DECLARATION STATEMENT

RECORD OF DECISION

WHITE CHEMICAL CORPORATION

Site Name and Location

White Chemical Corporation, Newark, Essex County, New Jersey

Statement of Basis and Purpose

This decision document presents the selected interim remedial action for surface contamination at the White Chemical Corporation site, in Newark, New Jersey, which was chosen in accordance with the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended by the Superfund Amendments and Reauthorization Act of 1986 and, to the extent practicable, the National Oil and Hazardous Substances Pollution Contingency Plan. This decision is based on the administrative record for the site.

The State of New Jersey concurs with the selected interim remedy.

Assessment of the Site

Actual or threatened releases of hazardous substances from the site, if not addressed by implementing the response action selected in this Record of Decision, may present an imminent and substantial endangerment to public health, welfare, or the environment.

Description of the Selected Remedy

The interim remedy described in this document represents the first component of a permanent remedy for the White Chemical Corporation site. It addresses the current and future threats to human health and the environment associated with the surface contamination present at the site. Additional investigations will be required to fully characterize the nature and extent of contamination in other environmental media at the site, and to evaluate additional remedial measures. The selection of such measures will be the subject of a future Record of Decision to fully address the remaining principal threats posed by conditions at the site. This decision document addresses only surface contamination.

The major components of the selected interim remedy include:

- Appropriate security measures;
- Site stabilization;

- On-site pretreatment or neutralization of contaminated material;
- Off-site treatment, recycling, or disposal of contaminated material;
- Decontamination and off-site disposal or recycling of empty drums and small containers;
- Decontamination and on-site storage of tanks and process piping; and
- Appropriate environmental monitoring to ensure the effectiveness of the remedy.

Statutory Determinations

The selected interim remedy is protective of human health and the environment, complies with Federal and State requirements that are legally applicable or relevant and appropriate to the extent practical given the limited scope of the action, and is cost effective. Requirements which cannot be achieved by the interim remedy may be waived pursuant to Section 121 of the Comprehensive Environmental Response, Compensation and Liability Act, as amended, and will be addressed as part of the final remedial action at the site. This interim remedy utilizes permanent solutions and alternative treatment technologies to the maximum extent practicable and satisfies the statutory preference for remedies that employ treatment that reduces toxicity, mobility, or volume as a principal element. Subsequent actions may be necessary to fully address the other principal threats posed by conditions at the site.

William J. Muszynski

Constantine Sidamon-Eristoff
Regional Administrator

Sept. 26, 1991
Date

State of New Jersey
Department of Environmental Protection and Energy
Office of the Commissioner
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Scott A. Weiner
Commissioner

September 24, 1991

Mr. Constantine Sidamon-Eristoff
Regional Administrator
USEPA - Region II
Jacob K. Javits Federal Building
New York, NY 10278

Dear Mr. Eristoff:

Re: White Chemical Corporation
Record of Decision Concurrence Letter

The Department of Environmental Protection has evaluated and concurs with the selected remedy for the White Chemical Corporation Site outlined below:

The selected remedy represents the first planned remedial action for the site. It involves removal of surface waste contamination in accordance with State and Federal requirements. A subsequent decision document will address the remediation of ground water, surface waters and soils associated with the site.

The major components of the selected remedy include the following:

- Appropriate security measures;
- Site stabilization;
- On-site pretreatment or neutralization of contaminated material;
- Off-site treatment, recycling, or disposal of contaminated material;
- Decontamination and off-site disposal or recycling of empty drums and small containers;
- Decontamination and on-site storage of tanks and process piping;

- Appropriate environmental monitoring to ensure the effectiveness of the remedy; and

- Preparation of a comprehensive remedial investigation and feasibility study to address contamination in other environmental media.

The Department reserves its final comments on the complete Record of Decision pending an opportunity to review the completed documents, including the document's Responsiveness Summary.

Sincerely,

Scott A. Weiner
Commissioner

DECISION SUMMARY

RECORD OF DECISION

WHITE CHEMICAL CORPORATION

SITE LOCATION AND DESCRIPTION

The White Chemical Corporation site is a 4.4-acre, inactive facility that formerly manufactured acid chlorides and flame retardant compounds. The site is located at 660 Frelinghuysen Avenue in a heavily populated and industrialized area of Newark, Essex County, New Jersey. The general site location is shown on Figure 1.

The site is located immediately east of two large manufacturing facilities; a feather company and a sportswear manufacturer. A large clothing manufacturing company is located north of the site. The eastern border of the site is adjacent to Conrail and Amtrak rail lines that serve as a major rail corridor to New York City. The Newark brewery of Anheuser-Busch, Inc., is located on the eastern side of the railroad line. Approximately one-half mile further east are U.S. Highways 1 and 9, and Newark International Airport. Weequahic Park, several large housing complexes, and several high-rise senior citizen residences are present near the site. There is a daytime population of approximately 12,000 within a one-quarter mile radius of the site.

The White Chemical Corporation site property is owned by AZS Corporation. White Chemical Corporation (WCC) operated the facility from 1983 until July 1990 when it ceased most operations. In September 1990, the U.S. Environmental Protection Agency (EPA) issued a Unilateral Administrative Order (UAO) to WCC barring the Corporation from continuing on-site operations and ordering evacuation of all personnel. In October 1990, the U.S. District Court for the district of New Jersey issued an order enforcing EPA's UAO.

Five major buildings are located on the site, as well as three smaller, facility support buildings (see Figure 2). Tanks are present in three areas of the property, and 55-gallon drums are located throughout an area east of the buildings. The site is secured by a chain-link fence that was repaired by EPA in October 1990 as part of a removal action that was initiated in September 1990.

During an EPA assessment conducted prior to the initiation of the removal action, numerous violations of the Resource Conservation and Recovery Act (RCRA), as amended, 42 U.S.C § 6901 et seq., were discovered. It was estimated in September 1990, that 10,900 55-gallon drums of hazardous substances were found precariously stacked or in other ways improperly stored throughout the site.

Drums and other containers were found in various stages of deterioration, fuming, and leaking their contents onto the soil. Numerous stains were observed on the soil. As a result of the on-going removal action, 4,200 empty drums have been shipped off the site and approximately 6,700 staged drums remain on the site. The contents of most drums could not be identified because of poor, improper, or multiple labeling. Some containers were found labeled "Salvage - Hazardous Waste Rejected."

Other containers found on the site included approximately 150 gas cylinders; 126 storage tanks, vats, and process reactors; hundreds of fiberpack drums; glass and plastic bottles; carboys; boxes; and several thousand laboratory-type containers. Only a small quantity of these containers were empty.

Prior to the initiation of removal activities, a laboratory on the site contained thousands of unsegregated laboratory chemicals in deteriorating containers. These containers were haphazardly stored on structurally unsound shelving, or stacked in piles on the floor. The laboratory-size containers, which number approximately 12,000, have been restaged into segregated indoor areas.

SITE HISTORY AND ENFORCEMENT ACTIVITIES

Historical Site Use

In September 1970, Central Services Corporation (CSC) purchased the property on which the site is located from the Union Carbide Corporation. It is believed that much of the present site infrastructure, including sewer and utility conduits, and buildings, may date from the time of Union Carbide's ownership. CSC sold the property to the Lancaster Chemical Company, a division of AZS Corporation, in August 1975. In 1983, WCC leased the site and moved its operations from Bayonne, New Jersey to the site in Newark.

WCC operated on the site from 1983 to 1990, manufacturing a variety of fire retardant chemicals, generally in small quantities, for specialty purposes. The products were generally formulated in batches according to individual customers' specifications. Most of the finished products were solids and powders.

Removal and Remedial Actions to Date

The New Jersey Department of Environmental Protection and Energy (NJDEPE) conducted several inspections of the facility between June and September 1989 pursuant to RCRA. During these inspections, NJDEPE issued Notices of Violation (NOVs) for improper drum management, leaking drums, open containers, and inadequate aisle space.

On September 22, 1989, the site was reinspected and it was noted that the facility had attained only partial compliance. As a result, an Administrative Order and penalty was issued on March 15, 1990. According to NJDEPE, WCC never complied with the order and never paid the penalty.

From March 27 through March 29, 1990, NJDEPE reinspected the facility and again found many RCRA violations. NJDEPE issued NOVs under the New Jersey Spill Compensation and Control Act and ordered WCC to immediately remediate all spills and other violations. WCC never complied with the NOVs.

On May 8, 1990, NJDEPE issued a Directive to WCC pursuant to the New Jersey Spill Compensation and Control Act, in order to secure the perimeter of the facility, provide 24-hour security and attempt to stabilize drums located on the premises. WCC never responded to the Directive.

A removal action to stabilize the site was initiated by NJDEPE on May 15, 1990, under the New Jersey Spill Compensation and Control Act. However, after removing approximately 1,000 drums, NJDEPE exhausted its current authorized funds of $825,000 and suspended operations in August 1990. On August 24, 1990, NJDEPE requested that EPA consider taking a removal action at the site.

In response to the NJDEPE's request, EPA performed a preliminary assessment of the WCC facility on September 7, 1990 and found numerous air and water reactive substances in 55-gallon drums. At that time, EPA overpacked 11 fuming drums and secured them for future handling. On September 28, the Agency for Toxic Substances and Disease Registry (ATSDR) issued a health consultation that concluded that the site posed an imminent and substantial health and safety threat to nearby residents and workers. A Public Health Advisory was later issued in November 1990.

EPA performed supplementary assessments of the site on October 2 and 4, 1990 which included the laboratory located in the main building. The thousands of small jars, bags, bottles, and other vessels discovered in the laboratory contained flammable liquids, corrosives, acids, oxidizers, shock-sensitive material, and air/water-reactive substances.

EPA is presently maintaining 24-hour security at the inactive facility and is continuing to perform site stabilization activities through its removal authority. On-going actions include drum overpacking on an emergency basis, segregating incompatible substances, and further assessing the nature of the chemicals present. Approximately 12,000 laboratory containers have been restaged and inventoried, however, the results of the inventory have not yet been fully compiled.

Based on the known contamination present, EPA proposed the White Chemical Corporation site for inclusion on the National Priorities List of Superfund sites on May 9, 1991.

EPA prepared a Focused Feasibility Study (FFS) to develop and evaluate a limited number of alternatives for addressing the known surface contamination. Information obtained from the removal action was used to prepare the FFS.

Current Conditions

The site is presently under the control of EPA, which maintains 24-hour security at the site. The site is fenced on all sides and signs are posted indicating that the site is hazardous and entry to the property is restricted. EPA is currently conducting a removal action to stabilize the site.

HIGHLIGHTS OF COMMUNITY PARTICIPATION

The FFS report and the Proposed Plan for the White Chemical Corporation site were released to the public for comment on June 21, 1991. These two documents were made available to the public in both the administrative record at EPA's Region II office and the information repository maintained at Newark Public Library. A public comment period was held from June 21, 1991 to August 21, 1991. A public meeting was held on July 11, 1991 to present the findings of the FFS and the Proposed Plan, and to solicit public input. The issues raised at the public meeting and during the public comment period are addressed in the Responsiveness Summary, which is part of this Record of Decision (ROD). This decision document presents the selected remedial action for the White Chemical Corporation site, chosen in accordance with the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), as amended, 42 U.S.C. § 9601 et seq., and to the extent practicable, the National Oil and Hazardous Substances Pollution Contingency Plan (NCP). The decision for this site is based on the administrative record.

SCOPE AND ROLE OF ACTION

The remediation of the site is complicated by the quantity of surface contamination. This remedy will be considered an early remedial response, based on the FFS report. This action will address surface contamination only (e.g., drums, tanks, laboratory containers) and further stabilize the site until an overall, permanent remedy can be selected. Other potentially contaminated media including soil, ground water, surface water, and buildings will be addressed at a later date when a comprehensive remedial investigation and feasibility study (RI/FS) will be performed. This early remedial response is consistent with Section 104 of CERCLA, as amended, in that it

will provide an orderly transition into, and will contribute toward, the efficient performance of future remedial actions.

SUMMARY OF SITE CHARACTERISTICS

The majority of the containers previously described remain on the site, including approximately 6,700 drums, 126 tanks, 12,000 laboratory-type containers, and 10 gas cylinders. All of the containers have material in them. Approximately 4,200 empty drums have been removed from the site. Removal response actions to date have focused primarily on site stabilization.

Much of the information gathered about the contaminants on the site is based on data from White Chemical's 1989 SARA Title III Survey, the on-going removal action and the FFS report.

Approximately 6,700 drums remain on the site. Drums contain both organic and inorganic substances with many different hazardous characteristics (e.g., corrosive, water-reactive, combustible, flammable). To date, all remaining drums have been staged as part of the removal program's efforts. A partial inventory of drums is presented in Table 1.

A total of 126 tanks are present on the site. These include storage tanks, vats and reaction vessels. Some substances found in the tanks include phosphorous trichloride, xylene, and pivaloyl chloride. Approximately 55 are empty and 71 have been sampled. Table 2 describes the contents and condition of the tanks and reaction vessels. Although some tanks and reactors have been identified as empty, some contain residues which may be hazardous substances. Due to the poor condition of some tanks, it was necessary to transfer their contents into new containers. The contents of seven tanks were sent off site for disposal; the contents of two other tanks were taken back by the chemical supplier

The on-site laboratory contains approximately 12,000 lab-size containers. All of these small containers have been staged and segregated. However, the contents of 50 percent of the containers are still unknown. Table 3 shows some of the substances which were found in the small containers. Among the chemicals identified include bromine, benzene, and red phosphorous.

Along with the hazardous substances found in the drums, tanks, and laboratory containers, a quantity of shock sensitive material is present on the site. This material, which has been isolated for safety, includes sodium nitrite crystals, magnesium nitrate and acrolein. Table 4 shows an inventory of the shock sensitive material.

Because of the nature and extent of contamination at the site, migration into the environment is a concern. Contaminant migration consists of two elements: (1) a source and mechanism of release to the environment and (2) an environmental transport medium (e.g., ground water, air). Factors that can affect the rate of release and transport include the characteristics of the media of transport, physical/chemical characteristics of the contaminants, and interactions between the media and the contaminants. These factors have the potential to accelerate or impede contaminant migration. Primary routes of migration of contaminants in the environment typically include migration through ground water, surface water, and air.

One of the immediate concerns at the White Chemical site is the migration of contaminants through the air. Because of the nature, quantity, and storage condition of the substances known to exist on the site, there is an immediate risk to public health and the environment.

The presence of water-reactive substances, such as phosphorus tribromide and phosphorus trichloride, and concentrated acids poses a threat of fire or explosion, and the subsequent release of hazardous substances into the atmosphere. In addition, the presence of air-reactive substances, such as red phosphorus, and shock-sensitive material, greatly increases the potential for a catastrophic event.

Air monitoring and qualitative modelling have been performed by EPA to determine the potentially affected area in the event of a release of hazardous substances into the atmosphere. These efforts indicate that a plume resulting from fire, explosion, or chemical reaction could adversely impact an area up to one-quarter mile radius around the site. It is also estimated that a secondary plume could produce adverse human health effects up to five miles away.

Site-related contamination of soils, ponded surface water, runoff, and ground water is considered likely, based on observations of site conditions and of known releases. Additional releases are possible as long as drums and other "source" material remain on site. The nature and extent of potential contamination of other media will be fully evaluated in a comprehensive RI/FS which will need to be subsequently performed.

SUMMARY OF SITE RISKS

Human Health Risks

On September 27, 1990, EPA requested that ATSDR review site information and data for the White Chemical Corporation site and characterize the threat to public health posed by the site.

ATSDR responded to that request by performing a Health Consultation on September 28.

ATSDR concluded that the threat of catastrophic release posed by the uncontrolled storage of hazardous substances, and conditions of on-going release at the site, present an imminent and substantial threat to public health. On the basis of that threat, ATSDR issued a Public Health Advisory to alert EPA, the State of New Jersey, and the public of a serious threat to human health from a potential catastrophic release of hazardous substances.

Because of the limited information available as to the exact nature of the chemicals on the site, a quantitative risk assessment could not be performed as part of the FFS. However, EPA, in consultation with ATSDR, did an analysis to estimate the health problems that could result if the contamination and hazardous conditions at the White Chemical Corporation site were not cleaned up. This assessment, referred to as a Public Health Evaluation (PHE), is presented in the FFS. Because surface contaminants at the site pose a potential immediate health threat, consultations with ATSDR served as the primary supporting information for the PHE.

Approximately 12,000 people are estimated to live and work within a one-quarter mile radius of the site, and could be at risk during a catastrophic occurrence at the site. A manufacturing plant employing approximately 225 individuals is located immediately west and adjacent to the site. Immediately north of the site, a garment manufacturer employs approximately 200 workers. To the east and adjacent to the site is a major commuter rail line. The Newark International Airport and U.S. Highways 1 and 9 are located approximately one-half mile further east of the site. Weequahic Park is located within one-quarter mile. In addition, there have been documented reports of trespassing on the site.

Potential current and future exposure routes and potentially or currently exposed populations are shown in Table 5. Exposed or potentially exposed populations include nearby residents, workers, trespassers, fire-fighting personnel and railway commuters. The predominant route of exposure is inhalation for all of the exposed populations, and direct contact for trespassers or fire-fighting personnel.

Non-carcinogenic and carcinogenic adverse health effects have been associated with many of the contaminants identified on the site. Chronic inhalation of or direct contact with site contaminants by the previously mentioned populations would be expected to result in deleterious health effects. The release of acid fumes has already occurred on frequent occasions. The presence of acids was detected in ambient air off the site by

colormetric testing methods. The potential for nearby residents, workers, and site trespassers to be exposed to contaminants by inhalation and/or direct contact, currently exists. Persons who suffer impaired respiratory function (e.g., asthma, bronchitis) are expected to be at greater risk than the general public.

Site circumstances suggest that the present unstable situation could lead to a catastrophic release of hazardous material that would likely affect the surrounding community. Mixtures of incompatible substances can lead to fire, explosion or release of vapors. Improper storage of incompatible substances on site could result in a rapidly spreading fire upon uncontrolled release, which could involve large quantities of flammable and toxic materials and result in a significant airborne release of toxic organic and inorganic chemicals. Many of the substances will react upon contact with moisture or air, forming toxic and irritating substances. A catastrophic release similar to the releases described above would likely cause the generation of a plume that could contain hazardous concentrations of acid gases, or irritating and toxic substances which would significantly endanger the public and workers in the area. Such an event would also introduce new receptor populations (e.g., additional emergency response personnel).

Current exposures to on-site hazardous materials and the threat of a catastrophic release posed by the uncontrolled storage of materials on site pose an imminent and substantial threat to public health.

Environmental Risks

Due to the nature and complexity of the site the environmental risks have not been fully explored. However, at this time, the primary pathway for any potential exposure would be through an air release. A full and detailed evaluation of environmental risks will be performed as part of the comprehensive RI/FS.

Conclusion

Actual or threatened releases of hazardous substances from this site, if not addressed by implementing the response action selected in this ROD, may present an imminent and substantial endangerment to public health, welfare, or the environment.

REMEDIAL ACTION OBJECTIVES

Remedial action objectives have been established for the site in relation to the surface contamination sources. The objectives have been established by considering the known contamination present, the threats to public health and the environment associated with the hazards at the site, and any applicable or

relevant and appropriate requirements (ARARs) of other Federal and State environmental laws and regulations.

The objectives of this action are to address those hazards at the site that require immediate attention, and are intended to further stabilize the site until an overall, permanent remedy can be selected and implemented. Such an action would continue the stabilization efforts that began with the removal action. Remedial alternatives for a permanent cleanup of the entire site will be evaluated later in the RI/FS.

The specific remedial action objectives for the site are presented below. The remedial objectives are the basis for the development and evaluation of remedial alternatives. The development of remedial alternatives is presented in further detail in the FFS.

The drums, tanks and small containers located at the site pose several imminent hazards to public health and the environment. Many of the drums and tanks contain hazardous substances which have been released or are threatened to be released into the environment. The objectives of the early remedial response for the drums, tanks and small containers are to:

1. Prevent ingestion/inhalation/direct contact with hazardous substances at concentrations posing a potentially imminent and substantial endangerment; and

2. Prevent releases of hazardous substances that would result in or through a catastrophic event (e.g., explosion, fire, generation of contaminant vapor plume) or migration of hazardous substances that would result in contamination of ground water, surface water, soil, or releases into the atmosphere.

DESCRIPTION OF ALTERNATIVES

The Comprehensive Environmental Response, Compensation, and Liability Act, as amended, requires that each selected site remedy be protective of human health and the environment, comply with ARARs, utilize permanent solutions and alternative treatment technologies or resource recovery technologies to the maximum extent practicable, and be cost effective. The FFS developed and evaluated, in detail, three alternatives for an early remedial response to the surface contamination at the White Chemical Corporation site that might satisfy these criteria.

Alternative 1: No Further Action

Estimated Capital Cost:	$ 0
Estimated Present Worth of Five-Year Review:	$ 38,000

The No Further Action alternative provides a basis for comparing existing site conditions with those resulting from implementation of the other identified alternatives. Under the no further action alternative, no additional measures would be taken to remediate the contaminant sources or their potential migration pathways beyond those already taken under the removal action. The no further action alternative would allow significant sources of contamination, and their migration pathways, to remain in place. Deteriorating drums would continue to degrade and hazardous substances would leak from these containers. No effort would be made to change or maintain the current condition of the tanks. Small containers would remain on the site in their present condition. The potential for a catastrophic event would continue with the presence of non-stabilized reactive substances. The potential for exposure to contaminants is not reduced in this scenario, and exposure-related risks will remain similar to those discussed in the PHE.

The access restrictions (i.e., fencing, warning signs) that have been installed and maintained under the removal action would remain in place, but no further maintenance would be provided. It is assumed that these deterrents would lose their effectiveness over time and that trespassers would gain unrestricted access to the site.

Because this alternative would result in contaminants remaining on the site, a review of site conditions at the end of five years, as mandated by CERCLA, as amended, would be required to determine whether or not contamination has spread.

There are no costs associated with the implementation of the no further action alternative beyond those associated with the five-year review.

Alternative 2: Site Stabilization and On-site Storage

Estimated Capital Cost:	$ 7,767,000
Estimated Annual Operation and Maintenance (O & M) Costs:	$ 2,652,000
Estimated Present Worth:	$18,062,000
Implementation Timeframe:	2 years
O & M Timeframe:	5 years

The site stabilization and on-site storage alternative is an interim response action that would be a continuation and modification of the removal action currently in progress. Only

limited measures would be taken toward site remediation; i.e., measures to prevent further releases to the environment. This, therefore, is an interim remedial action.

Although much of the site stabilization process has already been performed by the on-going removal action, it may be necessary to perform some additional activities. The alternative involves compiling an inventory of hazardous substances present on the site and restaging incompatible substances to prevent uncontrolled reactions in the event of an accident, inclement weather, or container failure. This would include sampling and compatibility analysis of drums and other containers prior to restaging. Once container contents are characterized, they could be segregated and stored appropriately in anticipation of a final response action. For leaking or inappropriate containers, overpacking or "labpacking" would be required to prevent further release of contents.

If the condition of a container was found to be such that it could not be moved without releasing its contents, the contents would be transferred to an approved container to prevent further leakage or spillage. This response action is adaptable for many materials on the site, but is particularly effective for liquids which can be easily transferred. This technique would also be employed for tanks of questionable integrity.

In many cases, it may be more practical to consolidate similar or compatible substances for on-site storage. When sufficiently similar materials are found in this case, they would be consolidated or bulked in bulking chambers. The consolidated material would then be transferred into a tanker truck and appropriately stored on the site until a final response action is taken. Empty containers remaining after the bulking operation would be rinsed and sent off site for recycling. If containers could not be recycled, they would be crushed for appropriate disposal.

It might be necessary, however, to dispose of some of the extremely hazardous substances at off-site facilities to ensure the stability of the remaining material stored on the site. For example, it may be inappropriate to store shock-sensitive, or similarly reactive, materials on the site because of the threat that they pose to overall site stability.

An emergency response contingency plan would be developed to provide a mechanism for responding to any releases, fires, etc., that might occur during the stabilization effort. Further, because large amounts of hazardous substances would remain on the site under this alternative, extensive monitoring would be required to ensure the integrity of the stabilized containers. The site security measures implemented under the removal action would need to be continued. A review of site conditions at the

end of five years, as mandated by CERCLA as amended, would also be required to determine whether or not contamination had spread. Additionally, remedial investigation activities would be required to determine the nature and extent of contamination present in other environmental media at the site.

It is estimated that it would take two years to stabilize the site, and that on-site storage would be required for a period of five years until a final response action would be taken.

The cost estimate for this alternative was based on information about materials and costs which was determined during the initial stages of the removal action. This information was extrapolated and conservatively utilized to calculate costs for addressing the remainder of the material on the site.

Alternative 3: Stabilization/Treatment and Off-site Disposal

Estimated Capital Cost:	$22,096,000
Estimated Annual O & M Costs:	$ 0
Estimated Present Worth:	$22,096,000
Implementation Timeframe:	2 years

This alternative includes all of the process options and materials handling techniques presented in Alternative 2, however, it also provides for the treatment and off-site disposal of material. This alternative is developed as a final remedy for the contamination sources (i.e., drums, tanks, other containers), but recognizes that additional efforts would be required to complete the overall site remediation. No measures are included in this alternative to address the potential contamination of soil, ground water, surface water, buildings, or other environmental media.

As noted above, the site stabilization measures described for Alternative 2 would be employed, as appropriate. This alternative could also involve mobilizing a treatment unit, or units, to the site and treating, or neutralizing, some of the hazardous substances on the site prior to off-site disposal. Contaminated material would need to be sampled and analyzed to determine the most appropriate treatment process. It would probably be necessary to utilize several treatment processes to address the various constituents present on the site.

Where materials are found to be sufficiently free of impurities, under this alternative, they would be sent off site to reuse as product. Additionally, it may be possible to reuse some of the treated material, if it is of value.

Once the material has been sufficiently stabilized, bulked, and/or treated, it would be transported off site to a RCRA-approved treatment facility, to a hazardous waste disposal

facility, or to an appropriate facility for recycling or processing. Additional risks which would arise from the off-site transportation of hazardous material would be minimized by utilizing appropriate shipping containers and preparing a transportation safety contingency plan. All containers will be decontaminated and removed from the site for disposal or recycling. Empty containers, such as drums, carboys, and small containers, will be decontaminated on site and removed from the site for disposal or recycling. Empty tanks, reaction vessels, and process piping will be decontaminated and stored on site.

Environmental monitoring would be conducted during the implementation of this alternative to ensure the mitigation of any releases. An emergency response contingency plan would also be developed to provide a mechanism for responding to any releases, fires, etc., that might occur during the stabilization, treatment, and off-site disposal efforts. The site security measures implemented under the removal action would need to be continued for the duration of the remedial action; however, once the material has been removed from the site, security measures could be greatly reduced. Because this alternative would be a final remedy for the surface contamination, a five-year review would not be required. (Additional remedial investigation activities would be conducted to determine the nature and extent of contamination present in other environmental media.)

It is assumed that it would take two years to complete the source remediation under this alternative. Because all of the contamination sources will have been removed from the site, no operation and maintenance is anticipated for this alternative. As noted above, site security measures would be reduced, in all likelihood, to passive access restrictions, such as the existing fencing and warning signs.

The cost estimate for this alternative was based on information about materials and costs which was determined during the initial stages of the removal action. This information was extrapolated and conservatively utilized to calculate costs for addressing the remainder of the material on the site.

SUMMARY OF COMPARATIVE ANALYSIS OF ALTERNATIVES

Evaluation Criteria

The three alternatives noted above were evaluated using criteria derived from the NCP and CERCLA, as amended. These criteria relate directly to factors mandated by CERCLA, as amended, in Section 121, including Section 121(b)(1)(A-G). The criteria are as follows:

- Overall protection of human health and the environment

- Compliance with applicable or relevant and appropriate requirements
- Long-term effectiveness and permanence
- Reduction of toxicity, mobility, or volume via treatment
- Short-term effectiveness
- Implementability
- Cost
- State acceptance
- Community acceptance

Overall Protection of Human Health and Environment

Overall protection of human health and the environment is the central mandate of CERCLA, as amended. Protection is achieved by reducing health and environmental threats and by taking appropriate action to ensure that, in the future, there would be no unacceptable risks to human health and the environment through any exposure pathway.

The No Further Action alternative would provide no further protection of human health and the environment than that afforded by the removal action to date. Deteriorating containers would continue to degrade and release hazardous substances. Small containers would remain on the site in their present condition. The potential for a catastrophic event would continue and increase with the presence of non-stabilized reactive materials. Because site security measures would be discontinued, trespassing and exposures to hazardous materials could not be prevented.

Alternative 2 is an interim remedial action that would provide a significant level of protection because the site would be stabilized. However, extensive monitoring, security, and preventive maintenance measures would need to be taken to preserve the protectiveness of the action.

Alternative 3 would provide the greatest degree of protection of human health and the environment because, in addition to stabilizing conditions on the site, hazardous materials would be removed from the site for appropriate off-site processing or disposal. Proper materials handling techniques would be employed during the action to ensure that risks are controlled. Additional risks which would arise from the off-site transportation of hazardous materials would be minimized

by utilizing appropriate shipping containers and preparing a transportation safety contingency plan.

Compliance with ARARs

Section 121(d) of CERCLA, as amended, requires that remedies for Superfund sites comply with Federal and State laws that are applicable and legally enforceable. Remedies must also comply with the requirements of laws and regulations that are not applicable, but are relevant and appropriate. Applicable requirements are defined as cleanup standards, standards of control, and other substantive environmental protection requirements, criteria, or limitations promulgated under Federal or State law that specifically address a hazardous substance, pollutant, remedial action, location, or other circumstance at a Superfund site. Relevant and appropriate requirements are defined as substantive environmental protection requirements, criteria, or limitations promulgated under Federal or State law that, while not "applicable" to a hazardous substance, pollutant, contaminant, remedial action, location or circumstance at a Superfund site, address problems or situations sufficiently similar to those encountered at the CERCLA site that their use is well suited to the particular site. EPA has also developed another category of requirements, known as "to be considered" (TBCs), that includes nonpromulgated criteria, advisories, guidance, and proposed standards issued by Federal or State governments. TBCs are not potential ARARs because they are neither promulgated nor enforceable. It may be necessary to consult TBCs to interpret ARARs, or to determine preliminary remediation goals when ARARs do not exist for particular contaminants. However, identification and compliance with TBCs is not mandatory in the same way that it is for ARARs.

