

9/19/94
JADOC 7495329
106

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION VII
726 MINNESOTA AVENUE
KANSAS CITY, KANSAS 66101



IN THE MATTER OF:)

ARLIN H. POTTEBAUM)
Hospers, Iowa)

FARNAM Companies, Inc.)
Phoenix, Arizona)

KALO, Inc.)
Overland Park, Kansas)

LOVELAND INDUSTRIES, Inc.)
Greeley, Colorado)

CORNBELT CHEMICAL COMPANY)
McCook, Nebraska)

TERRA INTERNATIONAL, Inc.)
Sioux City, Iowa)

and)

DURVET, Inc.)
Blue Springs, Missouri)

Proceedings under Section 106 of the)
Comprehensive Environmental Response,)
Compensation, and Liability Act of)
1980, as amended, 42 U.S.C. § 9606.)

AMENDMENT TO

ADMINISTRATIVE ORDER

ON CONSENT

Docket No. VII-91-F-0021

30323043



Superfund

AMENDMENT

1. This Consent Agreement and Consent Order (Order), Docket No. VII-91-F-0021, is hereby amended as follows:

SUPPLEMENTAL FINDINGS OF FACT

2. Pursuant to the EPA-approved Work Plans submitted under the June 18, 1991 Order, the first phase of removal activities was carried out at the site from April through September, 1992.

3. Pursuant to the Work Plan for the first phase of removal activities at the site, the Respondents submitted an Engineering Evaluation Report (EER) to the Environmental Protection Agency (EPA) which was finalized in December, 1993. EPA modified the EER and determined that the EER would serve as the Engineering Evaluation/Cost Analysis (EE/CA) for the second, non-time critical phase of removal activities. The EER was made available for public comment from March 31, 1994 to May 16, 1994.

4. EPA considered the comments received from the public and has published a Removal Action Decision Document (RADD) which set forth the removal actions selected by EPA for the second phase (Phase II) of removal activities at the site and provides the Agency's response to public comments. The RADD is Exhibit C to this Order and is incorporated herein by reference. The administrative record supporting the RADD is available in the site information repository located at the Alton Public Library.

PHASE II PROJECT COORDINATORS

5. All documents and notifications required under the Order or pursuant to this Amendment shall be sent by certified mail, return receipt requested, to the following designated Phase II Project Coordinators:

a. For EPA:

James Colbert
Remedial Project Manager
U.S. EPA Region VII
726 Minnesota Ave.
Kansas City, KS 66101

b. For Respondents:

Dennis Burchett
Vice President, Regulatory Affairs
United Agri-Products
419 18th Street
P.O. Box 1286
Greeley, CO 80632

PHASE II WORK PLAN

6. The Order is amended to include all activities listed in Exhibit B attached to this Amendment, which is hereby incorporated into and made an enforceable part of the Order. Exhibit B is the Amended Scope of Work (SOW) for Phase II Removal Activities.

7. EPA acknowledges that Respondents have submitted a Phase II Work Plan to EPA for review and approval. Review and approval of the Phase II Work Plan shall be conducted in accordance with the procedures set forth in Paragraph 41 of the Order. Upon final EPA approval, the Phase II Work Plan shall also be incorporated into and made an enforceable part of this Order.

8. Within thirty (30) days of EPA approval of the Phase II Work Plan, Respondents shall implement the Phase II Work Plan in accordance with the schedules set forth therein or as otherwise provided in writing by EPA. Failure to completely perform all requirements set forth in the approved Phase II Work Plan and/or the Amended SOW for Phase II Removal Activities shall be deemed a violation of the Order and shall be subject to the provisions of Paragraphs 52 - 56 of the Order (Penalties for Noncompliance).

9. All work to be performed pursuant to this Amendment shall be performed under the direction and supervision of a qualified professional engineer, certified geologist or other qualified professional with expertise in hazardous waste site investigations and the development, design and execution of response actions. Prior to the initiation of any work at the site, Respondents shall notify EPA of the identity and qualifications of such person and any contractors and subcontractors engaged by Respondents to perform the work. Contractors so engaged shall be subject to EPA approval, and no work will begin at the site until such approval has been given.

10. EPA explicitly reserves the right to require Respondents to implement any contingency set forth in the RADD, including demolition of the building at the site, upon a determination by EPA that the clean-up goals set forth in the RADD and the Phase II SOW cannot be met or that institutional controls set forth therein cannot be achieved.

ENFORCEABILITY/EFFECTIVE DATE

11. EPA and the Respondents agree that all provisions of the Administrative Order on Consent (AOC) filed June 18, 1991 remain in full force and effect notwithstanding this Amendment. Each Respondent signing this amendment recognizes that not all parties to the June 18, 1991 AOC are signatories to this Amendment. Nevertheless, each party, by its signature below, agrees to be bound to the provisions of the June 18, 1991 AOC and to the provisions of this Amendment.

12. This Amendment shall become effective upon the date on which it is signed by the Regional Administrator or his delegatee.

Amendment to Order
In the matter of Arlin H. Pottebaum et al.
Docket No. VII-91-F-0021

IN WITNESS WHEREOF, the parties have affixed their signatures below:

9/16/94
Date

For the
United States Environmental
Protection Agency
Region VII
Belinda Holmes
Belinda Holmes
Assistant Regional Counsel

IT IS SO ORDERED.

9/16/94
Date

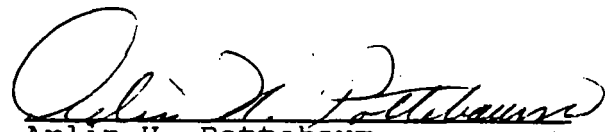
Charles P. Hensley for
Michael J. Sanderson
Acting Director, Waste Management
Division
United States Environmental
Protection Agency, Region VII

Amendment to Order

In the matter of Arlin H. Pottebaum et al,
Docket No. VII-91-F-0021

I hereby consent to be bound by the terms of the foregoing Amendment to the Administrative Order on Consent captioned above and verify that I am authorized to bind the party named below.

8-31-94
Date


Arlin H. Pottebaum

Amendment to Order

In the matter of Arlin H. Pottebaum et al.
Docket No. VII-91-F-0021

Farnam Companies, Inc. hereby consents to be bound by the terms of the foregoing Amendment to the Administrative Order on Consent captioned above. The person whose signature appears below verifies that he/she is authorized to sign this document on Farnam's behalf.

September 9, 1994
Date

William B. Hoff, President
For Farnam Companies, Inc.

Amendment to Order

In the matter of Arlin H. Pottebaum et al.
Docket No. VII-91-F-0021

Kalo, Inc. hereby consents to be bound by the terms of the foregoing Amendment to the Administrative Order on Consent captioned above. The person whose signature appears below verifies that he/she is authorized to sign this document on Kalo's behalf.

Aug 31, 94
Date

John E. Wice
For Kalo, Inc.

Amendment to Order

In the matter of Arlin H. Pottebaum et al.
Docket No. VII-91-F-0021

Loveland Industries, Inc. hereby consents to be bound by the terms of the foregoing Amendment to the Administrative Order on Consent captioned above. The person whose signature appears below verifies that he/she is authorized to sign this document on Loveland Industries' behalf.

August 30, 1994
Date

Gary W. Carter
For Loveland Industries, Inc.

Amendment to Order

In the matter of Arlin H. Pottebaum et al.

Docket No. VII-91-F-0021

Cornbelt Chemical Company hereby consents to be bound by the terms of the foregoing Amendment to the Administrative Order on Consent captioned above. The person whose signature appears below verifies that he/she is authorized to sign this document on behalf of Cornbelt Chemical Company.

Date

9-1-94

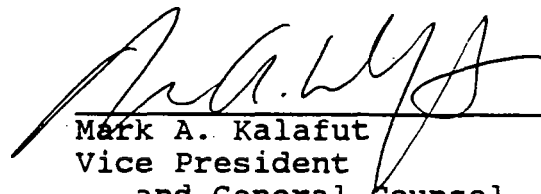
Richard M. [Signature]
For Cornbelt Chemical Company

Amendment to Order

In the matter of Arlin H. Pottebaum et al,
Docket No. VII-91-F-0021

Terra International, Inc. hereby consents to be bound by the terms of the foregoing Amendment to the Administrative Order on Consent captioned above. The person whose signature appears below verifies that he/she is authorized to sign this document on behalf of Terra International, Inc.

September 1, 1994
Date



Mark A. Kalafut
Vice President
and General Counsel
For Terra International, Inc.

