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Final

No Further Response Action Planned
Decision Document For
Sites 2, 3, 5, 6, 8, and 10
Naval Weapons Station Yorktown
Yorktown, Virginia
Cheatham Annex Site



Prepared For
Department of the Navy
Atlantic Division
Naval Facilities Engineering Command
Norfolk, Virginia

Contract No. N62470-95-D-6007
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Prepared by

CH²M HILL

Federal Group, Ltd.

Baker

Environmental, Inc.

9/1/03-01373

FINAL

**NO FURTHER RESPONSE ACTION PLANNED
DECISION DOCUMENT FOR
SITES 2, 3, 5, 6, 8, AND 10**

**NAVAL WEAPONS STATION YORKTOWN
CHEATHAM ANNEX SITE
WILLIAMSBURG, VIRGINIA**

CONTRACT TASK ORDER 0238

PREPARED FOR:

**DEPARTMENT OF THE NAVY
ATLANTIC DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
*NORFOLK, VIRGINIA***

UNDER THE:

**LANTDIV CLEAN PROGRAM
CONTRACT N62470-95-D-6007**

PREPARED BY:

**BAKER ENVIRONMENTAL, INC.
*VIRGINIA BEACH, VIRGINIA***

SEPTEMBER 2003

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ACRONYMS AND ABBREVIATIONS

AOC	Area of Concern
CAD	Cheatham Annex Depot
CAX	Cheatham Annex Site
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
DoD	Department of Defense
DoN	Department of the Navy
FFA	Federal Facility Agreement
FISC	Fleet and Industrial Supply Center
IAS	Initial Assessment Study
IR	Installation Restoration
MSDS	Material Safety Data Sheet
NCP	National Contingency Plan
NFA	No Further Action
NFRAP	No Further Response Action Planned
NPL	National Priorities List
R ³	Relative Risk Ranking
RAB	Restoration Advisory Board
RI	Remedial Investigation
SI	Site Investigation
SMP	Site Management Plan
SSP	Site Screening Process
USEPA	United States Environmental Protection Agency
WPNSTA	Naval Weapons Station

1.0 Declaration

1.1 Site Name And Location

The six sites listed below are located on the Naval Weapons Station Yorktown, Cheatham Annex Site, Williamsburg, Virginia:

- Site 2 - Contaminated Food Disposal Area,
- Site 3 - Submarine Dye Disposal Area,
- Site 5 - Photographic Chemicals Disposal Area,
- Site 6 - Spoiled Food Disposal Area,
- Site 8 - Landfill near Building CAD 14, and
- Site 10 - Decontamination Agent Disposal Area Near First Street

Figures 1 and 2 show the locations of Cheatham Annex and the six sites.

1.2 Statement Of Basis And Purpose

This No Further Response Action Planned (NFRAP) Decision Document summarizes the decision that no further response action is planned for Cheatham Annex Sites 2, 3, 5, 6, 8, and 10 as listed above. This NFRAP Decision Document is based upon and incorporates by reference site information and recommendations of the Initial Assessment Study (1984) and various other site-specific documents as referenced.

1.3 Decision Statement

The Initial Assessment Study (IAS) (NEESA, 1984) conducted by the Navy identified 12 disposal sites and potential contamination areas. Of these 12 sites, Sites 2, 3, 5, 6, 8, and 10 were identified as sites but the Partnering Team agrees to address them as Areas of Concern (AOCs) as provided under the WPNSTA Yorktown Federal Facility Agreement (FFA). As such, a desk-top study has been conducted for these sites and based upon a thorough review of all existing or easily obtainable documentation/information on these sites, no further action is warranted for these sites and they can be closed out. Hence, a no further action decision has been selected as the appropriate remedy for CAX Sites 2, 3, 5, 6, 8, and 10 and was made in accordance with the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA), as amended, 42 U.S.C. §§ 9601-9675 and, to the extent practicable, with the National Contingency Plan (NCP), 40 Code of Federal Regulations Part 300.