ARARs for the White Chemical site include the Resource Conservation and Recovery Act, the New Jersey Air Pollution Control Act, and the Clean Air Act.

EPA has divided ARARs into three categories to facilitate their identification:

Action-Specific ARARs are usually technology- or activity-based requirements or limitations on actions or conditions involving specific substances.

Chemical-specific ARARs are usually health- or risk-based numerical values or methodologies used to determine acceptable concentrations of chemicals that may be found in or discharged to the environment.

Location-specific ARARs restrict actions or contaminant concentrations in certain environmentally sensitive areas.

Examples of areas regulated under various Federal laws include floodplains, wetlands, and locations where endangered species or historically significant cultural resources are present.

Alternative 1 would not comply with ARARs because hazardous substances would remain improperly stored on the site. Releases would continue to occur, in violation of Clean Air Act and RCRA requirements.

Alternative 2 would comply with most ARARs, although some RCRA requirements relating to the storage of hazardous materials would not be met.

Alternative 3 would comply with ARARs. Activities related to the handling of wastes would comply with all ARARs, including Occupational Safety and Health Administration requirements. Off-site transportation of hazardous materials would be accomplished in accordance with Department of Transportation regulations and hazardous waste management requirements. Materials removed from the site would be treated, processed, or disposed of in accordance with RCRA requirements and Land Disposal Restrictions (LDRs).

Reduction of Toxicity, Mobility, or Volume via Treatment

This evaluation criterion relates to the performance of a technology or remedial alternative in terms of eliminating or controlling risks posed by the toxicity, mobility, or volume of hazardous substances.

The No Further Action alternative would not reduce the toxicity, mobility, or volume of contaminants to any degree. Additionally, the mobility of the contaminants may significantly increase as the deteriorating containers continue to degrade. In the event of a fire, the toxicity and mobility of the contaminants could also increase.

Alternative 2 would reduce the mobility of the contaminants through the site stabilization effort, however, this reduction would not be achieved through treatment. Although this alternative provides for the removal of extremely hazardous materials, the volume of hazardous substances remaining on the site would not be substantially reduced. Further, there would be no reduction in the toxicity of the materials remaining on the site.

Alternative 3 would reduce the toxicity, mobility, and volume, of some of the hazardous substances present at the site, through treatment and removal of hazardous substances remaining on the site. This alternative also provides for the recycling of as much material as practical.

Short-term Effectiveness

Short-term effectiveness measures how well an alternative is expected to perform, the time to achieve performance, and the potential adverse impacts of its implementation.

Alternative 1 would provide no short-term, effective remedial measures.

Alternatives 2 and 3 would begin to be effective as they are implemented. Both alternatives are expected to be fully effective within a two-year period. Alternative 2 involves the implementation of extensive monitoring and maintenance programs to ensure its effectiveness for both the short and long term.

Potential short-term adverse impacts could occur under Alternatives 2 and 3 during their implementation. Proper materials handling practices would need to be employed to minimize the potential for short-term adverse impacts under both alternatives. Alternative 3 would provide an additional potential for short-term impacts through the off-site transportation of hazardous materials; however, these concerns would be addressed through the preparation of a transportation safety contingency plan.

Long-term Effectiveness and Permanence

Long-term effectiveness and permanence address the long-term protection and reliability that an alternative affords.

The No Further Action alternative provides no long-term effectiveness and would result in significant risks to human health and the environment remaining at the site. This alternative provides no permanent remedy of site conditions.

Alternative 2 is an interim remedy that provides for extensive monitoring and maintenance activities to ensure its effectiveness for an estimated five-year period. It would be necessary to continue the interim action beyond that period, or implement a more permanent remedy, to provide long-term effectiveness and permanence.

Alternative 3 would be effective in the long term because the most serious threats posed by the site would be removed for off-site treatment, processing, or disposal. The remedy is considered permanent for the sources of the contamination; however, additional measures would need to be taken to remediate the contamination potentially

remaining at the site in other media, such as soil and ground water.

Implementability

Implementability considerations address how easy or difficult, feasible or infeasible, it would be to carry out a given alternative from design through construction and operation and maintenance. This criterion examines the technical and administrative feasibility of a remedy, including the availability of materials and services needed to implement the chosen remedy.

There are no remedial measures to be implemented under the No Further Action alternative.

Alternative 2 is easily implemented and, in fact, is an extension of the removal action currently in progress at the site. The necessary materials and equipment are readily obtained. Sufficient personnel trained in the proper techniques are available.

Alternative 3 is also an extension of the removal action and provides for treatment and off-site disposal of material. This alternative is also easily implemented. As with Alternative 2, the necessary materials and equipment are readily obtained. Sufficient personnel trained in the proper techniques are also available. Alternative 3 is technically feasible to implement. This alternative employs conventional treatment technologies that are commonly used.

Costs

Costs are evaluated in terms of remedial action capital costs, operation and maintenance costs, and present worth.

Because no actions are taken, other than a one-time monitoring event to review site conditions after five years, Alternative 1 has the lowest present worth, which is estimated to be $38,000. Conversely, Alternative 3, involving the most comprehensive cleanup approach, has the highest present worth. It is estimated to be $22,096,000. The estimated present worth of Alternative 2 is $18,062,000.

State Acceptance

The State Acceptance factor addresses whether the State of New Jersey supports, opposes, or has no comment on the preferred alternative.

The State of New Jersey supports the remedial action called for by the selected remedy.

Community Acceptance

This evaluation factor addresses public reaction to the remedial alternatives which were considered, and the preferred alternative.

Issues raised during the public comment period and at the public meeting held on July 11, 1991, are addressed in the Responsiveness Summary Section of this ROD.

SELECTED REMEDY

Section 121(b) of CERCLA, as amended, requires EPA to select remedial actions which utilize permanent solutions and alternative treatment technologies or resource recovery options to the maximum extent practicable. In addition, EPA prefers remedial actions that permanently and significantly reduce the mobility, toxicity, or volume of site wastes.

After careful review and evaluation of the alternatives evaluated in detail in the focused feasibility study, and consideration of all evaluation criteria, EPA presented Alternative 3, Stabilization/Treatment and Off-site Disposal as the preferred alternative in the Proposed Plan.

The input received during the public comment period, consisting primarily of questions and statements transmitted at the public meeting held on July 11, 1991, is presented in the attached Responsiveness Summary. Public comments received encompassed a wide range of issues but did not necessitate any changes in the remedial approach proposed to be taken at the site. Accordingly, the preferred alternative (Alternative 3, Stabilization/Treatment and Off-site Disposal) has been selected by EPA as the remedial solution for the surface contamination at the site.

The remedy will involve the continuation of site stabilization as well as the utilization of disposal measures for removing surface contamination (i.e., drums, tanks, other containers) from the site. These disposal methods might involve mobilizing a treatment unit or units to the site, and treating or neutralizing some of the materials prior to off-site disposal. If untreated material is found to be sufficiently free of impurities, it will be reused as product, as well as some of the treated material.

Once the material is sufficiently stabilized, bulked, and/or treated, it will be transported off the site to a RCRA-approved treatment facility, to a hazardous waste disposal facility, or to an appropriate facility for recycling or processing. Empty containers, such as drums, carboys, and small containers, will be decontaminated on site and removed from the site for disposal or recycling. Empty tanks, reaction vessels, and process piping will be decontaminated and stored on site.

The objectives of this early remedial response are to continue the efforts of the on-going removal action to stabilize and secure the site and to remediate the surface contamination. Due to the fact that this action will only address the surface contamination, it is necessary to conduct a comprehensive RI/FS to fully characterize conditions at the site. The comprehensive RI/FS will be initiated following the completion of the surface cleanup.

STATUTORY DETERMINATIONS

Superfund remedy selection is based on the Superfund Amendments and Reauthorization Act of 1986 and the regulations contained in the NCP. EPA's primary responsibility at Superfund sites is to undertake remedial actions that achieve adequate protection of human health and the environment. Additionally, several other statutory requirements and preferences have been established. These specify that, when complete, the selected remedy must comply with ARARs, unless a statutory waiver of ARARs, pursuant to 121(d)(4)(A) of CERCLA, as amended, is justified. The remedy must also be cost effective and utilize permanent solutions and alternative treatment or resource recovery technologies to the maximum extent practicable. Finally, there is a preference for remedies which employ treatment that permanently and significantly reduce the toxicity, mobility, or volume of hazardous wastes as their principal element. The following sections discuss how the selected early remedial response action for the White Chemical Corporation site meet these requirements and preferences.

Protection of Human Health and the Environment

The selected remedy is protective of human health and the environment, because, in addition to stabilizing the site, hazardous materials would be removed from the site for appropriate treatment, or disposal. The action will eliminate the on-going release of contamination at the site and will significantly reduce the risks posed to human health and the environment. Specifically, current exposures to on-site hazardous materials and the threat of a catastrophic release posed by the storage of materials on the site, which pose an imminent and substantial threat to public health, will be addressed through this action.

There are no short-term adverse impacts associated with the remedy which cannot be readily controlled. In addition, no cross-media impacts are expected from the remedy.

Compliance with Applicable and Relevant and Appropriate Requirements

The selected remedy will attain all ARARs, including chemical-specific, location-specific, and action-specific. They are discussed below.

Action-Specific

All remedial activities will comply with RCRA statutes and regulations.

- RCRA Subpart 268 - Land Disposal Restrictions
- RCRA Parts 262 and 263 standards are applicable to the proposed remedial activities involving RCRA hazardous waste. These provide standards for manifesting, transport, and recordkeeping. In addition, the date which accumulation began in each container must be clearly indicated on each container.

Chemical-Specific

- EPA plans to treat the chemicals in conjunction with off-site disposal. The pre-disposal treatment measures would reduce toxicity to levels (treatment standards) specified by the RCRA LDRs. Treatment methods will have to reduce the waste's leachability to Toxicity Characteristic Leaching Procedure concentrations established by LDRs.
- Potential emissions are expected in the form of volatilization of hazardous constituents and fugitive dust during treatment of chemicals. Emission control measures will be included in the operations at the site, and health and safety plans to ensure compliance with RCRA, Clean Air Act and State regulations during implementation.

Volatile Organic Compounds ARARs

- NJAC 7:27-16
- NJAC 7:27-17

Location-Specific

- 40 CFR 50 National Ambient Air Quality Standards
- NJAC 7:27-13
- NJAC 7:27-5

To Be Considered

- The shipment of hazardous waste off site to a treatment facility should be consistent with the Off-Site Policy Directive Number 9834.11 issued by the Office of Solid Waste and Emergency Response which became effective November 13, 1987. This directive is intended to ensure that facilities authorized to accept CERCLA generated waste are in compliance with RCRA operating standards.

Utilization of Permanent Solutions and Alternative Treatment Technologies to the Maximum Extent Practicable

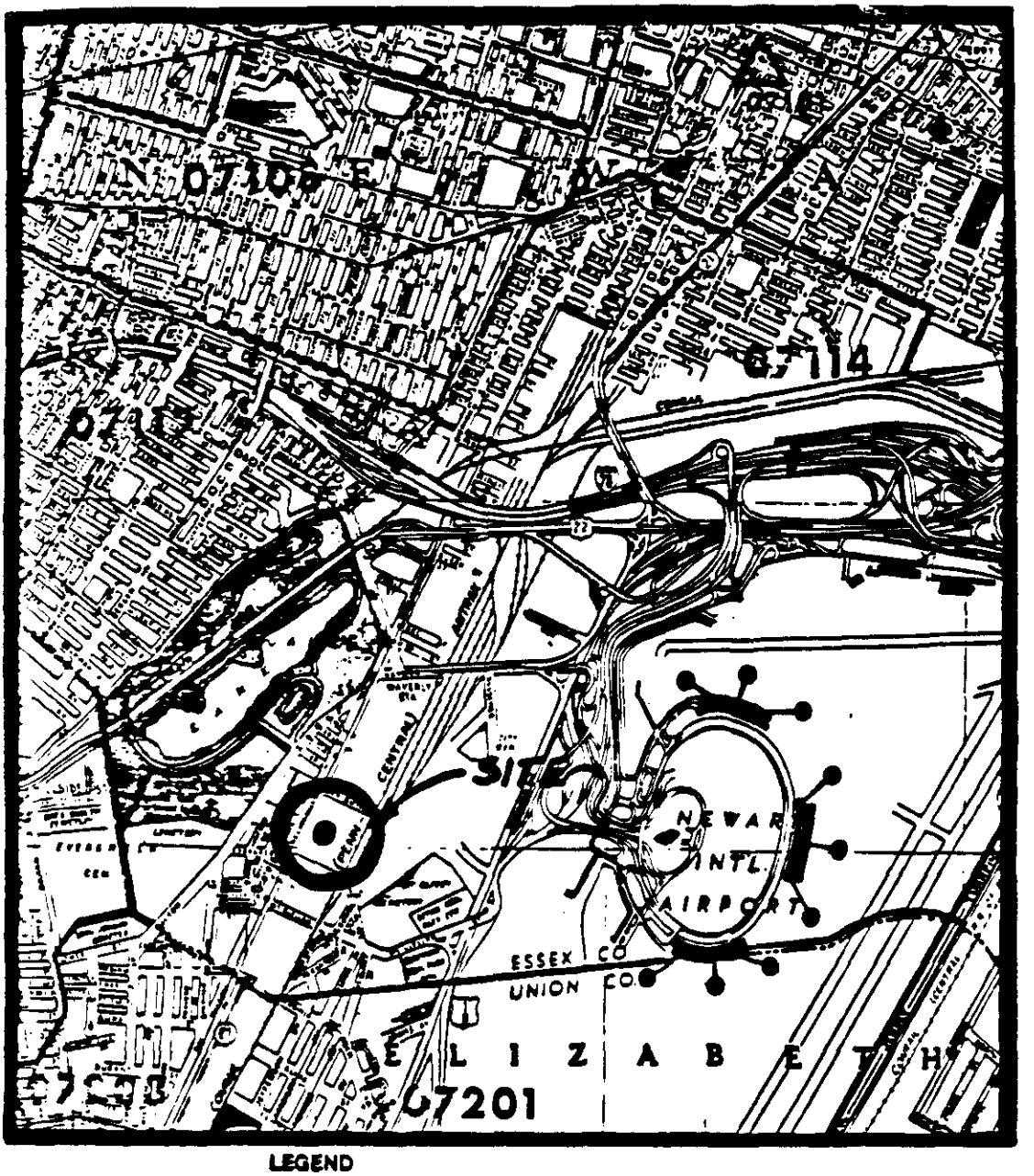
The selected remedy utilizes permanent solutions and alternative treatment (or resource recovery) technologies to the maximum extent practicable, given the scope of the action, by providing the best balance among nine evaluation criteria of all the alternatives examined. Contaminated material will be transported off site to an appropriately approved processing, treatment or disposal facility. Of the five primary balancing criteria, short-term effectiveness and implementability were the most decisive factors in the selection process. Alternatives that offered minimal short-term risks, time-efficiency and maximum effectiveness were maintained through the selection process.

Cost Effectiveness

The selected alternative is determined to be cost-effective because it provides the highest degree of protectiveness among the alternatives evaluated, at reasonable cost.

Preference for Treatment as a Principal Element

The selected remedy addresses the immediate threats posed by the site through the use of treatment technologies. The variety of wastes found at the site indicates that several treatment methods (e.g., recycling, incineration, stabilization, neutralization, etc.) may be utilized. Therefore, the statutory preference for remedies that employ treatment as a principal element is satisfied.



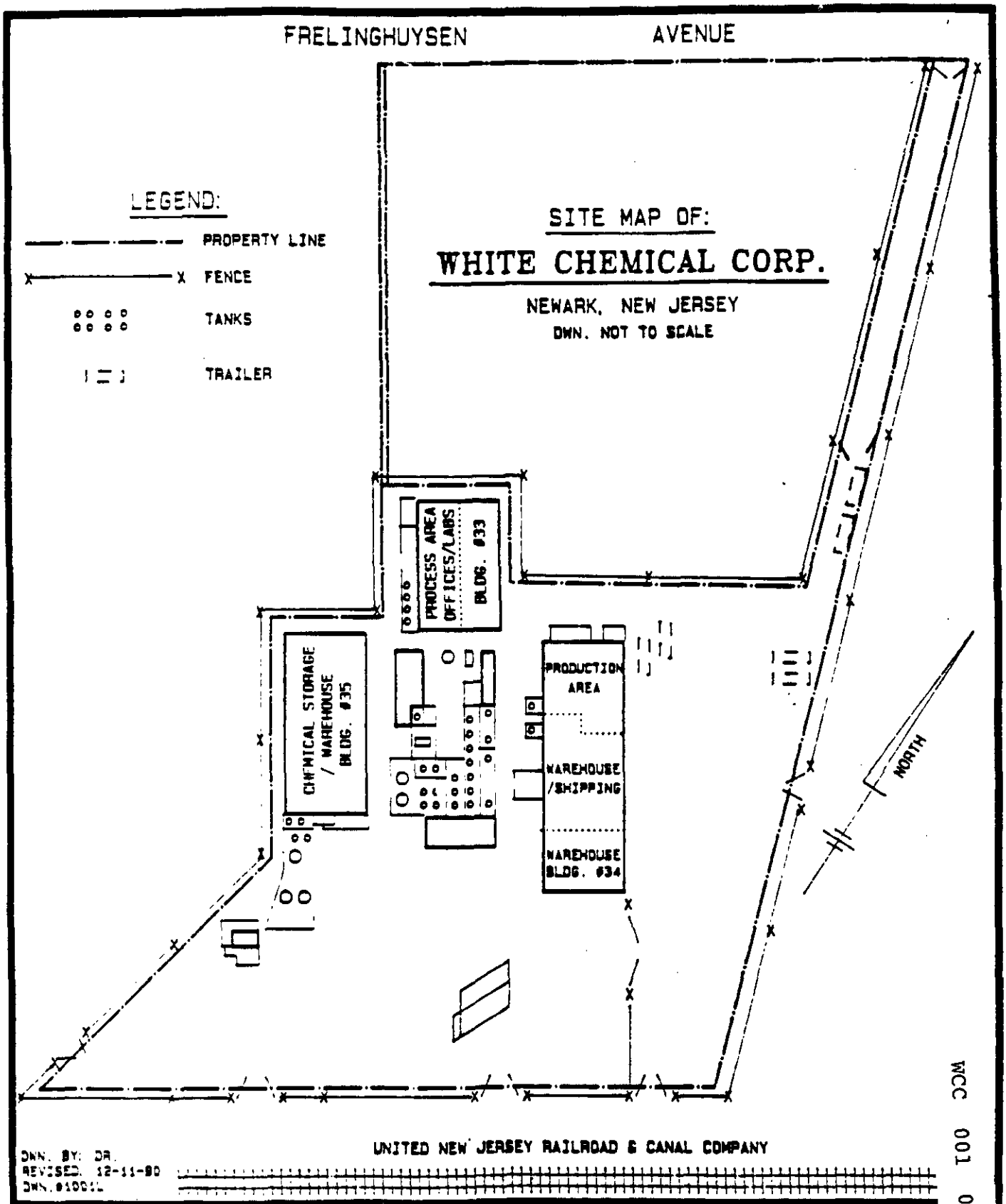
LEGEND

- Main Through Roads
- Highways under Const.
- Proposed Highways
- Other Roads & Streets
- N.J. Turnpike
- Garden State Pkwy
- Highway Symbols
- Railroad Lines and Stations
- Bus Lines
- Parks
- Cemeteries
- Golf Courses
- Airports
- State & Federal Lands
- Hospitals
- State Boundaries
- County Boundaries
- Municipal Boundaries
- Zip Code Boundaries

FIGURE 1

WCC 001 0599

Do Not Scale This Drawing



SITE MAP OF WHITE CHEMICAL CORPORATION

FIGURE 2

WCC 001 0600

TABLE 1 DRUM INVENTORY
BUILDING 34A

DRUM #	CHEMICAL CONTENTS	CATEGORY*	DRUM CAPACITY	TYPE OF DRUM**	DRUM CONDITION***
34A01	PALMITOYL CHLORIDE	I, II	55 GAL	ST	F
34A02	OCTYL CHLORIDE	III	55 GAL	ST	F
34A03	O-CHLOROTOLUENE	III	55 GAL	ST	F
34A04	PHOSPHORIC ANHYDRIDE	I	60 LBS	ST	P
34A05	N-HEPTYL BROMIDE	IV	55 GAL	ST	P
34A06	PHOSPHOROUS ACID	I	55 GAL	ST	P
34A07	IPA BROMIDE W/CARBON	IV	55 GAL	ST	P
34A08	2-HYDROXY ETHYLMETHACRYLATE	IV	55 GAL	ST	P
34A09	BROMURE D'ALLYLE	IV	55 GAL	ST	P
34A10	TEREPHTHALOYL CHLORIDE	III	50 LBS	ST	P
34A11	LACTIC ACID	I	55 GAL	ST	P
34A12	LAURYL CHLORIDE	III	55 GAL	ST	P
34A13	TRITON W-30 CONCENTRATE	III	55 GAL	ST	P
34A14	DOW CORNING 36EMULSION	V	55 GAL	ST	F
34A15	HYDROBROMIC ACID	I	55 GAL	ST	F
34A16	HYDROBROMIC ACID	I	55 GAL	ST	F
34A17	HYDROBROMIC ACID	I	55 GAL	ST	F
34A18	METHYL DIBROMOPROPIONATE	?	40 GAL	ST	F
34A19	NEODECANOIC ACID	III	55 GAL	ST	P
34A20	NEODECANOIC ACID	III	55 GAL	ST	P
34A21	NEODECANOIC ACID	III	55 GAL	ST	P
34A22	ISOBUTYL BROMIDE	IV	55 GAL	ST	P

* CATEGORY
I: Corrosive
II: H2O Reactive
III: Combustible
IV: Flammable
V: Organic
VI: Inert Solid

** TYPE OF DRUM
ST: Steel
POLY: High Density Polyethylene
FIBER: Cardboard or Fiberglass

*** DRUM CONDITION
P: Poor
F: Fair
G: Good
VB: Very Bad

TABLE 1 DRUM INVENTORY
BUILDING 34A

DRUM #	CHEMICAL CONTENTS	CATEGORY*	DRUM CAPACITY	TYPE OF DRUM**	DRUM CONDITION***
34A23	BROMIDE SOLUTION/ ZINC CALCIUM BROMIDE	I	55 GAL	ST	P
34A24	ZIRCONIUM TETRACHLORIDE	I	10 GAL	POLY	P
34A25	TETRAKIS HYDROXYMETHYL PHOSPHONIUM SULFATE	V	05 GAL	ST	P
34A26	ACETIC ACID	I	20 GAL	POLY	G
34A27	PHOSPHOROUS ACID	I	20 GAL	POLY	G
34A28	METAYLENE BIS (DBP)	?	40 GAL	ST	P
34A29	PHOSPHOROUS TRIBROMIDE	I	10 GAL	ST	P
34A30	PHOSPHOROUS TRIBROMIDE	I	10 GAL	ST	P
34A31	PBPHAE II	?	20 GAL	POLY	G
34A32	DUPONT ADIPIC ACID	III	40 GAL	POLY	G
34A33	ACPYATE CRUDE	?	10 GAL	POLY	G
34A34	HEPTANOYL CL	I	55 GAL	ST	P
34A35	UNKNOWN	?	55 GAL	ST	VB
34A36	UNKNOWN	?	55 GAL	ST	VB
34A37	UNKNOWN	?	55 GAL	ST	VB
34A38	UNKNOWN	?	55 GAL	ST	VB
34A39	UNKNOWN	?	55 GAL	ST	VB
34A40	UNKNOWN	?	55 GAL	ST	VB
34A41	PHOSPHORIC ACID	I	20 GAL	ST	VB
34A42	UNKNOWN	?	55 GAL	ST	P

* CATEGORY
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TABLE 1 DRUM INVENTORY
BUILDING 34A

DRUM #	CHEMICAL CONTENTS	CATEGORY*	DRUM CAPACITY	TYPE OF DRUM**	DRUM CONDITION***
34A43	MYRISTYL BROMIDE	III	55 GAL	ST	P
34A44	CORROSIVE	?	55 GAL	ST	G
34A45	CALCIUM CHLORIDE	VI	45 GAL	POLY	G
34A46	CALCIUM CHLORIDE	VI	45 GAL	POLY	G
34A47	CALCIUM CHLORIDE	VI	45 GAL	POLY	G
34A48	CALCIUM CHLORIDE	VI	45 GAL	POLY	G
34A49	CALCIUM CHLORIDE	VI	45 GAL	POLY	G
34A50	CALCIUM CHLORIDE	VI	55 GAL	ST	G
34A51	UNKNOWN	?	55 GAL	ST	G
34A52	UNKNOWN	?	55 GAL	ST	G
34A53	UNKNOWN	?	55 GAL	ST	G
34A54	UNKNOWN	?	55 GAL	ST	G
34A55	ALLUMINUM CHLORIDE, ANHYDROUS	I,II	20 GAL	ST	VB
34A56	ALLUMINUM CHLORIDE, ANHYDROUS	I,II	20 GAL	ST	VB
34A57	ALLUMINUM CHLORIDE, ANHYDROUS	I,II	20 GAL	ST	VB
34A58	ALLUMINUM CHLORIDE, ANHYDROUS	I,II	20 GAL	ST	VB
34A59	ANTIMONY TRICHLORIDE	I	10 GAL	FIBER	P
34A60	ANTIMONY TRICHLORIDE	I	10 GAL	FIBER	P
34A61	ANTIMONY TRICHLORIDE	I	10 GAL	FIBER	P
34A62	ANTIMONY TRICHLORIDE	I	10 GAL	FIBER	P
34A63	ANTIMONY TRICHLORIDE	I	10 GAL	FIBER	P

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* CATEGORY
I: Corrosive
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** TYPE OF DRUM
ST: Steel
POLY: High Density Polyethylene
FIBER: Cardboard or Fiberglass

*** DRUM CONDITION
P: Poor
F: Fair
G: Good
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TABLE 2 TANK INVENTORY

TANK #*	SUSPECTED TANK CONTENTS	CATEGORY**	TANK CAPACITY (gallons)	CONTENT VOLUME (gallons)
T-001	HYDROCHLORIC ACID 28%	II	8400	1357
T-002	CANNOT BE SAMPLED	II	8400	
T-003	HYDROCHLORIC ACID 28%	II	8400	-
T-004	HYDROCHLORIC ACID 28%	II	8400	3563
T-005	HYDROCHLORIC ACID 28%	II	600	235
T-006	HYDROCHLORIC ACID 28%	II	600	235
T-007	HYDROCHLORIC ACID 28%	II	2200	826
T-008	HYDROCHLORIC ACID 28%	II	2500	752
T-009	GLYCOL(CANNOT BE SAMPLED/ASBESTOS)	III	2800	
T-010	UNKNOWN	III	3200	47
T-011	FATTY ACID	III	5600	-
T-012	BROMINE	I	1600	
T-013	BROMINE	I	1600	
T-014	HYDROCHLORIC ACID 28%	II	8400	8144
T-015	HYDROCHLORIC ACID 28%	II	7400	-
T-016	OCTANOIC ACID	III	14000	135
T-017	ETHYLENE DICHLORIDE	II	14000	?
T-018	OCTANOIC ACID	III	14000	271
T-019	UNKNOWN	III	8400	2417
T-020	UNKNOWN	III	8400	403
T-021	EMPTY	III	8200	-
♦ T-022	XYLENE	II	9500	4283
T-023	UNKNOWN	III	9500	4283
T-024	EMPTY	III	9500	-
T-025	PIVALOYL CHLORIDE	I	7700	-
T-026	EMPTY	III	8300	-

* TANK #: T - TANKS
V - VESSELS
R - REACTORS

** CATEGORY I: Highly reactive Materials
CATEGORY II: Flammable, Reactive or Tank poor
CATEGORY III: Other

♦ Tank contents were emptied and sent off site for disposal.

TABLE 2 TANK INVENTORY

	TANK #*	SUSPECTED TANK CONTENTS	CATEGORY**	TANK CAPACITY (gallons)	CONTENT VOLUME (gallons)
	T-027	EMPTY	III	18000	-
	T-028	ACETYL CHLORIDE	I	7700	4332
	T-029	EMPTY	III	8300	-
	T-030	EMPTY	III	18000	-
	T-031	EMPTY	III	33100	-
	T-032	EMPTY	III	33100	-
	T-033	UNKNOWN (CANNOT GET SAMPLE)	II	8800	449
	T-034	FUEL OIL	III	6400	2256
•	T-035	PHOSPHOROUS TRICHLORIDE	I	15000	-
	T-036	EMPTY	III	15000	
	T-037	PHOSPHOROUS TRICHLORIDE	II	900	-
	T-038	HYDROCHLORIC ACID 30%	II	800	635
	R-039	DPX XYLENE	II	900	-
	R-040	DPX XYLENE	II	1000	-
♦	T-041	XYLENE	II	400	282
	R-042	DPX XYLENE	II	1700	-
>	R-043	DPX XYLENE	II	2300	-
	T-044	XYLENE	II	600	47
	T-045	SULFURIC ACID 40%	II	600	282
***	T-046	WATER	III	1000	

* TANK #: T - TANKS
V - VESSELS
R - REACTORS

** CATEGORY I: Highly reactive Materials
CATEGORY II: Flammable, Reactive or Tank poor
CATEGORY III: Other

*** Tank consists of two layers Top/Bottom

• 3,000 gallons were transferred to a tanker truck and removed off site by manufacturer.

> Due to the poor condition of the tank the contents were transfered to 16 55 gal. drums, and removed off site.

♦ Tank contents were emptied and sent off site for disposal.

TABLE 2 TANK INVENTORY

	TANK #*	SUSPECTED TANK CONTENTS	CATEGORY**	TANK CAPACITY (gallons)	CONTENT VOLUME (gallons)
♦	T-047	DPX XYLENE	II	2900	372
	T-048	XYLENE	II	600	329
♦	T-049	XYLENE	II	3900	1871
♦	T-050	XYLENE	II	2900	1536
♦	T-051	XYLENE	II	1200	256
	T-052	XYLENE	II	1100	-
	T-053	XYLENE	II	1100	47
	T-054	UNKNOWN	▼		24
	T-055	UNKNOWN	▼		2262
	R-056	EMPTY	▼	1500	-
	R-057	EMPTY	▼	1300	-
	T-058				
	R-059	EMPTY	▼	2500	-
	R-060	UNKNOWN	▼	1300	235
	R-061	EMPTY	▼		-
	R-062	EMPTY	▼	3075	-
	V-063	UNKNOWN	▼		106
	T-064	EMPTY	▼		-
	R-065	EMPTY	▼		
	R-066	UNKNOWN	▼		3379
	T-067	UNKNOWN	▼	71	71
	T-068	EMPTY	▼	71	-
	R-069	EMPTY	▼	3000	-
	T-070	UNKNOWN	▼	71	

* TANK #: T - TANKS
V - VESSELS
R - REACTORS

** CATEGORY I: Highly reactive Materials
CATEGORY II: Flammable, Reactive or Tank poor
CATEGORY III: Other

▼ Tank not categorized: Anticipated categorization for remaining tanks: CATEGORY I: 10%
II: 57%
III: 33%

♦ Tank contents were emptied and sent off site for disposal.