Amendment to Order

In the matter of Arlin H. Pottebaum et al.

Docket No. VII-91-F-0021

Durvet, Inc. hereby consents to be bound by the terms of the foregoing Amendment to the Administrative Order on Consent captioned above. The person whose signature appears below verifies that he/she is authorized to sign this document on Durvet's behalf.

Aug. 31, 1994
Date

Robert E. Norman
For Durvet Inc.

Exhibit B

THE AMENDED SCOPE OF WORK FOR PHASE II REMOVAL ACTIVITIES

Specific tasks required under this AOC, as amended for Phase II activities, shall address the following:

1. Proper disposal of containerized chemicals and empty drums that are located in the main building. In accordance with the Scope of Work (Exhibit A, tasks 6 and 7) of the Administrative Order on Consent, Docket No. VII-91-F-0021, the main building has been secured, leaking and unstable drums overpacked, and chemicals consolidated, profiled, packaged, and staged for shipment.

2. Proper disposal of contaminated debris and contaminated building materials (i.e., concrete, insulation, carpeting, wallboard, panelling, framing, and acoustical tiling).

3. Demolition of the office area of the main building, if determined to be the most effective response action, using safe, dust minimizing, engineering techniques. Prior to demolition, an air monitoring/engineering controls plan, subject to EPA approval, shall be developed for use during demolition activities. The plan shall describe the engineering controls (i.e., dust suppression techniques) and air monitoring program (i.e., types and placement of monitoring equipment, trigger levels, contingency plan) to be implemented for the protection of human health and the environment. Results of the air monitoring program shall be summarized and included in the Removal Action Report. Prior to demolition, a representative number of building material samples will be collected for TCLP analysis for pesticide-related compounds contained in Table 1 of 40 CFR §261.24 for purposes of determining proper disposal. Clean soil will be placed in excavated areas and/or the basement area of the office area. The backfill will be compacted, graded, and seeded.

4. Clean-up of the interior of the main building to remove pesticide contamination. The cleaning shall consist of the physical removal of dust and particles from contaminated portions of the walls, floors, building ventilation system, and other surfaces by sweeping, vacuuming, and/or washing. Sweeping will clean and collect the coarse debris. Vacuuming will be performed using a high-efficiency particulate air (HEPA) filter vacuum. Washing surfaces will be accomplished by a damp cloth and/or wet-vacuum and/or high pressure wash. Contaminated portions of the floor may require removal and/or sealing. All waste generated from these cleaning activities shall be disposed of properly, including decontamination and rinse water. Prior to cleanup activities, an air monitoring/engineering controls plan, subject to EPA approval, shall be developed for use during cleanup activities. The plan shall describe the engineering controls (i.e., dust suppression techniques) and air monitoring

program (i.e., types and placement of monitoring equipment, trigger levels, contingency plan) to be implemented for the protection of human health. Results of the air monitoring program shall be summarized and included in the Removal Action Report. In addition, areas adjacent to building openings shall be covered with plastic sheeting material to eliminate and/or minimize the spread of potentially contaminated dust.

5. After the building cleanup activities have been completed, confirmatory sampling will be used to measure the effectiveness of the cleanup in the building. Ambient air sampling inside the main building will be conducted, by EPA, for pesticide analysis in particulate and vapor phases by EPA. However, in the event that the PRP group conducts the confirmatory air sampling then a Sampling and Analysis Plan describing the sample collection and analytical methods, including sample station locations, detection limits for individual compounds, equipment, and quality assurance/quality control samples, shall be submitted by the PRP group for EPA review and approval. "Active" air sampling techniques will be used to circulate air in the building during the sampling episode. Air samples will be collected over a minimum 8 hour period using high volume samplers fitted with fiberglass filters and polyurethane foam (PUF) filters. Sample collection will be documented using field log books and sample custody will be tracked using chain-of custody forms and procedures. Information to be recorded in field log books will include calibration data, barometric pressure, temperature, sampling times, sample preservation methods, and flow rates. Samples will be analyzed using appropriate analytical procedures (EPA Method T04 for organochlorine compounds, modified Method T04 for organophosphate compounds, method subject to EPA approval for strychnine) for the pesticide compounds listed below. For non-food related industrial or industrial related commercial settings, acceptable ambient air concentrations for individual compounds will be no greater than one order of magnitude less than the Occupational Safety and Health Administration (OSHA) Permissible Exposure Level (PEL) or the American Conference of Governmental Industrial Hygienists (ACGIH) Threshold Limit Value-Time-Weighted Average (TLV-TWA). When two or more hazardous substances which act upon the same organ system are present, their combined effect, rather than that of each individually, must be considered. Therefore, after the building has been cleaned and air samples collected, EPA and the Agency for Toxic Substances and Disease Registry (ATSDR) will evaluate the analytical data to determine, based upon the concentrations of the individual pesticides, if the combined effect (mixture) of the pesticides in the air would present a risk to future occupants of the main building. An acceptable ambient air concentration for an individual pesticide compound will be no greater than one order of magnitude less than the Occupational Safety and Health Administration (OSHA) Permissible Exposure Level (PEL) or the American Conference of Governmental Industrial Hygienists (ACGIH) Threshold Limit Value-Time-Weighted Average (TLV-TWA) divided by, based on generally

similar target organs, the total number of similar type pesticide compounds (i.e., $T_{OClpest}$ for organochlorine, T_{OPpest} for organophosphorous) detected in the confirmatory samples.

Compound	PEL/TLV-TWA	Cleanup Level
Malathion	10 mg/m ³	1/T _{OPpest} mg/m ³
Methoxychlor	10 mg/m ³	1/T _{OClpest} mg/m ³
Lindane	.5 mg/m ³	.05/T _{OClpest} mg/m ³
Toxaphene	.5 mg/m ³	.05/T _{OClpest} mg/m ³
Heptachlor	.5 mg/m ³	.05/T _{OClpest} mg/m ³
Aldrin	.25 mg/m ³	.025/T _{OClpest} mg/m ³
Endosulfan	.1 mg/m ³	.01/T _{OClpest} mg/m ³
Dieldrin	.25 mg/m ³	.025/T _{OClpest} mg/m ³
Endrin	.1 mg/m ³	.01/T _{OClpest} mg/m ³
Chlordane	.5 mg/m ³	.05/T _{OClpest} mg/m ³
DDT	1 mg/m ³	.1/T _{OClpest} mg/m ³
Strychnine	.15 mg/m ³	.015/T _{OPpest} mg/m ³
Diazinon	.1 mg/m ³	.01/T _{OPpest} mg/m ³
Dichlorvos	.9 mg/m ³	.09/T _{OPpest} mg/m ³
Captan	5 mg/m ³	.5/T _{OClpest} mg/m ³
Phorate	.05 mg/m ³	.005/T _{OPpest} mg/m ³

For the ten remaining compounds for which OSHA PELs or ACGIH TLV-TWAs have not been established, the following PEL/TLV-TWA analogues and cleanup levels shall be used:

Compound	Similar Compound	PEL/TLV-TWA Analogue	Cleanup Level
A-BHC	Lindane	.5 mg/m ³	.05/T _{OClpest} mg/m ³
B-BHC	Lindane	.5 mg/m ³	.05/T _{OClpest} mg/m ³
D-BHC	Lindane	.5 mg/m ³	.05/T _{OClpest} mg/m ³
Heptachlor Epoxide	Heptachlor	.5 mg/m ³	.05/T _{OClpest} mg/m ³
Endosulfan II	Endosulfan	.1 mg/m ³	.01/T _{OClpest} mg/m ³
Endosulfan Sulfate	Endosulfan	.1 mg/m ³	.01/T _{OClpest} mg/m ³
Endrin Ketone	Endrin	.1 mg/m ³	.01/T _{OClpest} mg/m ³
DDE	DDT	1 mg/m ³	.1/T _{OClpest} mg/m ³
DDD	DDT	1 mg/m ³	.1/T _{OClpest} mg/m ³
Coumaphos	Malathion	10 mg/m ³	1/T _{OPpest} mg/m ³

In the event that analytical results exceed the cleanup levels or the mixture of pesticides presents a risk to human health, additional response actions will be necessary. This may include additional cleaning and/or demolition of the main building.