The FFA for WPNSTA Yorktown, Cheatham Annex Site, mandates that decisions concerning sites or AOCs be made by respective project managers to determine whether: 1) no further investigation of the site or AOC is necessary (i.e. no further action [NFA]) or; 2) the site or AOC should be included as a "site" under the Department of Defense (DoD) Installation Restoration (IR) Program. Sites and AOCs included, as sites will be numbered in ascending order in the Site Management Plan (SMP) for WPNSTA Yorktown, Cheatham Annex Site, ranked using the DoD's Relative Risk Ranking (R³) Program and scheduled for further investigation. This NFRAP Decision Document provides the basis for the NFA

decision-making process by reviewing environmental site conditions, the available analytical data obtained at each site or AOC and potential risks for both human and ecological receptors. Appendix A provides a list of the major documents which contain information that support the no further action decision and these documents are contained in the administrative record for WPNSTA Yorktown, Cheatham Annex Site.

It has been determined that the no further action remedy protects human health and the environment, attains federal and state requirements that are applicable or relevant and appropriate, and is cost effective. Based upon available data, the nature of the wastes (non-hazardous) managed or disposed of at these sites and the low probability for contaminant migration (Sites 5 and 10), no human or ecological risks are anticipated at these sites. The statutory preference for further treatment is not satisfied because further treatment is not necessary to address human and/or ecological risks. Based upon the risk analysis performed for each of the sites, it has been determined that these sites present no significant threat to human health or the environment. This signature page along with the information presented in the NFRAP Decision Document meet the FFA's requirement of providing a Site Close-Out Document.

The Department of the Navy (DoN) has obtained concurrence from the Commonwealth of Virginia and the United States Environmental Protection Agency (USEPA) Region III on the NFA decisions for Sites 2, 3, 5, 6, 8, and 10. These decisions are summarized below and additional information for each site is provided in the NFRAP Decision Document (Appendix A).

Site 2 – Contaminated Food Disposal Area: No further action is the selected remedy for this site as only non-hazardous wastes and spoiled food were disposed at the site. No potential human health or ecological risks are anticipated as a result of the disposal and degradation of the non-hazardous waste and spoiled food.

Site 3 – Submarine Dye Disposal Area: No further action is the selected remedy for this site as the submarine (fluorescein) dye released at the site naturally degrades rapidly in normal atmospheric conditions and the release was a small volume. No potential human health or ecological risks are anticipated as a result of the release and degradation of the dye.

Site 5 – Photographic Chemicals Disposal Area: No further action is the selected remedy for this site as the estimated 20 to 40 gallons of photographic developers and fixers were disposed in a "marl" pit. Marl is native clayey sediment that would restrict migration of the wastes. Also, the volume of the release was small. No potential human health or ecological risks are anticipated as a result of the release.

Site 6 – Spoiled Food Disposal Area: No further action is the selected remedy for this site as only non-hazardous wastes and spoiled food were disposed of at the site. No potential human health or ecological risks are anticipated as a result of the disposal and degradation of the non-hazardous waste and spoiled food.

Site 8 – Landfill near Building CAD 14: No further action is the selected remedy for this site as only non-hazardous waste (clothing) and spoiled food (candy and meat) was disposed at the site. No potential human health or ecological risks are anticipated as a result of the disposal and degradation of the non-hazardous waste and spoiled food.

Site 10 – Decontamination Agent Disposal Area Near First Street: No further action is the selected remedy for this site as drums containing an estimated 70 to 100 gallons of DS-2 was reportedly buried at the site before 1982. DS-2 is composed of 70 percent diethylene triamine, 28 percent ethylene glycol monoethyl and 2 percent sodium hydroxide. No potential human health or ecological risks are anticipated as a result of the disposal of the wastes.

1.4 Description Of The Selected Remedy

CAX Sites 2, 3, 5, 6, 8, and 10 were identified as sites in the IAS (NEESA, 1984) but the Partnering Team agrees to address them as AOCs as provided under the WPNSTA Yorktown FFA. As such, a desk-top study has been conducted for these sites and based upon a thorough review of all existing or easily obtainable documentation/information on these sites, no further action is warranted for these sites and they can be closed out. Hence, a NFA decision has been selected as the appropriate remedy for CAX Sites 2, 3, 5, 6, 8, and 10.

Based on the desk-top study and the IAS for CAX Sites 2, 3, 5, 6, 8, and 10 it has been determined that no significant risk or threat to human or ecological health exists. Hence, no further action under CERCLA, as amended, is required for these sites.

1.5 Statutory Determination

The selected no further action remedy protects human health and the environment and is cost effective. The selected remedy is a permanent solution as the wastes disposed of at the sites do not pose a significant threat to human health or the environment. In addition, the sites will not be subject to a five-year review (NCP 300.430(f)(4)(ii)).

