

EPA ID: IAD984566208

Site Name: ECONOMY PRODUCTS CO INC - SHENANDOAH

State ID:

Alias Site Names:

City: SHENANDOAH

County or Parish: PAGE

State: IA

Refer to Report Dated:

Report Type: PRELIMINARY ASSESSMENT 002

Report Developed by:

DECISION:

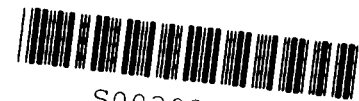
- 1. Further Remedial Site Assessment under CERCLA (Superfund) is not required because:
 - 1a. Site does not qualify for further remedial site assessment under CERCLA (No Further Remedial Action Planned - NFRAP)
 - 1b. Site may qualify for action, but is deferred to:
- 2. Further Assessment Needed Under CERCLA:
 - 2a. Priority: Higher Lower
 - 2b. Other: (recommended action) NFRAP (No Further Remedial Action Planned)

DISCUSSION/RATIONALE:

BASED ON INFORMATION CONTAIN IN AUGUST 6, 2001, PRELIMINARY ASSESSMENT, NO FURTHER REMOVAL/REMEDIAL ACTIONS ARE REQUIRED FOR THE ECONOMY PRODUCTS RESIDENTIAL/RAILROAD ACCESS PROPERTIES, OPERABLE UNIT 01

196506

Site: Economy Products
 ID # IAD984566208
 002
 002
 002
 196506



S00203321
SUPERFUND RECORDS

Site Decision Made by

Signature:

[Handwritten Signature]

[Handwritten Signature]

Date: 02/08/2002



Abbreviated Preliminary Assessment

for the

**Economy Products Residential/Railroad Access Properties
Shenandoah, Iowa**

**Superfund Site ID # 07PA
Operable Unit 01**

CERCLIS # IAD984566208

August 6, 2001

*Daniel J. Garvey/On-Scene Coordinator
Superfund Division
U.S. Environmental Protection Agency
Region 7
Kansas City, Kansas*

Introduction

The Economy Products Site consists of three parts: 1) the Factory Place Facility, which includes the former Economy Products pesticide formulation plant property and some of the adjacent property formerly owned by May Seed & Nursery Company; 2) the immediately adjacent residential property located to the south, along Southwest Road; and 3) part of the railroad right-of-way, located across the road from the residential properties.

This abbreviated preliminary assessment (PA) pertains to the non time critical removal action referred to as the Economy Products Residential and Railroad Access Site (R.R). There will be a separate, abbreviated PA for the non time critical removal action referred to as the Economy Products-Factory Place Facility Site (Facility).

Economy Products, Inc. formulated pesticides from 1961 to 1973 at its former plant which is now part of the Factory Place Facility. Many of the pesticides formulated at the plant are now banned or are restricted use. These pesticides include aldrin, dieldrin, endrin, lindane, heptachlor, 4,4-DDD, chlordane, and toxaphene.

In 1973, a fire destroyed a warehouse that was used to store chemicals and drums of DDT. As a result, pesticides were deposited around the Factory Place Facility, both on site and onto property adjacent to the Facility. Affected off-site areas include, portions of four residential properties directly adjacent to the former Economy Products plant and the railroad property, located to the southwest.

Because a *Potential Hazardous Waste Site Identification* form was completed due to this response and subsequent actions, the site was entered into CERCLIS as a potential hazardous waste site. CERCLIS entry triggers the requirement to complete a *Preliminary Assessment (PA)*, under the provisions of the *National Contingency Plan (NCP)*¹.

Because the Agency has made a determination that no further removal or remedial action is required or planned, the site qualifies for an "abbreviated" PA in accordance with Section 2.2.4 of the *EPA Guidance for Performing Preliminary Assessments Under CERCLA*² and Section

¹ 40 CFR, Subpart E, 300.420

² U.S. EPA, Office of Emergency and Remedial Response, *EPA Guidance for Performing Preliminary Assessments Under CERCLA*, Washington, D.C., September 1991

300.420 of the NCP as reviewed by Region VII, Office of Regional Counsel¹.

This abbreviated PA has been prepared to satisfy the administrative requirements of the NCP with regard to PA documentation.

Site Description, Operational History and Waste Characteristics

Site Description

The four residential properties and the railroad access property are located in the southwest portion of Shenandoah, Iowa, in a mixed residential and commercial area. The legal description is Southwest 1/4, Section 19, Township 69 North, Range 39 West. The residential properties are located east of Southwest Road and south of the Facility. The railroad access property is located west of Southwest Road and southwest of the Facility.

The residential homes are currently occupied. Occupants of these homes include people of varied ages. Railroad workers and other casual users occupy the railroad access areas.

Operational History and Waste Characteristics

Investigations completed by the EPA have documented various concentrations of pesticides in the soil, both on and off site. The highest known concentrations are located 1.5 to 6 feet below the soil surface, under where the former Economy Products buildings burned.

However, due to the runoff from the fire fighting efforts of 1973, wind erosion effects, continued water erosion, and activity tracking, elevated concentrations of pesticide contamination are located on four residences to the south of the facility and in three areas of the railroad access land, adjacent to the site.

In 1988, the Iowa Department of Natural Resources (IDNR) performed a PA of the site. Additional sampling, both at the Facility and the R/R access properties were performed to characterize both groundwater and soils.

A Site Investigation (SI) was completed by EPA in 1993. Surface and subsurface soil samples were collected from on site and off site. Noteworthy information derived from the SI included:

¹ *Legal Requirements for CERCLA Preliminary Assessments*, Memo from Dave Cozad, Region VII Office of Regional Counsel to Paul Doherty, Region VII Superfund Division, USEPA Region VII, Kansas City, Kansas, November 13, 1997

Aldrin, dieldrin, 4,4-DDD, 4,4-DDT, gamma-chlordane, and methoxychlor were found at concentrations between 2.37 and 35.1 mg/kg in a soil sample collected between the south boundary of the facility and the nearest residence to the south.

No elevated concentrations of pesticides were detected in sediment samples collected from drainage pathways down gradient of the site.

EPA's Emergency Planning and Response Branch conducted a limited site assessment in February 1994. Twelve surface soil and one subsurface soil sample were collected both on site and off site and submitted for pesticide and herbicide analysis. Three samples were also submitted for dioxin and furan analysis. No concentrations above 1.0 microgram per kilogram (ug/kg) were found for 2,3,7,8-TCDD dioxin. All furans were below 1.0 ug/kg.

In 1995, the EPA's Environmental Response Team (ERT) installed three monitoring wells, four permanent piezometers and two temporary piezometers (all have now been removed). The ERT team found elevated levels of insecticides (aldrin, dieldrin, 4,4-DDD, 4,4-DDT, 4,4-DDE, chlordane, heptachlor, methoxychlor, and toxaphene) in the surface and subsurface soil, as well as elevated levels of herbicides (2,4-dichlorobiphenyl [2,4-D] and 2,4,5-trichlorophenoxyacetic acid [2,4,5-T]) and several volatile organic compounds in subsurface soil.

In October 1997 and March 1998, START conducted a removal assessment of the site. That removal assessment established an areal and vertical "clean" boundary, defining the contamination. It defined the contaminated areas of soil which have been addressed by the actions taken during this non time critical removal action.