The cleanup levels above are considered protective for non-food related or industrial related commercial settings. Restricting future use of the building to an industrial or industrial related

commercial setting provides an additional measure of protectiveness in that an occupational setting is less likely to involve occupation of the building by an individual on a continuous basis. An occupational setting is also less likely to involve segments of the population that are considered more sensitive (i.e., children, elderly). The language "industrial or industrial related commercial use" is intended to exclude certain commercial uses (e.g., daycare center, restaurants, food preparation, food processing, convalescence home). The Respondents shall include the following in the Removal Action Workplan for EPA review and approval: 1) the proposed language for deed restrictions to accomplish the above institutional limitations on future uses of the building and 2) a method for imposing the deed restrictions. If the imposition of deed restrictions cannot be accomplished within a reasonable time frame as determined by EPA, the building will be cleaned to health-based levels suited to unrestricted future use of the building or demolished.

6. Demolition and proper disposal of the above ground storage tanks located on the eastern portion of the Interchem site. Samples will be collected from the newly-exposed soils. Tank area soils need to be addressed if analytical results demonstrate a threat to human health and/or the environment. Soil samples will be analyzed in accordance with the substantive requirements of the Iowa Department of Natural Resource Underground Storage Tank Program. Cleanup levels for tank area soils will be consistent with the IDNR UST corrective action level of 100 mg/kg Total Organic Hydrocarbon as products stored as determined by Iowa analytical methods OA-1 and OA-2, or equivalent.

7. Decommission (i.e., plug) each of the four monitoring wells installed during Phase I activities in accordance with applicable state and local regulations.

8. Upon completion of the tasks set forth in the Removal Action Workplan, Respondents shall prepare a Removal Action Report (RAR) that provides a summary of activities conducted pursuant to the AOC, as amended, a description of any and all deviations from the approved Removal Action Workplan, and a certification of completion of the removal activities pursuant to the removal action consistent with this AOC, as amended, and plans approved hereunder.

The Respondents shall prepare Removal Action Workplan(s) that address all phases (including schedules) of this scope of work as amended, as well as sampling and analysis plan(s) and quality assurance project plan(s), if necessary, for EPA review and approval. A health and safety plan that addresses the safety issues associated with the above tasks shall also be submitted for EPA review. The plans must address in detail the management, treatment, and proper disposal of liquid and solid wastes generated during site actions. EPA reserves the right to oversee

and require modifications to the work described in this document at any time during or after completion of the site activities. Respondents shall submit all results of sampling, tests, modeling, or other data (including raw data) generated by Respondents, or on Respondents' behalf, upon request by EPA. EPA also reserves the right to request splits/duplicates of samples collected by the Respondents or their agents or to collect additional samples of any media or process related to the cleanup effort. The Respondent may request splits/duplicates of any samples collected by EPA as part of this action. All materials resulting from cleanup actions which are scheduled for offsite disposal as hazardous wastes must be transported and disposed in accordance with appropriate state and federal hazardous waste transportation and disposal regulations. Land Disposal restrictions will apply in accordance with 40 CFR Part 268, as amended. The Resource Conservation and Recovery Act (RCRA) permitted treatment, storage and/or disposal (TSD) facility selected for disposal must provide documentation of compliance with all permit conditions (state/federal regulatory requirements) relating to the disposal of wastes from the site not more than 90 days prior to the disposal action. Respondents shall provide a copy of the documentation to EPA.



Exhibit C

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION VII
726 MINNESOTA AVENUE
KANSAS CITY, KANSAS 66101
AUG 15 1994

MEMORANDUM

SUBJECT: Request for Concurrence on Non-Time-Critical Removal Action at the Interchem Site, Alton, Iowa (CERCLIS ID #IAD007495328)

FROM: Robert L. Morby, Chief
Superfund Branch
Waste Management Division

TO: Dennis Grams, P.E.
Regional Administrator

THRU: Martha R. Steincamp
Office of Regional Counsel


Michael J. Sanderson, Acting Director
Waste Management Division

The attached Removal Action Decision Document (RADD) represents the selected non-time-critical removal action for the Interchem site in Alton, Iowa, developed in accordance with the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA), as amended by the Superfund Amendments and Reauthorization Act of 1986 (SARA), 42 U.S.C. §9601 et seq.

The non-time-critical removal action, as set forth in the RADD and the Engineering Evaluation Report (Alternative 3.1.1.5 - Disposal of Contaminated Media and Cleanup of Building Interior with subsequent Institutional Controls and Alternative 3.1.2.4 - Demolition and Disposal of Tanks and Cleanup of Contaminated Soils, If Necessary), is appropriate to abate imminent and substantial endangerment posed by the conditions at the Interchem site. The non-time-critical removal action for this site will be conducted by the PRP group under EPA oversight. Prior to the PRP group conducting the non-time-critical removal action, the 1991 Administrative Order on Consent (AOC) must be amended to address the required activities.

At this time, the Superfund Branch requests your concurrence on the proposed non-time-critical removal action.

Approved by


Dennis Grams, P.E.
Regional Administrator


Date

Attachments

Removal Action Decision Document
for
Interchem Site
Alton, Iowa
August 1994

I. PURPOSE

The purpose of this Removal Action Decision Document (RADD) is to present the selected non-time critical removal action for the Interchem site in Alton, Iowa, developed in accordance with the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA), as amended by the Superfund Amendments and Reauthorization Act of 1986 (SARA), 42 U.S.C. § 9601 et seq.. The information supporting this non-time critical removal action is contained in the administrative record and information repository located at the Alton Public Library.

Conditions presently exist at this former pesticide formulation site which may present an imminent and substantial endangerment to the public health or welfare or the environment. The non-time critical removal action documented in this RADD and the Engineering Evaluation Report (EER) will mitigate the direct contact and inhalation threat to persons having access to the site and eliminate the potential for offsite migration of contaminants.

II. SITE CONDITIONS AND BACKGROUND

A. Site Description

1. Physical Location

The Interchem site (CERCLIS #IAD007496328) is located in Alton, Iowa, a town of approximately 1,000 residents in northwest Iowa, 50 miles northeast of Sioux City, Iowa. The Site is located on three parcels of land. The legal description of these parcels are Lots 2, 3, 4, and 5 in Block 3 in the Auditor's Subdivision and Replat of Block 3; Block 4, original plat, and a strip of land along the railroad tracks running parallel to 1st Avenue, which is located in the NE $\frac{1}{4}$ of the SW $\frac{1}{4}$ of Section 2, Township 94 North, Range 44 West.

The facilities which were used during the pesticide formulation operations are located on both sides of 1st Avenue between 10th and 11th Streets in the east-central portion of Alton. Also, a small plot of land, including a concrete pad (known as the Toxaphene Pad) located on the south side of 10th Street, is part of the Site. Three sets of railroad tracks

and vacant land are located immediately east and north of the Site, respectively. Mixed commercial and residential districts are located to the north, west, and south.

2. Site Background and Operational History

The Interchem site is a former pesticide formulating facility with a 12-year operating history from 1976 to 1988. Two pesticide formulation companies operated at the site: (1) Silak (1976-1980), which also operated under the names Interchem, Inc. (1980-1984), and WHB Specialty Products (1984-1987); and (2) DeNova Industries, Inc. (1987-1988).

The Interchem site primarily consists of the Main Building, which housed an office; storage areas for raw materials and finished products; packaging and blending areas; a liquid processing area; and a hazardous waste storage area. The Toxaphene Pad, located adjacent to 1st Avenue, approximately 150 feet south of 10th Street, was formerly part of a warehouse foundation used for storage of formulation products. On the east side of 1st Avenue, west of the railroad tracks, there are seven above-ground storage tanks (tanks) formerly used to store diluents and liquids related to pesticide formulation. Two wooden sheds used to store pesticide formulation materials and containers were located north of the tanks.

In May 1976, a theatre adjacent to the Interchem site caught on fire. The fire spread and destroyed an Interchem site warehouse located on the southwest corner of 10th Street and 1st Avenue in Alton. The facility was closed for one month after the fire and then reopened. In February 1977, another fire occurred at the Interchem site, destroying the quonset located at the northeast corner of 10th Street and 1st Avenue. In June 1981, a chemical spill of dimethoate, an organophosphate pesticide, occurred at the Interchem site. The 2- to 3-gallon spill was a result of container crushing operations at the site. Lime was used to cover the spill and neutralize the dimethoate by base hydrolysis. The spill was reported to have caused a persistent and obnoxious odor in the vicinity of the site. Early in 1983, a spill of toxaphene occurred on a concrete pad south of the office area. Soil samples taken from the toxaphene spill area prior to cleanup contained up to 110,000 parts per million (ppm). The company conducted some initial cleanup efforts in April 1983, reducing toxaphene levels in the soil to 5,500 ppm. In November 1983, a second clean-up action reduced levels to 120 ppm in soil.