Jeffrey C. Harlow
Jeffrey C. Harlow
NAVFAC, LANTDIV

Date: 8/14/03

Greyson T. Franklin
Greyson T. Franklin
USEPA Region III

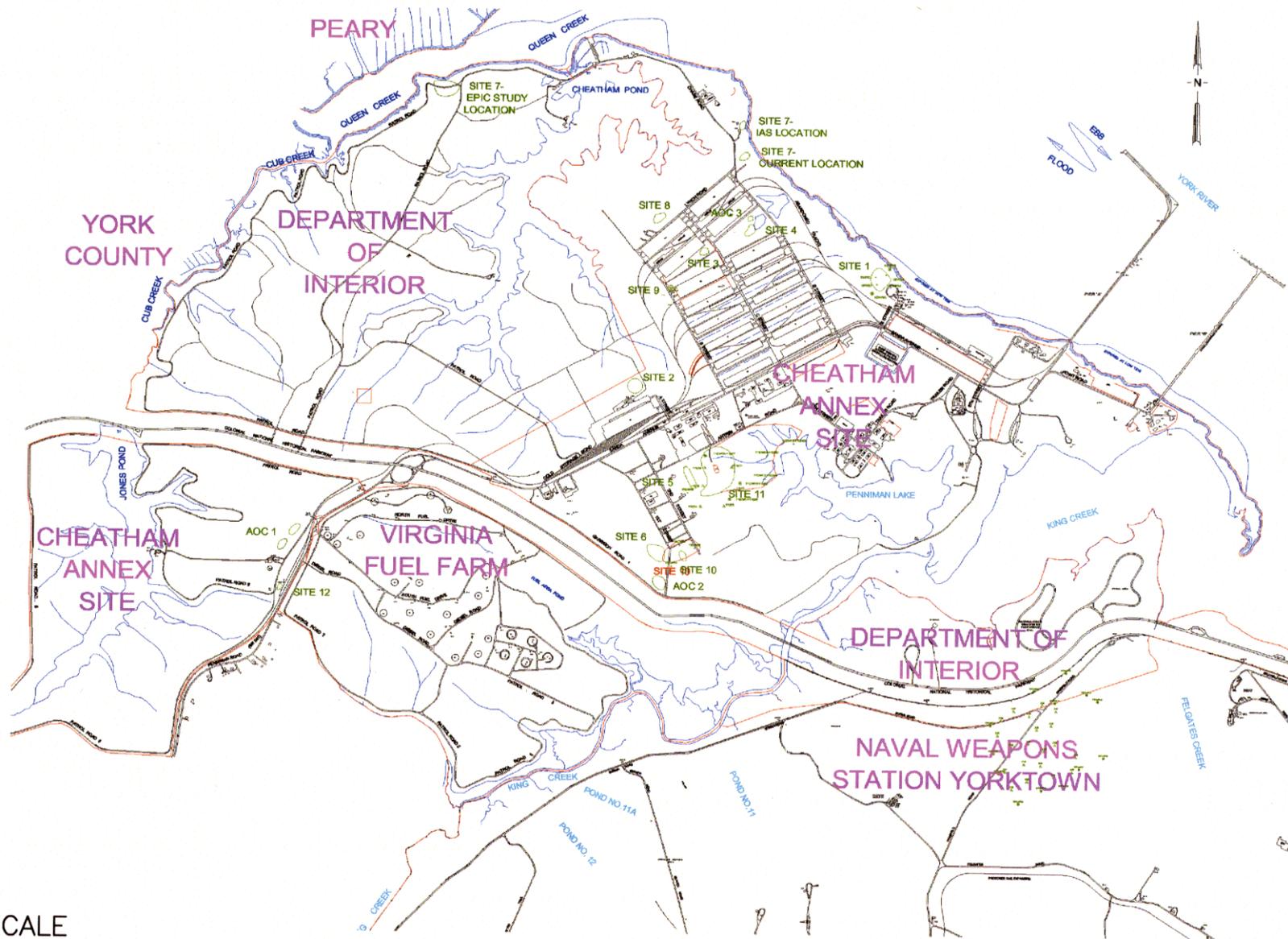
Date: 8/14/03

Stephan A. Mihaiko
Stephan A. Mihaiko
Virginia Department of Environmental Quality