TABLE 2 TANK INVENTORY

	TANK #*	CONTENTS OF TANK	CATEGORY**	TANK CAPACITY (gallons)	CONTENT VOLUME (gallons)
	R-071	EMPTY	▼		-
	R-072	EMPTY	▼	1777	-
	R-073	UNKNOWN	▼		24
	T-074	NO SAMPLE/SCRUBBER COLUMN	▼		-
	R-075	UNKNOWN	▼		47
	T-076	EMPTY	▼		-
>>	T-077	PHOSPHOROUS TRICHLORIDE	▼		-
	T-078		▼		
***	R-079	UNKNOWN	▼		212/740
	R-080	UNKNOWN	▼		864
	V-081	UNKNOWN	▼		159
	T-082	NO SAMPLE/SCRUBBER COLUMN	▼		-
	T-083	NO SAMPLE/SCRUBBER COLUMN	▼		-
	T-084	NO SAMPLE/SCRUBBER COLUMN	▼		-
	T-085	NO SAMPLE/SCRUBBER COLUMN	▼		-
	T-086	UNKNOWN	▼		564
	R-087	EMPTY	▼		-
	R-088	EMPTY	▼	3650	-

* TANK #: T - TANKS
V - VESSELS
R - REACTORS

** CATEGORY I: Highly reactive Materials
CATEGORY II: Flammable, Reactive or Tank poor
CATEGORY III: Other

*** Tank consists of two layers Top/Bottom

>> Due to the poor condition of the tank the contents were transfered to 3 55gal. drums, and removed off site.

▼ Tank not categorized: Anticipated categorization for remaining tanks: CATEGORY I: 10%
II: 57%
III: 33%

TABLE 2 TANK INVENTORY

	TANK #*	CONTENTS OF TANK	CATEGORY**	TANK CAPACITY (gallons)	CONTENT VOLUME (gallons)
	R-089	UNKNOWN	▼	6450	4759
	R-090	UNKNOWN	▼	6450	3769
	R-091	EMPTY	▼	1200	-
	T-092	EMPTY	▼	3310	-
	R-093	UNKNOWN	▼		864
	R-094	UNKNOWN	▼		1904
	R-095	EMPTY	▼	4050	-
	V-096	EMPTY	▼		-
***	R-097	UNKNOWN	▼		432/2591
	T-098	UNKNOWN	▼		48
	T-099	UNKNOWN	▼	550	24
	V-100	UNKNOWN	▼		188
	V-101	EMPTY	▼		-
	V-102	EMPTY	▼		-
	V-103	EMPTY	▼		-
	R-104	EMPTY	▼	1200	-
	V-105	VOID-AIR DRYER NOT A TANK	▼		VOID
	V-106	UNKNOWN	▼	320	132
	R-107	EMPTY	▼	270	-
	R-108	UNKNOWN	▼	1175	1028
	R-109	EMPTY	▼	470	-

* TANK #: T - TANKS
V - VESSELS
R - REACTORS

** CATEGORY I: Highly reactive Materials
CATEGORY II: Flammable, Reactive or Tank poor
CATEGORY III: Other

*** Tank consists of two layers Top/Bottom

▼ Tank not categorized: Anticipated categorization for remaining tanks: CATEGORY I: 10%
II: 57%
III: 33%

TABLE 2 TANK INVENTORY

TANK #*	CONTENTS OF TANK	CATEGORY**	TANK CAPACITY (gallons)	CONTENT VOLUME (gallons)
R-110	UNKNOWN	▼		470
T-111	EMPTY	▼		-
T-112	EMPTY	▼		-
T-113	UNKNOWN	▼		73
T-114	EMPTY	▼		-
T-115	EMPTY	▼		-
T-116	EMPTY	▼		-
T-117	EMPTY	▼		-
T-118	EMPTY	▼		-
T-119	EMPTY	▼		
T-120	EMPTY	▼		-
T-121	UNKNOWN	▼		212
T-122	EMPTY	▼		-
T-123	EMTPY	▼		-
T-124	EMPTY	▼		-
T-125	UNKNOWN	▼		40
T-126	UNKNOWN	▼		26

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* TANK #: T - TANKS
V - VESSELS
R - REACTORS

** CATEGORY I: Highly reactive Materials
CATEGORY II: Flammable, Reactive or Tank poor
CATEGORY III: Other

▼ Tank not categorized: Anticipated categorization for remaining tanks: CATEGORY I: 10%
II: 57%
III: 33%

TABLE 3

CLASSIFIED SMALL CONTAINERS

HAZARD CLASSIFICATION	PARTIAL LIST OF CHEMICALS IDENTIFIED
Oxidizer/inorganic peroxide	bromine, chromic acid, potassium permanganate, zinc peroxide
Flammable	hexane, acetone, red phosphorus, benzene
Combustible	cyclohexanol, n-butylamine, triethanolamine, behenyl alcohol
Corrosive/acid	crude iodine, formic, sulfuric, and hydrochloric acids
Poisonous/heavy metal	toluene diisocyanate, aniline oil, mercuric oxycyanide, lead acetate
Halogenated organic	polybrominated biphenyls, ethylene dibromide, methylene dichloride
Corrosive/base	ethylene diamine, lithium hydroxide, 1,5,9-cyclodo-decatriene, ammonium hydroxide
Shock sensitive/organic peroxide	p-nitrosophenol, vinylidene chloride

TABLE 4

SHOCK SENSITVE MATERIALS

Chemical Description	Size Container	Type Container	Percent Volume
Sodium Nitrite Crystals	3.0 kg	Poly	60
Magnesium Nitrate	454.0 g	Glass	100
Acrolien 97%	500.0 g	Glass	100
Ethyl Mercaptan	1.0 pt	S.Tank	100
Propylene Oxide	1.0 gal	Metal	10
Pyridine	4.0 L	Glass	100
Red Phosphorous 99% (2 bottles)	500.0 g	Glass	100
Methyl Methacrylate	1.0 gal	Metal	90
Ethyl Benzene	1.0 gal	Metal	30
Methyl Acrylate	500.0 g	Glass	90
Petroleum Ether	8.0 pt	Metal	30
Benzoyl Peroxide	50.0 g	Poly	5
Methylacrylate	2.0 oz	Glass	1
2,4-Pentanedione	100.0 g	Glass	75
Styrene 99%	2.2 lb	Glass	90
Chloroethane	6.0 oz	Glass	1
Chloroethane	6.0 oz	Glass	1
Chloroethane	6.0 oz	Glass	1
Benzoyl Peroxide	4.0 oz	Poly	50
Styrene Monomer	8.0 oz	Glass	90
Benzoyl Peroxide	1.0 lb	Fiber	100
Methylacrylate	1.0 qt	Fiber	75
Isobutyl Nitrate	1.0 qt	Glass	50
Isobutyl Nitrate [RA54]	1.0 qt	Glass	25
Ethyl Chlorformate	100.0 g	Glass	100
Benzoyl Peroxide	1.0 lb	Poly	100
Tetrahydrofuran	2.0 L	Glass	20
Tetrahydrofruan	2.0 L	Glass	25
Hydrazine 4.8%	500 ml	Glass	95
Methyl Ethyl Ketone	500 ml	Glass	15
Methoxyethanol	4.0 L	Glass	40
Sodium Methoxide	4.0 L	Glass	40
Sodium Methoxide	100.0 g	Metal	75
Sodium Spheres under Mineral Spirits	100.0 g	Glass	60
Sodium Amide	250.0 g	Glass	75

Table 5

Potentially Exposed Population	Inhalation	Direct Contact
Nearby residents*	x	
Nearby Workers*	x	
Trespassers*	x	x
Railway Commuters +	x	
Fire fighters +	x	x

* Represents a current exposure

\+ Significant exposure likely to occur only in case of a catastrophic fire/explosion event

RESPONSIVENESS SUMMARY
FOR THE
WHITE CHEMICAL CORPORATION SITE
NEWARK, NEW JERSEY

SEPTEMBER 1991

RESPONSIVENESS SUMMARY
FOR THE
WHITE CHEMICAL CORPORATION SITE
NEWARK
ESSEX COUNTY, NEW JERSEY

INTRODUCTION

This Responsiveness Summary provides a summary of citizen's comments and concerns and the U.S. Environmental Protection Agency's (EPA's) responses to those comments regarding the focused feasibility study (FFS) report and Proposed Plan for the White Chemical Corporation Superfund site. EPA, in consultation with the New Jersey Department of Environmental Protection and Energy (NJDEPE), has selected an early remedial response remedy for the surface contamination at the White Chemical Corporation site after reviewing and considering all public comments received during the public comment period.

EPA held a public comment period from June 21, 1991 through August 21, 1991 to provide interested parties with the opportunity to comment on the FFS report and Proposed Plan for the White Chemical Corporation site.

EPA held a public information meeting to discuss the remedial alternatives described in the FFS and to present EPA's preferred remedial alternative for cleaning up the surface contamination at the White Chemical Corporation site. The meeting was held at the Senior Citizen Complex at 120 Dayton Street, Newark, New Jersey on July 11, 1991 at 7:00 p.m.

In general, the community was responsive to EPA's Proposed Plan. A majority of the residents recognized the importance of removing the surface contamination from the site to reduce the threats to human health and the environment. However, they expressed concern about how the work would be performed and that they be notified of actions which might affect them.

I. **COMPREHENSIVE SUMMARY OF MAJOR QUESTIONS, COMMENTS, CONCERNS AND RESPONSES:** This section summarizes oral comments raised at the public meeting and during the public comment period, and EPA's responses.

II. **APPENDICES:** There are five appendices attached to this report. They are as follows:

Appendix A: This appendix contains the Proposed Plan that was distributed to the public for review and comment;

Appendix B: This appendix contains sign-in sheets from the July 11, 1991 Public Information Meeting held at the Senior Citizens Complex;

Appendix C: This appendix contains the public notices which appeared in the Newark Star Ledger on June 27, 1991 and July 24, 1991;

Appendix D: This appendix contains a letter from the New Jersey Department of Environmental Protection and Energy in response to several questions raised at the Public Information Meeting; and

Appendix E: This appendix contains the written comments received by EPA during the public comment period.

I. COMPREHENSIVE SUMMARY OF MAJOR QUESTIONS, COMMENTS, CONCERNS AND RESPONSES

This section summarizes oral comments raised at the public meeting and during the public comment period, and EPA's responses. The comments and corresponding responses are organized in the following categories:

A. Technical Issues
B. Cost and Scheduling Issues
C. Future RI/FS Activities
D. Health and Safety Issues
E. Future Superfund Activities in Newark
F. Comments Addressed by the New Jersey Department of Environmental Protection and Energy
G. Potentially Responsible Party Comments and Issues

A. TECHNICAL ISSUES

Comment: The Proposed Plan mentioned that an imminent threat still exists. If the majority of the drums have now been overpacked, contained and/or segregated, and the laboratory material has been segregated and classified, doesn't that reduce the imminency or threat?

EPA Response: Although the measures taken under the removal action have reduced the threat posed by the material at the site, the threat has not been eliminated. For example, drums that have been overpacked because they were leaking or fuming can build up pressure which may cause the overpack to rupture or explode. The presence of shock-sensitive material presents a threat which will be eliminated only when the material is removed from the site. The site will continue to pose a significant threat to human health and the environment until the surface contamination is removed.

EPA believes that the most prudent measure is to remove the material from the site.

Comment: The last time EPA met with the residents, EPA stated that it would notify the community when moving drums. Drums were moved and EPA did not notify the community. In addition, the drums that were removed were contaminated.

EPA Response: EPA's commitment for notifying residents was to inform the community when drums containing hazardous waste were removed from the site. All drums that were removed from the site were empty. These drums were washed prior to removal. The material generated during the decontamination procedure was drummed and remains on site. The empty drums that were removed did not contain any type of product or waste, and were sent off site for recycling.

Comment: Concern was raised about fumes released into the ambient air.

EPA Response: Air quality is tested on a daily basis at the site. Extensive air monitoring is performed in order to ensure the health and safety of the on-site workers as well as the community. Beyond the perimeter of the site, EPA has found nothing above normal background levels.

Comment: In the previous meeting, EPA stated that, in the event of an emergency situation, EPA would notify the housing authority and the school. How would that happen?

EPA Response: As part of the on-going activities at the site, EPA has implemented a system called "The Community Alert Network" (CAN). The CAN system is a rapid dialing telephone system. It can automatically dial up to 2,000 telephone numbers in ten minutes. It will notify all of the surrounding businesses, fire department, housing authorities and key individuals within the community of any emergency and provide specific instructions on how to proceed.

Comment: On one occasion, EPA contacted some of the surrounding facilities, but not the residents in the area. On that specific occasion, the employees of the surrounding facilities were notified to take an extended lunch period. However, residents in the community were not notified of any emergency and were informed only the following day.

EPA Response: There have been two occasions in which EPA notified nearby facilities of potentially hazardous conditions. On the first occasion, an unidentified caller reported that a bomb had been placed on the site. The Newark Police Department responded to the incident and recommended that the site and nearby facilities be evacuated as a precautionary measure. Several of the businesses which were notified allowed their employees to take an extended lunch period. An investigation indicated that apparently no bomb had been placed on the site.

In the second instance, the concern was for a facility located adjacent to the site. It had been determined that the situation did not pose a threat beyond that immediate area of concern. In this particular incident, work was being conducted in an area near the handkerchief factory. Fumes from the site were entering that facility's air intake, because of the close proximity of the air intake to the source of the fumes. Because the fumes did not pose a threat beyond the immediate area of concern, only the workers in that facility were evacuated. Once the situation was corrected, the workers were allowed to return to the facility.

Comment: What percentage of drums on the site could be characterized as raw materials, finished product, or hazardous waste that was brought to the site?

EPA Response: To date, approximately 6,700 drums remain on the site. Most of the contents of the drums, approximately 5,500 to 6,000, are considered waste and cannot be characterized in any other way. However, there are about 600 to 700 drums stored inside a building that may be considered product. The White Chemical Corporation may have had customers for it at one time.

Comment: How did EPA determine that the contents of those drums are "waste"?

EPA Response: EPA determined the "type" of the contents of the drums through the physical conditions and placement of the drums, limited sampling, and descriptions of White Chemical Corporation's operations. Raw materials are generally either recognizable finished product, or are in containers which are labeled, indicating their contents. Sampling results and descriptions of White Chemical Corporation's operations indicate that during the production of chemicals, the residues and byproducts generated were drummed and placed on the site. Based on the conditions in which the drums were found, the material present in the yard was material that could not be used. Conversely, the "product" material was placed in cleaner drums which were stored inside the buildings.

Comment: Was any raw material found on site?

EPA Response: Approximately 8,000 gallons of hydrochloric acid and 6,000 gallons of xylene, both considered to be raw material, were found and have been sent to facilities that have a use for them. A full characterization of the type of material on the site has not been performed. Additional raw materials may be identified at a later date.

Notify suppliers of raw materials that the

EPA Response: Yes, EPA notifies suppliers of raw materials that substances are on site.

Comment: Was phosphorous trichloride removed from the site?

EPA Response: Yes, phosphorous trichloride was removed from the site for recycling.

Comment: Did EPA ask Mr. White to confirm its designation of "waste" material or "product"? Did Mr. White state, "This is all waste out here"?

EPA Response: EPA has made several inquiries to Mr. White regarding, among other things, the nature of his operations and the material present on the site. While Mr. White did not use the word "waste", he did state that the material out in the yard was material that he could not sell, or did not make available for sale. He also pointed out the areas where he had stored "product" or material he planned to sell.

Comment: Are the remaining 6,700 drums filled? If so, do they all contain hazardous material?

EPA Response: All 6,700 drums remaining contain material, but may not be totally filled. EPA is in the process of determining the nature of the contents.

Comment: How many drums remaining on site were overpacked?

EPA Response: EPA has overpacked approximately 2,700 of the 6,700 drums remaining on the site.

Comment: How are the overpacks protected from the heat?

EPA Response: No special measures have been taken to address heat in relation to the overpacks or drums. The overpacks, as well as the steel drums, are designed to withstand the elements for a given period of time. EPA is on site daily and reviews the conditions of the drums. Should conditions of the drums deteriorate, EPA has personnel on site to address the situation.

Comment: Was the waste generated by White Chemical, or was it brought in from some other place?

EPA Response: EPA is currently conducting an investigation to determine the origination of the material. No markings have been found on the drums that indicate the place of origin. However, the Agency believes that its investigation will be able to identify some of the generators of the waste found on the site.

Comment: Concern was raised about allegations made in the Star Ledger about mercury existing on the premises.

EPA Response: EPA has not encountered any mercury or mercury-related compounds. The main constituents of substances found on site are bromine, bromine compounds, acid chlorides and acid chloride-related materials.

Comment: Is the material found on site related to material that the White Chemical Corporation was manufacturing? Was anything found on site that normally would not be found in the type of manufacturing business? Does it look like Mr. White was filling up his property with waste and planning on abandoning it at a later date?

EPA Response: EPA has not fully characterized the entire site to determine that all of the material found on site is related to material that the White Chemical Corporation manufactured. However, what was found to date is consistent with the manufacturing operations that we believe White Chemical had in place. EPA is not currently in a position to determine whether Mr. White was planning on abandoning the property in the condition that EPA found it.

Comment: Is EPA going to make a final determination as to what wastes are on site? How will EPA determine the nature of those wastes and the percentages?

EPA Response: Currently, EPA is sampling and analyzing material for disposal purposes, as well as conducting an investigation to determine what substances may be on site. All of the material removed off site also will be documented.

Comment: Since the preferred alternative calls for on-site treatment, what is the Agency's opinion of on-site treatment?

EPA Response: EPA's preference is for remedies that employ treatment as a principal element, and plans to utilize treatment technologies to the degree practical at the White Chemical Corporation site. However, because of the varied nature of much of the material, it may not be possible to perform extensive treatment on the site.

Comment: Did EPA consider on-site incineration?

EPA Response: Because of the current site characteristics, distribution of materials on the site, and the location of the site, on-site incineration was not considered to be a viable option. It is possible that the option might be considered should future remedial measures be necessary at the site.

Comment: Given what EPA knows about the waste materials on the site, has EPA identified any off-site disposal facilities?

EPA Response: EPA has contacted several facilities which could likely accept this material for disposal, however, the process of arranging for disposal will take several months. The Agency has not made any final selections.

Comment: What are the specific names of the off-site disposal facilities identified and are all incineration facilities?

EPA Response: Presently, EPA has not made any definite selection, however, there are only a certain number of facilities that can be utilized. The facilities contacted to date are Rollins Environmental, Chemical Waste Management, and ThermalChem.

EPA does not want to limit the treatment options to incineration alone, and, therefore, will consider various technologies.

Comment: Where is the nearest water source located?

EPA Response: Newark's water supply is obtained from a variety of surface water bodies primarily from the Wanaque Reservoir and various other reservoirs of the Newark Watershed area located in the Highlands region of New Jersey. These areas are not impacted in any way by the White Chemical Corporation site.

Comment: When was the potable water last tested?

EPA Response: The community's water is supplied by a municipal system which is required to test the water quality on a regular basis. EPA has not performed any independent testing of the water supply in relation to the site.

Comment: Are there noticeable stains on the soil that would indicate frequent spills? Are the areas stained soil, concrete and/or asphalt, or is there some type of containment system?

EPA Response: There is evidence from soil staining and the general condition of the drums that there were spills on site.

The surface areas around the tanks are bermed. If any spills occurred from a tank, the contents would probably have been intercepted by the berms. However, there is no containment system for the drums in the yard. The surface area in the yard is a combination of asphalt and soil. If there were spills in the yard, the material would have spilled on to the ground.

Comment: Is Mr. White cooperating in the identification of substances so that the EPA expenses in testing would be less?

EPA Response: Mr. White has been cooperative. When requested, he has supplied information.

Comment: If there are any changes to the Proposed Plan, will EPA hold another public meeting or will the information be available at a library?

EPA Response: EPA has no plans at this time to hold another meeting regarding the Proposed Plan. However, the public will be advised if EPA changes the preferred remedy. All documents pertaining to the White Chemical Corporation site are located at the Newark Public Library, 5 Washington Street, Newark, New Jersey.

B. COST AND SCHEDULING ISSUES

Comment: How much has been spent already, and are past expenditures included in the $18 million estimate?

EPA Response: The $18.3 million estimate presented in the Proposed Plan has been recalculated in the Record of Decision. The cost for implementing the remedy is currently estimated to be $22.1 million. To date, approximately $3.5 million has been expended as part of the on-going removal action. This amount is included in the total estimated cost.

Comment: How long will it take to remove all the chemicals from the site?

EPA Response: EPA is currently estimating that the bulk of the material will be off site by April or May 1992.

C. FUTURE RI/FS ACTIVITIES

Comment: Is EPA planning to conduct any remedial work for the ground water at White Chemical Corporation site?

EPA Response: EPA is planning to conduct a comprehensive remedial investigation and feasibility study (RI/FS) to determine the nature and extent of contamination remaining at the site after this action is completed. This work will include an investigation of ground water quality.

Comment: Why has EPA not performed any activities to investigate the contamination of soil, ground water and other media?

EPA Response: Because of present site conditions, it would be extremely difficult to investigate the soil and ground water at this time. There are still too many drums on the property for

EPA to conduct an investigation of the soil and ground water. The surface contamination must be addressed first in order to conduct future activities.

D. HEALTH AND SAFETY ISSUES

Comments: Currently, how dangerous are the chemicals to the residents of the community?

EPA Response: There is a large variety of hazardous chemicals present on site, which poses a serious threat to human health and the environment. However, these chemicals would have to migrate through the air, water, soil, or the food chain in order to affect humans. Although a significant amount of hazardous material is still on the site, EPA's main purpose is to prevent that material from coming in contact with humans. EPA has instituted a number of measures, including security, overpacking drums, and air monitoring, to ensure that contact with the materials on site does not occur.

Comment: Concern was raised about the security at the site. When did EPA initiate security measures at the site?

EPA Response: EPA started activities at the site in September 1990. Security at the site has been in effect since then.

E. FUTURE SUPERFUND ACTIVITIES IN NEWARK

Comment: Concern was raised about other facilities in the community that should be investigated. Residents had contacted the president of the city council about sending someone over to investigate these facilities as well as the housing developments. People are coming into the developments and depositing "stuff". Concern was also raised about vacant places which have no security and have the potential to become "dumping grounds". What can be done to help the situation?

EPA Response: Newark, New Jersey is a very industrialized community. Active facilities are regulated by the Resource Conservation and Recovery Act and, therefore, subject to periodic inspections. Additionally, there are several Superfund sites in Newark.

If citizens wish to report a problem regarding a specific facility, they can contact the NJDEPE 24-hour emergency hotline at (609) 292-7172. Citizens can also write directly to EPA and petition EPA to perform an investigation.

F. COMMENTS ADDRESSED BY THE NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION AND ENERGY

[Answers to the following questions, asked at the public meeting, were subsequently provided by NJDEPE in a letter to EPA. (see Appendix D)]

Comment: What was the degree of activity undertaken by NJDEPE?

NJDEPE Response: The NJDEPE initiated a removal action at White Chemical Corporation on May 15, 1990, under the New Jersey Spill Compensation and Control Act. However, when NJDEPE reached its project budget ceiling in August 1990, NJDEPE requested that EPA continue the removal efforts.

Comment: Was the full funding authorization for NJDEPE utilized, and what contractor performed the work for NJDEPE?

NJDEPE Response: The $825,000 figure represented in the Proposed Plan is the approximate amount of the State's authorization for the project. The State still has some minor expenditures forthcoming which are associated with the final disposition of approximately 30 drums of material removed from the site, but not sent to their final treatment/disposal facility. The total project cost, including past and these future expenditures, is expected to be at or near the authorized amount of $825,000. The contractor that NJDEPE utilized for the work was S & D Engineering Services Incorporated.

Comment: With respect to NJDEPE's drum removal efforts, was any sampling performed on drum contents?

NJDEPE Response: The NJDEPE's efforts in sampling material on the site were limited to the determination of waste disposal requirements. Sampling was performed regarding the contents of the drums that were removed from the site. The results were transmitted to EPA.

Comment: What were the materials NJDEPE removed from the site and where were they transported to?

NJDEPE Response: The materials removed from the site by NJDEPE consisted of those which were identified by the owner and the State as waste materials. The focus of the initial efforts to remove these materials was on those materials which were highly acidic, flammable, or both. Many of the drums that were removed contained ethylene dichloride, trichlorethene, and other assorted spent solvents.

G. POTENTIALLY RESPONSIBLE PARTY COMMENTS AND ISSUES

Comment: A percentage of the parties that were given the opportunity to comment on the Proposed Plan indicated that they had no involvement with the White Chemical Corporation and, therefore, should not be considered a potential responsible party (PRP). In addition, they did not want to comment on the Proposed Plan at this time, until they conducted a review of EPA's "evidence" files.

EPA Response: EPA provided the companies and individuals which were identified as PRPs, or whom EPA believes might be identified as PRPs, the opportunity to comment on the Proposed Plan for the White Chemical Corporation site. EPA believes that the PRPs' review of EPA's evidence files is not relevant to the process of commenting on the Proposed Plan, since that information was not used in developing or evaluating remedial alternatives.

Comment: The president of White Chemical Corporation, Mr. James White, stated that the documents which EPA published contain misrepresentations, inaccuracies and inconsistencies. In addition, he stated that he was not able to comment on the Proposed Plan without a copy of the transcript of the July 11, 1991 public meeting.

EPA Response: The FFS and Proposed Plan were prepared based on data from the White Chemical Corporation's 1989 SARA Title III Survey, corporation records available at the time, and information developed during the implementation of the removal action. The FFS report and the Proposed Plan both acknowledged that, because of the large quantity of containers present at the site, a complete inventory of material was not assembled. EPA believes that the information available and contained in the FFS report and Proposed Plan was sufficient to allow an evaluation of alternatives and the identification and selection of a remedy for the surface contamination at the site.

EPA believes that the ability to review and comment on the FFS report and the Proposed Plan is not based on the transcript of the public meeting. The purpose of the public comment period was to provide the public with the opportunity to comment on EPA's preferred alternative and FFS report. All information relating to the alternatives presented in the Proposed Plan is presented in the FFS which is available to the public in the administrative record located in the information repository at the Newark Public Library and the EPA Region II office in New York City. The transcript of the public meeting, which has now been finalized, is also available in the administrative record.

Comment: The legal firm representing Rhone-Poulenc, Inc., Rhone-Poulenc Ag Company, and Rhone-Poulenc Basic Chemicals Co., stated "that an early remedial response is not justified by the present

conditions at the site". The FFS and Proposed Plan fail to present the current site conditions. Instead, they describe a situation that was present one year ago, before a removal action was initiated. The risks supposedly posed by materials on site were evaluated prior to removal activities, and do not reflect the diminished threat due to the fact that 1) a significant amount of material has been removed from the site, 2) the elimination of leaking and corroded drums due to overpacking, and 3) staging and segregation of materials. In addition, no additional site assessments were performed after the removal and remedial activities were commenced. The FFS and Proposed Plan rely on information and analyses which no longer reflect the conditions and risks at the site.

EPA Response: Although site conditions have improved as a result of the removal action, there is no way that site conditions can be characterized as having changed drastically. EPA has removed some material from the site, however, the amount is insignificant in comparison to the volume of material remaining on the site. To date, EPA has removed approximately 4,200 empty drums. The remaining 6,700 drums and 12,000 laboratory containers have been staged, segregated, overpacked or the contents transferred to suitable containers. Although the risk has been somewhat reduced by the activities of the removal action, it has not been eliminated. For example, drums that have been overpacked because they were leaking or fuming can build up pressure which may cause the overpack to rupture or explode. The presence of shock-sensitive material presents a threat which will be eliminated only when the material is removed from the site. The site will continue to pose a significant threat to human health and the environment until the surface contamination is removed. After the remediation of the surface contamination is complete, further investigation of the nature and extent of contamination in other media will still need to be performed.

Comment: The Proposed Plan does not facilitate a long-term remedial action. The FFS and Proposed Plan do not support the rationale for performing an early remedial response in place of a required RI/FS.

EPA Response: Because of present site conditions, it would be extremely difficult to conduct a comprehensive RI/FS. There are still too many drums on the site for EPA to conduct such an investigation in a safe and efficient manner. The site continues to pose a substantial threat since the contents of drums and other containers are not completely known and, therefore, cannot be considered "stable". Consequently, EPA believes that conducting a comprehensive RI/FS at this time, prior to the removal of the surface contamination, would only delay reducing the risks associated with the site and thus not be protective of human health and the environment. Also, the removal of the

surface contamination is a logical first step in any comprehensive cleanup of the site.

Comment: The absence of emergency conditions affords an opportunity to meaningfully investigate this site and its history. An important component in remedial activities at any site is the identification of parties who are or may be willing to participate in such activities. An extensive investigation should be conducted in order to identify viable PRPs. These PRPs should be granted the opportunity to organize and perform the work, prior to initiation of other activities.

EPA Response: EPA is currently conducting an extensive investigation to identify all PRPs associated with this site. Parties that were identified as PRPs, or whom EPA believes might be identified as PRPs, have already been notified of current and planned activities at the site. However, due to the conditions at the site, it would not be feasible, nor protective of human health and the environment, to complete a comprehensive investigation prior to conducting remedial activities to mitigate the threats posed by the surface contamination at the site.

Comment: It is recommended that Alternative 3 be implemented by EPA. It is obvious that this alternative is the best remedy to address the situation at the site. However, the costs associated with the implementation of the remedy seem relatively high. It is also recommended that EPA utilize recycling to its maximum potential.

EPA Response: The cost estimates developed in the FFS report were based on information about materials and costs which were determined during the initial stages of the removal action. This information was extrapolated and conservatively utilized to calculate costs for addressing the remainder of the material on the site.