In June 1984, EPA conducted a Resource Conservation Recovery Act (RCRA) compliance evaluation inspection at Interchem to determine compliance with RCRA interim status regulations. The inspection determined that nine 55-gallon drums of xylene and toxaphene waste had been on site since August 1983, in violation of RCRA interim status storage regulations. Various other

containers were identified as containing waste products. Deficiencies in the record-keeping requirements were also noted at that time.

In March 1987, EPA conducted another RCRA compliance evaluation inspection of the Interchem site. Inspectors noted deficiencies in the condition of stored drums, general refuse, baghouse dust collection equipment, product tanks, and spill mitigation procedures. No hazardous waste had been removed from the site but was being stored behind a fence inside the warehouse. An attempt was made to obtain an inventory of waste stored within the fenced area but the storage arrangement made it difficult for inspectors to check for properly labeled and dated containers. A Notice of Violation was issued citing improper aisle spacing which prevented unobstructed access to the material. InterChem was also cited for failing to maintain required interim status records including a waste analysis plan, an inspection schedule, personnel training or training documents, a contingency plan for emergency procedures, and financial assurances.

In March 1988, representatives of EPA and the Iowa Department of Agriculture visited the Interchem site. The purpose of the visit was to note the current conditions of the facility. Inspectors noted that while some clean-up activity had occurred, a quantity of hazardous substances remained on-site and proper site closure had not occurred. In July 1988, EPA filed a Complaint, Compliance Order, and Notice of Opportunity for a Hearing against DeNova, Silak, and others involved with the Interchem site. The order requested that the facility come into compliance with RCRA requirements and complete RCRA closure activities. RCRA closure activities were never completed and due to financial difficulties pesticide operations were discontinued at the facility in August 1988. The Small Business Administration (SBA) took possession of the facility's property when it defaulted on its SBA loan.

3. Site Evaluation

In April and June 1989, EPA conducted site assessment investigations. The April 1989 investigation resulted in the collection of samples from both inside and outside the Main Building. The matrix types and corresponding concentrations of organochlorine pesticides from samples collected from inside the Main Building in April 1989 are summarized in Table 2-1. The June 1989 investigation included the collection of samples from inside and outside the Main Building. All samples were analyzed for organochlorine pesticides and PCBs. Ten drum samples were analyzed for volatile organic compounds (VOCs). All samples were also analyzed using a tentatively identified semivolatile compound scan. The June 1989 results from samples collected from inside the Main Building are summarized in Table 2-2. Analytical

results for samples collected during both April and June 1989 activities reported a wide range of concentrations. VOC results indicated the presence of ethylbenzene and xylene in one of the drum samples collected in June 1989. The semivolatle scan tentatively identified a number of compounds, the majority of which would be placed in the following categories:

- Organochlorine pesticides;
- Organophosphorus pesticides; and
- Diluents (carrier agents used for pesticide application typically consisting of petroleum-based compounds such as xylenes, kerosene, and/or Number 2 fuel oil).

As discussed in the following section, the PRP Group has conducted additional site characterization activities pursuant to the June 18, 1991 Administrative Order on Consent (AOC). The results of these investigations are discussed in the Site Characterization Report (WCC, 1992) with the exception of the inventory of the Main Building which is discussed in the Hazardous Materials Inventory Report (HMIR) (WCC, 1991a).

4. PRP Group Activities

In April 1991, the Interchem PRP Group performed an initial inspection and inventory of the deteriorating wooden sheds located adjacent to the railroad tracks. The inspection revealed that the sheds housed containers with pesticides and other unidentified materials. The PRP Group transported 277 readily accessible empty drums from the sheds to Loveland Industries in Greeley, Colorado for triple rinsing and storage. The sheds were secured to restrict access.

On June 18, 1991, an Administrative Order on Consent (AOC) was signed between EPA and the Interchem PRP Group. Pursuant to the June 1991 AOC, the PRP Group conducted the following site characterization activities in September/October 1991:

- Exterior soil sampling;
- Toxaphene Pad concrete sampling;
- Monitoring well installation;
- Groundwater sampling;
- Conducting inventory of the Main Building;
- Sampling of Tank contents.

The site characterization study indicated that soil samples collected from areas on the north and east sides of the main building, as well as the toxaphene pad area, exceeded pesticide action levels established in the AOC. The study also indicated that five of the tanks contained fluids characterized as oil/water mixtures. The fire and explosive hazards associated with the tanks were considered minimal based upon the percent oxygen and low Lower Explosive Limit (LEL) values obtained using a Combustible Gas Indicator (CGI) during tank sampling in October 1991. The results of these investigations are discussed in the Site Characterization Report (WCC, 1992) with the exception of the inventory of the Main Building which is discussed in the Hazardous Materials Inventory Report (HMIR) (WCC, 1991a).

The Phase I Interim Drum Removal was conducted by the PRPs pursuant to the 1991 AOC during October 1991 and consisted of the following:

- All of the drums from the South Shed were removed and transferred to the North Shed.
- Two piles of unknown materials were removed from the South Shed and transferred to 55-gallon steel drums, which were then moved to the North Shed.
- The remaining empty containers (269) were removed from the Sheds by Heritage Remediation/Engineering, Inc. and transported to the Heritage facility in Lemont, Illinois. These drums were crushed and shipped to the U.S. Steel Works, where they were resmelted with other scrap metal. The walls, floors, and the interior roof of the sheds were vacuumed.
- An inventory of the remaining drums was conducted.
- Samples of the materials inside the drums were collected for screening tests to evaluate treatment/disposal options.
- The sheds were secured to restrict access.

During the April/May 1992 Phase I cleanup activities the drums from the sheds were transferred to an area adjacent to the main building prior to the dismantling and disposal of the sheds. The drums from the sheds were eventually transported off-site for incineration on September 15, 1992. The contaminated exterior soils/concrete and free liquids in the above-ground storage tanks were also addressed during the April/May 1992 Phase I cleanup activities in accordance with the Removal Work Plan (WCC, April 1992). The liquids in the tanks were removed, the tanks rinsed, and all liquids properly disposed. After the tanks were drained two sets of CGI readings again indicated acceptable

values for percent oxygen and LELs. The exterior soils/concrete that exceeded the pesticide action levels established in the AOC were excavated for offsite disposal. Excavated areas were backfilled and seeded.

The Main Building has been secured, locked-up, warning signs posted, and the access controlled. The door locks were changed. All of the windows that were formerly broken have been boarded over, and all of the garage doors have been locked and padlocked from the inside. Entry is currently restricted to PRP individuals with keys. In accordance with the AOC, leaking and unstable containers were overpacked in 85-gallon drums. A total of twelve 55-gallon containers were overpacked into twelve 85-gallon drums. An inventory of all the containers and equipment inside the Main Building was documented in the HMIR. In September 1993 all containers and product listed on the HMIR were reevaluated resulting in profiling, consolidation, and staging of drummed material. As of August 1994, the drums await shipment for offsite disposal.

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

Hazardous substances, as defined by § 101(14) of CERCLA, are present on site that pose an imminent and substantial threat to public health and the environment. The former owners of the facility have failed to properly close the facility, and waste pesticide material has been abandoned within the main building. Even though available liquids were removed from the above ground storage tanks, petroleum-based diluent residues may remain and future tank deterioration may result in a release to the environment. Approximately 25 pesticides, primarily organochlorine (e.g., toxaphene, lindane, methoxychlor) and organophosphorous (e.g., malathion, diazinon) compounds, have been discovered within the main building. Dust containing pesticide residues and contaminated surfaces represent a continued direct contact and inhalation threat to persons having access to the building. In addition, cleanup of the main building and tanks will eliminate the potential for offsite migration of contaminants.

Adverse health effects and symptoms of organochlorine poisoning include nausea, confusion, agitation, and tremors. In general, the organochlorine pesticides target the liver and central nervous system and the organophosphorous pesticides target the central nervous system.

In general, organochlorine pesticide compounds are very stable to biological and chemical processes and maintain their toxic properties for an extended period of time. Off-site migration of organochlorine pesticide compounds could prove

harmful to the nearby environment, particularly if contaminated surface runoff reaches surface waters.

6. National Priorities List Status

The Interchem site is not on, nor is it proposed for, the National Priority List.

B. State and Local Authorities' Roles

1. State/Local Action to Date

The Iowa Department of Natural Resources (IDNR), formerly Iowa Department of Environmental Quality (IDEQ), has conducted investigations and provided oversight on cleanup projects when Interchem was an operating facility.