The highest concentrations, given in milligrams per kilogram (mg/kg), of the observed contaminants and the clean up goals or preliminary remediation goals (PRG) are as follows:

LOCATION	CONTAMINANT	CONCENTRATION (mg/kg)	PRGs (mg/kg)
Residential	Aldrin	2.15	0.49
	Dieldrin	93.4	0.49
	Endrin	15.8	11.5
	4,4-DDT	55.6	19.2
	Heptachlor	1.9	1.7

Abbreviated PA
Economy Products
Residential/Railroad
Access Properties
August 6, 2001

	Toxaphene	70.5	5.08
Railroad Access Properties	Dieldrin	28.3	3.3
	Toxaphene	21	18.2

Summary and Conclusions

Below is a completed list of activities for the Economy Products -Residential/Railroad:

<u>Removal Activity</u>	<u>Finish Date</u>	<u>Duration</u>	<u>Responsible Entity</u>
Mobilization	May 10, 2001	2 days	EPA (ERRS)
Set-up trailers	May 12, 2001	2 days	EPA (ERRS)
Excavation	May 23, 2001	8 days	EPA (ERRS)
Backfilling	May 24, 2001	7 days	EPA (ERRS)
Re-vegetation	May 24, 2001	7 days	EPA (ERRS)
Demobilization	May 25, 2001	1 day	EPA (ERRS)

Based on EPA's on-site observations and the response actions taken by EPA personnel, it has been determined that no significant releases of hazardous substances to ground water, surface water, soil, or air occurred at the site.

Because no hazardous waste, or threat of hazardous waste, remains on site, EPA has determined that the site does not present an unacceptable risk to the public health or the environment. No further removal or remedial actions are required or planned. EPA has further determined that the site qualifies for an "abbreviated" PA in accordance with Section 2.2.4 of the *EPA Guidance for Performing Preliminary Assessments Under CERCLA*⁴ and Section 300.420 of the NCP as reviewed by Region VII Office of Regional Counsel⁵. Since no further action is warranted under CERCLA, it is recommended that the site be archived from the CERCLIS database.

Attachments

- Site Photographs
- Action Memorandum
- Initial and Final POLREP
- Potential Hazardous Waste Site Preliminary Assessment Form

**Abbreviated PA
Economy Products
Residential/Railroad
Access Properties
August 6, 2001**

- ⁴ U.S. EPA, Office of Emergency and Remedial Response, *EPA Guidance for Performing Preliminary Assessments Under CERCLA*, Washington, D.C., September 1991
- ⁵ *Legal Requirements for CERCLA Preliminary Assessments*, Memo from Dave Cozad, Region VII Office of Regional Counsel to Paul Doherty, Region VII Superfund Division, USEPA Region VII, Kansas City, Kansas, November 13, 1997.



ECONOMY PRODUCTS CO.

ECONOMY PRODUCTS

MAY 10 1973

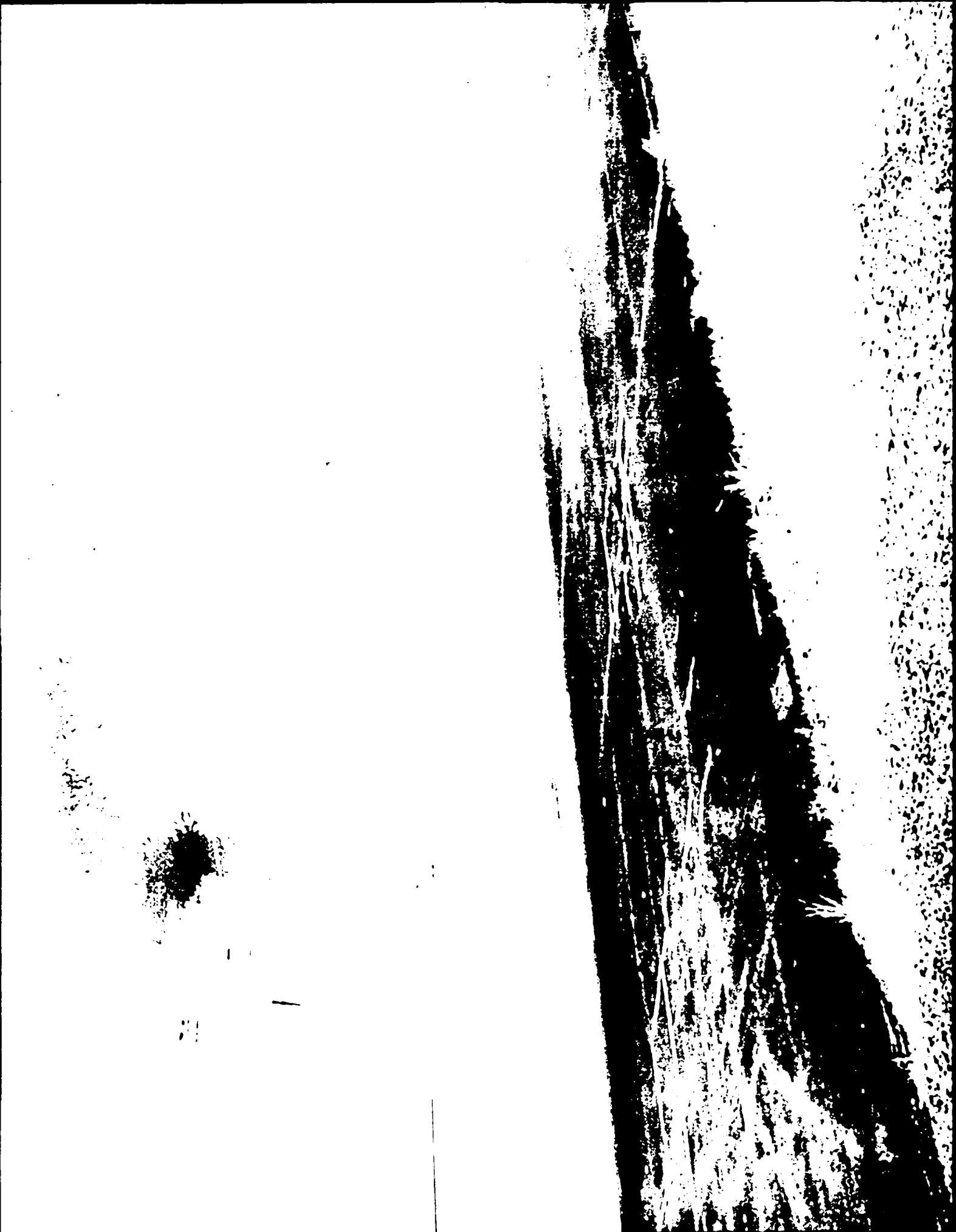


ECONOMY PRODUCTS CO.

ECONOMY PRODUCTS

MAY 10 1973







UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION VII
901 NORTH 5TH STREET
KANSAS CITY, KANSAS 66101

8 FEB 2001

ACTION MEMORANDUM

SUBJECT: Request for Removal Action at Economy Products Residential/Railroad Access Properties located at the Economy Products Co. Inc. - Shenandoah Site, Shenandoah, Page County, Iowa

FROM: Daniel J. Garvey, On-Scene Coordinator
Enforcement/Fund-Lead Removal Branch

SJA 01/22/01

THRU: Kenneth S. Buchholz, Chief
Enforcement/Fund-Lead Removal Branch

Kenneth S. Buchholz

TO: Michael J. Sanderson, Director
Superfund Division

CERCLIS ID: IAD984566208
SITE ID: 07PA
OPERABLE UNIT: 01
CATEGORY OF REMOVAL: Non-Time-Critical
NATIONALLY SIGNIFICANT: No

I. PURPOSE

The purpose of this Action Memorandum is to request approval for the proposed actions and funding for a non-time-critical removal action at residential properties directly adjacent to, and railroad property located to the southwest of, the Factory Place Facility (Facility) portion of the Economy Products Site (Site), in Shenandoah, Iowa. This memorandum proposes that the Environmental Protection Agency (EPA) excavate pesticide-contaminated soil which exceeds the Preliminary Removal Goals (PRGs) established by the Iowa Department of Public Health (IDPH) from the residential/railroad (R/R) areas and dispose of the soil off site. This Action Memorandum only addresses contamination of the soil on the R/R properties.