The cost estimates were primarily developed for the purpose of comparing alternatives and are not intended to represent the actual final costs which will be associated with remedial action. In implementing the selected remedy, EPA will try to minimize costs as much as possible. EPA plans to recycle as much material as practical.

<u>The following comments are from the "Group", which consists of several parties that were identified as PRPs, or whom EPA believes might be identified as PRPs. The "Group" retained a consulting firm, Dames & Moore, to evaluate the FFS and Proposed Plan (see Appendix E).</u>

Comment: An FFS is generally prepared to present and evaluate feasible remedial alternatives in circumstances where an imminent threat is demonstrated. The FFS for the White Chemical

Corporation site was not prepared to fulfill the typical role of a Focused Feasibility Study.

EPA Response: The preparation of the FFS, and the resulting Proposed Plan and ROD, is an appropriate mechanism for addressing the significant threats posed by the White Chemical Corporation site, as was envisioned in the NCP. The preamble of the NCP specifically considers situations similar to the site in its discussion of early and interim actions.

The NCP indicates that EPA will implement remedial actions in phases as appropriate using operable units to effectively manage site problems or expedite the reduction of risks posed by the site. Such operable units may be taken in response to a pressing problem that will worsen if not addressed, or because there is an opportunity to undertake a limited action that will achieve significant risk reduction quickly.

In addition, the preamble of the NCP states that to implement an early action under remedial authority, an operable unit for which an interim action is appropriate is identified. Few alternatives, and in some cases only one, need to be developed for interim actions. Qualitative risk information should be organized that demonstrates that the action is necessary to stabilize the site, prevent further degradation, or achieve significant risk reduction quickly. Supporting data, including risk information, and the alternatives analysis can be documented in a focused RI/FS.

Although the measures taken under the removal action have somewhat reduced the risks posed by the material at the site, the risks have not been eliminated. For example, drums that have been overpacked because they were leaking or fuming can build up pressure which may cause the overpack to rupture or explode. The presence of shock-sensitive material presents a threat which will be eliminated only when the material is removed from the site. The site will continue to pose a significant threat to human health and the environment until the surface contamination is removed.

EPA believes that the FFS and Proposed Plan for the White Chemical Corporation site substantiate the need to further stabilize the site, to prevent further degradation, and to achieve significant risk reduction quickly.

Comment: EPA's action to perform an early remedial response action is based on the fact that an imminent threat is posed to the workers and residents of the community. The Proposed Plan presented a figure of 12,000 residents and workers within a one-quarter mile radius of the site. This number needs to be confirmed and justified. The "Group" believes that in the event

of an emergency, only 1,000 to 1,500 workers and several hundred residents have the potential for exposure.

EPA Response: EPA's decision to perform and early remedial response action was partially based on the Agency for Toxic Substances and Disease Registry's (ATSDR's) health consultation which recommended that action be taken to secure and stabilize the site and to initiate activities to protect the residents and workers in the areas of the site. The Community Relations Plan prepared for the removal action estimated that approximately 8,000 workers and 4,000 residents are located within a one-quarter mile radius of the site. This conservative estimate considered the occurrence of an emergency under the worst possible circumstances. This figure is an not an exact number, but rather an estimate which was presented for comparative purposes. The extent of the population near the site does not impact the selection of the remedy. The remedy must be protective of human health and the environment regardless of the population size. A community of 1,000 people would be as equally protected by the remedy as a community of 12,000 people.

Comment: EPA has not prioritized management, treatment, and disposal activities of waste materials. EPA has not emphasized the utilization of bulking to minimize costs and has made no efforts to insure that non-hazardous materials will be addressed as such.

EPA Response: Because a large portion of material present on the site still needs to be characterized, it is premature to determine the actual percentage of material that will be treated, recycled, and/or disposed of. However, EPA's preference is for remedies that employ treatment or resource recovery technologies, and are cost effective. The selected remedy will utilize recycling and treatment technologies to the degree practical for the site. Likewise, the selected remedy will employ all appropriate material-handling measures to minimize costs to the degree practical.

Comment: EPA has not provided cost control methods in order to minimize costs associated with laboratory sampling, transportation, disposal, and management of waste materials.

EPA Response: At the present time, a comprehensive plan to address the costs associated with all possible activities cannot be developed. Typically, such plans are developed following the selection of a remedy. EPA intends to minimize all costs associated with implementing the selected remedy.

Comment: In revising the FFS, EPA should prepare a comprehensive inventory of activities, relating to drums, that have been completed to date. EPA should include the data from the 4,500 drums that have already been sampled. The FFS and Proposed Plan

should include documentation for all activities completed and costs incurred to date at the site.

EPA Response: The FFS and Proposed Plan were prepared based on data from the White Chemical Corporation's 1989 SARA Title III Survey, corporation records available at the time, and information developed during the implementation of the removal action. The FFS report and the Proposed Plan both acknowledged that, because of the large quantity of containers present at the site, a complete inventory of material was not assembled. EPA believes that the information available and contained in the FFS report and Proposed Plan is sufficient to allow an evaluation of alternatives, and the identification and selection of a remedy for the surface contamination at the site.

The on-going removal action has initiated sampling of drums and approximately 4,500 drums have been sampled. However, the purpose of the sampling was to determine the disposal characteristics of materials, not the exact contents of the drums. While this information will be useful for implementation of the selected remedy, it was not necessary to include it in the FFS report or the Proposed Plan. However, the information is available in the Administrative Record for the site located at the information repositories at the Newark Public Library and the EPA Region II office in New York City.

All additional information that becomes available will also be included in the Administrative Record.

Comment: EPA should provide a systematic approach for implementation of continued and future remedial response activities by EPA and contractors.

EPA Response: A comprehensive and systematic approach for the implementation of a remedy is typically developed following the selection of the remedy. EPA will develop an implementation plan for the selected remedy.

Comment: A site-specific work plan describing, step by step, all activities associated with implementing the early remedial response action should be included in the FFS and Proposed Plan.

EPA Response: A site-specific work plan for implementing remedial actions is typically prepared only after a remedy has been selected in a Record of Decision.

Comment: EPA's cost estimates presented in the FFS are inflated.

EPA Response: The cost estimates developed in the FFS report were based on information about materials and costs which was determined during the initial stages of the removal action. This information was extrapolated and conservatively utilized to

calculate costs for addressing the remainder of the material on the site.

The cost estimates were primarily developed for the purpose of comparing alternatives and are not intended to represent the precise final costs which will be associated with remedial action. In implementing the selected remedy, EPA will try to minimize costs as much as possible.

Comment: EPA's cleanup timeframe estimate appears to be too long.

EPA Response: EPA's estimate of the time that will be required to clean up the surface contamination at the site is conservative. It is possible that the duration of the cleanup will be less than estimated. While time was a factor considered in the evaluation of alternatives, it was not significant in the selection of the remedy.

Comment: Page 3 of the Proposed Plan states that White Chemical Corporation ceased operations at the site in July 1990. White Chemical Corporation continued operations until September 1990 when EPA issued a unilateral administrative order demanding that White Chemical Corporation vacate the site.

EPA Response: Partial operations continued at White Chemical Corporation until September 1990, when all operations were ceased. EPA acknowledges this fact and has incorporated it in the Record of Decision. This information, however, has no bearing on the evaluation of alternatives, nor the selection of a remedy for the site.

II. APPENDICES

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Appendix A

Proposed Plan

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Appendix B

Public Meeting Sign-in Sheets

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Appendix C

Public Notices in the Newark Star Ledger

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Appendix D

Letter from the New Jersey Department of Environmental Protection and Energy

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Appendix E

Written comments

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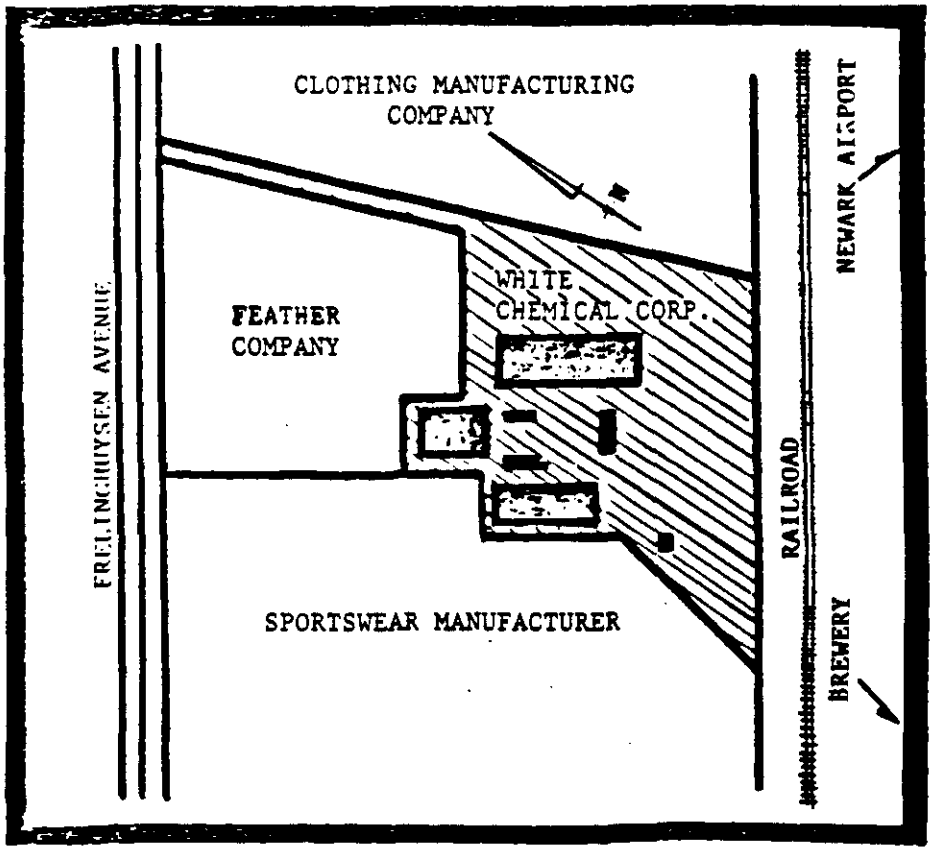
APPENDIX A

PROPOSED PLAN
WHITE CHEMICAL CORPORATION SITE

PURPOSE OF PROPOSED PLAN

This document describes the Proposed Plan developed by the U.S. Environmental Protection Agency (EPA), in conjunction with the New Jersey Department of Environmental Protection (NJDEP), for the remediation of surface contamination at the White Chemical Corporation Superfund site. It also outlines all of the remedial alternatives evaluated for the site and presents the rationale used to make a preliminary selection.

The preferred alternative is based on one key document: the Focused Feasibility Study (FFS) report, which characterizes the site and describes the nature and extent of the contamination present, and describes how the various remedial alternatives were developed and evaluated. The remedy proposed in this document is an early remedial response which addresses the surface contamination on the site.



This Proposed Plan is being distributed as required by Section 117 of the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA), as amended by the Superfund Amendments and Reauthorization Act of 1986 (SARA), along with the draft FFS report, to solicit public comment regarding the most acceptable way to clean up the surficial contamination found at the White Chemical Corporation site. Detailed information on any of the material included in the Proposed Plan may be found in the FFS report. This report has been placed at an information repository located at the Newark Public Library, 5 Washington Street, Newark, New Jersey.

Additional documentation regarding the proposed remedy is available in the administrative record for the site. A copy of the administrative record, as assembled to date, is located at the Newark Public Library. It is also available at EPA's regional office at 26 Federal Plaza in New York.

COMMUNITY ROLE IN THE SELECTION PROCESS

EPA relies on public input to ensure that the remedy selected for each Superfund site is fully understood and that the agency has considered the concerns of the local community prior to selecting the final remedy, as well as ensuring that the selected remedy provides an effective solution.

This Proposed Plan and the FFS report are being made available to the public during the public comment period. Written comments on the Proposed Plan or the FFS report will be welcomed through July 22, 1991, and, if received by that date, will be considered in the Record of Decision (ROD) which will formally document the selected remedy. All written comments should be addressed to:

Ms. Silvina Fonseca
Remedial Project Manager
U.S. Environmental Protection Agency - Region II
26 Federal Plaza - Room 711
New York, New York 10278

The final remedy selection will be documented in the ROD only after consideration of all comments on the FFS report and any of the remedial alternatives addressed in the Proposed Plan. A public meeting has been scheduled for 7:00 p.m. on July 11, 1991 at the Senior Citizen Complex located at 130 Dayton Street, Newark, New Jersey, to present both the findings of the FFS report and the Proposed Plan, and to solicit comments on these documents.

SITE BACKGROUND

The White Chemical Corporation site is a 4.4-acre, inactive facility that formerly manufactured acid chlorides and flame retardant compounds. The site is located at 660 Frelinghuysen Avenue in a heavily populated and industrialized area of Newark, Essex County, New Jersey.

The site is located immediately east of two large manufacturing facilities; a feather company and a sportswear manufacturer. A large clothing manufacturing company is located north of the site. The eastern border of the site is adjacent to the Conrail railroad line, a major rail corridor to New York City. The Newark brewery of Anheuser-Busch, Inc., is located on the far side of the railroad line. Approximately one-half mile further east are U.S. Highways 1 and 9, and Newark International Airport. Weequahic Park, several large housing complexes and several high-rise senior citizen homes are present near the site. There is a daytime population of approximately 12,000 within a one-quarter mile radius of the site.

In September 1970, Central Services Corporation (CSC) purchased the property on which the site is located from the Union Carbide Corporation. It is believed that much of the present site infrastructure, including sewer and utility conduits and buildings, may date from the time of Union Carbide's ownership. CSC sold the property to the Lancaster Chemical Company, a division of AZS Corporation, in August 1975. In 1983, the White Chemical Corporation (WCC) moved its operations from Bayonne, New Jersey, to the present site in Newark. WCC ceased operation in July 1990.

Five major buildings are located on the site, as well as three smaller, facility support buildings. Tanks are present in three areas of the property, and 55-gallon drums are located primarily in an area east of the buildings. The site is secured by a chain-link fence that was installed by EPA in 1990. In addition, EPA is maintaining 24-hour security at the site.

NJDEP conducted several inspections of the facility between June and September 1989 pursuant to the Resource Conservation and Recovery Act (RCRA). During these inspections NJDEP issued Notices of Violation (NOVs) for improper drum management, leaking drums, open containers, and inadequate aisle space.

On September 22, 1989 the site was reinspected and it was noted that the facility had attained only partial compliance. As a result, an Administrative Order and penalty was issued by NJDEP on March 15, 1990. According to NJDEP, WCC never complied with the order and never paid the penalty.

From March 27 through March 29, 1990, NJDEP reinspected the facility and again found many RCRA violations. As a result, NJDEP issued NOVs under the New Jersey Spill Compensation and Control Act and ordered WCC to immediately remediate all spills and other violations. WCC never complied with the NOVs.

On May 8, 1990, NJDEP issued a Directive to WCC pursuant to the New Jersey Spill Compensation and Control Act, in order to secure the perimeter of the facility, provide 24-hour security and attempt to stabilize drums located on the premises. WCC never responded to the Directive.

In early 1990, NJDEP issued Directives to WCC to clean up the site. No response to the Directives was received. Consequently, on May 15, 1990, NJDEP initiated a removal action, under the New Jersey Spill Compensation and Control Act. However, after removing approximately 1,000 drums, NJDEP reached its project ceiling of $825,000 and was forced to suspend operations in August 1990. As a result, on August 24, NJDEP requested that EPA consider taking a removal action at the site.

On September 7, 1990, EPA performed a preliminary assessment of the White Chemical facility and found numerous air- and water- reactive materials in 55-gallon drums. These materials were releasing acid gases into the ambient air. At that time, EPA overpacked 11 of the drums and secured them for future handling. During this assessment, numerous RCRA violations were discovered.

On September 28, the Agency for Toxic Substances and Disease Registry (ATSDR) issued a health consultation that concluded that the site poses an imminent and substantial health and safety threat to nearby residents and workers. A Public Health Advisory was later issued in November 1990.

EPA performed supplementary assessments on October 2 and 4, 1990 which included the laboratory located on the site. The laboratory, which consists of several rooms, contained flammable liquids, corrosives, acids, oxidizers, shock-sensitive materials, and air- and water- reactive materials. In December 1990, a room containing a large volume of explosive material was found, along with a pallet of shock-sensitive material.

Removal actions currently in progress include drum overpacking on an emergency basis, segregating incompatible substances, and further assessing the nature of the chemicals present. Approximately 12,000 laboratory containers have been restaged and inventoried, however, the results of the inventory have not yet been compiled.

Based on the known contamination present, EPA proposed the White Chemical Corporation site for inclusion on the National Priorities List (NPL) of Superfund sites on May 9, 1991. Recognizing the nature and complexity of the site, EPA is

undertaking a multi-tiered approach to addressing the contamination problems at the site, which includes a removal action, an early remedial response, and a long-term remedial action.

FIELD INVESTIGATION SUMMARY

The objectives of the field investigation for the early remedial response were to identify and characterize the potential sources of contamination, and to gather data to evaluate remedial alternatives. Because of the large number of containers present at the site, a complete inventory of the drums, tanks and laboratory containers has not been assembled. Much of the information gathered about the contaminants on the site is based on data from White Chemical's 1989 SARA Title III Survey, corporation records available to date, and information developed during the implementation of the removal action.

The field investigation indicated that, subsequent to the NJDEP removal action and the removal of empty drums, approximately 10,900 drums of hazardous materials remained improperly stored and precariously stacked throughout the 4.4-acre site. Drums and other containers were found in various stages of deterioration, fuming, and leaking material onto the soil. Numerous stains were observed on the soil. Due to the on-going removal action, 4,200 empty drums have been shipped off site and approximately 6,700 staged drums remain on the site. The contents of many of the drums are unknown because of a lack of labeling or the presence of multiple labels. Other containers were found labeled "Salvage - Hazardous Waste Rejected".

Other containers found on the site include approximately 150 cylinders, 126 tanks, hundreds of fiberpack drums, gallon bottles, carboys, boxes, and approximately 12,000 laboratory-size containers. Most of the containers appear to be full. Some chemicals suspected to be on the site include: bromine, chromic acid, phosphorous trichloride, hydrochloric acid, xylene, fatty acids, benzene, red phosphorus, and sulfuric acid.

The laboratory present on the site contained thousands of unsegregated laboratory chemicals in deteriorating containers. These materials were haphazardly stored on structurally unstable shelving.

SCOPE AND ROLE OF ACTION

The remediation of the site is complicated by the quantity and condition of surface contamination This remedy will be considered an early remedial response, based on the FFS report. This action will address surface contamination only (e.g., drums, tanks, laboratory containers) and further stabilize the site until an overall, permanent remedy can be selected. Other potentially contaminated media including soil, ground water, surface water, and buildings will be addressed at a later date when an overall remedial investigation and feasibility study (RI/FS) will be performed.

SUMMARY OF SITE RISKS

In September 1990, EPA requested that ATSDR review site information and data for the White Chemical Corporation site, and characterize the threat to public health posed by the site. ATSDR responded to that request by performing a Health Consultation. ATSDR concluded that the threat of catastrophic release posed by the uncontrolled storage of hazardous substances, and conditions of on-going release at the site, present an imminent and substantial threat to public health.

Because of the limited information available as to the exact nature of the chemicals on the site, a quantitative risk assessment could not be performed as part of the FFS. However, EPA, in consultation with ATSDR, did an analysis to estimate the health problems that could result if the contamination and hazardous conditions at the White Chemical Corporation site were not cleaned up. This assessment, referred to as a Public Health Evaluation (PHE), is presented in the FFS. Because surface contaminants at the site pose a potential immediate health threat, consultations with ATSDR served as the primary supporting information for the PHE.

The PHE focused on identifying chemicals of concern, evaluating pathways of exposure, describing potential receptor populations, and characterizing the consequent health hazards. Due to the limited and uncertain chemical inventory at the site, assessment of site hazards was performed by evaluating chemical classes rather than individual compounds. Many of the compounds identified at the site do not fit into any one particular category; individual compounds may have combined corrosive, oxidizing and shock-sensitive properties. The potential for toxicologic interactions between chemical classes at the site exists. However, in the absence of specific information, this type of interaction has not been considered. Chemical classes of concern at the site include flammable liquids, corrosives, oxidizing agents, and shock sensitive material.

Exposed or potentially exposed populations include nearby residents, workers, and site trespassers. In addition, a future exposure route in case of a catastrophic fire/explosion event could result in two additional potentially exposed populations, fire-fighting personnel and railway commuters. The predominant route of exposure is inhalation for all of the potentially exposed populations, and direct contact for trespassers or fire-fighting personnel.

Non-carcinogenic and carcinogenic adverse health effects have been associated with many of the contaminants identified on the site. Chronic or acute inhalation of or direct contact with site contaminants by individuals could result in deleterious health effects. The release of acid fumes has already occurred on frequent occasions. The potential for nearby residents, workers, and site trespassers to be exposed to contaminants by inhalation and/or direct contact, currently exists. Persons who suffer impaired respiratory function (e.g., asthma, bronchitis) are at greater risk than the general public.

Site circumstances suggest that the present unstable situation could lead to a catastrophic release of hazardous material that would likely affect the surrounding community. Current exposures to on-site hazardous materials and the threat of a catastrophic release posed by the uncontrolled storage of materials on the site pose an imminent and substantial threat to public health.

REMEDIAL ACTION OBJECTIVES

Remedial action objectives have been established for the site in relation to the surface contamination sources. The objectives have been established by considering the known contamination present, the threats to public health and the environment associated with the hazards at the site, and any applicable or relevant and appropriate requirements of other Federal and State environmental laws and regulations.

The objectives of this action are to address those hazards at the site that require immediate attention, and are intended to further stabilize the site until an overall, permanent remedy can be selected. Such an action would continue the stabilization efforts that began with the removal action. Remedial alternatives for a permanent cleanup of the entire site will be evaluated later in an RI/FS.

The specific remedial action objectives for the site are presented below. The remedial objectives are the basis for the development and evaluation of remedial alternatives. The development of remedial alternatives is presented in more detail in the FFS.

The drums, tanks and small containers/gas cylinders located at the site pose several imminent hazards to public health and the environment. Many of the

drums and tanks contain hazardous substances that would pose an immediate threat if they leaked from these containers. Many of the containers are deteriorated and may leak unless they are addressed by an expedited action. The objectives of the early remedial response for the drums, tanks and small containers/gas cylinders are to:

1. Prevent ingestion/inhalation/direct contact with hazardous substances at concentrations posing a potentially imminent and substantial endangerment; and

2. Prevent releases of hazardous substances that would result in or form a catastrophic event (e.g., explosion, fire, generation of contaminant plume) or migration of hazardous substances that would result in contamination of ground water, surface water, soil, or releases into the atmosphere.

Actual or threatened releases of hazardous substances from this site, if not addressed by the preferred alternative or the other active measure considered, may present a current or potential threat to public health, welfare, or the environment.

FOCUSED FEASIBILITY STUDY

Information obtained from the field investigation and the on-going removal action was used to conduct the FFS. The FFS report provides a detailed evaluation of various options, referred to as remedial alternatives, to remediate the site. Remedial alternatives were evaluated based on the nine criteria identified in the FFS report and described later in this document.

SUMMARY OF REMEDIAL ALTERNATIVES

The Comprehensive Environmental Response, Compensation, and Liability Act, as amended, requires that each selected site remedy be protective of human health and the environment, comply with applicable or relevant and appropriate requirements (ARARs), utilize permanent solutions and alternative treatment technologies or resource recovery technologies to the maximum extent practicable, and be cost effective. The FFS developed and evaluated, in detail, three alternatives for an early remedial response to the surface contamination at the White Chemical Corporation site that might satisfy these criteria.

Alternative 1: No Further Action

Estimated Capital Cost:	$ 0
Estimated Present Worth of Five-Year Review:	$ 38,000

The Superfund program requires that the "no action" alternative be evaluated at every site to establish a baseline for comparison of alternatives. Under this alternative, EPA would take no further action to address contamination at the site. (While the on-going removal action will complete additional site stabilization tasks, EPA's removal authority does not maintain the capacity to complete a removal action of this magnitude and at the same time retain the resources necessary to respond to other emergency situations at other sites. It has been conservatively assumed here that the removal action would not complete any additional work.) The potential for exposure to contaminants is not reduced in this scenario, and exposure-related risks will remain similar to those discussed earlier. The access restrictions (i.e., fencing, warning signs) that were installed and maintained under the removal action would remain in place, but no further maintenance would be provided. However, a review would be conducted after five years to determine site conditions at that time.

Alternative 2: Site Stabilization and On-site Storage

Estimated Capital Cost:	$ 7,767,000
Estimated Annual Operation and Maintenance (O & M) Costs:	$ 2,652,000
Estimated Present Worth:	$18,062,000
Implementation Timeframe:	2 years
O & M Timeframe:	5 years

This alternative, site stabilization and on-site storage, is an interim response action that would be a continuation and modification of the removal action currently in progress. Only limited measures would be taken toward site remediation; i.e., measures to prevent further releases to the environment. Although a percentage of the site stabilization process has been performed by the on-going removal action, it may be necessary to perform some additional activities. The alternative involves compiling an inventory of hazardous substances present and includes restaging and segregating any incompatible materials to prevent uncontrolled chemical reactions. However, it might be necessary to dispose of some of the extremely hazardous materials at off-site facilities to maintain on-site stability of the remaining chemicals. Transferring chemicals to new containers would be performed on containers that are in poor condition to prevent releases from occurring. Consolidation or bulking would be performed if sufficient quantities of compatible materials were found. They would be properly combined and stored on the site in

tanker trucks until a final response action is taken. Empty containers would be rinsed and crushed for disposal. An emergency response contingency plan would be developed to provide a mechanism for responding to any releases, fires, etc., that might occur during the stabilization effort. Further, because large quantities of hazardous material would remain on the site, site security, extensive monitoring and an emergency response contingency plan would be maintained at the site from the completion of the interim remedial action to the initiation of a subsequent, final action for surface contamination.

It is estimated that it would take two years to stabilize the site, and that on-site storage would be required for a period of five years until a final remedial action could be selected and implemented. The site would be reviewed, as mandated by CERCLA, as amended, every five years while hazardous substances remain on the site.

Alternative 3: Stabilization/Treatment and Off-site Disposal

Estimated Capital Cost:	$22,096,000
Estimated Annual O & M Costs:	$ 0
Estimated Present Worth:	$18,261,000
Implementation Timeframe:	2 years

This alternative includes all of the process options and materials handling techniques presented in Alternative 2, however, it also provides for the treatment and off-site disposal of material. This alternative is developed as a final remedy for the contamination sources (i.e., drums, tanks, other containers), but recognizes that additional efforts would be required to complete the overall site remediation. No measures are included in this alternative to address the potential contamination of soil, ground water, surface water, buildings, or other media.

This alternative would include all of the measures employed in Alternative 2, but would also include disposal measures for removing surface contamination from the site. These disposal methods might involve mobilizing a treatment unit or units to the site, and treating or neutralizing some of the materials prior to off-site disposal. If untreated material were found to be sufficiently free of impurities, it would be recycled, as well as some of the treated material.

Once the material has been sufficiently stabilized, bulked, and/or treated, it would be transported off the site to a RCRA-approved treatment facility, to a hazardous waste disposal facility, or to an appropriate facility for recycling or processing. Additional risks which would arise from the off-site transportation of hazardous material would be minimized by utilizing appropriate shipping containers and preparing a transportation safety contingency plan.

Extensive environmental monitoring would be conducted during the implementation of this alternative to ensure the mitigation of any releases. An emergency response contingency plan would also be developed to provide a mechanism for responding to any releases, fires, etc., that might occur during the stabilization, treatment, and off-site disposal efforts. Site security would continue until all material is removed, then security measures could be reduced. Because this would be a final remedy for the surface contamination, a five-year review would not be required.

It is assumed that it would take two years to complete the source remediation under this alternative. Because all of the surface contamination sources will have been removed from the site, no operation and maintenance is anticipated for this alternative. As noted above, site security measures would be reduced, in all likelihood, to passive access restrictions, such as the existing fencing and warning signs.

EVALUATION OF ALTERNATIVES

The preferred alternative is Alternative 3, stabilization/ treatment and off-site disposal. Based on current information, this alternative appears to provide the best balance of trade-offs among the alternatives with respect to the nine criteria that EPA uses to evaluate alternatives. This section profiles the performance of the preferred alternative against the nine criteria, noting how it compares to the other options under consideration. A glossary of the evaluation criteria is noted below.

Based on new information or public comments, EPA, in consultation with the State of New Jersey, may modify the preferred alternative or select another response action presented in this Plan and the FFS report. The public, therefore, is encouraged to review and comment on all of the alternatives identified in this Proposed Plan. The FFS report should be consulted for more detailed information on these alternatives.

GLOSSARY OF EVALUATION CRITERIA

- Overall Protection of Human Health and the Environment:

  This criterion addresses whether or not a remedy provides adequate protection and describes how risks are eliminated, reduced or controlled through treatment, engineering controls or institutional controls.

- Compliance with Applicable or Relevant and Appropriate Requirements of Federal or State of New Jersey Regulations:

  This criterion addresses whether or not a remedy will meet all of the applicable or relevant and appropriate requirements of other environmental statutes and/or provide grounds for invoking a waiver.

- Long-term Effectiveness and Permanence:

  This criterion refers to the ability of the remedy to maintain reliable protection of human health and the environment over time once cleanup goals have been met.

- Reduction of Toxicity, Mobility or Volume:

  This criterion addresses the anticipated performance of the treatment technologies that a remedy may employ.

- Short-term Effectiveness:

  This criterion considers the period of time needed to achieve protection and any adverse impacts on human health and the environment that may be posed during the construction and implementation period until cleanup goals are achieved.

- Implementability:

  This criterion examines the technical and administrative feasibility of a remedy, including availability of materials and services needed to implement the chosen solution.

- Cost:

  This criterion includes capital and operation and maintenance costs.

- State Acceptance:

  This criterion indicates whether, based on its review of the FFS and the Proposed Plan, the State concurs with, opposes, or has no comment on the proposed alternative.

- Community Acceptance:

  This criterion will be addressed in the Record of Decision following a review of the public comments received on the FFS report and the Proposed Plan.

COMPARATIVE ANALYSIS OF ALTERNATIVES

Overall Protection of Human Health and the Environment

The No Further Action alternative would provide no further protection of human health and the environment than that afforded by the removal action to date. Deteriorating containers would continue to degrade and release hazardous substances. Small containers and gas cylinders would remain on the site in their present condition. The potential for a catastrophic event would continue and increase with the presence of non-stabilized reactive materials. Because site security measures would be discontinued, trespassing and exposures to hazardous materials could not be prevented.