2. Potential for Continued State/Local Response

Since this is an EPA-lead project, it is anticipated that the Iowa Department of Natural Resources (IDNR) will provide limited support to EPA concerning activities at the site. However, EPA will continue to provide IDNR with information and documents concerning activities at the site. Local authorities will also be informed of upcoming field activities.

C. Other Actions

1. Previous Actions

Previous actions have included the previous site investigations, September/October 1991 Phase I site characterization and the April/May 1992 Phase I time critical removal discussed above. Phase I activities were conducted pursuant to an Administrative Order on Consent, Docket No. VII-91-F-0021 (1991 AOC) and included the removal of pesticides from the soil surrounding the building, the installation of ground water monitoring wells, demolition and disposal of a dilapidated wooden shed and its contents, removal of flammable materials from above-ground storage tanks and the removal of a toxaphene-contaminated concrete pad. The PRP group has profiled and staged the drummed wastes inside the main building in preparation for the Phase 2 non-time critical removal action. The PRP group has also performed Toxicity Characteristic Leachate Procedure (TCLP) analysis on building materials.

2. Current Actions

The United States Environmental Protection Agency (EPA) is anticipating a non-time critical removal action at the Interchem site in Alton, Iowa. The Interchem PRP group has prepared an Engineering Evaluation Report (EER). This document, as modified by EPA, serves as the Engineering Evaluation/Cost Analysis (EE/CA) for the Phase II removal activities at the Interchem site. The EER addresses cleanup of the main building and final disposition of the above ground storage tanks. EPA held a public comment period from March 31, 1994 to April 29,

1994 on the EER. The initial public comment period was extended to May 16, 1994 in response to a request by the Alton City Council. The purpose of the comment period was to provide interested parties with an opportunity to comment on the response alternatives presented in the EER for the second phase of cleanup activities at the Interchem Site.

On April 27, 1994, representatives of the EPA Region 7 were available at the Alton Public Library to answer questions concerning the EER and EPA's preferred alternative (alternative 3.1.1.5 - Disposal of Contaminated Media and Cleanup of Building Interior with subsequent Institutional Controls). That evening EPA also attended the Alton City Council meeting to respond to questions and concerns.

A Response to Public Comments (attached) has been prepared by EPA to address the significant comments received by EPA concerning the EER. A total of ten letters were received by EPA Region 7. Five of the letters voiced support for alternative 3.1.1.5 (Disposal of Contaminated Media and Cleanup of Building Interior with subsequent Institutional Controls) and five of the letters indicated a preference for alternative 3.1.1.6 (Disposal of Contaminated Media and Cleanup of Building Interior followed by Building Demolition).

After consideration of the comments received, EPA has selected alternative 3.1.1.5 (Disposal of Contaminated Media and Cleanup of Building Interior with subsequent Institutional Controls) to address the main building. The above ground storage tanks will be addressed in accordance with response alternative 3.1.2.4 (Demolition and Disposal of Tanks and Cleanup of Contaminated Soils, If Necessary).

The 1991 AOC will be amended prior to the PRPs conducting the non-time critical response action. The response action is described in the EER and in the Proposed Action section of this RADD.

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

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP), per 40 C.F.R. § 300.415(b), provides that EPA may conduct a removal action when it determines that there is a threat to public health or welfare or the environment based on one or more of the eight factors listed in 40 C.F.R. § 300.415(b)(2). Several of these factors which justify a removal action at this site are outlined below.

- A. Actual or potential exposure to hazardous substances or pollutants or contaminants by nearby populations or the food chain from hazardous substances or pollutants or contaminants (40 C.F.R. § 300.415(b)(2)(i))

Human and animal populations may come in contact (dermal and/or inhalation) with drummed pesticide materials, dust containing pesticide residues and/or contaminated surfaces upon access to the building. In addition, cleanup of the main

building and tanks will eliminate the potential for offsite migration of contaminants upon future deterioration of building, drums, and/or above ground storage tanks.

- B. Hazardous substances or pollutants or contaminants in drums, barrels, tanks, or other bulk storage containers, that may pose a threat of release (40 C.F.R. § 300.415(b)(2)(iii))

The drummed pesticide materials in the main building have a potential for release to the environment upon deterioration of building, drums, and/or above ground storage tanks.

IV. ENDANGERMENT DETERMINATION

EPA has determined that conditions present at the site constitute a threat to public health, welfare, or the environment based upon the factors set forth in Section 300.415(b)(2) of the NCP, as amended, 40 C.F.R. § 300.415(b)(2). Actual or threatened releases of hazardous substances from this site, if not addressed by implementing the non-time critical removal action cited in this RADD and the EER, may exacerbate conditions which present an imminent and substantial endangerment to public health, or welfare, or the environment.

V. PROPOSED ACTIONS AND ESTIMATED COST

A. Proposed Actions

1. Proposed Action Description

The non-time critical removal action documented in this RADD and the EER will mitigate the direct contact and inhalation threat to persons having access to the site and eliminate the potential for offsite migration of contaminants.

This proposed removal action includes segregating, transporting, and disposing of adulterated pesticide wastes at a RCRA-approved disposal facility. Nonhazardous solid wastes which may interfere with site clean-up work will be sent to a local landfill under a special waste permit issued by the State of Iowa.

a. Building Decontamination

The interior of the main building shall be cleaned to remove pesticide contamination. The cleanup shall consist of, but not be limited to:

- * Vacuum interior ceilings, trusses, walls, and floors with a high-efficiency particulate air (HEPA) filter vacuum.

- * To assure thorough cleaning of all surfaces, high-pressure washing may be required. All decontamination and rinse water will be captured and recycled through a filter media, either sand or charcoal, then discharged to the sanitary sewer, provided that the sample results are at an acceptable level to discharge into the sewer.

* The contaminated filter media and dust generated by the HEPA process will be drummed up and disposed of in a hazardous waste landfill.

* To measure the effectiveness of the cleanup inside the main building, air samples will be collected and analyzed for selected pesticides (see below). In general, an acceptable building interior air concentration for an individual pesticide compound will be no greater than one order of magnitude less than the Occupational Safety and Health Administration (OSHA) Permissible Exposure Level (PEL) or the American Conference of Governmental Industrial Hygienists (ACGIH) Threshold Limit Value-Time-Weighted Average (TLV-TWA) divided by, based on generally similar target organs, the total number of similar type pesticide compounds (i.e., $T_{OClpest}$ for organochlorine, T_{OPpest} for organophosphorous) detected in the confirmatory samples.

Compound	PEL/TLV-TWA	Cleanup Level
Malathion	10 mg/m ³	$1/T_{OPpest}$ mg/m ³
Methoxychlor	10 mg/m ³	$1/T_{OClpest}$ mg/m ³
Lindane	.5 mg/m ³	$.05/T_{OClpest}$ mg/m ³
Toxaphene	.5 mg/m ³	$.05/T_{OClpest}$ mg/m ³
Heptachlor	.5 mg/m ³	$.05/T_{OClpest}$ mg/m ³
Aldrin	.25 mg/m ³	$.025/T_{OClpest}$ mg/m ³
Endosulfan	.1 mg/m ³	$.01/T_{OClpest}$ mg/m ³
Dieldrin	.25 mg/m ³	$.025/T_{OClpest}$ mg/m ³
Endrin	.1 mg/m ³	$.01/T_{OClpest}$ mg/m ³
Chlordane	.5 mg/m ³	$.05/T_{OClpest}$ mg/m ³
DDT	1 mg/m ³	$.1/T_{OClpest}$ mg/m ³
Strychnine	.15 mg/m ³	$.015/T_{OPpest}$ mg/m ³
Diazinon	.1 mg/m ³	$.01/T_{OPpest}$ mg/m ³
Dichlorvos	.9 mg/m ³	$.09/T_{OPpest}$ mg/m ³
Captan	5 mg/m ³	$.5/T_{OClpest}$ mg/m ³
Phorate	.05 mg/m ³	$.005/T_{OPpest}$ mg/m ³

For the ten remaining compounds for which OSHA PELs or ACGIH TLV-TWAs have not been established, the following PEL/TLV-TWA analogues and cleanup levels shall be used:

Compound	Similar Compound	PEL/TLV-TWA Analogue	Cleanup Level
A-BHC	Lindane	.5 mg/m ³	$.05/T_{OClpest}$ mg/m ³
B-BHC	Lindane	.5 mg/m ³	$.05/T_{OClpest}$ mg/m ³
D-BHC	Lindane	.5 mg/m ³	$.05/T_{OClpest}$ mg/m ³
Heptachlor Epoxide	Heptachlor	.5 mg/m ³	$.05/T_{OClpest}$ mg/m ³
Endosulfan II	Endosulfan	.1 mg/m ³	$.01/T_{OClpest}$ mg/m ³
Endosulfan Sulfate	Endosulfan	.1 mg/m ³	$.01/T_{OClpest}$ mg/m ³
Endrin Ketone	Endrin	.1 mg/m ³	$.01/T_{OClpest}$ mg/m ³
DDE	DDT	1 mg/m ³	$.1/T_{OClpest}$ mg/m ³
DDD	DDT	1 mg/m ³	$.1/T_{OClpest}$ mg/m ³
Coumaphos	Malathion	10 mg/m ³	$1/T_{OPpest}$ mg/m ³

In the event that analytical results exceed the cleanup levels or the mixture of pesticides presents a risk to human health, additional response actions will be necessary. This may include additional cleaning and/or demolition of the main building.

b. Institutional Controls

The above cleanup levels are considered protective for non-food related or industrial related commercial settings. Therefore, institutional controls (e.g., deed restrictions limiting the future use of the building) will be necessary. Such restrictions on use will need to be implemented by the appropriate party. In the event that the imposition of institutional controls cannot be accomplished, cleanup to health-based levels suited to unrestricted future use of the building or demolition of building will be necessary.

c. Above Ground Storage Tank Area

Seven storage tanks located next to the railroad tracks will be decontaminated, dismantled, and disposed of. Decontamination will be in accordance with 40 CFR 261.7. Tank area soils need to be addressed if analytical results demonstrate a threat to human health and/or the environment. Soil samples will be analyzed in accordance with the substantive requirements of the Iowa Department of Natural Resource Underground Storage Tank Program. Cleanup levels for tank area soils will be consistent with the IDNR UST corrective action level of 100 mg/kg Total Organic Hydrocarbon as products stored as determined by Iowa analytical methods OA-1 and OA-2, or equivalent.

d. Decommission Monitoring Wells

The four monitoring wells installed during Phase 1 activities will be plugged in accordance with state regulations.

2. Contribution to Remedial Performance

The proposed action will mitigate the threat posed by the abandoned pesticide-contaminated residues and containers. No further remedial actions are anticipated.

3. Alternative Technologies

Due to the quantity and types of materials present, recycle/reuse or on-site treatment alternatives are not feasible.

4. Applicable or Relevant and Appropriate Requirements

All material subject to the Land Disposal Restrictions (LDR) of 40 CFR Part 268 will be incinerated. In addition to the LDR restrictions, if the waste is shipped off-site, all RCRA regulations pertaining to its shipment, treatment, and disposal (40 CFR Parts 262-268) will be adhered to.

5. Project Schedule

The removal action will be initiated upon concurrence on this RADD and the signature by EPA and the PRP group to the necessary amendments to the 1991 AOC. Site work will take approximately 4 to 8 weeks to complete. Final disposal arrangement may take 6 months to complete. No unusual delay or problems are anticipated. The removal action for this site will be conducted by the PRP group under EPA oversight.

B. Estimated Costs

The removal action for this site will be conducted by the PRP group under EPA oversight. The PRP group estimates \$435,000 to \$735,000 for capital costs associated with alternative 3.1.1.5 (Disposal of Contaminated Media and Cleanup of Building Interior with subsequent Institutional Controls) and alternative 3.1.2.4 (Demolition and Disposal of Tanks and Cleanup of Contaminated Soils, If Necessary).

VI. EXPECTED CHANGE IN THE SITUATION SHOULD NO ACTION BE TAKEN

The proposed action should be initiated immediately. If this action is delayed or not taken, the exposure threats to human health and the environment will increase due to potential off-site migration of contaminants.

VII. IMPORTANT POLICY ISSUES

None

VIII. ENFORCEMENT

The non-time critical removal action presented in Removal Action Decision Document (Section V) and the EER (alternative 3.1.1.5 - Disposal of Contaminated Media and Cleanup of Building Interior with subsequent Institutional Controls and alternative 3.1.2.4 - Demolition and Disposal of Tanks and Cleanup of Contaminated Soils, If Necessary) represents the selected removal action for the Interchem site, Alton, Iowa, developed in accordance with CERCLA as amended by the Superfund Amendments and Reauthorization Act and, to the extent practicable, the National Contingency Plan. This decision is based on the Administrative Record for this site.

The 1991 AOC must be amended to address Phase II activities prior to the PRP group conducting the non-time critical response action. The non-time critical removal action for this site will be conducted by the PRP group under EPA oversight.

**Response to Public Comments
on the
Engineering Evaluation Report
for the
Interchem Site, Alton, Iowa**

1.0 Introduction

The U.S. Environmental Protection Agency (EPA) held a public comment period from March 31, 1994 to April 29, 1994 on the Engineering Evaluation Report (EER) for the Interchem Site, Alton, Iowa. The initial public comment period was extended to May 16, 1994 in response to a request by the Alton City Council. The purpose of the comment period was to provide interested parties with an opportunity to comment on the response alternatives presented in the EER for the second phase of cleanup activities at the Interchem Site. The EER was made available for public review at the Alton Public Library. A notice of public availability and statement of preferred alternative regarding the EER was published in the March 31, 1994 Sioux County Capital-Democrat. An announcement regarding the extension of the comment period was published in the Sioux County Capital-Democrat and the Siouxland Press.

On April 27, 1994, representatives of the EPA Region 7 were available at the Alton Public Library to answer questions concerning the EER and EPA's preferred alternative. That evening EPA also attended the Alton City Council meeting to respond to questions and concerns.

This Response Summary provides a summary of significant comments received by EPA concerning the EE/CA and EPA's responses to those concerns. A total of ten letters were received by EPA Region 7. Five of the letters voiced support for alternative 3.1.1.5 (Disposal of Contaminated Media and Cleanup of Building Interior with subsequent Institutional Controls) and five of the letters indicated a preference for alternative 3.1.1.6 (Disposal of Contaminated Media and Cleanup of Building Interior followed by Building Demolition).

2.0 Public Comments and EPA Responses

2.1 Health Related Comments

Comment #1: Some of the commenters expressed a concern regarding the ability to decontaminate the building so that it poses no health problem.

EPA Response #1: The three most important criteria EPA considers in evaluating removal alternatives are effectiveness, implementability, and cost. The protectiveness of alternative 3.1.1.5 was a primary consideration in assessing its

effectiveness. The Agency for Toxic Substances and Disease Registry (ATSDR) is an agency created by the Superfund law to evaluate risks to human health and the environment posed by releases of hazardous substances into the environment. ATSDR has determined that the cleanup levels listed in Section 3.4 of the EER are considered protective of human health for non-food related industrial or industrial related commercial purposes. ATSDR concludes that the building should be suitable for these purposes for working adults if confirmatory air sampling demonstrates that a compound is found at concentrations below the cleanup levels presented in Section 3.4 of the EER. In the event that these cleanup numbers cannot be achieved, additional cleaning or demolition of the building will be required. Similar interior air concentrations were achieved at the Aidex Site located near Council Bluffs, Iowa. The Aidex buildings were decontaminated using methods similar to those described in section 3.1.1.5 of the EER. Therefore, the proposed method involving sweeping, vacuuming, and/or washing has been proven to be implementable from a technical standpoint.

Restricting future use of the building to an industrial or industrial related commercial setting provides an additional measure of protectiveness in that an occupational setting is less likely to involve occupation of the building by an individual on a continuous basis. An occupational setting is also less likely to involve segments of the population that are considered more sensitive (i.e., children, elderly). The additional safety that is provided by restricting the future use of the building to an occupational setting versus a residential setting is difficult to quantify. However, ATSDR believed that this was a reasonable additional precaution.

In addition, restricting the type of future activity to be conducted in the building also provides an additional measure of safety. The language "industrial or industrial related commercial use" is intended to exclude certain commercial uses (e.g., daycare center, restaurants). The language "non-food related" is intended to exclude restaurants, as well as any industrial setting that involves food preparation and/or food processing. The additional measure of safety provided by excluding food preparation/processing is also difficult to quantify. Again, it is reasonable to take such additional precautions to avoid the handling and storing of food for the extended periods of time generally associated with a restaurant or food processing facility. In general, eating lunch or snacks in an occupational setting does not present a similar potential risk because this activity is done on a limited basis, in a controlled environment (i.e., lunchroom), and the food is prepared elsewhere.

