed ROD Amendment avoids the cost associated with soil excavation and off-site disposal required under the 1993 ROD remedy. The estimated present worth cost for these activities in the 1993 ROD was \$40,261. A potentially responsible party is currently implementing EPA's selected remedy for the Recticon/Allied Steel Site under an Administrative Order and would, therefore, realize the cost savings. The potentially responsible party is currently bearing all costs associated with implementing EPA's selected remedy with the exception of EPA's costs to oversee their work. However, if the potentially responsible party would stop implementing the selected remedy, or if EPA felt the potentially responsible party was not conducting work properly, EPA would take over implementation of the selected remedy. EPA would use funds from the federal SUPERFUND trust fund to implement the remedy.

Comment of Hamburg, Rubin, Mullin, Maxwell & Lupin on behalf of Highview Gardens, Inc: Highview Gardens, Inc. opposes any amendment to the ROD which will allow any contaminated soil to remain on its property and which will in any way limit the future use of this property through a Deed Restriction and/or other means.

EPA Response:

The proposed changes in the ROD Amendment provide the best balance of trade-offs among the alternatives evaluated with respect to the nine criteria EPA uses to evaluate clean up alternatives. Based on the information available at this time, EPA believes the revised remedy would protect human health and the environment, would comply with ARARs, and be cost-effective.