Alternative 2 is an interim remedial action that would provide a significant level of protection because the site would be stabilized. However, extensive monitoring, security, and preventive maintenance measures would need to be taken to preserve the protectiveness of the action.

Alternative 3 would provide the greatest degree of protection of human health and the environment because, in addition to stabilizing conditions on the site, hazardous materials would be removed from the site for appropriate off-site processing or disposal. Proper materials handling techniques would be employed during the action to ensure that risks are controlled. Additional risks which would arise from the off-site transportation of hazardous materials would be minimized by utilizing appropriate shipping containers and preparing a transportation safety contingency plan.

Compliance with Applicable or Relevant and Appropriate Requirements (ARARs)

Primary ARARs for the White Chemical site include Occupational Safety and Health Administration (OSHA) Standards, the Resource Conservation and Recovery Act, and the Clean Air Act.

There are no chemical-specific ARARs that need to be met for implementing these alternatives.

Alternative 1 would not comply with ARARs because hazardous substances would remain improperly stored on the site. Releases would continue to occur, in violation of Clean Air Act and RCRA requirements.

Alternative 2 would comply with most ARARs, although some RCRA requirements relating to the storage of hazardous materials would not be met. However, because the alternative is an interim measure, and could become part of a total remedial action that would attain ARARs, a basis exists under the National Oil and Hazardous Substances Pollution Contingency Plan for invoking a waiver.

Alternative 3 would comply with ARARs. Activities related to the handling of wastes would comply with all ARARs, including OSHA requirements. Off-site transportation of hazardous materials would be accomplished in accordance with Department of Transportation regulations and hazardous waste management requirements. Materials removed from the site would be treated, processed, or disposed of in accordance with RCRA requirements.

Reduction of Toxicity, Mobility, or Volume Through Treatment

The No Further Action alternative would not reduce the toxicity, mobility, or volume of contaminants to any degree. Additionally, the mobility of the contaminants may significantly increase as the deteriorating containers continue to degrade. In the event of a fire, the toxicity and mobility of the contaminants could also increase.

Alternative 2 would reduce the mobility of the contaminants through the site stabilization effort, however, this reduction would not be achieved through treatment. Although this alternative provides for the removal of extremely hazardous materials, the volume of hazardous substances remaining on the site would not be substantially reduced. Further, there would be no reduction in the toxicity of the material remaining on the site.

Alternative 3 would reduce the toxicity, mobility, and volume, through treatment, of much of the hazardous substances present at the site. The alternative also provides for the recycling of as much material as practical.

Short-Term Effectiveness

Alternative 1 would provide no short-term, effective remedial measures.

Alternatives 2 and 3 would begin to be effective as they are implemented. Both alternatives are expected to be fully effective within a two-year period. Alternative 2 involves the implementation of extensive monitoring and maintenance programs to ensure its effectiveness for both the short- and long-term.

Potential adverse impacts could occur under Alternatives 2 and 3 during their implementation. Proper materials handling practices would need to be employed to minimize the potential for short-term adverse impacts under both alternatives. Alternative 3 would provide an additional potential for short-term impacts through the off-site transportation of hazardous materials; however, these concerns could also be addressed through the preparation of a transportation safety contingency plan.

Long-Term Effectiveness and Permanence

The No Further Action alternative provides no long-term effectiveness and would result in significant risks to human health and the environment remaining at the site. This alternative provides no permanent remedy of site conditions.

Alternative 2 is an interim remedy that provides for extensive monitoring and maintenance activities to ensure its effectiveness for an estimated five-year period. It would be necessary to continue the interim action beyond that period, or implement a more permanent remedy, to provide long-term effectiveness and permanence.

Alternative 3 would be effective in the long-term because the most serious threats posed by the site would be removed for off-site treatment, processing, or disposal. The remedy is considered permanent for the sources of the contamination; however, additional measures would need to be taken to remediate the contamination potentially remaining at the site in other media, such as soil and ground water.

Implementability

There are no remedial measures to be implemented under the No Further Action alternative.

Alternative 2 is easily implemented and, in fact, is an extension of the removal action currently in progress at the site. The necessary materials and equipment are readily obtained. Sufficient personnel trained in the proper techniques are available.

Alternative 3 is also an extension of the removal action and provides for treatment and off-site disposal of material. This alternative is also easily implemented. As with Alternative 2, the necessary materials and equipment are readily obtained. Sufficient personnel trained in the proper techniques are also available.

Cost

Because no actions are taken, other than a one-time monitoring event to review site conditions after five years, Alternative 1 has the lowest present worth, which is estimated to be $38,000. Conversely, Alternative 3, involving the most comprehensive cleanup approach, has the highest present worth. It is estimated to be $18,261,000. The estimated present worth of Alternative 2 is $18,062,000.

State Acceptance

The State of New Jersey supports the preferred remedial alternative presented in this Proposed Plan.

Community Acceptance

Community acceptance of the preferred alternative will be evaluated after the public comment period ends and will be described in the Record of Decision for the site.

SUMMARY OF THE PREFERRED ALTERNATIVE

In summary, the preferred alternative is believed to provide the best balance among alternatives with respect to the evaluation criteria. Therefore, based on the information available at this time, EPA and the State of New Jersey believe the preferred alternative will be protective, will attain ARARs, will be cost-effective, and will utilize permanent solutions and alternative treatment technologies to the maximum extent practicable.

APPENDIX B

WHITE CHEMICAL CORPORATION
SUPERFUND SITE

Public Meeting

July 11, 1991

NAME	ADDRESS	PHONE NUMBER	WOULD YOU LIKE TO BE ON OUR MAILING LIST? YES	NO
Kevin Psarianos	New Jersey DEP Trenton NJ	609-984-3081	YES ____	NO X
Mark Smith	10 Archer Pl Fort Town NJ		X	
Rutledge Behnke	28 Spring Ball Rd Hurry Hill NJ 0803	1 802 879 5221	X	
John Hichley	36 [illegible]	675-6710		X
John Scagnelli	[illegible]	(201) 621-2230	X	
RF Ortlieb	2 Chelsea Rd Englewood	(908) 446 0909	X	
Boyce Reed	130 Dayton St		X	
Jessie Faulkner	117 Church Terr		X	
Mary F. Oldham	111 Church Terr 3A		X	
Nancy Rohn	Gateway 3 Newark	201-623-2626	X	
W. Treen Faure	"	"	X	
Olivia Jones				
Bellnice Clark	130 Dayton St	624-2565	X	
Lee Brown	31 Maplewood Ave	763-3956	X	
Alfred Ford	120 Dayton St			
Tom Feeling	124 Willows St, Bltd, NJ 07093	201-680-4452	X	
Simone Heinke	508 Bookside La Mushroom NJ 08876	908-281-0863	X	
Laurie Cook	147 Harrison St Nutley, NJ 07110	201-661-5124	X	
Percy Stanley	120 Dayton 10	64/30708	X	
Joe H. Breschen	40 Prospect St Clark NJ 07066	908 382 0511	X	
Janice M. Mintz	3000 Centre Sq. West Phila., Pa. 19102	215-972-7841	X	

WCC 001 0650

PUBLIC MEETING

U.S. ENVIRONMENTAL PROTECTION AGENCY

WHITE CHEMICAL CORPORATION SITE

Senior Citizen Complex
Newark, New Jersey

JULY 11, 1991
7:00 P.M.

AGENDA

I.	Introduction	**Patricia Seppi, Community Relations**
II.	Overview of the Superfund Program	**Robert McKnight, Chief Northern New Jersey Section I**
III.	Site Background	**Silvina Fonseca Remedial Project Manager**
IV.	Summary of Focused Feasibility Study (FFS) and Preferred Alternative	**Silvina Fonseca**
IV.	Questions and Answers	

OTHER REPRESENTATIVES

Mark Pane
On Scene Coordinator

Charles Walters
Agency for Toxic Substances and Disease Registry

PUBLIC MEETING

U.S. ENVIRONMENTAL PROTECTION AGENCY

WHITE CHEMICAL CORPORATION SITE

SENIOR CITIZEN COMPLEX

NEWARK, NEW JERSEY

TRANSCRIPT of the stenographic notes of the proceedings in the above-entitled matter, as taken by and before TAB PREWETT, a Registered Professional Reporter and Notary Public of the State of New Jersey, held at the Senior Citizen Complex, 120 Dayton Street, Newark, New Jersey, on Thursday, July 11, 1991, commencing at 7 p.m.

A P P E A R A N C E S:

FOR THE ENVIRONMENTAL PROTECTION AGENCY
Patricia Seppi, Community Relations
Robert McKnight, Chief, Northern New Jersey, Section I
Silvina Fonseca, Remedial Project Manager
Mark Pane, On-scene Coordinator
Charles Walters, Agency for Toxic Substances and Disease Registry

FOR THE STATE OF NEW JERSEY
DEPARTMENT OF ENVIRONMENTAL PROTECTION
Kevin M. Psarianos, Site Manager
Bureau of Site Management
Division of Hazardous Site Management

PROCEEDINGS

MS. SEPPI: I'd like to get started now, if we can. I would like to thank everyone for coming this evening. My name is Pat Seppi. I'm the community relations person with EPA in Region II in New York. And I would like to introduce the other people sitting at the table with me.

To my right is Charles Walters. He's from ATSDR, which is the Agency for Toxic Substances and Disease Registry. Next to Charles is Silvina Fonseca, who is the project manager for White Chemical; Mark Pane, who is the on-scene coordinator, also from E.P.A. He's been out at White Chemical for the past few months doing the removal action. And next to Mark is Bol McKnight, who is the chief of the northern New Jersey section I.

Now, the reason we have called this public meeting tonight is we have just finished an in-depth study called a "Focus Feasibility Study," where we have looked at the extent of the contamination at White and come up with some alternatives to cleaning it.

We have come up with three alternatives, and we have chosen the one that EPA

prefers. And we would like to present that to you tonight. However, before EPA makes their final decision, we would welcome oral or written comments from anyone who is interested. The public comment period is open for 30 days. It closes on July [sic] 2nd. If you have any comments to make -- did I say that? July 22nd, okay. Any written comments, if you see on the update, there is an address that can be sent to, to Silvina's attention.

Now, you notice that we have a stenographer here this evening. And we wanted to have a transcript of this whole public meeting. So we will ask that at the end of our short presentation, if you have any questions and answers, please state your name and speak up so that we can get that all down in our transcript.

Also, if anyone is interested in looking at any of the documents that relate to this site, they are in a repository at the Newark Public Library, which is on Washington Street in Newark.

Let's see, before we get started I just want to remind everybody to please sign in if they haven't. There is also an update over there that will give you a little bit of information on what's

going on. And, if you would like to be included on our mailing list, please just check that column, and we'll make sure that your name is put on our mailing list.

So I think, right now, we are ready for Bob McKnight. He's going to do a little bit about the overview of the Superfund program.

MR. McKNIGHT: Thanks, Pat. Thanks for coming out, everybody. We will try to do a fairly quick presentation for you. Before we get into the specifics of the site, I want just want to go over, real quickly, how the Superfund program works in a general way.

Superfund is a federal government program for cleaning up hazardous waste sites around the nation. White Chemical is one of these sites. EPA is set up into two programs. Well, Superfund and EPA are set up in two programs, removal programs and a remedial program. The folks who are going out on the site right now are with the removal program. They generally go out to the site and take care of the worst problems, problems that post an immediate type of threat if those things aren't taken care of.

The remedial side of the program

generally looks at the long-term clean-ups and the long-term risks associated with Superfund sites, and this just gives a real brief rundown on how it normally proceeds. Once we identify a site, the first step that we'll try and do is characterize the threat the site poses, and that's in the remedial investigation. We'll do that, installing groundwater monitoring wells, taking samples of the groundwater, samples of the soil, air, anything that needs to be done to characterize the threat to society.

Once we have characterized those threats, we will develop alternatives for addressing them and evaluate those alternatives in what's called a feasibility study. Once we have done that, we look at all that information and decide what we think is the best alternative for cleaning up the site. We will issue a proposed plan, and that will present EPA's rationale for recommending that alternative.

The proposed plan goes out for public comment. Following the receipt of EPA's evaluation of those public comments, we prepare a record of decision that selects an alternative for the site. That will be the plan to actually clean up the site.

What we will do then, we will go ahead

and design that alternative and then eventually move on to construction. In the case of the White Chemical site, however, we had to do things a little bit differently. Because we have such a serious problem on the surface of the site, which we are addressing as I said in the removal program, we went in, and we evaluated a limited number of alternatives just for addressing that particular problem. And we call that a "Focused Feasibility Study." That's what we are here to talk about tonight.

Following this work right now, we will be coming back to the site to do a full investigation of any other contamination that may be there. We may find soil contamination. We may find contamination of any ponded water that might be out there. Whatever it is, we'll try and do a thorough evaluation of that and develop an overall comprehensive remedy for dealing with that.

Once we have done that, we'll come back out to you. We'll tell you what we found. We'll tell you what the problems are and also have another proposed plan for addressing that and ask for your comments on that as well as have a similar meeting like this.

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So, tonight, the discussion is specifically about the surface contamination out there, the drums, tanks, the things that Silvina will discuss. With that I might as well turn it over to her and see what you can fill in on that.

MS. FONSECA: Thank you, Bob. Can everybody see that?

The White Chemical Corporation site is a 4.4-acre site located at 660 Frelinghuysen Avenue in Newark, New Jersey. It is currently an inactive facility. It formerly manufactured -- it formerly manufactured acid chlorides and flame retardant compounds.

As you can see in the slide, the facility is basically surrounded by three large manufacturing facilities as well as Newark Airport to the east and a large brewery. And there is a Conrail line that goes right by the site. Across Frelinghuysen Avenue, there is a large park and several housing complexes. Because it is in such an industrialized area of Newark, the daytime population within a quarter-mile radius of the site is approximately 12,000.

Basically, this is a more detailed map

of the site. And there are several buildings on-site.

Let me tell you a little bit of the history behind White Chemical Corporation and how we got started in this project. The New Jersey Department of Environmental Protection had received several complaints from the neighboring facilities. They conducted several investigations on-site and noticed that there were improper drum handlings on site; several containers were leaking; drums were in deteriorating shape. There were several spills recognized along the property line.

With this, the New Jersey Department of Environmental Protection issued some notices of violation to White Chemical Corporation. However, these were not complied with. When New Jersey Department of Environmental Protection went back to do a reinspection of the site, they had found that none of these notices of violation had been complied with. With this, the New Jersey Department of Environmental Protection decided to initiate a removal on-site to address the conditions that were found.

In August of 1990, however, the New

Jersey Department of Environmental Protection contacted EPA and asked us to consider doing a removal at the site. With this, EPA performed a preliminary assessment, which is, basically, a very brief investigation to characterize the site and identify the hazards that are on the site. They realized that it was necessary to perform removal on the site.

At the same time the Agency for Toxic Substances and Disease Registry, A.T.S.D.R., which is an agency that advises EPA, issued a health consultation. The consultation concluded that the site posed an imminent and substantial health and safety threat to nearby workers and residents.

In order to perform the removal action at the site, EPA forced White Chemical Corporation to halt its on-site activities.

Realizing the complexity of the site, EPA is taking a multi-phased approach in order to clean up the problems on-site,the first phase being the removal which is currently ongoing and which Mark is the on-scene coordinator at the site heading that removal program. And that's basically to stabilize the situation on the site.

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The second phase being the Focused Feasibility Study and having a rapid remedial response, which will address all the surface contamination. That includes all tanks, drums, laboratory containers, and any other forms of substances found on-site.

And then the third phase would be the remedial investigation and feasibility study. We will do that after the rapid remedial response in order to find out if there are other contaminated media, such as soil, groundwater, buildings and so forth. Once that is done, we will address those issues.

Our Focused Feasibilty Study, you know, brought us to the existing conditions. In the drums, currently, there are 6,700 drums that remain on-site. These drums have been staged and are segregated according to compability. 42 empty drums that were found on site have been removed. Approximately, 1,300 fiber-packed drums were put inside the building there to protect them from any weather conditions. 2,300 drums were overpacked. And that is -- basically, overpacking is just putting a drum that you find that is in bad condition and putting them in

new drums so that -- and contents of 200 drums were transferred to new drums. 190 containers that were found open, those contents were also put into new drums.

And presently the sampling has started on-site. They are sampling the drums. Approximately, 1,400 drums have been sampled, and about 3,000 samples have been taken. On-site, there are 126 tanks, and that includes storage tanks, vats, and reaction vessels. Out of 126, 55 were found empty, and the remaining 71 have been sampled.

The contents of seven of the tanks have been removed and sent out off-site for disposal, and the contents of two tanks were taken off-site by the manufacturer.

And here you can see some of the chemicals that were found on-site. This is just a small example of what we found in the tanks on-site.

MR. HICHLEY: Would you leave that last one up there.

MS. FONSECA: Sure, no problem.

MS. SEPPI: Do you want to try to pronounce them?

MS. CLARK: Can you tell us what you

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know about them; what are they, and what they do? Whether they are combustibles?

A VOICE: The first one is very dangerous.

MS. FONSECA: Phosphorous trichloride is what he said; it's very dangerous.

MS. CLARK: Okay. The first one you've got it, too? I have questions on the last three slides put up there.

MS. SEPPI: Okay. Sure, we can go back to any slide that you want. That way, you can stand up and give your name to our stenographer so that we'll have everything on record. I will put this one aside.

MS. CLARK: The two before, too.

MS. FONSECA: The two before that, too. Okay.

On-site, there is a laboratory. In this laboratory, there were approximately 12,000 small containers that were found. These containers are less than five gallons. They have also been staged and segregated according to the compatibility. The contents of 50 percent of these containers, however, are unknown. That's due to either having

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three different types of labels on them or having no labels on the containers. Shock-sensitive material has all been isolated in one building.

These are some of the types of chemicals that we have found in the labs.

MS. SEPPI: I'll put that one aside, too. Okay.

MS. FONSECA: The Focused Feasibility Study looked at three remedial alternatives, the first alternative being no further action. We basically use this alternative as a baseline in order to have a comparison for any other alternatives that we choose to look at.

The second alternative is site stabilization and on-site storage which is a continuation of the removal action that is ongoing. And, basically, it addresses the conditions on-site by segregrating of containers and separation of containers. It's stabilizing the materials on-site and keeping them on-site until a subsequent and final action is initiated to remove these containers on a later date.

The third alternative is site stabilization and treatment and off-site disposal.

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And that's basically also a continuation of the work that's going on right now. However, it is slightly modified in that all the materials that have been found on-site will be taken off-site to a regulated facility for disposal.

These three alternatives are evaluated through these nine criteria. Each alternative is looked at individually and examined by these criteria, and then the three alternatives are basically weighed. And the one that has the best overall potential for human health and the environment is basically the preferred alternative.

MS. CLARK: That one, too.

MS. SEPPI: Sure.

MS. FONSECA: Basically, let me just add also that, if there's any additional information or detailed information that you need on any of these slides, you can find that detailed information in the Focused Feasibility Study and the proposed plan which is located at the repository at the Newark Public Library at 5 Washington Street in Newark. So you can take your time and read it in-depth. And we also have some copies here if anyone is interested.

The preferred alternative, which is

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discussed in the proposed plan, is the third alternative, site stabilization, treatment, and off-site disposal. Basically, the components of this alternative are site security, which presently we have on-site. We have a security fence as well as 24-hour security guards on-site. And this will continue throughout the whole process.

Staging and segregration of containers, that's basically been completed up to a certain degree. Of course, as you are going through this process of cleaning up the site, you encounter containers that have also started to deteriorate, and you will need to segregrate and stage that.

Let me explain maybe a little bit on segregration and the staging part for people who are not familiar with that. The staging and segregration is taking whatever is on-site. For example, if the drum is found in bad shape, such as having rust or corroded away, having holes in it where the chemicals might leak out of it, that is put into a new drum which would prevent all of that chemical that's in the drum from going onto the soil.

If the container is in such bad shape that it cannot be picked up and put into a new drum,

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the contents of that container will be taken out and put into a new drum. That container will be disposed of properly. It will be decontaminated and sent off-site to a regulated facility for recycling or disposal.

So if the treatment -- the chemicals on-site, substances found on-site, we can have several ways of dealing with the material: one of the ways being treating the material on-site, either neutralizing it; or off-site disposal of the material, taking the material and sending it off to a regulated facility for recycling the material. If the material is in a product form, of course, it can be recycled; and we will of course use this technology if it becomes available.

The emergency and response contingency plan, that is also in effect, you know, right now. We will continue with that until all chemicals have been removed off-site. This is basically, in case of an emergency, we have devices that can alert the neighboring facilities around, the workers of the neighboring facilities around the site, as well as the workers on-site. And there is also a technology that we have to alert the citizens around the site.

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If you want to go to the slides now? We are going to just show you some slides and what the progress was from the initial conditions of what we found when we got on-site to the work that has been going on to the final condition -- not the final condition -- to the present condition that it's at.

These are the conditions of the site when we first found it. As you can see, the improper drum storage, two- and three-tiered columns of drums, and the condition of the drums were really -- were really bad. This is one of our workers. They are -- right now, they are at level "B" protection.

As you can see, the vast amounts of drums that are located on the site, and these are some of the conditions that we found those drums in. As you can see, some of the contents of the drums have begun to pour out because of either exposing the drums in weather conditions and having them rust away, and holes will become apparent on the drums. And then the chemicals themselves will start to leak out. And here is another drum.

These are the laboratory materials that we found. This is the condition of -- some of the conditions that the containers were found in. They

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were just basically on shelves, and they were just stored totally haphazardly.

Now, our workers have gone in, and they have started to take down the columns of these drums and kind of make them all in one, one layer of drums. And these are the conditions that they were working under. And, again, you can see how many drums and the tight spaces that these drums are stored in.

MR. HICHLEY: Are all the drums filled? Are all drums filled?

MR. PANE: About 60 percent.

MS. FONSECA: About 60 percent. Here, as you can see, these were -- the yellow drums are the overpacks. Those are the drums that we use to put the old drums in to prevent the material from leaking off of any deteriorated drums.

That is what the site presently looks like. As you can see, a lot of work has been done at the site. All -- like I said, all the drums that are left on-site have either been overpacked and staged and segregrated. And you can also see some of the tanks that are also located on-site.

This is the sampling that's going on. Some of our workers, this is them taking samples of

the drums. Here's a sample, and this is what we do -- when we take material contents out of a drum that can not be overpacked, what we do is we wash the drum. We decontaminate it, and we send the drum off to an off-site disposal facility, or it is recycled if it can be recycled. And that is it.

The preferred alternative is basically estimated to take two years to complete to the full extent of the alternative as well as it will be estimated as a cost of 18.3 million dollars to complete all of this, I think.

MR. HICHLEY: How much has been spent already? Does that include the 18 million; is that in addition?

MR. PANE: Grand total 18.3. Right now, we are up around three-five.

MR. McKNIGHT: We are going to open it for questions in just a second. But just to summarize, what we are proposing to do right now is continue the type of work that's going on out at the site right now to make it safer than the way we found it, so it's certainly a lot farther along that way already.

We'll also go a step further and we

will take that contaminated surface material off the site for safe disposition somewhere else, whether it's for recycling or disposal. And we will come back to the site once that's completed, and we will investigate the other potential problems that might be out there. So if you can state your name for the record, we will be happy to try to answer your questions.

MS. CLARK: Laverne Clark. The last time you were here, you were talking about when you were getting ready to move the drums, if there was any you would let us know before you moved them. But you moved them anyway. But you didn't let us know.

MR. PANE: These were the empty drums.

MS. CLARK: The ones that you were talking about were contaminated, that you moved off-site.

MR. PANE: The drums that were on-site, we decontaminated them. That was the last slide that you saw after all the material was washed off. All the material that was generated during the decontamination is still on-site. The empty drums are just empty drums. They don't contain any waste product at all. They went off-site for recycling.

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So it's -- no contents have left the site as hazardous waste.

MS. CLARK: You're saying none of the fumes got in the air around there?

MR. PANE: I didn't say that. I said that none of the drums that left the site contained product?

MS. CLARK: So did it?

MR. PANE: The air quality gets tested on a regular basis. We do air sampling everyday, so there is that -- there have not been any -- there haven't been any type of air releases from the drums that have been on-site. And we do routine air monitoring on a daily basis.

We have also taken extensive air samples. We do want to protect the health and safety of the people that are intimately involved with the work on-site. We have had a very expansive air monitoring program, taking air sampling under different weather conditions, different wind conditions, every type of condition that we can think of. We really found nothing above background level as far as emissions.

Like I said, on day-to-day operations,

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the first thing we do in the morning is go out and air monitor. And every area that the workers are in, we have air monitoring in. We have a dedicated site safety officer. One of his functions on a daily basis is to conduct air monitoring. So that's what we do to address those types of issues.

When we do take materials off-site, is there a mechanism in place for notifying? At the last meeting, how did they set up the notifying about the material off-site. Is there a community leader?

MS. CLARK: At the first meeting, y'all was talking like it's an emergency alert that we had to be alerted for these chemicals over here because of the fire department and everything.

MR. McKNIGHT: A lot of that was that we were trying to take the precaution, not so much that we thought something would happen. We wanted to let everybody know if something did happen that we did have a procedure set up to address that. And I guess part of that -- I wasn't at that meeting -- but I guess part of that was notification posts in the area, and we can certainly go back and find out who was supposed to be notified. We will follow that procedure when we do move the material.

MS. DEBNAM: My name is Mary Debnam. There was a meeting over there. And we were told that, in the event that something did happen, the housing authority would be notified, also the school, and then they would notify us as to what was going on or how we would have to be taken care of.

MR. McKNIGHT: In that emergency, they will do that.

MR. PANE: You know, we have what they call the Community Alert Network. And what that does is that allows us, if we have any type of response that we need to notify the public, it's a rapid dialing telephone system; we can just punch in a code, and it'll automatically dial, I think, up to 2,000 numbers in ten minutes. And that will notify all of the surrounding businesses and notify the fire department and the housing authorities and key individuals within the community, the special -- we had sent out a survey of people that needed special assistance in the event of an emergency.

So that system is in place. So if we need to make any contact with the neighborhood, with the surrounding facilities, we have that capability. We haven't had to use it. I hope that we never do.

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But the capability of contacting the surrounding facilities and the residents, we have that capability.

MS. DEBNAM: One of the concerns of the community was, at one time, they notified some of the factories. Some of the people that live in these developments work there. They were told to take a long lunch period. They were concerned about their children in schools in case of an emergency, and we in the apartments didn't know what was going on until the next day.

MR. PANE: That was the -- the way the yard is situated, they were working in one particular area, and the wind conditions were blowing right into that factory. I think it was -- was it the handkerchief factory where they were working?

MS. DEBNAM: It was all the factories all the way down.

MR. PANE: That may have been just a precautionary measure. What happens is if you have any type of airborne contamination, you go the extra for protection. It's not necessarily that it's a serious problem. But why leave yourself open?

So the immediate area around the

facility was the immediate concern. If it gets beyond that, with the dilution factor, it really wouldn't pose any significant problem, anything outside the immediate area around the facility. That was probably the rationale behind that. I wasn't available. I wasn't here for that. But I am sure that was the reasoning behind it.

If there is any release that we deem as being possibly harmful to you the surrounding neighbors, we do have that Community Alert Network that we can contact. The fire department is aware of it. The police department, the housing departments are all aware of it. We have rehearsed it. We have regular communication with the local authorities so that if we do need to notify the surrounding community we can. So that's all I can say on that. If we have to, we can.

MS. SEPPI: Any other questions?

MR. SMITH: Mark Smith. The question, the percentage of drums up there, can you characterize what percent would you say is raw materials, end process, finished product, and hazardous waste from off-site that was brought on?

MR. PANE: 6,700 drums roughly are

remaining on-site. Most of the material in the yard, probably close to 5,500-6,000 of those drums are waste that cannot be characterized any other way. There are probably about six or seven hundred drums stored inside the buildings that Mr. White may consider product. He may have had customers for it at one time. So that's probably the general breakdown.

MR. SMITH: Is the hazardous waste all generated by White chemical, or is it brought-in material from off-site.

MR. PANE: We have no way of knowing how the material arrived on-site, only that it is on-site now. And that's how we are addressing it. There is really no way of -- there are no markings on the drums to indicate that they came from elsewhere.

MR. SMITH: So there is no evidence that he was bringing in hazardous waste to make money?

MR. PANE: Not to my knowledge.

MR. SCAGNELLI: John Scagnelli. The preferred alternative calls for on-site treatments. Can someone explain what would be contemplated in

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that?

MR. PANE: On-site treatment can mean a few things. If it's an acid or mild acid that we can neutralize on-site just by adding the base to it and making the pH level and possibly discharge to the Passaic Valley Sewer Department, that would be one on-site treatment.

Another on-site treatment could be if you have a specific waste stream that we want to ship off-site to an incinerator, if we don't meet the parameters of the incinerator, we may have to do some type of pretreatment on-site, such as either removing metals or reduction of the pH or raising the pH as necessary for the facilities to accept it.

Any type of on-site treatments will not be very extensive because we don't want to start doing any on-site treatment that is going to open us up to any type of problems on-site. We would rather ship it off-site to regulated facilities and have them address it.

MR. SCAGNELLI: So should I take that to mean that there is no thought being given to on-site incineration?

MR. PANE: Not to on-site incineration.

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That's -- in this type of situation with the population that we have here, the risk factor involved is not -- it's not a preferred alternative.

MR. SCAGNELLI: One final question. Have any off-site disposal facilities been identified yet or in some contamination -- given what you know about the waste materials?

MR. PANE: We have been contacting several facilities. We haven't made any selection. We haven't shipped anything off-site, yet, but it's a lengthy process. You know, it takes several months to get disposal approvals, to get all the necessary permits and requirements and line up transportation. But, yes, we are in the process of investigating off-site disposal facilities.

MR. SCAGNELLI: Can you tell us specifically what the names are of several of the facilities that you are speaking to?

MR. PANE: It's not really -- we haven't made any definite selection, but there are only a certain number of facilities that can be utilized. If you want to know specifics, I can tell you. I don't see what value that would have.

MR. SCAGNELLI: I would be interested,

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if you wouldn't mind.

MR. PANE: Rollins, R-o-l-l-i-n-s, Environmental; Chemical Waste Management; ThermalChem, to name a few. Of course, every one of these facilities is regulated, and they are in compliance with all EPA off-site disposal regulations.

MR. SCAGNELLI: Okay. And would they all be incineration facilities?