On-site contamination actually located on the Factory Place Facility portion of the Economy Products site has been addressed by a separate Action Memorandum.



II. SITE CONDITIONS AND BACKGROUND

The Site consists of three parts: 1) the Facility, which includes the former Economy Products pesticide formulation plant property and some of the adjacent property formerly owned by May Seed & Nursery Company; 2) the immediately adjacent residential property located to the south along Southwest Road; and 3) part of the railroad right-of-way across the road from the Facility.

A. Site Description

1. Removal Site Evaluation

Economy Products, Inc. formulated pesticides from 1961 to 1973 at its former plant which is now part of the Facility. Many of the pesticides formulated at the plant are now banned or are restricted use. These pesticides included aldrin, dieldrin, endrin, lindane, heptachlor, 4,4-DDD, chlordane, and toxaphene.

In 1973, a fire destroyed a warehouse that was used to store chemicals and drums of DDT. As a result, pesticides were deposited around the Facility, both on site and onto property adjacent to the Facility. Affected off-site areas include portions of four residential properties directly adjacent to the former Economy Products plant and the railroad property located to the southwest.

Following the fire, debris and refuse from the Facility were disposed of in three different locations. These areas included a limestone quarry in Stennett, Iowa; the Shenandoah Municipal Landfill; and the Facility itself. The Iowa National Guard subsequently spread one foot of clay fill over the area where the debris had been removed.

The Earl May Seed & Nursery Company purchased the Economy Products property in 1976. The four residential properties that are located directly adjacent to the former Economy Products property are currently occupied.

In 1988, the Iowa Department of Natural Resources (IDNR), conducted a preliminary assessment (PA) of the Economy Products Site. Contractors for IDNR and EPA performed a site inspection (SI) in 1993 and a site reconnaissance in 1995. In 1997 and 1998, the EPA and the Superfund Technical Assistance and Response Team (START) conducted further investigations of soil and groundwater at the site. These investigations found that soil was contaminated at three locations: at the Facility, on railway access areas adjacent to the Facility, and in residential areas adjacent to the Facility.

Contaminants found in the R/R soil at concentrations that exceeded the removal action levels and/or toxicity characteristic leachate procedure are as follows:

- Aldrin
- Dieldrin
- Endrin
- Heptachlor
- Toxaphene
- 4,4-DDT

The contamination of soil at the R/R areas has been determined to be from the ground surface to approximately four feet below the soil surface.

2. Physical Location

The four residential properties and the railroad access property are located in the southwest portion of Shenandoah, Iowa, in a mixed residential and commercial area. The legal description is Southwest 1/4, Section 19, Township 69 North, Range 39 West. The residential properties are located east of Southwest Road and south of the Facility. The railroad access property is located west of Southwest Road and southwest of the Facility.

3. Site Characteristics

The residential homes are currently occupied. Occupants of these homes include people of varied ages. Railroad workers and other casual users utilize the railroad access areas.

4. Release or Threatened Release into the Environment of a Hazardous Substance, or Pollutant or Contaminant

Investigations completed by the EPA have documented various concentrations of pesticides in the soil both on and off site. The highest known concentrations are located 1.5 to 6 feet below the soil surface, under where the former Economy Products buildings burned.

However, due to the runoff from the fire fighting efforts of 1973, wind erosion effects, continued water erosion, and activity tracking, elevated concentrations of pesticide contamination are located on four residences property to the south of the facility and in three areas of the railroad access land adjacent to the site. The highest concentrations, given in

milligrams per kilogram (mg/kg), of the observed contaminants and the proposed PRGs are as follows:

LOCATION	CONTAMINANT	CONCENTRATION (mg/kg)	PRGs (mg/kg)
Residential	Aldrin	2.15	0.49
	Dieldrin	93.4	0.49
	Endrin	15.8	11.5
	4,4-DDT	55.6	19.2
	Heptachlor	1.9	1.7
	Toxaphene	70.5	5.08
Railroad Access Properties	Dieldrin	28.3	3.3
	Toxaphene	21	18.2

5. National Priorities Listing (NPL) Status

The site is not on, nor has it been proposed for, the NPL.

6. Maps, Pictures, and Other Graphic Representations

None.

B. Other Actions to Date

1. Previous Actions

The following inspection/sampling events have been completed at the Site.

In 1988, the IDNR performed a PA of the site. Additional sampling was recommended both at the Facility and at the R/R access properties to characterize both groundwater and soils.

A SI was completed by EPA in 1993. Surface and subsurface soil samples were collected from on and off the site. Noteworthy information derived from the SI included:

Aldrin, dieldrin, 4,4-DDD, 4,4-DDT, gamma-chlordane, and methoxychlor were found at concentrations between 2.37 and 35.1 mg/kg in a soil sample collected between the south boundary of the Facility and the nearest residence to the south.

No elevated concentrations of pesticides were detected in sediment samples collected from drainage pathways downgradient of the site.

EPA's Emergency Planning and Response Branch conducted a limited site assessment in February 1994. Twelve surface soil and one subsurface soil sample were collected both on site and off site and submitted for pesticide and herbicide analysis. Three samples were also submitted for dioxin and furan analysis. No concentrations above 1.0 microgram per kilogram (ug/kg) were found for 2,3,7,8-TCDD dioxin. All furan compounds were below 1.0 ug/kg.

In 1995, the EPA Environmental Response Team (ERT) installed three monitoring wells, four permanent piezometers and two temporary piezometers (which have since been removed). The ERT team found elevated levels of insecticides (aldrin, dieldrin, 4,4-DDD, 4,4-DDT, 4,4-DDE, chlordane, heptachlor, methoxychlor, and toxaphene) in the surface and subsurface soil, as well as elevated levels of herbicides (2,4-dichlorobiphenyl [2,4-D] and 2,4,5-trichlorophenoxyacetic acid [2,4,5-T]) and several volatile organic compounds in subsurface soil.

In October 1997 and March 1998, START conducted a removal assessment of the site. That removal assessment established an areal and vertical "clean" boundary defining the contamination. It identified the contaminated areas of soil which are being addressed by this Action Memorandum.

2. Current Actions

Data from the EPA sampling events has been sent to the property owners. The residents on the adjacent residential properties have been instructed to minimize their contact with the soil. EPA has collected public comments to the engineering evaluation/cost analysis (EE/CA). Responses to those comments are attached to this Action Memorandum as a responsiveness summary.

C. State and Local Authorities' Roles

1. State and Local Actions to Date

IDNR completed a PA in 1988. The Iowa Department of Public Health (IDPH) has completed a risk assessment for this site and calculated risk-based PRGs in 1998.

2. Potential for Continued State/Local Response

No future response actions are anticipated from either the state or local authorities.

III. THREATS TO PUBLIC HEALTH OR WELFARE OR THE ENVIRONMENT, AND STATUTORY AND REGULATORY AUTHORITIES

A. Threats to Public Health or Welfare

The present site conditions pose an imminent and substantial endangerment to public health or welfare which meets the criteria for response actions under 40 C.F.R. 300.415(b) of the National Contingency Plan (NCP) as follows:

1. Actual or potential exposure to nearby human populations, animals, or the food chain from hazardous substances or pollutants or contaminants.

EPA investigations have documented the presence of extensive pesticide contamination. All compounds listed in this table are hazardous substances as defined by the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). Aldrin, dieldrin, chlordane, and DDT have all been classified by EPA as probable human carcinogens. Future on-site inhabitants, workers, and nearby residents are at risk for exposure.