Date: 8-14-03

William C. Blackwell
William C. Blackwell
CNRMA

Date: 8/14/03



NOT TO SCALE

FIGURE 1
LOCATION OF CHEATHAM ANNEX SITE

NAVAL WEAPONS STATION YORKTOWN
 YORKTOWN, VIRGINIA

012720214

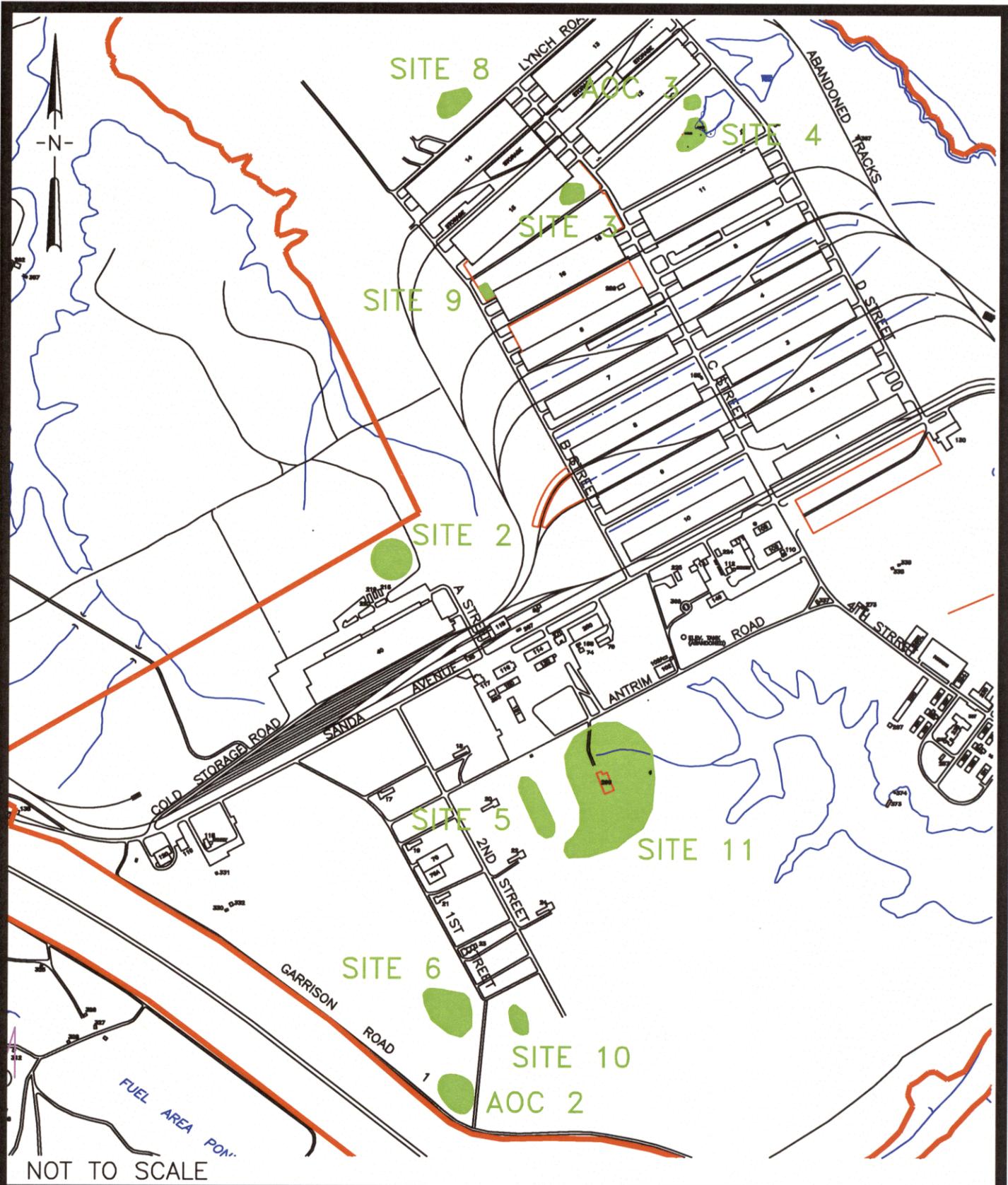


FIGURE 2
LOCATION OF CHEATHAM ANNEX NFRAP SITES
 NAVAL WEAPONS STATION YORKTOWN
 YORKTOWN, VIRGINIA

APPENDIX A

**DECISION SUMMARY AND SITE DESCRIPTIONS
FOR
SITES 2, 3, 5, 6, 8, AND 10**

**NAVAL WEAPONS STATION YORKTOWN
CHEATHAM ANNEX SITE
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1.0 DECISION SUMMARY