MR. PANE: Again, I don't want to narrow it down to just incineration. We'll choose the most cost-effective method of disposal. I am saying incineration as a general term. We may do some sort of a fuel reblending. We may do some sort of a solvent recovery, vapor recovery, depending upon what the waste stream is; and we don't know that information just yet. That will determine what type of disposal methods we choose, and that will also determine the facilities that we utilize.

MS. ROHM: Nancy Rohm. Can you describe the degree of activity undertaken by the New Jersey Department of Environmental Protection? And you mentioned that there was a drum-removal activity, and the degree to which funds were expended by the

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State as opposed to Federal.

MR. PANE: Kevin, do you want to --

MR. PSARIANOS: Bob.

MR. McKNIGHT: I was just going to say, to our knowledge right now, we don't obviously have all the State records. What we have mentioned in the proposed plan is that they took approximately 1,000 drums off of the site, and they then reached the project ceiling with $825,000. But for specifics about how they expended and what it went for, you really have to contact the New Jersey Department of Environmental Protection.

MR. PSARIANOS: My name is Kevin Psarianos. I am with the State Department of Environment Protection. I wasn't personally involved with the activity that occurred up until August of 1990, but I can give you a little bit of indication that the majority of the efforts that the state did when they started working with the site were much in the nature that EPA is doing at this time. They began with some segregration and classification study listings and then essentially made their way in that process. Then they approached the USEPA to find out whether the USEPA with their very extensive removal

program would, in fact, be amenable to taking on this option.

MS. ROHM: Do you know whether the full funding authorization was utilized.

MR. PSARIANOS: I don't know that.

MS. ROHM: Do you know who the contractor was?

MR. PSARIANOS: No, that I also don't know.

MR. PANE: S & D Environmental Engineering.

MR. PSARIANOS: Was it S & D? I don't know.

MR. SCAGNELLI: Along the same lines, was there any sampling of drum contents done by DEP in connection with its drum removal effort?

MR. PSARIANOS: I don't know. I am not familiar with that. If there were some removal actions that occurred in those drums, I am sure that they were sampled in accordance with the requirements of the Research Conservation Recovery Act.

MR. SCAGNELLI: That presents a question to EPA. Was there any effort to obtain any sampling results or review any sampling work

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conducted by DEP in connection with EPA's own removal action.

MR. PANE: If you are referring to if we resampled the same drums that they sampled -- now, about the drums that they sampled, if they did, they were removed. When we started the site, we started fresh with no duplication of effort in sampling.

MR. SCAGNELLI: Do you know if DEP had sampled drums beyond the 1,000 drums that were taken off the site?

MR. PANE: To my knowledge, DEP didn't do any extensive sampling beyond what they removed.

MR. PSARIANOS: That is in keeping with my understanding, also.

MS. ROHM: Something that was said, earlier I want to make sure I was clear on it. Did you state earlier that all the drums that USEPA removed were empty? Or was it mixed, some empty, some not?

MR. PANE: No, the 4,060 drums that were removed were empty.

MR. STANLEY: My name is Percy Stanley, president of the tenants' association here. How dangerous are these chemicals to the residents in the

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area here and the senior citizens in the area here?

MR. WALTERS: That's a real good question. And to answer the question, the chemicals, the list is a witch's brew of very hazardous chemicals. Okay. You have to put it in perspective though, that the bad stuff has to go through air, water, soil or the food chain to get to people to do any damage.

So while on-site there were and still are a significant amount of very hazardous materials, the -- one of the main purposes of EPA is to prevent that stuff from getting into contact with the people. So they have instituted any number of measures including air monitoring that they have described before. They staged and separated chemicals that can react with each other to produce a reaction that may start a fire or generate gases that can be toxic to people.

I guess the generic answer to your question is there is a lot of bad stuff there, but from everything that we can see and can determine now EPA and DEP have been able to keep it from getting to the people.

MR. STANLEY: There's no specified time

when these chemicals will be removed then.

MR. PANE: We have a general schedule on how we want this material to be shipped off-site. It's an involved process. You just can't take the material from one place and send it. You have to analyze it and make sure the facility that you are sending it to is capable of properly handling it. So we are estimating, as Silvina has said, we are estimating that we will have the bulk of the material off-site by April or May of '92. That's what we are shooting for.

MR. STANLEY: Okay. Thank you.

MR. HICHLEY: With respect to your last answers, sir, on the water, where is the nearest water source, sir? For these people where is the drinking water?

MR. WALTERS: This is municipal water.

MR. HICHLEY: How many miles away, if you know?

MR. PANE: Probably not more than three or four miles. I think the main -- the water is groundwater --

MR. HICHLEY: Isn't it from the Wanakee [phonetic] reservoir? That's about 30 miles away.

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MR. WALTERS: Given how highly regulated municipal water is, it's tested at a minimum quarterly; and I think DEP can attest to this. Once we determine that a given population group is on municipal water, what's occurring there is really academic in terms of a groundwater contamination. It's certainly not potable in and around that site, but the municipal authorities are regulated by the State. We are not really concerned with that pathway.

MR. HICHLEY: And the following question I had was, of the 6,600 or 6,700 drums that remain on the site, are they all filled?

MR. PANE: The 6,700 drums are filled. That's correct.

MR. HICHLEY: Are they filled with hazardous material?

MR. PANE: They are filled with material. Whether they are hazardous or not, that's what we are in the process of identifying right now.

MR. HICHLEY: Has there been any identification process gone into during the period of either the State stewardship or yours?

MR. PANE: That's what we are in the

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process of doing right now. We are doing the sampling and the analytical work to determine the qualities of the material.

MR. HICHLEY: So in some of the finished drums -- this is my concern. I am especially concerned with some of the original statements made in the newspaper organization by the State with respect to mercury. I haven't heard anything about mercury on the premises. These were statements made by Mr. Max Donahue [phonetic] in the Star Ledger.

MR. PANE: As far as mercury contamination, we haven't come across any mercury compounds. The main constituents that we have been running across are bromine, bromine compounds, a lot of acid chlorides and material like that. As far as mercury compounds, it hasn't been much there -- hasn't been any that I know.

MR. HICHLEY: Another concern that I have that I have been asked to direct through our security people, you indicated that the State initially instituted security around the perimeter, total security, 24-hour security, correct?

MR. PANE: I don't know if the State

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is --

MR. PSARIANOS: That I'm not sure about, too.

MR. PANE: EPA has.

MR. HICHLEY: When did EPA start there?

MR. PANE: September.

MR. HICHLEY: From September through Christmas, our security people tell us that the homeless were living in there.

MR. PANE: That's not true.

MR. HICHLEY: Were you on-site at that time?

MR. PANE: I was not on-site, but my predecessor was, and she reports --

MR. HICHLEY: That was a lady, right?

MR. PANE: Paula Cammarotta [phonetic].

MR. HICHLEY: I think she was aware. I think the record will reflect that the homeless were living there for quite sometime. It was a concern to us.

MR. PANE: There were some reported break-ins in the back of the facility running along the railroad tracks, and we had a lot of people who were able to cut through fences and take up residency

in some of the site buildings. The fence has been repaired. We have put razor wire on the back, and we have security that enters into the hot zone on an hourly basis when we are not operating to make sure that that doesn't happen.

I know I took over the project on April 1st, and we haven't had one report of the information or seen any sign of a break-in or of the homeless living there. I know Paula had reported several incidents of break-ins, but as far as people living on the site --

MR. HICHLEY: That's what our security people tell us. It was an accepted fact by the people on the site.

MR. PANE: You have me at a disadvantage. I was not aware of that fact. I know they had break-ins. That I was aware of. As far as people living on-site, I tend not to --

MR. HICHLEY: My pont is, the security wasn't very much.

MR. PANE: Well, I can say in a high degree of certainty that since April 1st when I took over --

MR. HICHLEY: I'm sure.

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MR. PANE: -- we haven't had any break-ins at all.

MS. CLARK: Getting back -- Laverne Clark. Getting back to the water, when was the last time y'all tested the water?

MR. PANE: The water supply is provided by the municipal, and they -- there is no connection between -- when we say the water resources on-site, we are referring to the groundwater. Okay. The groundwater is a separate source of water than water that you get at your tap. The water you get at your tap comes from that public supply which is monitored by the water authority, and -- they are not drawing water from White Chemical and piping it to your homes. That is coming from a completely different source.

MR. REED: How often can you test water? Can you test it from your faucet?

MR. McKNIGHT: The city itself tests the overall supply. They do that on a regular basis. They are required to do that, so they know that the water is a good quality.

MR. HICHLEY: John Hichley, again. That -- yes, the water isn't supplied, isn't affected

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by this site?

MR. PANE: No, not at all.

MR. HICHLEY: That's why we moved to Newark. All the breweries are in Newark, good water. I have been on the site since 1950.

MR. PANE: 1950?

MR. HICHLEY: Right.

MS. SEPPI: Anybody else have a question?

MR. BRAUM: Lee Braum, B-r-a-u-m. regarding the possibility of groundwater contamination during the removal, has there been, I guess, noticeable stains on the soil? Does it indicate that there might be frequent spills or occasional spotting?

MR. PANE: There are indications that there were spills on the site. There's evidence from soil staining and just the general condition of the drums. You can tell that a drum had split open, and there is nothing left in the drum. It obviously went into the ground.

MR. BRAUM: Those areas are just soil? Or concrete or asphalt or something so it would at least have been contained?

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MR. PANE: No, part of the tanks have bermed areas around them, so any spills inside the tank areas would have been caught by the berms. The drums that he had staged out in the yard, there is no containment method on them at all. The area is a combination of paved and dirt. So if it was spilled in the yard, you know, it may have been contained, or it just was spread out over an area. There is really no containment method off-site.

MR. BRAUM: Another question relating to the selection of alternatives for -- it talks about there is still an imminent threat -- there was "imminent" or some other word -- but the concept is the same. If a lot of the drums have now been overpacked or contained or segregrated and lab material has been segregrated or classified in some fashion, hasn't the -- in terms of the immediacy or imminency or threat, hasn't that been reduced by the current activity? And that may affect the need to really take immediate action or to select the alternative that has been selected.

MR. PANE: The threat has been reduced, but since we are not going -- not going through and sampling each drum for the purposes of finding out

what it is and what precautions need to be taken for it. We are sampling the drums for disposal parameters, and there is a difference in that we don't want to know what the material is, per se. We just want to know what we need to do to dispose of it.

So, even though, yes, the drums have been overpacked, they have been staged, and they have been sampled, that doesn't reduce the threat that that drum may at any time react or reach its expiration date or react with any other drum that we have staged on-site. So the threat has been reduced significantly, but it hasn't been removed. We don't have enough information on each drum to say, okay, that drum is stable enough to stay there for an indefinite period of time while we investigate further.

That's why we are sampling and disposing. That is the only method that we know of or available actually that we can say with, you know, 100 percent certainty that, yes, we will remove the threat.

MR. FAURE: Warren Faure, F-a-u-r-e. You stated earlier that a large percentage of the

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drums on-site now are waste. How did you come to that conclusion, as opposed to being raw material?

MR. PANE: Well, the raw materials are generally either finished product, or they have labels indicating what they are. Mr. White's operations, from what I have been able to observe and from what we have been able to identify from the sampling, he, during the production of his chemicals or whatever he produces, his acid chlorides, whatever waste he generated, he drummed up is staged in the yard.

Now, the waste is different from the product. The product physically are in cleaner, newer drums, the 55-gallon blue polyethylene drums, whereas the waste material staged out in the yard completely rusted and rotted away, half of them didn't have the lids sealed properly. Many of them were corroded, stacked three and four levels high.

So that was why -- I mean, just from an operations point of view, his product, he was staging inside the building because that was his source of income. His waste, he staged outside because he had no use for it. But that's the basic differential between the two.

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We have encountered some drums outside that are labeled, and we have segregated those out with the hope of recycling, namely phosphorous acid. We found several drums of that, just as an example to distinguish between waste and product.

MR. FAURE: Did you inquire with Mr. White as to whether that determination was correct, that most of the --

MR. PANE: As far as his operation, that's correct.

MR. FAURE: He said, "This is all waste out here"?

MR. PANE: He never said the word "waste." He said that this is the material that he cannot resell, or this is not material that he had for sale. He pointed out the product or areas where he had stored product or what he planned to sell.

MR. HICHLEY: It's my understanding from when I became quite concerned with the newspaper articles back in early April or late March of 1990 that we sent people over; and, in accordance with the first slide I think you showed, stacking all those bad drums stacked high, you said that the bulk of these drums were empty?

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MR. PANE: We have removed over 4,000 empty drums.

MR. HICHLEY: They're the outside drums on that, shown on that first slide. We have some slides in our office also which I'll make available to you.

MR. PANE: What was the question? I'm sorry.

MR. HICHLEY: The first slide that was shown is described as all hazardous materials and waste. We showed our concern at that time, stacked real high, all rusty, old drums. There was no waste at all in most of them. They were empty drums.

MR. PANE: No, these were the initial conditions. We didn't say they were all hazardous waste.

MR. HICHLEY: I thought that the presentation of that slide -- that was the explanation.

MR. PANE: No, the first slide was just to demonstrate the initial conditions of what the site looked like. Of the drums left on-site, they were all full.

MS. SEPPI: You've got a question?

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MR. BRESCHER: My name is Joe Brescher, B-r-e-s-c-h-e-r. Is Mr. White being considered as cooperating in this, as far as identifying substances so you don't have to go with the expense of testing procedures to find out what's in there?

MR. PANE: Yes, as a matter of fact, I spoke to Mr. White today. Yes, he has. Any information that we have requested of him as far as type of waste that he has on-site, and, even some of the sources that he at one time utilized at one time for disposal, he has supplied us with that information, so he has been cooperattive in that sense.

MR. BRESCHER: Some of the things that you've found on-site, are they in accordance with the things that he was manufacturing? Someone asked the question, about were certain things being brought on-site. In other words, he was making flame retardants, chemicals, and -- his place of business, was anything found on-site that would not normally have been found there in that type of manufacturing business?

MR. PANE: I hesitate to say that because we haven't fully characterized the entire

material that is on-site, but what we found to date, the type of waste that we have been able to identify, it is consistent with the manufacturing process that he had installed at his facility; but the qualifier on that is that we haven't completed the identification of all the materials. But, to date, it has been consistent with his production.

MR. BRESCHER: Up to now everything is consistent and it doesn't look like he was filling up an area and getting ready to abandon it and to leave, like it's been happening so often in this neck of the woods, taking a warehouse filled up with drums and --

MR. PANE: All I can say is that the wastes that we have found up to now are consistent with his production.

MR. BRESCHER: Is there going to be any type of remedial work for the groundwater underneath, because eventually this groundwater will be flowing into the Newark Bay, New York Bay, and eventually down through the hook to the coast?

MR. PANE: That's going to be the longer-term study by the remedial program. Silvina will address that. They were put in monitoring wells to determine the local groundwater flow, take samples

and see if the groundwater has been impacted and to what extent and determine the treatment technology, if such is necessary.

MR. HICHLEY: I was just going to comment that I am glad you brought up that point. As you are looking at materials, drums, and the problems at hand and the real analysis of what was going on in the years before with the predecessors to Mr. White and what's in the soil, you haven't done any of that yet?

MR. PANE: Right now, it's physically impossible.

MR. HICHLEY: I understand that.

MR. PANE: The yard is covered, but that is part of the overall process that EPA is going to take. The first phase or the first tier of it is going to be the removal action. We need to go in there and address the drums, get rid of those, get rid of all materials in the tanks that -- once we get the yard cleared, we have then an -- we can go in and put in monitoring wells and address the soil contamination.

MR. HICHLEY: You can check into those things to see if they are White's or someone --

MS. ROHM: Getting back to the discussion of the contents of your various drums, your response was really focused on product versus waste. How about raw material? When you say product, I interpret that to mean White Chemical finished product. What about his raw materials?

MR. PANE: Raw materials, there have been quite a few. As a matter of fact, we have undertaken a pretty extensive recycling program. We have shipped off 8,000 gallons of hydrochloric acid within the past week to a facility that had a use for it. The same thing with the xylene. There was probably about 6,000 gallons of xylene going out as product, not as waste but as product, to a facility that had a use for it.

So, yes, we have identified raw materials on-site, and, yes, we have put that material through back into the system. We haven't had to dispose of it. We've just been able to recycle it.

MR. SMITH: Have you been notifying each of these raw-materials suppliers that this product is on-site?

MR. PANE: That's correct. We call

them. There is a waste exchange brokerage, and some of the contacts we have got through there were through Mr. White himself -- contacted them, let them know what the source of the material was, sent them a sample of it to ensure the quality was consistent with what they were to expect.

After their approval we would then check them out through our compliance offices. Some of the material went down to Philadelphia, which is in Region III of EPA. We called up there to Region III's compliance people, to check it out with them to make sure the facility receiving the product was in compliance with all EPA regulations and that they were not going to, you know, misuse this material.

And after they cleared our compliance people in Region III, they sent up a truck, and they off-loaded the material. And it's being utilized.

MR. SMITH: A follow-up on that question, the phosphorous trichloride that was up there, is that off-site now?

MR. PANE: Yes, Rhone-Poulenc, they recycled that material.

MR. SMITH: They took it; so it's off-site?

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MR. BRESCHER: The address for written comments is at the top of this page, right here; is that correct Federal Plaza, 26 Federal Plazà, New York, okay.

And I wanted to know, also, the drums that are on-site right now are all of them put in the oversized polyethylene plastic ones?

MR. PANE: Only the ones that we deem that are unstable, "unstable" being structurally or the material inside, pose a problem. I think of the 6,700, I think there are 38, 42 percent had to be overpacked. It's quite a bit, almost half. As you saw by the picture, you see a sea of yellow.

MR. BRESCHER: Actually, this was in my next question. If there are any changes, do you have another public hearing for it? Or is this going to be available at the library or something.

MR. PANE: The documents are available at the library. The slides, if you want to stick around, at the end we can run through them again. There's only 12 slides.

MR. HICHLEY: I had my secretary call the library. There is a federal section. To facilitate anybody going in there, this is the New

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Jersey section. If they go, go in the library into the New Jersey library section, not the federal section. No one to date has been in the library for it. This was the first inquiry made. A man quite familiar with the documents said no one to date has been in to look at these documents, not one person.

MR. PANE: Silvina and I were there last week to update it to make sure that everything that was supposed to be in there --

MR. HICHLEY: Apparently, my secretary conveyed the man was very conversant with the documents. The federal guy didn't know what we were talking about in the library.

MR. BRAUM: I was actually there about a month ago, and it took me a half an hour to find where it was because I went to the second floor, the federal repository. Finally, I ended up on the third floor, New Jersey repository. That is where it is, on the third floor. And they were -- they had the materials there, so it's on the third floor area; that's where the documents are.

MR. FAURE: Warren Faure, F-a-u-r-e. Are you going to make a final determination as to what wastes are on-site in the barrels; such as,

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"These are bottoms from a distillation process. This percentage is, you know, waste from some bromide manufacturing process. This appears to be this."

How will you determine what those wastes are and the percentages? I would think you would have to dispose of them. Some will go one place. Some will go another.

MR. PANE: That's correct. As far as the identification of the origination of the waste, we are not -- we don't have the luxury or time to sit down and examine the entire process. We will sample the material and analyze it for disposal characteristics.

As far as, again, the origination of the material, we are not concerned with that. That's not protective of human health to find out where it came from. The issue at hand is that it is there. It's posing a health threat, and we are going to dispose of it.

We will have a tabulation at the end from our manifest as far as the waste classification that we assigned to the materials and the quantities. We will know exactly how much material we shipped off-site, where it's going, when it went there, when

it arrived, and when it was destroyed. But as far as origination of the material, that's really not pertinent to our actions.

MR. FAURE: A follow-up to that, can you elaborate on what the materials DEP removed were and where they went?

MR. PANE: Being in a different agency, I really don't know.

MR. PSARIANOS: Also being new with the group, I couldn't necessarily tell you.

MR. PANE: If you want to give us a couple of days and give us a phone number, we can contact the State and get you some information on that. I don't have that information available with me.

MR. FAURE: Okay. Thank you.

MS. CLARK: How are these drums -- that's in the yellow container, how are they being protected from the heat?

MR. PANE: Well, the drums themselves, they are built to withstand -- there are different types of drums, "17-H"s and "17-E"s, just a classification of drums. They are steel drums, so they can withstand the elements for a given period of

time. When we went through originally and identified the drums, if the drum showed any type of rusting or any sort of inconsistency in structure, it was overpacked. If the drum is in very good condition, it's left alone.

As far as exposure to heat and the elements, they can withstand quite a bit, and we are in the yard everyday. We review the situation everyday, and, if a drum starts showing any indicationss that it's rusting or otherwise structurally unsound, it gets overpacked.

It's just a matter of economics. You can't overpack every drum if you don't need to. Why fix it if it's not broke? So we review it daily, and if anything develops we can take care of it.

MS. DEBNAM: Mary Debnam. Again, may I ask, since this site has been found, there are a lot of factories in this area. Is anybody monitoring to see whether we have something stored some other place close by, any agency?

I personally -- my mistake, I didn't document it. About two or three years ago, I contacted Hank Martinez [phonetic], president of the city council and asked him if he would have someone

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to check all of these sites because there is -- even in the development where we live, people are coming in depositing stuff. You know what I mean?

So I am sure with a lot of vacant places out here and some that are being used sometime at night, no security, the possibility of some stuff being stored -- you know, everything -- Newark is the dumping ground for everything, you know.

MR. PANE: There are a lot of active facilities around. As far as a comprehensive plan of air monitoring, the City of Newark has that kind of fall-out, the scope of which we can't address here. I don't really have a good answer to that question.

MR. HICHLEY: In line with that lady's last quesiton and your answer, the area is zoned heavy-industrial, hazardous. You are only concerned with 4.4 acres of that zone. That lady is quite right, that the balance of that zone and some of the other manufacturers may need some looking at also. And when you get into the soil, they may be contributing factors as also any predecessor.

MR. PANE: That seems to be a much larger issue than we can address for this site right now, something that if Mr. Martinez -- is he still

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the president?

MS. DEBNAM: No, they just changed the president.

MR. PANE: If you can contact him or have him contact EPA at a higher level than this, maybe we can get something started.

MS. DEBNAM: I think it needs to be done.

MR. PANE: Okay.

MS. SEPPI: Are there any other questions. Okay. Did everyone get a copy of the update that was out on the table as you walked in?

Okay. Just to summarize as basically what went on here tonight, the discussion -- and, also, if you haven't signed in, I would appreciate it if you did that on your way out. Thank you all very much for coming, and please contact us at any time if you have any more questions. You have the address.

MR. McKNIGHT: The comment period will be open until the July 22nd.

MS. FONSECA: If you have written or oral comments on the Focused Feasibility Study or the proposed plan, the address is on the update, and you can send it to my attention which is Silvina Fonseca

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at that address. And it's also stated in the proposed plan. It has the name and the address where you can send your comments to. Thank you for coming.

(The hearing concluded at 8:30 p.m.)

CERTIFICATE

I, TAB PREWETT, a Registered Professional Reporter and Notary Public of the State of New Jersey, do hereby certify that the foregoing is a true and accurate transcript of the testimony as taken stenographically by and before me at the time, place, and on the date hereinbefore set forth.

I DO FURTHER CERTIFY that I am neither a relative nor employee nor attorney nor counsel of any of the parties to this action, and that I am neither a relative nor employee of such attorney or counsel, and that I am not financially interested in the action.

Notary Public of the State of New Jersey
Tab Prewett, RPR
Dated July 24, 1991

APPENDIX C

The United States Environmental Protection Agency announces Proposed Cleanup Alternative for the WHITE CHEMICAL CORPORATION SITE Newark, Essex County, New Jersey

A Focused Feasibility Study has been completed that evaluated alternatives for cleaning up the surface contamination at the White Chemical Corporation site in Newark, Essex County, New Jersey. Based on this study, EPA has selected a preferred remedy for the surface cleanup. Before final selection of a remedy, EPA will consider written and oral comments on all the alternatives through July 22, 1991. The final decision documents will include a summary of public comments and EPA responses.

EPA will hold an informational public meeting on July 11, 1991 at 7:00 p.m. at the Senior Citizen Complex, 130 Dayton Street, Newark, New Jersey to discuss the Focused Feasibility Study and the preferred remedial alternative.

The Focused Feasibility Study evaluated three alternatives for addressing the surface contamination at the White Chemical Corporation site. These are:

1) No Further Action
2) Limited Action, Site Stabilization and On-Site Storage
3) Stabilization/Treatment and Off-Site Disposal

EPA's preferred remedial alternative is Alternative 3: Stabilization/Treatment and Off-Site Disposal. This alternative involves compiling an inventory of hazardous substances present on the site, restaging incompatible substances, and off-site disposal. It may also involve mobilizing a treatment unit, or units, to the site and treating, or neutralizing, some of the hazardous substances on the site prior to the off-site disposal.

The Focused Feasibility Study, Proposed Plan, and other site-related documents are available at the information repository located at the Newark Public Library, 5 Washington Street, Newark, New Jersey. The administrative record for the site is at the Newark Public Library.

Written comments on the Focused Feasibility Study and the Proposed Plan should be sent to:

Silvina Fonseca, Remedial Project Manager
U.S. Environmental Protection Agency
Room 711
26 Federal Plaza
New York, New York 10278
(212) 264-1870

Comments must be submitted to the above address, postmarked on or before July 22, 1991.

THE STAR LEDGER 6/27/91

THE UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
ANNOUNCES
AN EXTENSION OF THE PUBLIC COMMENT PERIOD
OF THE
PROPOSED CLEANUP ALTERNATIVES
FOR THE
WHITE CHEMICAL CORPORATION SITE
ESSEX COUNTY, NEWARK, NEW JERSEY

The U.S. Environmental Protection Agency (EPA) recently completed a Focused Feasibility Study that evaluated alternatives for the remediation of the surface contamination of the White Chemical Corporation Site in Essex County, Newark, New Jersey. Based on the study, EPA has proposed its preferred alternative for remedial action at this site, which was discussed at the public meeting on July 11, 1991.

This is notification that the EPA has extended the public comment period, which began on June 21, 1991 to August 21, 1991. An extension was requested by the AZS Corporation, Atlanta, Georgia.

The Focused Feasibility Study report, the Proposed Plan, and other site-related documents are available for review at the following location:

NEWARK PUBLIC LIBRARY
5 WASHINGTON STREET
NEWARK, NEW JERSEY

Written comments on the Proposed Plan should be sent to:

SILVINA FONSECA, REMEDIAL PROJECT MANAGER
U.S. ENVIRONMENTAL PROTECTION AGENCY
26 FEDERAL PLAZA, ROOM 711
NEW YORK, NY 10278

Comments submitted to the above address should be postmarked on or before August 21, 1991.

THE STAR LEDGER WED. 7/24/91

APPENDIX D

Let's protect our earth

State of New Jersey
DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF HAZARDOUS SITE MITIGATION
CN 413, Trenton, N.J. 08625-0413
(609) 984-2902
Fax # (609) 633-2360

Anthony J. Farro
Director

JUL 15 1991

Silvina Fonseca
New Jersey Superfund Branch
USEPA Region II
26 Federal Plaza, Room 711
New York, New York 10278

RE: White Chemical Site, Follow up to Public Meeting Questions

Dear Ms. Fonseca:

As a follow up to some questions raised at the White Chemical Site Public Meeting on July 11, 1991 I have compiled the following information. Please feel free to use these responses as part of the Responsiveness Summary for the ROD:

What was the nature of the materials removed by the State from the Site?

The materials removed from the site consisted of those materials which were identified by the owner and the State as waste materials. The focus of the initial efforts to remove these materials was on those materials which were highly acidic, flammable, or both. Many of the drums that were removed contained Ethylene Dichloride, Trichloroethene, and other assorted spent solvents.

Of the money authorized for the State's cleanup efforts, is any of this money remaining?

The figure represented in the Proposed Plan of $825,000 is the approximate amount of the State's current authorization for this project. The State still has some minor expenditures forthcoming, which are associated with the final disposition of approximately 30 drums of materials (these materials have been removed from the site, but have not sent to their final treatment/disposal facility). The total project cost including past and these future expenditures is expected to be at or near the authorized amount of $825,000.

What was the nature of the efforts conducted by the State?

Similar to the efforts of the EPA, the State's efforts in dealing with the site during their interim activities were

primarily to stabilize the site. When a drummed material was encountered that should be removed from the site, this material was staged, sampled and eventually removed from the site.

What samples were collected by the State? Were any of these samples conceivably reproduced by the EPA?

The State's efforts in sampling materials on the site were dedicated to the sampling of materials to determine waste disposal requirements. Aside from sampling and compositing for analysis the approximately 1000 drums that were eventually removed from the site, samples were collected from about 450 drums, which were planned to be removed when the site was turned over to EPA. These sample results were transmicted to the previous EPA On-Scene Coordinator.

A report was made of mercury contamination at the site by State personnel in the spring of 1990. What is the background and basis for this report?

I have been unable to determine the source of this report. To the contrary, the sample results gathered by the State during their cleanup efforts did not indicate significant quantities of mercury in the wastes. This is similar to the results reported by the EPA during the public meeting on July 11.

I observed during the meeting that many of the residents' were concerned about the Emergency Preparedness Procedures in place at the site. The EPA's responses to these concerns referenced the Contingency Plan for the site. I would appreciate it if you would send me a copy of this Plan, so that I may have it available in our files.

Sincerely,

Kevin M. Psarianos

Kevin M. Psarianos
Site Manager

cc: Gary Greulich, DHWM Metro Region Enforcement

APPENDIX E

WHITMAN & RANSOM

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212-351-3000

100 FIELD POINT ROAD
GREENWICH, CONNECTICUT 06830
203-869-3800

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011-44-71-839-3226

JANSON BAUGNIET & ASSOCIES
CHAUSSÉE DE LA HULPE, 187
B-1170 BRUSSELS, BELGIUM
011-32-2-675-30-30

ONE GATEWAY CENTER
NEWARK, N.J. 07102-5398
201-621-2230
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415-323-6686

1121 L STREET
SACRAMENTO, CA. 95814
916-441-4242

August 21, 1991

Registered Mail
Return Receipt Requested

Ms. Silvina Fonseca
Remedial Project Manager
United States Environmental Protection Agency
Region II
26 Federal Plaza
New York, New York 10278

Re: Comments on USEPA Region II, June 1991 Proposed Plan and June 1991 Draft Focused Feasibility Study Report on the White Chemical Corporation Superfund Site, Newark, New Jersey

Dear Ms. Fonseca:

On behalf of a number of companies who have received notices or information request letters pursuant to the Comprehensive Environmental Response, Compensation and Liability Act of 1980 ("CERCLA") (referred to in this letter for purposes of convenience as the "Group") we are submitting comments on USEPA-Region II's June 1991 Proposed Plan and June 1991 Draft Focused Feasibility Study Report ("DFFS"). Both of these documents discuss the early remediation of surface contamination at the White Chemical Corporation Site located in Newark, New Jersey (the "Site") and select proposed Alternative 3 for such remediation. The Proposed Plan indicates that the New Jersey Department of Environmental Protection ("NJDEP") has concurred in the Proposed Plan and DFFS.