The adverse human health effects of those chemicals found off site are summarized below:

Aldrin and Dieldrin - Dieldrin and aldrin are the common names to two insecticides that are closely related chemically. They are solid and insoluble in water and are very persistent in the environment. Most uses of these chemicals were banned in the United States in 1975. They may enter the body through the routes of ingestion, inhalation, and dermal contact. They are toxic to humans and may adversely affect the liver, the immune system and cause harm to fetuses. Both are probable human carcinogens.

Endrin - Endrin is a cyclodiene isomer of dieldrin. Endrin was used as an insecticide, but it is no longer manufactured or used in the United States. Endrin exhibits the same environmental characteristics as aldrin and dieldrin. Endrin is strongly bioaccumulated by aquatic organisms. Endrin is highly toxic to mammals, aquatic organisms, and terrestrial wildlife after acute exposure. It has not been shown to be carcinogenic or mutagenic, but it is a potent teratogen and reproductive toxin in experimental animals.

4,4-DDT - DDT was widely used world-wide as an insecticide. Its use in the United States has been banned since 1973 except in public health emergencies and a few other permitted cases. DDT and its metabolites (DDD and DDE) are very persistent in the environment. It is generally water insoluble and does not easily volatilize. DDT tends to adsorb strongly to organic matter in soil and sediment, resulting in accumulation. Biotransformation of DDT and its metabolites occurs slowly. DDT is highly toxic to aquatic organisms. DDT, DDD, and DDE are bioconcentrated and stored in the adipose tissues of most animals. DDT is held responsible for the decrease of many bird species.

Heptachlor and Heptachlor Epoxide - Heptachlor is a man-made chemical that was used as a pesticide. It is a solid material with an odor similar to that of camphor. It is present as an impurity in the pesticide chlordane. Since 1988, heptachlor has been banned from use in the United States. Heptachlor and its oxidation product, heptachlor epoxide, degrade very slowly in the environment. These compounds can enter the body through the routes of inhalation, ingestion, or dermal contact. They may adversely affect the central nervous system, liver, kidneys, fertility, and development of offspring. They are probable human carcinogens.

Toxaphene - Toxaphene has been banned from use in the United States. Toxaphene is toxic to humans through ingestion, inhalation, and dermal contact. Toxaphene is a probable human carcinogen.

Routes of exposure for these pesticide compounds include inhalation of pesticide-contaminated dust, direct contact with and ingestion of pesticide contaminated dust and soil, and ingestion of fruits, vegetables, or animals contaminated by exposure to pesticide-contaminated soil.

2. High levels of hazardous substances or pollutants or contaminants in soils largely at or near the surface that may migrate.

EPA investigations have documented elevated levels of pesticide contamination in both surface and subsurface soils. Rainwater and/or irrigation water may cause pesticide runoff to enter nearby streams and rivers. Pesticide-contaminated dust may also migrate to other nearby residential neighborhoods.

3. Other situations or factors that may pose threats to public health or welfare or the environment.

High levels of pesticides are near the surface where they could be exposed through digging for water lines and/or the installation of utilities on the railroad property. Also, exposure could occur on the residential properties by ingestion or inhalation of contaminated soils. This could potentially expose humans to high levels of pesticides.

B. Threats to the Environment

Present site conditions pose an imminent and substantial endangerment to human health and the environment which meet the criteria for response actions under 40 C.F.R. 300.415(b) of the NCP, as follows:

Actual or potential exposure to nearby human populations, animals, or the food chain from hazardous substances or pollutants or contaminants [300.415 (b)(2)(ii)].

The threat presented to the environment includes the contamination of soil and possibly groundwater. The pesticides also threaten wildlife that may come into contact with them. Actual or potential exposure to nearby human populations, animals, or the food chain from hazardous substances or pollutants or contaminants.

High levels of hazardous substances or pollutants or contaminants in soils largely at or near the surface, that may migrate [300.415 (b)(2)(iv)].

The table listed in Section II.A.4 lists the hazardous substances that are in the soil. These hazardous contaminant levels pose a potential health risk to the property owners and other users of the site.

IV. ENDANGERMENT DETERMINATION

Actual or threatened releases of pollutants and contaminants from the R/R properties, if not addressed by implementing the response action selected in this Action Memorandum, may present an imminent and substantial endangerment to the public health, welfare, or the environment.

V. PROPOSED ACTIONS AND ESTIMATED COSTS

A. Proposed Actions

1. Proposed Action Description

This action will remove the immediate threat posed by the pesticide contamination located on the residential properties just to the south of the former Economy Products property, and on the railroad access land located southwest of the site.

Removal of pesticide-contaminated soil from the residences to the south and the railroad access land to the southwest of the Site will consist of excavating the contaminated soil which exceeds PRGs and disposing of it in an approved landfill. All hazardous substances removed from the Site will be disposed of at facilities which are in compliance with the CERCLA off-site rule. The contaminated soil will be replaced with clean backfill. The final step will be to either resod or reseed the residential yards and the railroad access property.

During the excavation and throughout all of the phases of the removal action, fugitive dust will be kept to a minimum. Excavated stockpiles will be covered pending analytical results and subsequent transportation and disposal.

2. Contribution to Remedial Performance

The proposed action will mitigate the direct contact threat posed by hazardous substances. No further remedial actions are anticipated.

3. Description of Alternative Technologies

An EE/CA was completed in February 1999. This evaluation concluded that the excavation and disposal option was preferred. This proposed removal action will remove the contamination from the affected areas and provide long-term protection to the public health and the environment.

4. EE/CA

Four different alternatives were considered for the R/R properties: excavation and disposal, ex-situ biological treatment, ex-situ thermal desorption, and a no action alternative. EPA evaluated each of these alternatives as to its effectiveness, implementability, and cost, as well as its ability to meet statutory limits for removal actions.

5. Applicable or Relevant and Appropriate Requirements (ARARs)

NCP, 40 C.F.R. Section 300.415(j), provides that fund-financed removal actions under Section 104 of CERCLA shall, to the extent practical, considering the exigencies of the situation, attain ARARs under federal environmental, state environmental, or facility-citing laws.

The following are the federal ARARS identified for this action:

- Off-site shipments of hazardous waste will need to meet the manifesting requirements found under 40 C.F.R. 262.20 to 262.23, the pre-transport requirements found under 40 C.F.R. 262.30, Subpart C, the packaging requirements found under 40 C.F.R. 262.30, and the labeling and marking requirements found under 40 C.F.R. 262.31 and 40 C.F.R. 262.32.
- Packaging and shipping requirements are addressed in 49 C.F.R. 173.
- Site worker safety is addressed by 29 C.F.R. 1910.120.

The following is the state of Iowa ARARs identified for this action:

- Visible emission and fugitive dust as addressed by the Iowa Final Regulations, Chapter 567, Subrule 23.3 (455B).

B. Estimated Costs

The costs associated with the removal action are estimated below. These costs do not include intramural costs. Refer to the Enforcement Addendum for indirect costs.

Extramural Costs:

Removal Clean-Up Contractor Costs	\$75,000
START Contractor	15,000
Contingency (20%)	<u>18,000</u>
Total Extramural Costs	\$108,000

REMOVAL PROJECT CEILING \$108,000

VI. EXPECTED CHANGE IN THE SITUATION SHOULD ACTION BE DELAYED OR NOT TAKEN

Delayed action will increase public health risks to the residents and railroad employees through prolonged potential exposure to the pesticide-contaminated areas.