2.2 Deed Restrictions/Future Use of Building Comments

Comment #2: Some of the commenters expressed a concern regarding the impact that deed restrictions will have on the marketability of the building.

EPA Response: The deed restriction language that will appear on the deed has not yet been determined. The intent of "non-food related industrial or industrial related commercial" restrictions is to provide an additional measure of protectiveness. As explained above, day-care centers, restaurants, food processing/preparation facilities are among businesses that would be prohibited from occupying the building. However, many businesses that fall into the broad category of "non-food related industrial or industrial related commercial" are not excluded by this language.

As stated in comment #1 above, the EPA considers three main criteria in evaluating removal alternatives: effectiveness, implementability, and cost. As indicated on Table 3-1 of the EER, the capital cost associated with response action alternative 3.1.1.5 (cleanup of building) is estimated to be \$100,000 to \$200,000 less than the capital cost associated with response action alternative 3.1.1.6 (demolition of building). As stated in Section 3.2.1.5 of the EER, successful cleanup of the building allows re-use of this building, thus eliminating replacement costs associated with future construction at the site.

2.3 Community Acceptance/Involvement

Community acceptance is also considered by EPA in determining the implementability of an alternative. In fact, EPA considered the alternative requiring cleanup of the main building as acceptable to the City of Alton based upon December 1992 communication with the City Manager. At that time, the City Manager inquired about the status of the cleanup and indicated that the City of Alton may be interested in acquiring ownership of the main building.

During the public comment period on the EER, a total of ten letters were received by EPA Region 7. Five of the letters voiced support for alternative 3.1.1.5 (Disposal of Contaminated Media and Cleanup of Building Interior with subsequent Institutional Controls) and five of the letters indicated a preference for alternative 3.1.1.6 (Disposal of Contaminated Media and Cleanup of Building Interior followed by Building Demolition).

The letters that indicated a preference for alternative 3.1.1.6 expressed a concern regarding 1) the ability to achieve a cleanup that would be considered protective for future occupants of the building and/or 2) the effect that deed restrictions and/or residual contamination will have in attracting future businesses. As explained in Section 2.1 and 2.2 above, EPA

believes the building can be cleaned to meet cleanup levels considered by ATSDR to be protective for the general category of a non-food related industrial or industrial related commercial setting and thus that the building can be safely put to an economically beneficial use.

2.4 Alton City Council Comments

The Alton City Council "believes that Response Action Alternative 3.1.1.6 Disposal of Contaminated Media and Cleanup of the Building Interior followed by Building Demolition, (Option 6), should be undertaken. The removal of contaminants and the building will offer the greatest safety to the citizens of Alton and assuring that the contamination has been completely removed."

EPA Response to Alton City Council Comments: Alternative 3.1.1.5 consists of removing all contaminants from the main building by implementing a series of actions in accordance with EPA-approved Removal Action Workplans. First, drums and containers of pesticide dust and debris will be transported offsite for incineration at an EPA-approved facility (anticipate use of ENSCO facility in El Dorado, Arkansas). Following sampling of surface areas in the old office area, the south portion of the building (old office area) will be demolished and building debris properly disposed. The interior of the larger metal portion of the building shall be cleaned after debris has been removed. The cleaning will consist of the physical removal of dust and particles from walls, floors, and other surfaces by sweeping, vacuuming and/or washing. Confirmatory air samples will be collected and analyzed to measure the effectiveness of the cleanup of the building. As explained in Section 2.1 and 2.2 above, EPA believes the building can be cleaned to meet cleanup levels considered by ATSDR to be protective for the general category of a non-food related industrial or industrial related commercial setting. EPA has provided a contingency for demolition of the building if these cleanup criteria cannot be achieved. The above ground storage tanks will be addressed in accordance with response alternative 3.1.2.4.

The Alton City Council also requested the "following points incorporated into future plans irrespective of the Response Action selected.

- a) The City of Alton be provided an opportunity to review and respond to the "work plan" and Sampling Analysis Plan.
- b) Perimeter sampling be independently monitored around the clock to detect escape or accidental release of contaminants. This should include immediate notification procedures to Alton and Sioux County Emergency response forces.
- c) Emergency procedures in case an accident does occur to include response, evacuation and decontamination.
- d) The City of Alton be contacted prior to commencing any activities at the building. This should be accomplished

by contacting the City Administrator, Michael Daspit or in his absence the City Clerk, Dorothy Even at 905 3rd Ave. (712) 756-4314.

e) We would like to know the proposed monitoring schedule of the EPA for monitoring the work activity."

EPA response to above items a through e:

a) A series of "mini" Removal Action Work Plans addressing the various stages of the Phase II cleanup will be developed by the PRP group for EPA review and approval. A copy of the EPA-approved Removal Action Work Plans will be sent to Michael Daspit, City Administrator, prior to initiating the activities addressed by the specific Removal Action Work Plan. EPA requests that if the City has any concerns about anything in the work plans, the City should contact EPA within 7 calendar days of its receipt of the plans so that pertinent comments/concerns can be considered prior to the initiation of cleanup activities. Final Removal Action Work Plans will also be available at the Alton Public Library.

After the building has been cleaned, EPA and/or its contractors will conduct the confirmatory air sampling and analysis for the interior of the building pursuant to established EPA procedures. Copies of these procedures will be provided to the City Administrator and the Alton Public Library.

b) Perimeter sampling will be conducted in accordance with an air quality monitoring program that will be developed by EPA or by the PRP group for EPA review and approval. A copy of the air quality monitoring program will also be sent to the Alton City Administrator. The PRP group will be responsible for implementing the site perimeter air monitoring program.

The chemicals and pesticides that were in the main building when the facility was abandoned have been placed in secure drums and are awaiting shipment for offsite disposal. The Alton Fire Department has conducted a walkthrough of the main building so that the types, locations, and condition of drummed material could be observed. They have also received a copy of the Hazardous Materials Inventory Report (HMIR). The Emergency Response Unit of the Iowa Department of Natural Resources has also received a copy of the HMIR. After the drums have been shipped offsite, cleanup of the main building will proceed. Certain phases of the cleanup may generate dust and therefore a real-time air quality monitoring program will be designed to assess dust concentrations at the site perimeter. Air monitoring will be conducted primarily during dust-generating activities by taking air quality measurements with aerosol monitors (e.g., Miniram). Real-time air monitoring will not be necessary on an around the clock basis. Throughout the working day, a technician (PRP contractor personnel) familiar with the instrument will record measurements on a frequent periodic basis (i.e., every hour), as well as during times of heightened activity. Records

will be maintained of all air quality measurements noting time, location, activity, dust concentration, and action taken. Engineering controls (e.g., water, plastic barriers) will be used to minimize dust emissions. However, in the event that dust concentrations exceed a health-based trigger level more rigorous dust control methods and/or work practice modifications will be required.

The air monitoring records will be made available to a designated City of Alton representative (i.e., City Administrator) at the end of each day or upon request. In the event of excessive dust releases a designated City of Alton representative (i.e., City Administrator) will be notified. EPA and/or EPA contractor personnel will provide oversight during portions of the response action. Duties will include oversight of the real-time air monitoring program. EPA and/or EPA contractor personnel should be contacted if the community has any concerns or questions about any phase of the response action. If EPA and/or EPA contractor personnel are not available onsite then the EPA Region 7 Office should be contacted. Appropriate contacts at the Region 7 Office will be supplied to the City of Alton.

c) For onsite activities the Health and Safety Plans (July 1991 and August 1993) address general site safety procedures, hospital information, and emergency contacts. The City of Alton will designate the appropriate point of contact (e.g., the Alton Fire Department) in the event an emergency impacts offsite areas.

d) The City of Alton City Administrator will be contacted prior to initiating various phases of the response activities, including cleanup activities associated with the main building. EPA and/or EPA contractor personnel should be contacted if the community has any concerns or questions about any phase of the response action. If EPA and/or EPA contractor personnel are not available onsite then the EPA Region 7 Office should be contacted. Appropriate contacts at the Region 7 Office will be supplied to the City of Alton.

e) At this time, a firm schedule for EPA oversight of the PRP-lead cleanup activities has not been developed. Oversight will be provided by EPA or EPA contractor personnel in the early stages. Certain stages of the cleanup will require a greater amount of oversight than others. If PRPs demonstrate that work is being performed safely and in accordance with EPA-approved work plans then a lesser amount of oversight may be appropriate. EPA and/or EPA contractor personnel should be contacted if the community has any concerns or questions about any phase of the response action. If EPA and/or EPA contractor personnel are not available onsite then the EPA Region 7 Office should be contacted. Appropriate contacts at the Region 7 Office will be supplied to the City of Alton. The City of Alton will also be provided with the names and schedule of oversight personnel.