The Group has two major problems with the Proposed Plan. First, the Group believes that USEPA has not fully documented the existing Site removal and remediation activities and future plans for remediation. This DFFS was prepared to document actions already taken and to justify early remedial action and associated funding but it fails to fulfill the accepted role of

a Focused Feasibility Study in circumstances where imminent threat to health and the environment has been demonstrated. This approach results in a DFFS without a comprehensive review of the range of alternatives available. The Group is concerned that this fast-track approach may not result in the best long-term strategy for the control of material at the Site or the best approach to control costs. For these reasons the Group asks that USEPA further develop the Proposed Plan and DFFS as discussed below before selecting a final remedial alternative for the Site.

Second, USEPA's actions to initiate early remedial activities at the Site, based solely upon the DFFS, bypasses normal National Contingency Plan requirements for an RI/FS. The Group does not believe that USEPA has adequately justified, and documented, the need for early remedial response actions. This is because the DFFS relies upon an analysis of Site conditions and exposure assessments (see paragraph immediately below) that pre-date any removal or other Site work. An "imminent" threat or hazard was said by USEPA to exist in September 1990. USEPA has not shown in any way that an imminent threat or hazard still existed at the time of listing the Site on the National Priorities List or at the time of preparing the DFFS. This is particularly troublesome in light of NJDEP's and USEPA's spending almost one year at the Site stabilizing, overpacking, and removing and restaging various materials.

Much of the basis of USEPA's objective in proceeding via an "early remedial response" is derived from the alleged threat to numbers of workers and residents. In fact, the calculation of these workers and residents may be grossly overstated. Section 3.3.3 of the DFFS asserts that 12,000 people are estimated to live and work within one quarter-mile radius of the Site. USEPA needs to confirm this number and justify its basis for several reasons. First, the two businesses near the Site mentioned in the DFFS employ a total of 425 workers. Even assuming that the few other businesses within a quarter-mile radius also employ 200 workers each (excluding Anheuser-Busch, Inc.) this means that total workers with the potential for exposure would be from 1,000 to 1,500. Second, if the workers are present in shifts, any environmental problem created during one shift would not expose other shift workers because, presumably, those workers would be told not to report to work locations presenting a health risk. Third, the residences are only west of Frelinghuysen Avenue. Although there are several apartment buildings, most residences are detached single family homes. There cannot be more than several hundred residents

within one-quarter mile. Fourth, USEPA cannot include workers at the Newark airport because the edge of the airport property is more than one-half mile from the Site. Fifth, the Group also believes that is erroneous to include any significant number of railway commuters (Table 3 of the DFFS) since these individuals are transitory and, if any environmental problem occurs, exposure would be minimized by stopping rail traffic. Thus, the Group fails to see how there can be 12,000 residents and workers within a quarter-mile radius from the Site.

The Group retained a consulting firm with extensive CERCLA related experience, Dames & Moore, to evaluate the Proposed Plan and DFFS. Based upon a Site visit, interviews with USEPA representatives, and a review of the DFFS, Dames & Moore evaluated the technical approach presented in the USEPA's DFFS report. The results of this review are presented in the enclosed summary report which is made part of the Group's comments.

General Technical Deficiencies.

The general deficiencies of the Proposed Plan and DFFS are as follows:

1. The USEPA has not clearly presented the priorities for the management, treatment, and disposal of waste materials;

2. The USEPA has not emphasized the bulking of like and compatible materials to minimize the overall number of waste streams and, thereby, to reduce costs;

3. The USEPA has made no attempt to insure that non-hazardous materials are segregated and disposed of as non-hazardous;

4. The USEPA has not developed a rationale for its field compatibility testing and analytical laboratory testing;

5. The USEPA has not sought to minimize off-site laboratory analytical costs;

6. The USEPA has not provided cost control methods to minimize transportation and disposal costs;

7. USEPA has not developed a detailed, site-specific

plan for drum and waste management and off-site disposal;

8. The USEPA had no data on drum content before it prepared the DFFS. Therefore, the conclusions of the DFFS are unsupported. The Group understands that as of July 15, 1991 approximately 4,500 of 7,000 drums on site have been sampled. USEPA should utilize any additional sampling data available in revising the DFFS; and

9. The USEPA has never prepared a comprehensive inventory of drums initially present on site, drums removed, drums brought on site, drums recycled, drums disposed, etc. This should be done in revising the DFFS.

Specific Comments.

I. Provide documentation for activities which have been completed to date.

The DFFS endeavors to justify an early remedial response at the Site. However, the DFFS does not account for nor distinguish between removal and response activities which have already been completed on the Site and activities which are planned for future implementation as part of the Proposed Plan. USEPA and the NJDEP should provide the following documentation:

A) clarifying what activities have been accomplished to date (both in terms of removal and remediation);

B) results of these activities, including results and reports provided by NJDEP to USEPA; and

C) costs which have been incurred to date and review of the cost accounting and control procedures which have been instituted to ensure long-term control over USEPA contractor time and expense costs.

II. Provide a systematic approach for implementation of continued and future planned remedial response activities by USEPA and contractors.

There are many activities associated with the implementation of a remedial program which are not addressed or developed in the DFFS. A systematic frame work for the

management of alleged hazardous substances at the Site must be included within the Proposed Plan and DFFS. Therefore, USEPA should provide more detailed information, provide a more complete description of technical approaches, and develop standard procedures for the management of continued activities at the Site. This can be addressed through the development of a document that might be entitled "Remedial Response Work Plan." Some of the major steps/activities which should be elaborated upon and included in such a work plan are summarized below (more detail is provided in Section 3.3.2 of the enclosed Dames & Moore report).

A. Development of contingency planning, facilities and equipment requirements, and decontamination provisions and drum staging activities which would be associated with overpacking/transfer of contents of deteriorated drums and tanks;

B. Protocol for drum inspection and handling procedures to collect a representative sample from each drum, so that a discrete sample is collected for each layer/phase encountered;

C. Description of field screening tests to develop general waste compatibility groupings on all samples collected;

D. Documentation of compatibility testing for waste characterization within general compatibility groups to identify discrete waste streams within each group;

E. Inclusion in the Work Plan of criteria for selection of temporary tanks, diking/containment and specific construction criteria, in order to segregate waste streams which can be recycled off-site or set aside for on-site neutralization and/or treatment;

F. Description of how wastes are to be consolidated, so that, based upon evaluation of the number of drums/category and associated hazards, the number of individual drums whose contents can be managed in bulk will be maximized;

G. Detailed procedure for sampling waste streams to develop the waste profile by collection of one representative (composite) sample per waste stream;

H. Description of the selection criteria for laboratory analyses to be performed for waste characterization,

without performing numerous tests which are not necessary to obtain disposal approvals;

I. Use of competitive bidding for laboratory analysis without requiring full CLP protocols for waste characterization;

J. Selection of disposal methods and sites with consideration of latest third-third disposal restriction requirements utilizing the most cost-effective method for disposal available for each waste stream;

K. Use of competitive bids for waste disposal utilizing only disposal sites which can provide the required treatment for each waste stream; and

L. Send either bulked or drummed waste steams to lowest bidder final disposal site which is currently in compliance with RCRA regulations.

This step by step description clarifies the activities required to meet the objectives described in the technical approach presented in Section 4.3.3 of the DFFS. This description also presents a systematic approach to project management which will produce the most cost-effective final solution for the management and disposal of materials.

III. USEPA cost estimates contained in DFFS are inflated.

The Proposed Plan contains a cost estimate for the remedial activities. In several areas costs appeared to be higher than expected when compared to standard industry estimates: (a) the per-drum disposal cost; (b) bulk liquid disposal cost; and (c) the per-sample analytical cost for waste characterization. These cost items are discussed in the following sections.

A. Drum disposal costs.

The USEPA estimated that the cost for off-site disposal of 7,000 drums would average $1,000 per drum (Appendix A of DFFS). The Group's concern is that once a high cost estimate is approved, there is no incentive to seek further cost savings through such techniques as waste consolidation and bulking. USEP's approach may save time in implementation, but could substantially increase the final disposal costs and overall project costs.

The Group believes that a per-drum disposal estimate of

$650 is more appropriate. Should the agency disagree with this reduced estimate, it should fully justify its higher estimate.

B. Disposal of bulk liquids.

The cost per gallon for disposal of bulk liquid hazardous waste presented by USEPA in Appendix A, Task 7, also appears high for many of the same reasons presented above. Based upon the anticipated characteristics of the liquid waste materials present, the actual cost per gallon is likely to be closer to $2.00 than $3.00.

This is especially true because most of the anticipated bulk liquids which will be generated from the Site are assumed to represent "decon" and rinse water from management of drums and bulking activities prior to off-site disposal. Low level contamination contained in rinse water can often be treated in an industrial treatment facility such as DuPont's Deepwater facility in Carney Point, New Jersey.

C. Cost of analytical laboratory testing.

The detailed cost estimate presented in Appendix A, Task 4 of the DFFS, proposes a cost estimate for analysis at an average of $2,400 per sample. This price is high for waste characterization analysis. In addition, the number of samples for analysis (460) is a very high number of samples estimated for analysis based upon use of waste minimization and bulking strategies. USEPA should clarify the proposed sample analysis plan, analytes to be run, and justification for the high number of waste streams which appear to be proposed for testing.

Because this disposal project will represent a significant project to any waste disposal company, these disposal firms are often willing to accept minimal analytical data on large volume waste streams or waive or at least minimize analytical costs in order to accept waste streams for disposal. In addition, once the waste streams have been identified through field compatibility testing, a number of parameters for waste characterization can be waived. For example, flammability (flash point) need not be run on an aqueous liquid containing no organic materials since this material in unlikely to have a flash point. The Toxic Characteristic Leaching Procedure (TCLP) for hazardous waste metals need not be performed on a chlorinated solvent destined for reclamation.

Waste materials which are complete unknowns may require a

full battery of waste characterization analysis: TCLP metals, volatiles, and semi-volatiles; EP TOX metals, flammability, corrosivity, combustibility and reactivity (cyanide/sulfide); % chlorine; PCB/Pesticides; BTU; and Total Petroleum Hydrocarbons. The cost for analysis of all these parameters utilizing Quality Assurance/Quality Control ("QA/QC") appropriate for waste characterization analysis is not expected to exceed $2,000.00 per sample.

There is no basis for USEPA to insist upon special QA/QC standards. CLP protocols have not been set for waste characterization analysis, and tighter quality standards are not needed to obtain disposal approvals for waste; therefore, it is unreasonable to apply these protocols to this project to meet the objectives of the DFFS.

Should there be additional information which justifies this higher cost estimate, USEPA should make such information available. Lacking such information, the Group suggests an alternative estimate of a maximum of $2,000 for those samples where the waste materials are complete unknowns. Other sampling costs should be much lower.

IV. The Proposed Plan contains a factual error.

Page 3 of the Proposed Plan indicates that White Chemical Corporation ("WCC") ceased operations at the Site in July 1990. WCC was still operating at the Site in September 1990 when USEPA issued a unilateral administrative order demanding that WCC vacate the Site. It was not until a federal bankruptcy court ordered WCC to vacate the Site in October 1990 did WCC cease operations at the Site.

This information should be corrected in the Proposed Plan and other documents.

USEPA's response to the Group comments should be directed to my attention.

Sincerely,

John M. Scagnelli

JMS:mb
Enclosure

Review of USEPA Focused Feasibility Study
White Chemical Superfund Site
Newark, New Jersey

August 1991
Job No. 23061-001-175

DAMES & MOORE
Cranford, New Jersey

DAMES & MOORE A PROFESSIONAL LIMITED PARTNERSHIP
12 COMMERCE DRIVE, CRANFORD, NEW JERSEY 07016-1101 (908) 272-8300
FAX NO. (908) 272-3940

August 21, 1991

White Chemical Corporation
Superfund Site Group

Re: Technical Review and Comments on
USEPA Focused Feasibility Study Report
on White Chemical Corporation Superfund Site,
Newark, New Jersey

Dear Sirs:

Enclosed please find the final report prepared in accordance with Dames & Moore's proposal dated July 10, 1991. This report provides review and comments regarding the USEPA's Proposed Plan and Draft Focused Feasibility Study (DFFS) on the White Chemicals Superfund Site located in Newark, New Jersey.

The report summarizes Dames & Moore's comments regarding the USEPA's selection of remedial alternatives and the scope of work proposed for continued stabilization activities at the White Chemicals site. It also provides comments regarding aspects of the USEPA Cost Estimate provided in Appendix A of the DFFS.

Should reviewers of this document have any questions regarding the contents of this report, please contact Mr. John Scagnelli of Whitman & Ransom, Newark, New Jersey.

Very truly yours,

DAMES & MOORE

Joel B. Landes
Managing Principal In Charge

Richard W. Huckins
Richard W. Huckins
Senior Project Manager

RWH/JBL:jp
Enclosure

TABLE OF CONTENTS

1.0 INTRODUCTION

Dames & Moore was retained by AZS Corporation, Rhone-Poulenc, Inc., Mitsui & Co., Inc., Bowman Transportation, Inc., and Mobil Oil Corporation (the "Group") to perform a technical review and provide comments on a Draft Focused Feasibility Study (DFFS) prepared by Region II of the United States Environmental Protection Agency (USEPA) under the authority of the Comprehensive Environmental Response, Compensation and Liability Act ("CERCLA"). This DFFS was prepared by the USEPA to justify, evaluate, and select an early remedial response alternative to clean up environmental conditions on a site described as the White Chemical Corporation Superfund site located at 660 Frelinghuysen Avenue, Newark, New Jersey (the "Site"). The DFFS and description of the remedial alternative selected by USEPA for the Site are summarized in a June 1991 Proposed Plan. Public comments on the Proposed Plan are due to USEPA on August 21, 1991.

The environmental threat purportedly posed by the Site is said to be related to the presence of thousands of drums and tanks in reportedly very poor and unstable condition which contain various chemicals in liquid or solid form. According to the DFFS, at the time of USEPA's entry on the Site in September, 1990, numerous drums were fuming and releasing vapors to the atmosphere. In September, 1990, the Agency for Toxic Substances and Disease Registry concluded that the Site posed an imminent and substantial health and safety threat to nearby residents and workers. In or about October, 1990, USEPA started full-scale response activities at the Site. On May 9, 1991, the Site was proposed for inclusion on the CERCLA National Priorities List. The proposal became effective within 30 days. Based on Dames & Moore's observations during a site visit on July 15, 1991, it appeared that a substantial number of drums had been overpacked and that most drums at the Site had been segregated.

1.1 DAMES & MOORE OBJECTIVES

In order to better understand the basis and rationale for USEPA's preferred remedial alternative for the Site (Alternative 3), Dames & Moore believes it is important to document what response activities have already been done at the Site. Based upon Dames & Moore's initial review of the DFFS, Dames & Moore felt that the DFFS did not do a good job in distinguishing between what has been done and what may be done at the Site. Therefore, one of the primary goals of Dames & Moore's analysis is to determine what has been done to date and to gain a clearer understanding of response activities alluded to in the DFFS.

Dames & Moore also believes that it is important to review the technical approach and costs estimates USEPA is using to propose and select a remedial alternative. This report will provide a preliminary evaluation of the technical approach and cost estimate prepared by USEPA and present comments which USEPA should consider before it selects a final alternative. This report is not intended to be, nor should it be construed as, an extensive analysis of site condition, or needs.

2.0 ENVIRONMENTAL CONDITIONS AT THE SITE - July 1991

2.1 INTRODUCTION

Mr. Richard Huckins, Senior Project Manager for Dames & Moore, visited the Site on Monday, July 15, 1991. The USEPA Region II Site Coordinator, Mr. Mark Pane, conducted the tour and was interviewed to provide an overview of the current activities and progress of the stabilization efforts on the Site by the USEPA and their contractors, Roy F. Weston ("Weston") and OH Materials ("OHM"). Full access to all areas of the site was restricted by USEPA.

OHM is the Emergency Response Contractor ("ERC") and Weston is the Technical Assistance Team ("TAT") contractor for the White Chemical Superfund Site. Mr. Pane stated that Weston, with significant input from OHM, provided most of the information and strategy for the preparation of USEPA's DFFS.

Mr. Pane has recently been given a promotion to Section Chief of the Emergency Removal and Response Group of Region II USEPA. Day-to-day site coordination for White Chemical will subsequently be handled by Mr. Michael Neil of Region II; he was not present at the time of the Dames & Moore site inspection. This change in Site managers may result in lack of continuity in implementation of continued remedial actions.

2.2 CURRENT STATUS OF WASTE REMOVAL ACTIVITIES

Based upon a perceived immediate hazard represented by the Site, the USEPA has already initiated many of the early remedial activities described in the DFFS. This early remedial action has been funded by USEPA out of the Emergency Removal and Response Section of USEPA Region II's budget. This section summarizes the activities taken place to date and evaluates its appropriateness to this Site with respect to current accepted industry practices for hazardous waste management.

2.2.1 DRUMS

Drums found in the open area on the eastern side of the Site were stabilized by OHM through the following site activities:

A) All stacked drums have been brought to ground level.

B) Drums which were reported to be fuming, corroded, and in poor condition have been placed in 85 gallon overpack drums.

C) All drums have been segregated into four operating areas.

D) Each area has been organized into rows and aisles to allow access for sampling to every drum.

E) Each drum has received a discrete number and is recorded in an overall drum inventory.

Although USEPA has provided various numbers of drums on site, removed, or purchased as part of Site clean up, it has been hard to recreate an exact drum inventory based upon USEPA's DFFS or other information. According to the DFFS, USEPA estimates that there were initially 10,900 drums on site. As stated by the Site Coordinator, approximately 7,000 drums remain on site. Over 6,500 drums of these 7,000 drums were overpacked due to the alleged deteriorated condition of these drums. An undisclosed number of drums were discovered indoors in storage in Building #35. USEPA asserts that these drums were generally in good condition and appeared to consist of unused raw materials and saleable final products. The USEPA is currently seeking to return (recycle) certain unused raw materials to suppliers and find former customers of White Chemical Corporation who may be able to use the final product drums so that these materials do not have to be included in off-site disposal activities. USEPA has also stated that approximately 2,000 drums were added in an effort to consolidate and transfer materials found at the Site. According to the DFFS, approximately 4,200 drums were empty and were sent off site. Also, approximately 1,000 drums of flammable material is said to have been removed by the NJDEP.

As of the July 15, 1991 Site visit, Dames & Moore was told that approximately 4,500 drums out of 7,000 drums purportedly remaining on site have been sampled, catalogued, and stored in a trailer on Site. It must be noted that as of the date the DFFS was prepared, the DFFS does not indicate that any drums

were sampled; only 63 drums were inventoried. Thus, the DFFS was based upon incomplete data about the nature of materials on the Site.

Dames & Moore was told that many of the drums contained two, three or even four phases of materials ranging in complexity from presumed rainwater to solid, air-reactive waste materials. USEPA is sampling each phase separately to determine if they will require different treatment and disposal approaches. Samples are being tested in an on site mobile laboratory. This laboratory is being staffed by two chemists on a 24 hour per day basis.

The so-called laboratory tests being performed are not analytical tests in the traditional sense of the word. The specific tests being run consist of the following: visual determination of color/clarity, state (liquid/solid), air/water reactivity, hexane soluble (organic), water soluble (aqueous), pH, peroxide-containing, oxidizer, cyanide/sulfide reactive, chloride/bromide-containing (percent levels), flashpoint/combustible, PCB screen (greater or less than 50 ppm). These tests are strictly qualitative and not quantitative in nature.

The described testing above is only sufficient to develop general compatibility groupings and can be used to narrow wastes within groupings to develop specific waste streams for disposal. These tests are <u>not</u> sufficient to submit results to a RCRA Treatment/Disposal facility to obtain disposal approval, nor are they sufficient to determine treatment technologies which may be required for ultimate disposal. The results can only be used as a guide to develop a strategy for subsequent off-site disposal activities.

Dames & Moore reviewed three pages of results of field screening tests described above at the time of the Site visit. These results were described by USEPA as typical of the materials which were being encountered on the Site. Of

approximately 120 samples screened, about 30 were solid waste materials. Assuming that this small sample set is somewhat representative of wastes present on the Site, this would mean that 25% of the wastes on site are in solid form. This becomes important when evaluating disposal alternatives and relative costs. Solids can be up to 50% more expensive to treat and dispose than liquids. If liquids are consolidated and managed in bulk, significant cost savings can be realized.

2.2.2 TANKS AND BULK MATERIALS

According to USEPA, the materials stored in the above-ground storage and process tanks consist primarily of bulk raw materials. As reported by Mr. Pane, many of the materials in the tanks which USEPA felt were in the worst condition have already been pumped and the material sent off-site for recycling. Some of the materials which have been removed include phosphorous trichloride, xylene, and hydrochloric acid. Because USEPA believes the materials remaining in bulk storage are in stable condition, it is planning to dispose of such material off-site at a later date when other materials are removed.

2.2.3 LABORATORY CONTAINERS

Based upon the representation of Mr. Pane, approximately 18,000 laboratory containers originally found by USEPA have been consolidated into 11,500 containers and segregated into discrete waste categories on a room by room basis utilizing the screening and consolidation scheme proposed in the DFFS. An inventory was prepared of known and unknown chemicals in order to solicit competitive bids by transport/disposal firms. The cost estimate presented in the DFFS for disposal of the laboratory containers represents a price quotation for this extended inventory of compounds. It is unknown whether this bidding process was competitive. Dames & Moore understands that off-site disposal will not be initiated until the Record of Decision (ROD) is issued based on the approved Proposed Plan.

3.0 TECHNICAL EVALUATION AND COMMENTS ON DFFS

3.1 THE DFFS DOES NOT SERVE THE NORMAL ROLE OF A FOCUSED FEASIBILITY STUDY

A Focused Feasibility Study is generally prepared to present and evaluate feasible remedial alternatives in circumstances where an imminent threat is demonstrated. Dames & Moore believes the DFFS was not prepared to fulfill the typical role of an Focused Feasibility Study.

The main purpose of the DFFS is apparently to present justification for USEPA's continued implementation of an early remedial response at the Site. The USEPA has taken many actions to overpack and otherwise repackage drums and material which were in an apparent unstable condition. These activities appear to have brought the Site to a condition of relative stability. USEPA's early removal and remedial actions were based upon field judgments of USEPA personnel and USEPA's contractors. The USEPA now needs to document and justify those field judgments and propose a plan for continued remedial activities for the Site.

The USEPA also needs to shift the basis for funding remedial action at the Site out of the Emergency Removal and Response Section to the Remedial Action Section inasmuch as the maximum funding capacity for removal activities is $ 2.0 million per site. Because USEPA has reportedly spent $3.8 million at the Site to date, it already needed a special exception to continue its early removal work.

USEPA's approach has resulted in a DFFS without a comprehensive review of the range of alternatives available. All the DFFS does is to provide an overview of some of the remedial technologies available for Site stabilization, disposal, and treatment. USEPA has selected an alternative which represents the most expensive and most permanent solution for stabilization, removal and disposal. This fast-track

approach may not result in the best long-term strategy for managing the wastes generated and may not represent the best approach to controlling costs.

USEPA maintains that there is an immediate threat to public health from current conditions at the Site. This assertion is made throughout the DFFS even though USEPA's representatives claim verbally to have stabilized and segregated most of the drums and tanks at the Site. Before USEPA finalizes the Proposed Plan, it should reassess the threat posed by the current conditions at the Site and expressly justify the need to proceed with the selected alternative on the basis of a Focused Feasibility Study rather than implementation of a more systematic, and National Contingency Plan required, approach like an RI/FS. USEPA has failed to answer whether there is still a need for a public health advisory based upon Site conditions in June 1991.

3.2 THE DFFS DOES NOT ADEQUATELY DOCUMENT AND PRIORITIZE FUTURE REMEDIAL ACTIVITIES.

The DFFS does not clearly document the scope and specific details of future early remedial actions or for phasing the implementation of future activities and it does not prioritize such activities to ensure that the remedial action is cost-effective.

3.2.1 Priorities Should Be Established

Presented below are technical activities set forth in USEPA's order of priority:

3.2.1.1 Recycling

Recycling was presented as the top priority for material disposal because it represents the best combination of

reduction of long-term liability and costs. According to Mr. Pane, some suppliers of the identifiable materials have already been contacted and some have already sent work crews to remove quantities of their products. Other companies are scheduled for future pickups of their materials; reportedly none of these firms has requested reimbursement of funds from the USEPA.

3.2.1.2 Waste Neutralization/Treatment

After the reuse/recycling option, the neutralization/treatment of waste materials to make them less toxic and hazardous is the next most preferred option. Mr. Pane stated that materials which cannot be reused/recycled will then be evaluated for on-site waste neutralization/treatment. The decision for on-site treatment will be based on the results of the compatibility screening tests described in Section 2.2.1 (above). Any waste streams which can not be treated on-site due to associated hazard(s) or other constraints will next be evaluated for treatment at off-site RCRA treatment/disposal facility(ies) as the next least costly disposal option.

The feasibility of on-site treatment will be evaluated by weighing the savings in cost against the potential health and safety hazards associated with treatment. Review of treatment technologies will be slanted towards established technologies (i.e., acid neutralization with a weak base) versus innovative technologies to reduce the time and expense required to evaluate the feasibility of a whole range of these innovative alternatives.

An example of this neutralization/treatment evaluation would be the management of shock-sensitive waste. All identifiable shock-sensitive materials have been consolidated into a segregated area (cinder block building) for temporary storage until other materials have been removed from the area. Once the site is clear, a specially-trained disposal firm will stabilize these materials through on-site neutralization, packaging and

transportation in specialized containers, controlled detonation either on-site or off-site or other well-established protocols for management of potentially explosive materials.

Compatible drummed materials destined for on-site treatment will be pumped into bulk treatment/storage vessels (probably bulk tanks on-site or into tank trailers) so that treatment can be safely and efficiently performed.

3.2.1.3 Waste Consolidation/Off-Site Disposal

Disposal/treatment actions, presented in Section 4.3.3 of the DFFS (pages 4-10 and 4-11), include some discussion of activities which will have to take place prior to off-site disposal. These steps describe proposed actions which, for the most part, have yet to be implemented. This section of the DFFS should be improved to more clearly describe proposed activities related to disposal and treatment.

The discussion in Section 4.3.3 of the DFFS initially proposes to remove drums for off-site disposal. Then it notes actions which have been discussed in other alternatives presented earlier (Section 4.3.2) such as overpacking, transfer of materials to auxiliary containers, etc. Unfortunately, subsequent discussions of alternatives in the DFFS do not clarify that on-site consolidation of drummed material into bulk containers is the alternative which will be used as the USEPA's selected technical approach.

Dames & Moore believes the DFFS must be changed to set or establish an order of priorities for managing these steps such as those represented by Mr. Pane. This prioritization needs to be established to further manage materials at the Site in a cost-effective manner.

3 3 THE DFFS DOES NOT PROPERLY DOCUMENT THE PROPOSED TECHNICAL APPROACH

As stated earlier, the DFFS does not clearly document or justify the technical approach proposed by USEPA. The major deficiencies of the DFFS are as follows:

A. It does not emphasize the bulking of like and compatible materials to minimize the overall number of waste streams;

B. It does not insure that non-hazardous materials are segregated and disposed of as non-hazardous;

C. It does not specify a rationale for both field compatibility testing and analytical laboratory testing;

D. It does not address minimization of off-site laboratory analytical costs;

E. It does not address cost control methods to minimize transportation and disposal costs; and

F. It does not develop a detailed, site-specific plan for drum and waste management and off-site disposal.

From an overall management approach for handling these materials, the USEPA needs to clearly describe the sequence of events which will be implemented. This can be satisfied by having the USEPA develop a formal Drum/Material Removal Work Plan which describes, step-by-step, their proposed activities for the consolidation and final disposition of materials. For the development of the Material Removal Work Plan, the emphasis should be on the need to bulk waste streams as much as possible once discrete waste streams have been identified.

3.?.1 Advantages of Handling Materials in Bulk

Bulking will ensure the most efficient management of materials, and will expedite the proposed "order of priorities" described by Mr. Pane: recycling, waste neutralization/treatment, and off-site disposal. Bulking will secure and stabilize the site more effectively than overpacking of drums, and will improve the logistics for selection of off-site disposal strategies. In short, the advantages of managing materials in bulk as much as possible will be multiplied during all subsequent tasks on the material removal phase of the project. A summary of advantages is presented below:

A. Site Stabilization

Bulking of materials utilizing an appropriate health and safety plan will minimize the number of potential sources for release from many drums down to just a few bulk tanks. Bulk tanks of compatible materials are easier to secure from vandalism, provide for better spill control and are easier to control in emergencies. Once materials have been consolidated into bulk containers, this added security will afford an opportunity to thoroughly evaluate Site conditions and needs.

B. Health and Safety

Consolidation of materials from drum to bulk will provide better access to the entire site and reduce the area required for a "hot zone" requiring higher levels of personal protection. Bulking can be accomplished under controlled and monitored conditions to minimize the health and safety impacts for the consolidation activity from drums to bulk. The chance for a release will also be lessened in case of a vehicular accident during transportation off the Site.

C. Cost Control

Management of materials in bulk will generally result in fewer waste streams, thus reducing the number of samples to be collected and analyzed. Generally the most attractive pricing will be available for individual waste streams if each stream is consolidated in bulk versus individual drums.

As with most alternatives, there are down-side risks which may arise during the consolidation phase which are primarily associated with the transfer phase of drums into bulk containers. However, most of the potential problems associated with the transfer of materials can be negated through the development of a detailed Remedial Response Work Plan. The major components to be included in a Work Plan are presented below.