VII. OUTSTANDING POLICY ISSUES

This Action Memorandum does not address the soil on the former Economy Products Factory Place Facility portion of the Site. That contamination is addressed in a separate Action Memorandum.

VIII. ENFORCEMENT ISSUES

Negotiations between the EPA and the Economy Products insurer are ongoing. The intramural costs including the Region 7 indirect cost rate of 56.29%, is not included in the removal project ceiling. There is an enforcement addendum for this site. For NCP consistency purposes, it is not part of this memorandum.

IX. RECOMMENDATION

This decision document represents the selected removal action for the R/R areas located near the former Site, in Shenandoah, Iowa. This action was developed in accordance with CERCLA, as amended by the Superfund Amendments and Reauthorization Act of 1986, and is not inconsistent with the NCP. This decision is based on the Administrative Record for this site.

Conditions at the Economy Products Residential/Railroad Access Properties located at the Economy Products Co. Inc. - Shenandoah Site, meet the requirements of 40 C.F.R. Section 300.415 (b) of the NCP for a removal action. The removal project ceiling, if approved, will be \$108,000, which is funded from the Regional Removal Allowance.



Michael J. Sanderson, Director
Superfund Division

2/8/01

Date

Attachments

**U.S. ENVIRONMENTAL PROTECTION AGENCY
SITE PROGRESS REPORT**

I. HEADING

Date: May 19, 2001

Subject: Economy Products Site - Railroad/Residential, Shenandoah, Iowa

From: Daniel J. Garvey, OSC
U.S. EPA, Region 7
EFLR

To: Larry Zaragoza, Center Director (5203G)
Region 5/7 Accelerated Response Center

POLREP No.: 1

II. BACKGROUND

Site No.:	07PA
Delivery Order No.:	DO#102
CERCLIS No.:	IAD984566208
NPL Status:	Not listed
State Notification:	Iowa Department of Natural Resources (IDNR)
Action Memorandum Status:	Approved - February 8, 2001
Start Date:	May 9, 2001
Demobilization Date:	N/A
Completion Date:	N/A

III. SITE INFORMATION

A. Incident Category

CERCLA incident category: Other.

This is a non-time-critical removal action involving residential properties directly adjacent to railroad property (R/R), which is located to the southwest of, the Factory Place Facility (Facility) portion of the Economy Products Site, in Shenandoah, Iowa.

B. Site Description

1. Site location

The four residential properties and the railroad access property are located in the southwest portion of Shenandoah, Page County, Iowa, in a mixed residential and commercial area. The legal description is Southwest 1/4, Section 19, Township 69 North, Range 39 West. The geographic coordinates of the site are 40° 45' 30" north latitude and 95° 22' 29" west longitude. Shenandoah is located in the far southwestern part of the state off Highway 59.

The residential properties are located east of Southwest Road and south of the Facility. The railroad access property is owned by the Burlington Northern Santa Fe Railway Company. The four residential properties are individually owned with renters residing in two of the homes.

The community of Shenandoah can be described as a small, rural agricultural community with a population of approximately 6,000 people. Individuals living in the immediate area of the site are considered targets of concern. Also, railroad workers are at risk for exposure.

In 1988, the IDNR performed a Preliminary Assessment (PA) of the site. Additional sampling was recommended both at the Facility and at the R/R access properties to characterize both groundwater and soils.

A Site Investigation (SI) was completed by the Environmental Protection Agency (EPA) in 1993. Surface and subsurface soil samples were collected from on and off the site. Noteworthy information derived from the SI included:

Aldrin, dieldrin, 4,4-DDT, gamma-chlordane, and methoxychlor were found at concentrations between 2.37 and 35.1 mg/kg in a soil sample collected between the south boundary of the Facility and the nearest residence to the south.

No elevated concentrations of pesticides were detected in sediment samples collected from drainage pathways down gradient of the site.

EPA conducted a limited site assessment in February 1994. One subsurface and 12 surface soil samples were collected from areas located on the Facility and R/R properties and submitted for pesticide and herbicide analysis. Three samples were also submitted for dioxin and furan analysis. There were no 2,3,7,8-TCDD dioxin concentrations above 1.0 microgram per kilogram ($\mu\text{g}/\text{kg}$) found. All furan compounds were below 1.0 $\mu\text{g}/\text{kg}$.

In 1995, the EPA Environmental Response Team (ERT) installed three monitoring wells and six piezometers on the Site and R/R properties. EPA found elevated levels of insecticides (aldrin, dieldrin, 4,4-DDD, 4,4-DDT, 4,4 DDE, chlordane, heptachlor, methoxychlor, and toxaphene) in the surface and subsurface soil, as well as elevated levels of herbicides (2,4-dichlorobiphenyl [2,4-D] and 2,4,5-trichlorophenoxyacetic acid [2,4,5-T]), and several volatile organic compounds in subsurface soil.

In October 1997, and March 1998, the EPA conducted a removal assessment of the site. That removal assessment established areal and vertical boundaries of the "clean" and contaminated areas. In the residential areas, the removal assessments found elevated levels of 4,4-DDT, endrin, heptachlor, and toxaphene.

2. Description of threat

Present site conditions pose an imminent and substantial endangerment to human health and the environment which meet the criteria for response actions under 40 C.F.R. 300.415(b) of the NCP as follows:

Actual or potential exposure to nearby human populations, animals, or the food chain from hazardous substances or pollutants or contaminants [300.415 (b)(2)(ii)].

The threat presented to the environment includes the contamination of soil and possibly groundwater. The pesticides also threaten wildlife that may come into contact with them. Actual or potential exposure to nearby human populations, animals, or the food chain from hazardous substances or pollutants or contaminants.

High levels of hazardous substances or pollutants or contaminants that are in the soils largely at or near the surface, that may migrate [300.415(b)(2)(iv)].

The identified hazardous contaminants pose a potential health risk to the property owners and other users of the site.

C. Preliminary Assessment Results

In 1973, a fire burned down the pesticide formulator at the Economy Products site. The Iowa Department of Environmental Quality received numerous complaints from nearby residents regarding fumes from the fire.

The IDNR performed a Preliminary Assessment (PA) in July 1988. The IDNR concluded in their PA report that the primary site concern is the potential for groundwater contamination. The IDNR stated in their report that the waste disposed in the Stennett Quarry was secure and poses no significant threat due to the geologic formation that underlies the quarry. The bedrock aquifer in Stennett, Iowa, is not used as a source for groundwater in the area and no further action was recommended.

Also, additional investigations of groundwater and surficial soils in adjacent drainage ways were recommended with a low priority. The primary chemicals of potential concern identified by the IDNR included pesticides, insecticides, and herbicides that were stored at the Economy Products warehouse and the main packaging area.

IV. RESPONSE INFORMATION

A. Situation

1. Current Situation

Work activities include; excavation of pesticide-contaminated soil, analytical confirmation, backfilling with clean topsoil and re-vegetating affected areas.

Individual property owners have been notified of the on going work activities and have all signed property access agreements. Protective barrier fencing has been installed around the work area perimeter. EPA is utilizing a photo ionization detector (PID) and particulate monitors to measure organic vapors and particulates. Engineering controls are in place, including the use of a water truck to reduce airborne dust migration.

2. Removal Actions to date

The following activities occurred between May 9-19, 2001.

May 9, 2001 - Start date for the removal action. Contractor personnel arrive mid-afternoon. Site planning activities commenced immediately.

May 10, 2001 - Work activities continued. Underground utility locations are identified. A comprehensive walk-through was conducted with contractor personnel to clearly identify specific areas requiring excavation. Conversations were held with individual residents to clarify the upcoming environmental clean up and the effect that it would have on the homeowners.