The Alton City Council requested cost and other financial information on this project. EPA does not have "construction" costs associated with Phase I and II because these expenses were incurred directly by the PRPs. The PRPs are responsible for all construction costs and oversight costs. EPA's oversight costs are billed to the PRPs on a periodic basis. To date, the PRP group has been billed by EPA for oversight costs for the time periods of 6-18-91 to 9-30-91 (\$17,700) and 10-1-91 to 12-31-92 (\$135,462). Payment has been received from the PRP group.

The Alton City Council also requested an item by item response from EPA concerning the technical review comments on the EER by their consultant (AMI Group). Following is EPA's response to comments 1 through 4 contained in the attached AMI Group letter dated April 25, 1994:

EPA Response to Comment #1: The AMI Group assumes that the term "ambient air sampling" in the second sentence of Section 3.4 implies air sampling outside the building and along or near the property line. However, the intended meaning of the term "ambient air sampling" instead refers to the "surrounding" air contained within the building. As stated in the first sentence of Section 3.4, confirmatory sampling will be used to measure the effectiveness of the cleanup in the building after the cleanup activities have been completed. At this time it is likely that EPA and/or its contractors will conduct the confirmatory air sampling and analysis for the interior of the building pursuant to established EPA procedures. Therefore, the PRP group will not be required to submit for EPA review and approval the Sampling and Analysis Plan described in the third sentence of Section 3.4. However, copies of the sampling and analytical procedures that EPA uses will be provided to the City Administrator and the Alton Public Library. The 8 hour sample collection period mentioned in the fifth sentence of Section 3.4 is necessary to achieve the required sample detection limits for comparison to the cleanup levels listed in this section. It has nothing to do with comparison to ARARs as AMI Group indicates.

As described in item b above, perimeter air sampling to measure offsite impacts will be conducted in accordance with an air quality monitoring program that will be developed by EPA or by the PRP group for EPA review and approval. A copy of the air quality monitoring program will also be sent to the Alton City Administrator for review and comment. The PRP group will be responsible for implementing the site perimeter air monitoring program.

EPA Response to Comment #2: The "confirmatory sampling" mentioned in Section 3.2.1.5 is described in Section 3.4. As stated in Section 3.1.2.5, the reader of the EER is referred to Section 3.1.1.5 for a description of the alternative. Section 3.1.1.5 in turn refers the reader to Section 3.4 for a description of cleanup criteria (i.e., confirmatory sampling). At this time it is likely that EPA and/or its contractors will

conduct the confirmatory air sampling and analysis for the interior of the building pursuant to established EPA procedures. Therefore, the PRP group will not be required to submit for EPA review and approval the Sampling and Analysis Plan described in the third sentence of Section 3.4. However, copies of the sampling and analytical procedures that EPA uses will be provided to the City Administrator and the Alton Public Library.

EPA Response to Comment #3a: As set forth in Section 3.4, the confirmatory air sampling results will be evaluated by EPA and ATSDR. In general, if the pesticide concentrations in air do not exceed the cleanup levels listed in Section 3.4 the cleanup will be considered successful and no additional sampling will be required. The accuracy of analytical results are determined by reviewing Quality Assurance/Quality Control data generated during sample analysis. All final analytical results will be provided to the City of Alton.

EPA Response to Comment #3b: In the event that cleanup criteria cannot be achieved, the selected response alternative presented in the RADD and EER allows the PRP group the opportunity to decide if additional cleaning of the building will be undertaken in an attempt to meet the cleanup criteria versus demolition of the building. EPA will make the final determination regarding the successful completion of cleanup activities.

EPA Response to Comment #3c: Section 3.4 does not list ARARs for airborne contaminants. However, Section 3.4 does list Cleanup Levels for a variety of pesticide compounds. As stated in Section 3.4, confirmatory air samples will be collected using high volume samplers fitted with fiberglass filters and polyurethane foam (PUF) filters. This will allow for pesticide analysis in both the particulate (dust) phase and the vapor phase. After completion of the sweeping, vacuuming, and/or washing activities a minimal amount of dust should remain in the building. Nevertheless, "active" air sampling techniques will be used to circulate air in the building to agitate available dust during the collection of the confirmatory samples. In addition to the analysis of pesticide compounds, measurements of dust concentrations will also be taken for comparison to OSHA work place standards.

EPA Response to Comment #4: Site perimeter air sampling will be conducted in accordance with an air quality monitoring program that will be developed by EPA or by the PRP group for EPA review and approval. A copy of the air quality monitoring program will also be sent to the Alton City Administrator for review and comment. The PRP group will be responsible for implementing the site perimeter air monitoring program. For onsite activities the Health and Safety Plans (July 1991 and August 1993) address general site safety procedures, hospital information, and emergency contacts. The City of Alton will

designate the appropriate point of contact (e.g., the Alton Fire Department) in the event an emergency impacts offsite areas.



April 25, 1994

Mr. Michael C. Daspit, City Administrator
City of Alton
P.O. Box J
905 Third Avenue
Alton, IA 51003

Re: Comments on the Engineering Evaluation Report (EER) and the EPA Region 7 preferred alternative for the Interchem Site, Alton, Iowa

Dear Mr. Daspit:

After reading through the material you gave me regarding the subject project site, I have compiled some comments which I feel would be in the City of Alton's best interest to get clarified from EPA Region 7. The Fact Sheet published by the EPA dated March 1994 presents the two preferred response action alternatives (Alternatives) selected by EPA and encourages comment on the Engineering Evaluation Report (EER) for the site under the last paragraph entitled "Community Participation." Overall, I endorse the EPA Region 7's selected Alternatives but clarification is needed by the City of Alton on some points. My comments are not listed in any order of importance.

1. The clean-up criteria prepared by Loveland Industries as found in the EER, section 3.4 and described in section 3.2.1.5, needs clarification. The second sentence of section 3.4 states the requirement for ambient air monitoring. This implies that air sampling outside of the building and along or near the property line will be conducted to compare against the Applicable and/or Relevant and Appropriate Requirements (ARAR's) given in this section of the EER. Nowhere in sections 3.4 or 3.2.1.5 does it mention that air sampling will be conducted inside the building. Maybe this will be required in the "Sampling and Analysis Plan" mentioned in the third sentence of section 3.4. Also, it says in the fifth sentence of section 3.4 that air samples will be collected over a minimum eight hour period. This is a short time period on which to make a comparison to some ARAR's. An increase in the aggressive sampling time period up to a twenty-four hour sampling period will increase data quality as well as take into account more hourly variations in concentration of airborne compounds. It would be in the City of Alton's best interest to receive an advanced copy of the Sampling and Analysis Plan (SAP) for comment, prior to EPA Region 7 approval of the Plan.

ALTON DC

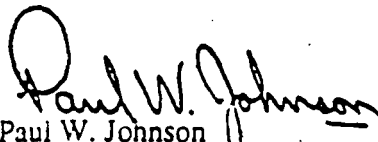
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2. What is the "confirmatory sampling" mentioned in section 3.2.1.5 and what does it consist of?
3. In section 3.4, page 3-14 of the EER, it states that: "if analytical results exceed the cleanup levels... additional response actions will be necessary. This may include additional cleaning and/or demolition of the main building." Criteria should be established as to:
 - a. When will repeat sampling be required and how will the City of Alton know which sampling result is accurate and indicative of the actual amount of contamination present?
 - b. Although section 3.2.1.5 of the EER attest to the success of the cleaning methods to be used, when will repeat cleaning stop and demolition commence as provided for in EPA Region 7's selected alternative?
 - c. The ARAR for airborne compounds listed in section 3.4 does not mention any measurement for respirable size dust, even though dust is prevalent at the site and generated during aggressive sampling within the building. A very dusty building interior may still present a distinctive health concern to susceptible individuals even though the dust does not contain the compounds mentioned on pages 3-13 of the EER. It would be in the City of Alton's best interest if the Iowa Department of Natural Resources and/ or EPA Region 7 established an ARAR for respirable size dust and include the measurement method for this ARAR in the SAP for this site.
4. Prior to the actual cleanup of the site, it would be in the interest for the City of Alton to review the planned protective measures that the cleanup and demolition contractors will use to protect the City's citizens who may be in or near the site during work activities.

If you have any questions or I can explain anything further, please do not hesitate to call.

Sincerely,


Paul W. Johnson
Certified Industrial Hygienist