3.3.2 Examples of Items to be Addressed in Remedial Response Work Plan

There are many activities associated with the implementation of an FFS which are not addressed or developed at all in the USEPA's DFFS. Specifically, discrete steps within the twelve (12) management steps presented need to be included in the Remedial Response Work Plan. The following steps and bulleted items are illustrative of these steps and represent some of the major points which should be elaborated upon and are summarized below:

A. Overpacking/transfer of contents of deteriorated drums and tanks.

- **Contingency Planning** - As required by OSHA 29 CFR 1910.120, all workers handling hazardous waste are required to have received 40 hours of hazardous waste site workers training. In addition, a detailed, site specific emergency preparedness contingency plan needs

to be prepared and available at all times. One may be available at the Site but it was not offered to the Dames & Moore representative for review (as it should have been) nor is one described or even alluded to in the DFFS. If one has not been developed, it is imperative that a site-specific Plan be developed as soon as possible.

- **Description of Facilities and Equipment** - How are the office, field laboratory and decontamination trailers to be equipped? What materials need to be on hand, where are locations for fire extinguishers, spill absorbent materials, radios and other communication apparatus, alarms, air monitoring stations, monitoring frequency and analytes, and other equipment and materials which will need to be available at the Site to implement the material consolidation/removal?

- **Decontamination Area** - With heavy equipment being required on the site, especially as the USEPA moves into the consolidation phase of the project, it will be necessary to provide a designated area and supporting equipment to accomplish decontamination of vacuum trucks and other vehicles. There needs to be a plan for design of an area equipped with a contained, diked, ramped concrete pad; steam cleaner; wheel wash well(s), and access to utilities required to power this facility.

B. Collection of a representative sample from each drum, with a discrete sample to be collected for each layer/phase encountered.

- **Drum Inspection and Handling Plan** - The USEPA needs to develop a protocol with a description of the decision-making matrix for ensuring that each drum is preliminarily screened for materials of construction and

overall condition (i.e., bulging, corroded, leaking, empty, etc.). These two observations will then indicate the methodology necessary to obtain representative samples for each drum. A description needs to be developed of exactly how these representative samples will be obtained from a given drum, including those drums with multiple phases.

C. Field screening to develop general waste compatibility groupings on all samples collected.

- **Drum Staging** - How are drums to be grouped for temporary storage prior to waste sampling, marked and entered into the site waste inventory, segregation of incompatible materials to minimize risk, and other considerations to be addressed when sorting and inventorying materials on the site?

D. Compatibility testing within general compatibility groups to identify discrete waste streams within each group.

- **Waste Characterization and Testing** - As stated previously, the USEPA is utilizing what appears to be a standardized approach for field screening, development of general waste categories, and characterization of specific waste streams. The general verbal description provided needs to be written and documented. This will include description of the specific compatibility tests to be run in the on-site laboratory and description of the criteria for selection of specific waste streams. This step is critical for the future disposal activities because the total number and waste types will have such a large impact on ultimate disposal costs.

E. Determine and segregate waste streams which can be recycled off-site or set aside for on-site neutralization and/or treatment using established technologies;

- **Consolidation/On-Site Treatment Tanks** - There may be insufficient bulk tankage on the Site to accommodate all waste streams which will be bulked. The Work Plan should include criteria for selection of temporary tanks, diking and other spill containment procedures, materials of construction, size, and other specific requirements.

F. Based on evaluation of the number of drums/category and associated hazard(s), maximize the number of individual drums which can be managed in bulk.

- **Waste Consolidation Plan** - How are the wastes going to be transferred from existing drums and bulk tanks into consolidation tanks or tank truck trailers? What monitoring will be performed and safety precautions instituted to ensure that no incidents occur during the consolidation phase of the project.

G. Collection of one representative (composite) sample per waste stream to develop the waste profile.

- **Composite Sampling Plan** - Sampling the initial drums for waste characterization is one phase, sampling of bulk containers or multiple drums per waste stream is an entirely different activity. The single composite sample for each waste stream must represent the percent distribution of solids, liquids, phases, etc. to accurately profile the waste stream for waste characterization analysis and development of the waste profiles for submission to TSDFs.

H. Determination of analytical protocols sufficient to meet disposal site requirements for waste characterization.

- **Development of Analytical Tests Needed to Obtain Disposal Approvals** - There will be many potential discrete waste streams which will result from the characterization testing described above. The next step is to develop a methodology for selection of analyses which will be required by commercial Treatment, Storage, and Disposal Facilities ("TSDF"). The DFFS does not provide any information regarding the analyses to be performed for waste characterization. It is imperative that these be described and developed to ensure that sufficient documentation and characterization is performed to satisfy disposal sites without running unneeded analyses which are not pertinent to the specific waste stream.

I. Submit samples to outside contract laboratory(ies) specifying analyses to generate sufficient data needed to satisfy disposal site requirements.

- **Competitive Bidding for Sample Analyses** - The USEPA Contract Laboratory Program ("CLP") was developed to enable the USEPA to obtain the most attractive pricing for analytical work for Superfund sites. However, few laboratories participate in the inorganic CLP program and fewer still provide waste characterization analyses under these contracts. Therefore, the USEPA may seek to obtain pricing from local laboratories under a special competitive bid put out specifically for this project. Because USEPA has not promulgated full CLP protocols for QA/QC for waste characterization, it is not really necessary to utilize CLP laboratories to obtain off-site disposal approval at TSDFs.

J. Based on review of results, select the most cost effective method for final treatment/disposal of each waste stream.

- **Selection of Disposal Methods and Sites** - A plan which describes how potential disposal sites will be selected must be developed based on an overall review of any and all USEPA-specified treatment technologies and final disposal methods. This plan needs to incorporate the latest third-third disposal restriction requirements and select the most cost effective method acceptable for each waste stream. An example of the decision-making criteria which would apply is the selection of fuel blending versus incineration for a waste stream which allows either method. A review of all appropriate disposal sites should be done to ensure that the broadest cross-section of sites is made available for competitive bidding.

K. Preparation/submission of waste profile to disposal site(s) to obtain disposal approval and final cost per waste stream.

- **Competitive Bid Packages for Disposal** - Once all materials have been characterized, develop bid packages which maximize the competition between disposal sites in order to obtain the most attractive pricing for each waste stream. Careful matching of disposal site capabilities with waste streams will encourage competition and ensure that the optimum price is obtained.

L. Send either bulked or drummed waste streams to selected final disposal site which is currently in compliance with RCRA regulations.

This step-by-step description clarifies the activities required to meet the objectives described in the technical

approach presented in Section 4.3.3 of the DFFS. This description also presents a systematic approach to project management which will produce the most cost-effective final solution for the management and disposal of materials at the Site. If the suggestions in these comments are followed, various uncertainties and variables will be reduced or eliminated.

3.4 USEPA's CLEANUP TIMEFRAME ESTIMATE APPEARS TO BE TOO LONG

The USEPA estimated that it would take two years to implement this phase of the project; Dames & Moore calculates that, with the exception of final disposal, the on-site activities can be completed within a timeframe of between 12-18 months. Although the overall cost estimate appears to be in line, the reduction of time spent on-site may result in additional although unquantifiable cost savings for implementation.

3.5 USEPA'S ESTIMATED COSTS ARE TOO HIGH

In several areas costs appeared to be higher than expected compared to standard industry estimates: the per-drum disposal cost, bulk liquid disposal cost and the per sample analytical cost for waste characterization. These major cost items are discussed below:

3.5.1 Per Drum Off-site Disposal Costs

The USEPA estimated that the cost for off-site disposal of 7,000 drums would average $1,000.00 per drum. This estimated cost is extremely conservative based on recent Dames & Moore experience on a similar site and current projected per drum disposal costs for hazardous waste materials. As alluded to in Section 2.2.1 of this report, the most expensive materials to dispose in light of the RCRA third-third land ban require-

ments are waste solids; especially those materials which have incineration as the specified treatment technology.

Off-site disposal of incinerated waste materials can even exceed the estimate of $1,000.00, especially if the resulting ash requires further solidification/treatment prior to land disposal. Perhaps the USEPA is assuming a high percentage of solids being present in the drums which could result in such high costs. However, using the potentially unrepresentative sample set of the three pages provided by USEPA of preliminary field screen testing, it is unlikely that more than 25% of the waste is in solid form. Of that 25%, only a small percentage is likely to require incineration followed by stabilization.

For hazardous waste in liquid form, disposal becomes easier and less expensive. The primary difference is that liquids can more easily be bulked, fuel blended and neutralized in an off-site treatment facility without the high cost of incineration.

To provide a general breakdown of anticipated costs for disposal of liquid hazardous waste in drums, contact was made with several disposal sites and transporters. Although this analysis should not be used as a definitive cost estimate, the relative costs presented in Table 1 demonstrates why Dames & Moore anticipates that the USEPA estimate of $1,000 is high.

TABLE 1

Reference Costs for Liquid Hazardous Waste Disposal

General Waste Category	Potential Treatment Technologies	Cost/Drum[1]
>20% Chlorinated Org. Liquid	Fuel Blend or Incineration	$400-750
>20% Chlorinated Org. Solvent	Solvent Reclamation, Incineration	$350-600
Aqueous Liquid <1% Organic	Permitted Wastewater Treatment	$100-300
Aqueous Liquid >1% Organic	Treatment, Fuel Blend, Incineration	$300-700
Organic Liquid (Solvent)	Reclamation, Fuel Blend, Incineration	$100-500
Acidic Aqueous Liquid	Neutralization, Treat., Solidification	$400-600
Basic Aqueous Liquid	Wastewater Treatment, Solidification	$100-600

Average Cost Per Drum For Disposal of Liquid Hazardous Wastes: $250 - 600

(Solids Cost Per Drum 10-50% Higher)

As is evident upon review of Table 1, the range of costs for management of the anticipated materials generated from

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[1] The costs presented in this column are based on full drums only; any material which is handled in bulk would be priced by disposal sites on a per gallon or per pound basis. Generally speaking, the cost for disposal of a waste stream in bulk will be significantly less (10%-50%) than management in drums.

this site should be under $ 1,000/drum. The assumptions upon which Dames & Moore's estimate was based include the following: all material being disposed of off-site rather than recycled (some already has been recycled); all materials to be handled in drums rather than a percentage handled in bulk (as much as possible will be bulked); and 50% of the waste materials being in the liquid phase rather than solid. Even when utilizing these assumptions, Dames & Moore proposes an alternative average cost per drum of $650 versus the USEPA's cost estimate of $1,000 for off-site disposal.

3.5.2 Bulk Disposal Costs

The cost per gallon for disposal of bulk liquid hazardous waste presented by USEPA in Appendix A, Task 7, also appears high for much of the same reasons presented above. Based on the anticipated characteristics of the liquid waste materials present, the actual cost per gallon is more likely to be closer to $2.00 per gallon than $3.00.

This is especially true because most of the anticipated bulk liquids which will be generated from this Site are assumed to represent decon and rinse water from management of drums and bulking activities prior to off-site disposal. Low level contamination contained in rinse water can often be treated in an industrial wastewater treatment facility such as DuPont's Deepwater facility in Carney's Point, New Jersey.

3.5.3 Contract Laboratory Analytical Costs

Submission of representative samples to an off-site contract laboratory for waste characterization (see Section 4.4.3, Step 9) has not occurred for any samples up to this point. However, in detailed cost estimate presented in Appendix A, Task 4 of the DFFS, the USEPA has proposed a cost per sample ($2,400 each) which does not appear to be in line with typical costs associated with waste characterization testing. In

addition, the number of samples for analysis (460 samples) is likely a high estimate, although the final number of samples may in fact be this high when the multi-phases of the materials present in drums is considered.

Because this disposal project will represent a significant project to any waste disposal company, these disposal firms are often willing to accept minimal analytical data on large volume waste streams, or waive or at least minimize analytical costs in order to accept waste streams for disposal. In addition, once the waste streams have been identified through field compatibility testing, a number of parameters for waste characterization can be waived. For example, flammability (flash point) need not be run on a non-organic containing aqueous liquid since this material is unlikely to have a flash point. The Toxic Characteristic Leaching Procedure (TCLP) for hazardous waste metals need not be performed on a chlorinated solvent destined for reclamation.

For waste materials which are complete unknowns, they may require a full battery of waste characterization analyses: TCLP metals, volatiles, and semi-volatiles; EP TOX metals, flammability (flash), corrosivity, combustibility and reactivity (cyanide/sulfide); % Chlorine; PCB/Pesticides; BTU; and Total Petroleum Hydrocarbons. The cost for analysis of all these parameters utilizing Quality Assurance/Quality Control (QA/QC) appropriate for waste characterization analysis is not expected to exceed $2,000 per sample in competitive bidding by contract laboratories.

The only conceivable way that waste characterization analysis would cost up to $2,400 per sample would be in the case where USEPA insists on special QA/QC standards. Since CLP protocols have not been set for waste characterization analysis, and tighter quality standards are not needed to obtain disposal approvals for waste, it is unreasonable to apply these protocols to this project to meet the objectives of the DFFS. Dames &

Moore therefore recommends an alternative cost estimate of not more than $2,000 per sample for Task 4 of Alternative 3.

4.0 SUMMARY

The purpose of this review was to provide a third party independent technical review of the DFFS for the Group so that comments on the June 1991 Proposed Plan can be prepared and submitted for submission to USEPA by August 21, 1991. Dames & Moore's intent in this report is to provide input on both technical and site management cost issues which have not been made clear in the DFFS.

4.1 Technical Comments

The DFFS must clarify the actual proposed scope of work by development of a formal Remedial Response Work Plan which presents a step-by-step procedure for implementation of stabilization and ultimate disposal of materials still present on the site. A review of the type of elements which needs to be contained in such a Work Plan is presented in the twelve steps presented in Section 3.3.2 of this report.

The DFFS should also document and clarify the activities which have already been completed on the site along with an estimate of expenditures to date. These figures can then be compared to their cost estimate for corresponding activities to ensure that they are meeting USEPA's own estimates.

4.2 Comments on the USEPA Cost Estimate

The best cost control mechanism is to develop an appropriate budget and to stay within that budget. The specific cost issues which may be addressed in comments are presented in Section 3.5 of this report. USEPA has not provided satisfactory information regarding the development of the cost estimates for

drum disposal, bulk liquid disposal and laboratory costs. The cost estimates should be revised to reflect more realistic costs for these activities based on current industry standards for these activities.

EDWARDS & ANGELL

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August 21, 1991

VIA FEDERAL EXPRESS

Silvina Fonseca, Remedial Project Manager
United States Environmental Protection Agency
Region II
26 Federal Plaza - Room 711
New York, NY 10278

Re: White Chemical Site, Newark, New Jersey

Dear Ms. Fonseca:

This firm represents Rhône-Poulenc, Inc., Rhône-Poulenc Ag Company, and Rhône-Poulenc Basic Chemicals Co.,[1/] recipients of a letter dated June 21, 1991 from the United States Environmental Protection Agency ("USEPA") which purports to provide "notice of potential liability" with regard to the above referenced site ("the Site"). The following is submitted in connection with the Proposed Plan for remediation of surface contamination at the Site. The comments set forth herein are offered as a supplement to the comments submitted by Whitman & Ransom on behalf of various parties, including Rhône-Poulenc, and to the Dames & Moore technical analysis of the Proposed Plan and the underlying Draft Focused Feasibility Study ("DFFS") which is incorporated therein. These comments are submitted without any waiver of the rights of Rhône-Poulenc to present any and all defenses which may obtain in connection with this Site.

A. An "Early Remedial Response" Is Not Justified By The Present Conditions At The Site.

The obvious intent of an "early remedial response" at this Site is clearly the continuation of a removal action alone. Indeed, the DFFS admits as much: Section 2.0 of the DFFS sets forth the factors to be considered in determining whether a removal action is appropriate. Those factors are then conclusorily said to present the basis for "continued

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1/ These companies shall be collectively referred to herein as "Rhône-Poulenc" for convenience only, said reference shall not be deemed any admission or acceptance of liability or responsibility of one entity for any other.

response." § 2.2. What is glaringly absent from these sweeping contentions, however, is the recognition that the conditions at the Site and associated risks are markedly different today (or, in June 1991 when the DFFS and Proposed Plan were issued) from those which existed one year ago, prior to any removal or corrective activities. If these changed circumstances are acknowledged, USEPA's basis for proceeding on a path which deviates from the National Contingency Plan cannot be sustained.

Importantly, the heart of the DFFS which attempts to support the selection of the early remedial response alternative is § 3.0, "Field Investigation and Public Health Evaluation." Both components, however, suffer from the same malady as the DFFS and Proposed Plan as a whole: failure to account for the changed circumstances.

The Field Investigation discussion recognizes the activities accomplished and ongoing: removal of thousands of drums and segregation and staging of those which remain on-site, § 3.2.1; emptying of tanks and inventorying contents, § 3.2.2; inventorying, sampling, and segregation of lab containers, § 3.2.3. Yet despite these significant activities, acknowledged in the DFFS, and by extension, in the Proposed Plan, USEPA purports to present a situation as dire as one year ago, when none of that work had begun.

Similarly, the entire basis for USEPA's conclusion that a public health hazard exists is outdated. The risks supposedly posed by materials on Site were assessed pre-removal activities, and do not reflect the diminished likelihood of exposure as a result of (1) significant removal of materials off-site, (2) the elimination of leaking, corroded drums via overpacking, or (3) the segregation and staging of materials, including relocation of materials indoors. §§ 3.3.1 and 3.3.4. Finally, and most importantly, USEPA's reliance upon the issuance of a Public Health Advisory by ATSDR is inappropriate: the Public Health Advisory ensued in September 1990, after one site visit (on September 28, 1990) and a handful of interviews on the following day, § 3.3.6.2, but no additional assessments were performed after the removal and remedial activities were commenced (or, if any additional assessments were performed, the DFFS is silent on that topic). In short, the DFFS and Proposed Plan rely on information and analyses which no longer reflect the conditions at the Site nor the risks posed by it.

B. The Proposed Plan Does Not Facilitate Long-Term Remedial Action.

As the foregoing demonstrates, the justification for USEPA's preferred alternative of an "early remedial response"

is illusory at best. The information relied upon is simply outdated -- the conditions are not what they were one year ago; the associated risks are not what they were one year ago. The only other rationale offered by USEPA for proceeding upon this quasi-removal action basis is that it "...will contribute to the efficient performance of, [sic] the long-term remedial action anticipated for this site." § 2.2. Notably absent from that conclusion, however, is any hint of why that is so -- we are told neither how this "early remedial response" will facilitate long-term remedial action, nor the nature of such action.

Instead of supporting the preferred alternative set forth in the Proposed Plan, this rationale offered by USEPA begs the question of the propriety of the circumvention of the approved and appropriate Remedial Investigation/Feasibility Study protocol. Absent emergent conditions at the Site, which may have once existed but do no longer, there is no stated support for avoidance of the comprehensive approach and analysis required by an RI/FS.

C. The Absence of Emergent Conditions Affords An Opportunity To Meaningfully Investigate This Site And Its History.

An important component in remedial activities at any site is the identification of parties who are or may be willing to participate in such activities. At this Site, potentially responsible parties ("PRPs") have not been identified; at best, only a preliminary list of entities who transacted business with the Site operator, White Chemical Corporation, have been named. All involved, including USEPA, must admit that a name on a company document is a far cry from PRP status. Consequently, the investigation is far from complete; the internal factfinding and investigations and ultimate organizational and administrative tasks of a PRP group seem, at this time, in the distant future.

The urgency which the Proposed Plan connotes is not reflective of current conditions. In fact, there is no urgency because of the extensive activities already completed. This lack of urgency affords an opportunity for USEPA, and those entities who ultimately are deemed PRPs, to work toward a thoughtful, organized and appropriate response to the conditions at the Site, and not one born out of inertia or after-the-fact justification.

It is therefore respectfully urged that USEPA's Proposed Plan be revised. Instead of proceeding in a manner not contemplated or sanctioned by the NCP and not justified by the conditions at this Site, we advocate a thoughtful,

comprehensive approach to this Site which will encompass long-term needs through an RI/FS.

Very truly yours,

Nancy B. Rohn

NBR:hes

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August 21, 1991

Ms. Silvina Fonseca
Remedial Project Manager
U.S. Environmental Protection Agency -- Region II
26 Federal Plaza - Room 711
New York, New York 10278

RE: EPA Proposed Plan
White Chemical Corporation Site

Dear Ms. Fonseca:

I was informed today at noon time that comments must be in the mail today despite the failure of the EPA to provide a copy of the transcript of the July 11, 1991 public meeting as I requested under the Freedom of Information Act. I was repeatedly assured that a copy of the transcript would be made available to me within one or two weeks after the meeting. When I received no response to my requests by Monday, August 19, I requested a two-week extension of time within which to comment, which was denied today. (Copies of correspondence and Communication Log attached.)

The documents the EPA has published to date contain misrepresentations, inaccuracies and inconsistencies that, taken as a whole, have the effect of unnecessarily inflating the taxpayer burden.

As a Chemical Engineer with forty-three years' experience with industrial chemicals, I believe I am able to make meaningful and cost-saving comments. It is, however, simply not possible to make coherent comments on a few hours' notice and in the absence of a complete set of documents.

I stand ready to supply such comments two weeks after receipt of the transcript. As I have repeatedly stated from the outset, I remain available personally for on-site assistance, material identification, consultation, etc.

Yours very truly,

James W. White

Enclosure
cc (via Telefax):
Bruce Aber, Esq.
Assistant Regional Counsel, EPA

James White/EPA

COMMUNICATION LOG

RE: Comments on Proposed Plan for White Chemical Corp. Site

7/11/91	Telephone Conversation with Bruce Aber, Esq. ("Aber")	Yes, a transcript of 7/11/91 meeting will be made available under Freedom of Information Act Request ("FOIA").
7/15/91	Letter to Aber	Formal written request under FOIA. (Copy attached)
7/17/91	Letter to Aber	Additional request and inquiry (Copy attached)
7/18/91	Telephone Conversation with Aber	Aber says "No word yet on transcript"
7/19/91	Telephone Conversation with Silvina Fonseca ("Fonseca")	Fonseca says "transcript may take another two weeks"
7/26/91	Telephone Conversation with Aber	Aber says "No further word on transcript"
7/31/91	Telephone Conversation with Aber	Aber says "Take up the transcript matter with Fonseca"
8/6/91	Personal Meeting with Fonseca (at Edison, NJ)	Fonseca says "Transcript may take another day or so"
8/9/91	Personal Meeting with Fonseca (at Newark, NJ)	Fonseca says "Transcript may take another day or so"
8/19/91	AM Telefax to Aber and Fonseca	Inquiry re status of receipt of transcript (Copy attached)
	No response from Aber or Fonseca	
	5PM Telephone call to Fonseca	Fonseca advised transcript will go tonight by overnight service
	6PM Telephone call from Fonseca	Fonseca advises "Transcript will not be sent for another 2 or 3 weeks -- Supervisors will not allow release"
	PM Telefax to Aber	Since transcript denied, White requests extension (Copy Attached)
8/20/91	2PM Aber returns White calls	Aber says "I have both faxes of 8/19. Will respond by end of day."
8/21/91	Aber phones White	Aber says "Transcript denied by 'Administration Section'. No extension for time to comment. Comments to be considered must be postmarked 8/21/91."

Phone
(201) 864-8956

JAMES W. WHITE
100 Manhattan Avenue
Union City, NJ 07087

Fax
(201) 392-9116

FAX MESSAGE

TO: Bruce Aber, Esq.
EPA, NYC Office

7/15/91

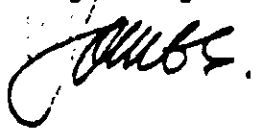
FROM: James White

RE: Request (under Freedom of Information Act) for copy of transcript and any other documents related to the public meeting held by the EPA Thursday, July 11, 1991, at 7PM in Newark, NJ regarding the White Chemical Corp. site

Dear Bruce,

Following our conversation earlier today, it will be appreciated if the information described above can be sent to me within the next few days so that I can make full comments for the July 22, 1991, deadline.

Yours very truly,



Telephone
(201) 864-8956

[redacted]

FAX MESSAGE

TO: Bruce Aber, Esq.
Regional Counsel, EPA, NYC Office

7/17/91

FROM: James White

RE: Further to my letter of 7/15/91 Regarding Request (under Freedom of Information Act) for copy of transcript and any other documents related to the public meeting held by the EPA Thursday, July 11, 1991, at 7 PM in Newark, NJ regarding the White Chemical Corp. site

Dear Bruce:

You told me there would be information available to me on the above-referenced matter, and that I should phone you on Tuesday, July 16, for your advice.

I tried to get through to you by telephone yesterday without success, and again today (also unsuccessfully).

If for some reason it is not possible to get the transcript and other materials to me by fax tomorrow, Thursday, July 18, 1991, then please extend the 7/22/91 deadline accordingly.

Yours very truly,

James

JAMES W. WHITE
100 Manhattan Avenue
Union City, NJ 07087

Telephone
(201) 864-8956

Telefax
(201) 392-9116

FAX MESSAGE

August 19, 1991

TO: Ms. Silvina Fonseca
Remedial Project Manager
EPA, NYC

Bruce Aber, Esq.
EPA, NYC

FROM: James White

RE: Transcript of Public Meeting of 7/11/91

The transcript of the public meeting of July 11, 1991, has not yet been received. Please let me know when you expect it to be made available.

I would assume that there already has been a further extension of the deadline for comments. If not, I hereby request such an appropriate extension.

Many thanks for your kind and considerate anticipated cooperation.

Yours very truly,

Telephone
(201) 864-8956

JAMES W. WHITE
100 Manhattan Avenue
Union City, NJ 07087

Telefax
(201) 392-9116

FAX MESSAGE

August 19, 1991

TO: Bruce Aber, Esq.
Office of Regional Counsel
EPA, NYC

FROM: James White

RE: Request for Transcript

This letter comes with reference to my prior correspondence and request for a copy of the transcript of the public hearing of July 11, 1991.

It was entirely reasonable to understand that I should not be present at the possible "lynching" and I had been given to understand that I would receive the transcript forthwith.

I am now advised by Ms. Fonseca that although the transcript is available, a determination has been made not to release it to me for another "two or three weeks" which would obviate my ability to provide full comments as requested and invited within the present time frame.

I hereby request an extension of time of at least two weeks after receipt of the transcript within which to present comments, especially since it seems that White Chemical Corporation and myself are not only the most interested parties, but also perhaps the most knowledgeable as to the facts and circumstances involving such a tremendous expenditure of public funds. Obviously the expenditure proposed seeks to expand our liability.

I would assume that it is in the Govenment's best interest to further avoid unnecessary expenditures.

As you know, I have always been fully cooperative and forthcoming, therefore I would anticipate that our comments would receive substantial credibility in order to ameliorate the situation.

Thank you in advance for your kind and careful consideration to this request, and I remain,

Sincerely yours,

James W. White
President
White Chemical Corporation

ROCHE · Hoffmann-La Roche

Hoffmann-La Roche Inc
340 Kingsland Street
Nutley, New Jersey 07110-1199

John D. Alexander
Senior Counsel
(201) 235-3447

July 11, 1991

Ms. Silvina Fonseca
Remedial Project Manager
U.S. Environmental Protection
Agency/Region II
26 Federal Plaza/Room 711
New York, New York 10278

Re: White Chemical Site

Dear Ms. Fonseca:

Hoffmann-La Roche Inc. has received a letter from USEPA on the above matter, and although we have no record of having sent any waste or hazardous substances to this site, we wish to make a few general observations for the public record. Several comments do not relate to the proposed remedial action at the site, but rather to potential enforcement strategies.

Our first point is that the EPA summary sent with your June 21, 1991 letter seems to indicate that White Chemical Corporation (WCC) was the subject of several previous RCRA inspections. Assuming, without knowing, that WCC was a licensed RCRA facility and had attained at least interim status under that program, the facility should have been required to maintain a letter of credit, bond or other financial device for closure of the permitted facility. If such an underlying assumption is in fact true, we suggest EPA first utilize any such closure funds before seeking contributions from so-called "potentially responsible parties". On a related topic, we note that no insurance carriers of White Chemical were put on notice of this situation, and we feel this is an unfortunate omission, if true. Roche feels strongly that the operator of a facility should first respond to a clean-up scenario until all its assets (including insurance coverage) are exhausted before the agency should consider pursuing the customer group, which in most cases lacks culpability for the sloppy disposal practices at the site.

After reviewing the EPA summary, Roche must agree that alternative three makes the most sense to implement, especially since it will cost only $200,000 more to implement than the site stabilization/storage alternative. Destruction of the materials is the most effective means of protecting the site and surrounding populations. However, we are taken aback by the astonishing cost figures associated with both alternatives 1&2. We feel that the average disposal cost of $1,600 per drum is way above industry standards, and that the agency should re-evaluate the estimates on hand and consider an open bidding process to arrive at the true market cost of

the needed disposal services. We are all aware of the cost sensitivity associated with government run projects, as well as the allegations of many in the legislative branch that Superfund cleanup costs are too high. Accordingly, we hope the agency carefully reviews the cost estimates involved with first operable unit and includes only those services essential to the cleanup and protection of the environment.

We appreciate the opportunity to submit comments to the Agency on this important matter.

Very truly yours,

HOFFMANN-LA ROCHE INC.

By _____
John D. Alexander
Senior Counsel

JDA:DMS
6743:Env:32:White Chemical

GIVAUDAN

ANGELO C MORRESI
Vice President
Safety, Regulatory & Environmental Affairs

July 16, 1991

CERTIFIED MAIL
RETURN RECEIPT REQUEST

Ms. Silvina Fonseca
Remedial Project Manager
U.S. Environmental Protection
Agency/Region II
26 Federal Plaza/Room 711
New York, New York 10278

Re: White Chemical Corporation Superfund Site - Newark, Essex County, NJ

Dear Ms. Fonseca:

Givaudan Corporation is in receipt of your letter dated June 21, 1991 with regard to the above matter. Givaudan has no record of sending any waste or hazardous substance to the above site.

With regard to the proposed plan for remedial response action at the site, Givaudan makes the following comments:

Givaudan recommends that Alternative III be implemented as recommended by the EPA. This alternative will deal with the problem directly and that it will clean up the site in a shorter period of time than the other alternatives and at a cost virtually in line with the other alternatives. However, Givaudan believes that the cost of clean-up and disposal of drums appears to be excessive and should be reviewed critically. Givaudan also believes that the EPA should review the inventory present at the site and identify those materials which are of commercial value and are not in need of disposal. These can be viewed as an asset.

Thank you for the opportunity to provide comments on this matter.

Very truly yours,

Angelo C. Morresi
Vice President
Safety, Regulatory & Environmental Affairs

ACM:pb

WCC 001 0769

GIVAUDAN CORPORATION
100 Delawanna Avenue Clifton New Jersey 07015-5034 Telephone 201/365-8281
Cable Givaudanco-Clifton Telex 219256 Telefax 201-777-9304