Work trailers were delivered and set-up.

May 11, 2001 - Required notification was given to the Burlington Northern Santa Fe railroad concerning the planned removal action on the railroad access property. The location for the "borrow source" where the clean backfill soil will be obtained was visited by the OSC. Also, the Page County Landfill was visited. An introductory meeting was held with the landfill manager and the OSC. The Page County Landfill has been approved to accept the "non-hazardous" soil that will be removed from the four residential properties and the railroad access property.

May 12, 2001 - Contractor personnel set-up the trailers with office equipment and performed cleaning activities. The grassy areas surrounding the trailers were cut to allow access to the eye wash station.

May 14, 2001 - Heavy equipment was delivered. Additional work crews arrived late in the afternoon. Final electric service was established to the trailers.

May 15, 2001 - Excavation begins on residential properties. The four front yards are the primary focus of the day's activities. The excavated soil is being directly loaded into dump trucks in order to be taken to the Page County Landfill. Late in the afternoon, a water line was ruptured during the excavation activities, temporarily shutting off water to two of the residences. Immediate attention was directed towards the restoration of water service to the residences.

May 16, 2001 - Excavation of the railroad access property occurred today. Also, excavation in the residential yards continued. Approximately 150 tons of pesticide contaminated soil have been removed from the affected areas at this point.

May 17, 2001 - Excavation continued in the front and back yards. Over 200 tons of contaminated soil has been removed. Four of the nineteen cells have been determined to be clean based on the immunoassay field screening and fixed laboratory results.

May 18, 2001 - Excavation, backfilling, and restoration of property owner's driveways were the primary days activities. At this point, all 19 cells in the residential/railroad properties that require excavation have been dug down to 12". Some deeper excavation has been needed in order to obtain established removal action goals.

May 19, 2001 - Continued excavation and restoration activities occurred throughout the Saturday work day. Tree limbs in the residential yards were trimmed due to slight damage during the excavation activities. A reduced work day was implemented (8 hour day) to provide the work crew with some relief and also to accommodate the residential neighborhood's weekend schedule.

3. Enforcement

At this time, EPA is performing a fund-lead removal action at the Economy Products Residential/Railroad properties. A potential responsible party (PRP) has been identified for the adjacent Economy Products-Factory Place Facility Site.

C. Next Steps

Future plans include an "open house" for the community during the week of June 11, 2001. Before the thermal treatment unit (TTU) is activated, local government officials, media, and the public will be invited to tour the TTU. EPA is coordinating the event based on the availability of the TTU, other significant events already scheduled in the community, and additional considerations.

D. Key Issues

None.

V. COST INFORMATION

Cost estimate* (as of May 18, 2001)

ERRS contractor	\$ 44,521
START costs	\$ 6,000
Analytical	<u>\$ 5,000</u>
 TOTAL	 <u>\$ 55,521</u>
 Project Ceiling	 \$108,000
 Percent of Project Funds remaining:	 51.4%

*The above accounting of expenditures is an estimate based upon figures known to the OSC at the time this report was written. The OSC does not necessarily receive specific figures on final payments made to any contractor(s). Other financial data which the OSC must rely upon may not be entirely up-to-date. The cost accounting provided in this report does not necessarily represent an exact monetary figure which the government may include in any claim for cost recovery.

VI. DISPOSITION OF WASTES

Wastestream	Medium	Quantity	Containment-Migration Control	Treatment	Disposal
Residential yards/ Railroad access areas	Soil	Approx. 250 tons	Pesticide contamination	None needed	Page County Landfill
Hazardous waste/ Cell 220	Soil	Approx. 10 tons	Pesticide contamination	Direct-fire thermal desorption	Thermal treatment (future treatment)

cc: Bill Rice, Acting, RGAD
Michael J. Sanderson, SUPR
Andrea Jirka, SDDD
Kenneth Buchholz, EFLR
Robert Jackson, ER&R
Antoinette Singletary, ER&R
Joe Chandler, FEMA
Mr. Stuart Schmitz, IDNR
Mr. Byron Harris, City Administrator, Shenandoah, IA,

Karen Fluornoy, OEP
Diane Huffman, OEP
Marie Noel, PLMG
Gerhardt Braeckel, CNSI
Kevin Mould, 5204G
Joleen Werst, STAR
Robert Stewart, DOI

**U.S. ENVIRONMENTAL PROTECTION AGENCY
SITE PROGRESS REPORT**

I. HEADING

Date: May 30, 2001

Subject: Economy Products Site - Railroad/Residential, Shenandoah, Iowa

From: Daniel J. Garvey, OSC
U.S. EPA, Region 7
EFLR

To: Larry Zaragoza, Center Director (5203G)
Region 5/7 Accelerated Response Center

POLREP No.: 2nd & final

II. BACKGROUND

Site No.: 07PA
Delivery Order No.: DO#102
CERCLIS No.: IAD984566208
NPL Status: Not listed
State Notification: Iowa Department of Natural Resources (IDNR)
Action Memorandum Status: Approved - February 8, 2001
Start Date: May 9, 2001
Demobilization Date: May 25, 2001
Completion Date: June 2, 2001

III. SITE INFORMATION

A. Incident Category

CERCLA incident category: Other.

This is a non-time-critical removal action involving residential properties directly adjacent to railroad property (R/R), which is located to the southwest of, the Factory Place Facility (Facility) portion of the Economy Products Site, in Shenandoah, Iowa.

B. Site Description

1. Site location

The four residential properties and the railroad access property are located in the southwest portion of Shenandoah, Page County, Iowa, in a mixed residential and commercial area. The legal description is Southwest 1/4, Section 19, Township 69 North, Range 39 West. The geographic coordinates of the site are 40° 45' 30" north latitude and 95° 22' 29" west longitude. Shenandoah is located in the far southwestern part of the state off Highway 59.

The residential properties are located east of Southwest Road and south of the Facility. The railroad access property is owned by the Burlington Northern Santa Fe Railway Company. The four residential properties are individually owned with renters residing in two of the homes.

The community of Shenandoah can be described as a small, rural agricultural community with a population of approximately 6,000 people. Individuals living in the immediate area of the site are considered targets of concern. Also, railroad workers are at risk for exposure.

In 1988, the IDNR performed a Preliminary Assessment (PA) of the site. Additional sampling was recommended both at the Facility and at the R/R access properties to characterize both groundwater and soils.

A Site Investigation (SI) was completed by the Environmental Protection Agency (EPA) in 1993. Surface and subsurface soil samples were collected from on and off the site. Noteworthy information derived from the SI included:

Aldrin, dieldrin, 4,4-DDT, gamma-chlordane, and methoxychlor were found at concentrations between 2.37 and 35.1 mg/kg in a soil sample collected between the south boundary of the Facility and the nearest residence to the south.

No elevated concentrations of pesticides were detected in sediment samples collected from drainage pathways down gradient of the site.

EPA conducted a limited site assessment in February 1994. One subsurface and 12 surface soil samples were collected from areas located on the Facility and R/R properties and submitted for pesticide and herbicide analysis. Three samples were also submitted for dioxin and furan analysis. There were no 2,3,7,8-TCDD dioxin concentrations above 1.0 microgram per kilogram ($\mu\text{g}/\text{kg}$) found. All furan compounds were below 1.0 $\mu\text{g}/\text{kg}$.

In 1995, the EPA Environmental Response Team (ERT) installed three monitoring wells and six piezometers on the Site and R/R properties. EPA found elevated levels of insecticides (aldrin, dieldrin, 4,4-DDD, 4,4-DDT, 4,4 DDE, chlordane, heptachlor, methoxychlor, and toxaphene) in the surface and subsurface soil, as well as elevated levels of herbicides (2,4-

dichlorobiphenyl [2,4-D] and 2,4,5-trichlorophenoxyacetic acid [2,4,5-T]), and several volatile organic compounds in subsurface soil.

In October 1997, and March 1998, the EPA conducted a removal assessment of the site. That removal assessment established areal and vertical boundaries of the "clean" and contaminated areas. In the residential areas, the removal assessments found elevated levels of 4,4-DDT, endrin, heptachlor, and toxaphene.

2. Description of threat

Present site conditions pose an imminent and substantial endangerment to human health and the environment which meet the criteria for response actions under 40 C.F.R. 300.415(b) of the NCP as follows:

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The threat presented to the environment includes the contamination of soil and possibly groundwater. The pesticides also threaten wildlife that may come into contact with them. Actual or potential exposure to nearby human populations, animals, or the food chain from hazardous substances or pollutants or contaminants.

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The identified hazardous contaminants pose a potential health risk to the property owners and other users of the site.

C. Preliminary Assessment Results

In 1973, a fire burned down the pesticide formulator at the Economy Products site. The Iowa Department of Environmental Quality received numerous complaints from nearby residents regarding fumes from the fire.

The IDNR performed a Preliminary Assessment (PA) in July 1988. The IDNR concluded in their PA report that the primary site concern is the potential for groundwater contamination. The IDNR stated in their report that the waste disposed in the Stennett Quarry was secure and poses no significant threat due to the geologic formation that underlies the quarry. The bedrock aquifer in Stennett, Iowa, is not used as a source for groundwater in the area and no further action was recommended.

Also, additional investigations of groundwater and surficial soils in adjacent drainage ways were recommended with a low priority. The primary chemicals of potential concern identified by the IDNR included pesticides, insecticides, and herbicides that were stored at the Economy Products warehouse and the main packaging area.

IV. RESPONSE INFORMATION

A. Situation

1. Current Situation

All of the nineteen cells that contained pesticide contaminated soil have been excavated and backfilled. Most of the re-vegetation activities have been completed. Two of the cells on the railroad access property need to be sodded. Portions of three residential back yards need to be seeded. All of the contaminated soils (non-hazardous) have been transported to the Page County Landfill.

Final re-vegetation activities are scheduled to be completed by June 2, 2001. They are being performed by an EPA sub-contractor who will also perform periodic (future) watering on the affected grass areas.

2. Removal Actions to date

The following activities occurred between May 21 - 24, 2001.

Monday, May 21, 2001 - Severe rains have resulted in backfill not being made available for site use. Work crews re-dug cell 224. At this point 16 of the 19 cells have been determined to achieve the clean up goals. Some of the contractor personnel were released at 11:00 AM due to weather conditions. OSC Garvey left the site, late in the afternoon to fly to Chicago, Illinois to visit the thermal treatment company who received the award (contract) to treat the pesticide-contaminated soil.

Tuesday, May 22, 2001 - OSC Garvey visited the Midwest Soil Remediation facility in Elgin, Illinois. Representatives from the EPA's Environmental Response Team (ERT) and IT Corporation were present. A complete tour of the actual direct-fire thermal desorption unit that will be transported to the site was conducted. Also, meetings were held to communicate upcoming project schedules and expectations. Site activities included continued backfilling and residential yard(s) preparation for sod/seed placement.

Wednesday, May 23, 2001 - Analytical results have shown that 18 of the 19 cells in the residential railroad areas have achieved the clean up goals. The remaining cells (201) was re-dug to 3' in depth and re-sampled. A site security fence was installed around the Economy Products-Factory Place Facility Site in preparation for the upcoming adjacent project.

Thursday, May 24, 2001 - The last cell (201) was determined to be finished by excavating to a maximum of 4' in depth. The cell is located on the railroad access property. All of the 19 cells have been backfilled. Sod was laid in the front yards and on the railroad access property. The back yards of the residential homes will be seeded next week. The work crew decontaminated the equipment for demobilization on May 25, 2001.

3. Enforcement

At this time, EPA is performing a fund-lead removal action at the Economy Products Residential/Railroad properties. A potentially responsible parties (PRP) have been identified for the adjacent Economy Products-Factory Place Facility Site.

C. Next Steps

Future plans include an "open house" for the community on June 11, 2001, for the adjacent non time critical removal action (Economy Products-Factory Place Facility). Before the thermal treatment unit (TTU) is activated, local government officials, media, and the public will be invited to tour the TTU during the "open-house" activity. EPA has coordinating the event based on the availability of the TTU, other significant events already scheduled in the community, and additional considerations.

D. Key Issues

None.

V. COST INFORMATION

Cost estimate* (as of May 23, 2001)

ERRS contractor	\$ 41,853
START costs	\$ 10,000
Analytical	<u>\$ 5,000</u>
TOTAL	<u>\$108,000</u> # 56,853 ²⁰⁶ 5/11/01
Project Ceiling	\$108,000
Percent of Project Funds remaining:	47%

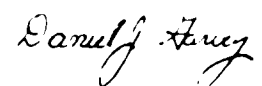
*The above accounting of expenditures is an estimate based upon figures known to the OSC at the time this report was written. The OSC does not necessarily receive specific figures on final payments made to any contractor(s). Other financial data which the OSC must rely upon may not be entirely up-to-date. The cost accounting provided in this report does not necessarily represent an exact monetary figure which the government may include in any claim for cost recovery.

VI. DISPOSITION OF WASTES

Wastestream	Medium	Quantity	Containment-Migration Control	Treatment	Disposal
Residential yards/ Railroad access areas	Soil	Approx. 300 tons	Pesticide contamination	None required	Page County Landfill
Hazardous waste/ Cell 220	Soil	Approx. 10 tons	Pesticide contamination	Direct-fire thermal desorption	Thermal treatment (future treatment)

cc: Bill Rice, Acting, RGAD
Michael J. Sanderson, SUPR
Andrea Jirka, SDDD
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Kevin Mould, 5204G
Joleen Werst, STAR
Robert Stewart, DOI

EPA	Potential Hazardous Waste Site Preliminary Assessment Form		Identification	
	Page 1 of 2		State: IA	CERCLIS #: IAD984566208
			CERCLIS Discovery Date:	
1. General Site Information				
Name: Economy Products Residential Railroad Access Properties		Street Address: 601-603-605-607 Southwest Road		City: Shenandoah
State: IA	Zip Code: 51601	County: Page	County Code:	Congressional District:
North Latitude: 40° 45' 30" West Longitude: 95° 22' 29"		Approximate Area of Site: _____ Acre _____ NA Square Feet		Status of Site: <input checked="" type="checkbox"/> Active <input type="checkbox"/> Not Specified <input type="checkbox"/> Inactive <input type="checkbox"/> NA (non site)
2. Owner/Operator Information				
Owner: Multiple owners-in addition, railroad access property across Southwest Road is owned by Burlington Northern Sante Fe			Operator:	
Street Address: 601-603-605-607 Southwest Road			Street Address:	
City: Shenandoah			City:	
State: Iowa	Zip Code: 51601	Telephone:	State:	Zip Code:
Type of Ownership: <input checked="" type="checkbox"/> Private <input type="checkbox"/> County <input type="checkbox"/> Federal Agency Name: <input type="checkbox"/> Municipal <input type="checkbox"/> State <input type="checkbox"/> Not Specified <input type="checkbox"/> Indian <input type="checkbox"/> Other _____			How Initially Identified: <input type="checkbox"/> Citizen Complaint <input type="checkbox"/> Federal Program <input type="checkbox"/> PA Petition <input type="checkbox"/> Incidental <input checked="" type="checkbox"/> State/Local Program <input type="checkbox"/> Not Specified <input type="checkbox"/> RCRA CERCLA Notification <input type="checkbox"/> Other (NRC)	
3. Site Evaluator Information				
Name of Evaluator: Daniel J. Garvey		Name of Organization: USEPA Superfund Division		Date: August 6, 2001
Street Address: 901 N. Fifth		City: Kansas City		State: KS
Name of EPA or State Agency Contact: Same as evaluator			Street Address:	
City:		State:	Telephone: (913) 551-7600	
4. Site Disposition (for EPA use only)				
Emergency Response Removal Assessment Recommendation: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No - Removal Action Completed No further action required Date: August 2001		CERCLIS Recommendation: <input type="checkbox"/> Higher Priority SI <input type="checkbox"/> Lower Priority SI <input checked="" type="checkbox"/> NFRAP <input type="checkbox"/> RCRA <input type="checkbox"/> Other: _____ Date: August 2001		Signature:  Name (typed): Daniel J. Garvey DANIEL J GARVEY Position: On-Scene Coordinator
5. General Site Characteristics				
Predominant Land Uses Within 1 Mile of Site (check all that apply): <input type="checkbox"/> Industrial <input type="checkbox"/> Agriculture <input type="checkbox"/> DOI <input checked="" type="checkbox"/> Commercial <input type="checkbox"/> Mining <input type="checkbox"/> Other Federal Facility _____ <input checked="" type="checkbox"/> Residential <input type="checkbox"/> DOD <input type="checkbox"/> Forest/Fields <input type="checkbox"/> DOE <input type="checkbox"/> Other _____			Site Setting: <input checked="" type="checkbox"/> Urban <input type="checkbox"/> Suburban <input type="checkbox"/> Rural	Years of Operation: <input checked="" type="checkbox"/> Unknown

Site Name: ECONOMY PRODUCTS CO INC - SHENANDOAH

S	▲	C	OU	Action Name	Sq	Ld	Planned				Actual		Qual	Takeover Phased	SCAP Note	EPA Person
							Start	FYQ	Complete	FYQ	Start	Complete				
		C	00	DISCOVERY	1	S	00/00/0000		00/00/0000		00/00/0000	06/08/1988				
			00	ENGINEERING EVAL/COST ANA	1	F	00/00/0000		03/31/1999	1999/2	01/09/1998	03/01/1999				
			00	Public Comment Period	1	F	00/00/0000		00/00/0000		00/00/0000	06/03/1999				
			00	LABORATORY SUPPORT	1	F	10/01/1997	1998/1	12/30/2001	2002/1	10/01/1997	00/00/0000				
			00	REMOVAL ASSESSMENT	1	F	01/01/1994	1994/2	03/31/1997	1997/2	02/01/1994	03/05/1997			REMOVAL NEEDED	
			00	Data Transmittal	3	F	00/00/0000		00/00/0000		00/00/0000	08/21/1995			RZ1PA 4 LETTERS	
			00	Data Transmittal	2	F	00/00/0000		00/00/0000		00/00/0000	08/27/1998			AZXPA,BZXPA,7LETTERS	
			00	PRELIMINARY ASSESSMENT	1	S	04/01/1988	1988/3	09/30/1988	1988/4	06/08/1988	08/12/1988		L	FORM DTD 7/15/88	
			00	Field Request	1	S	00/00/0000		12/31/1992	1993/1	00/00/0000	12/20/1992			REQUEST EPA SI	
		C	00	Tentative Disposition	1	S	00/00/0000		09/30/1988	1988/4	00/00/0000	08/12/1988			TD-IAN	
			00	SITE INSPECTION	1	F	01/01/1993	1993/2	12/31/1993	1994/1	02/01/1993	12/01/1993		H	RECON 2/23/93	
			00	Data Transmittal	1	F	00/00/0000		12/31/1993	1994/1	00/00/0000	10/19/1993			TWO LETTERS	
			00	Preremedial Work Plan	1	F	00/00/0000		06/30/1993	1993/3	00/00/0000	05/18/1993			SASP APPROVAL	
			00	Raw Data/EPA Lab	1	F	00/00/0000		06/30/1993	1993/3	00/00/0000	06/21/1993			COMPLETE	
			00	Trip Report	2	F	00/00/0000		06/30/1993	1993/3	00/00/0000	06/22/1993			ADDENDUM	
			00	Trip Report	1	F	00/00/0000		06/30/1993	1993/3	00/00/0000	06/08/1993			5/24-26/93 SAMPLING	
			00	ADMINISTRATIVE RECORDS	1	F	00/00/0000		09/30/2005	2005/4	04/08/1999	04/16/1999			ADMIN REC FILE EE/CA	
			00	REMOVAL COMMUNITY RELATI	1	F	00/00/0000		00/00/0000		01/14/1998	06/15/1998				
			00	Community Relations Plan	1	F	00/00/0000		00/00/0000		00/00/0000	06/15/1998				
			00	Public Availability Session	2	F	00/00/0000		00/00/0000		00/00/0000	04/20/1999				
			00	ISSUE REQ LTTRS (104e)	1	FE	00/00/0000		03/31/1997	1997/2	00/00/0000	02/11/1997				
			00	NEGOTIATION (GENERIC)	1	FE	06/30/1999	1999/3	03/31/2002	2002/2	06/03/1999	03/22/2001				
			2002/	REMOVAL	1	F	06/30/2001	2001/3	06/30/2002	2002/3	05/09/2001	00/00/0000		S		
			00	Notice Letters Issued	1	F	00/00/0000		00/00/0000		00/00/0000	10/06/1994				
			00	OSC Report	1	F	00/00/0000		12/31/2002	2003/1	00/00/0000	00/00/0000				
			00	Notice Letters Issued	2	FE	00/00/0000		00/00/0000		00/00/0000	04/28/1999			104(e)Ltr.	
			00	Approval Of Action Memo	1	F	00/00/0000		03/31/2001	2001/2	00/00/0000	02/08/2001				
			01	REMOVAL	2	F	06/30/2001	2001/3	09/30/2001	2001/4	05/09/2001	06/02/2001		C		
			01	Approval Of Action Memo	2	F	00/00/0000		06/30/2001	2001/3	00/00/0000	02/08/2001				
			01	OSC Report	2	F	00/00/0000		09/30/2001	2001/4	00/00/0000	00/00/0000				
			01	REMOVAL COMMUNITY RELATI	2	F	00/00/0000		06/30/2002	2002/3	06/01/2001	00/00/0000				
			00	ADMIN ORDER ON CONSENT	1	FE	00/00/0000		12/31/2001	2002/1	00/00/0000	03/22/2001			122(h)PartialCashout	
			00	Agmnt/Decree Signed By RP	1	FE	00/00/0000		00/00/0000		00/00/0000	03/06/2001				

Site Name: ECONOMY PRODUCTS CO INC - SHENANDOAH

S	▲	C	●	OU	Action Name	Sq	Ld	Planned			Actual			Takeover Phased	SCAP Note	EPA Person		
								Start	FYQ	Complete	FYQ	Start	Complete				H	Qual
				00	Enforcement Action Amended	1	FE	00/00/0000		12/31/2001	2002/1	00/00/0000	12/20/2001				AMENDED	
				00	Effective Date	1	FE	00/00/0000		12/31/2001	2002/1	00/00/0000	11/28/2001					
				00	Publication In Federal Reg	1	FE	00/00/0000		12/31/2001	2002/1	00/00/0000	10/23/2001					
				00	Signature By DOJ	1	FE	00/00/0000		09/30/2001	2001/4	00/00/0000	08/22/2001					