1.1 Introduction

This document presents the No Further Response Action Planned (NFRAP) Decision Document for:

- Site 2 - Contaminated Food Disposal Area,
- Site 3 - Submarine Dye Disposal Area,
- Site 5 - Photographic Chemicals Disposal Area,
- Site 6 - Spoiled Food Disposal Area,
- Site 8 - Landfill near Building CAD 14, and
- Site 10 - Decontamination Agent Disposal Area Near First Street

These sites are located at the Naval Weapons Station Yorktown (WPNSTA), Cheatham Annex Site (CAX), Williamsburg, Virginia. Figure 1 shows the location of CAX. Figure 2 shows the locations of Sites 2, 3, 5, 6, 8, and 10. The Navy's preferred alternative for these sites is No Further Action. This document provides background information on each site and documents the decision of No Further Action. This NFRAP Decision Document was prepared by Baker Environmental, Inc. (Baker), under contract to the Atlantic Division (LANTDIV), Naval Facilities Engineering Command (NAVFAC) under the Comprehensive Long-Term Environmental Action Navy (CLEAN II) Contract N62470-95-D-6007, Contract Task Order (CTO) 0238.

The NFRAP decision-making process applies to sites that do not warrant further evaluation under the Installation Restoration (IR) Program. The primary criterion for NFRAP is a determination that the site does not pose a significant threat to public health or the environment. The NFRAP decision can be made at several points in the IR process, but the basis for the decision must be documented. The NFRAP designation means no supplemental investigation or remediation work will be performed at the site unless new information about the site is presented and indicates that the initial decision was inappropriate. For non-National Priorities List (NPL) sites, the installation must notify EPA and the State that it has completed appropriate response actions and no further response action is appropriate (Department of the Navy [DoN], 1999).

The purpose of this document is to document the NFRAP decision that was based upon the findings of previous site studies. CAX Sites 2, 3, 5, 6, 8, and 10 were identified in the Initial Assessment Study (NEESA, 1984), file reviews and historical records searches. Information reviewed for this report included maps, previous reports, aerial photographs, historical records and data obtained during site studies and applicable field investigations at CAX. This information was used to evaluate the potential condition of each proposed NFRAP site and make the NFRAP determination. This NFRAP Decision Document presents the technical information and findings of the previous site studies conducted at Sites 2, 3, 5, 6, 8, and 10 that support the conclusion that the soils and groundwater at these sites do not pose an unacceptable risk to human health or the environment.

This appendix presents the components of the decision summary as recommended in *A Guide to Preparing Superfund Proposed Plans, Records of Decision, and Other Remedy Selection Decision Documents* (USEPA, 1999). Sections 1.2 through 1.5 consist of components of the Decision Summary recommended by USEPA guidance (USEPA, 1999) that are common to all of the sites covered by this NFRAP Decision Document. These subsections are presented separately from the individual site background information to avoid presenting redundant information and to more clearly present the site specific information that justifies the no further action remedy selection. Subsections 1.6 through 1.11 present site specific information for CAX Sites 2, 3, 5, 6, 8, and 10, with specific references to previous site studies, and Appendix B provides additional documents and information not previously covered by site studies.

1.2 Facility Name, Location, Description and History

CAX is located on the south bank of the York River within York County, Virginia and is situated northeast of Interstate 64, approximately 1 to 2 miles northeast of Williamsburg, Virginia. At inception in 1943, CAX occupied approximately 3,349 acres. Several portions of the original base have since been declared surplus and transferred to other government jurisdictions, including the National Park Service, the Commonwealth of Virginia, and York County. Currently, CAX is comprised of 1,578 acres. The base, or Activity, is divided into two separate parcels, with the larger parcel situated along the banks of the York River. Almost all of the activities at CAX (administration, training, maintenance, support, and housing) take place in this portion of the Activity. The smaller parcel is located south of the Colonial National Historic Parkway (Colonial Parkway). This area contains the Activity's water supply (Jones Pond) and is used mainly as a watershed protection area. CAX and the surrounding properties are shown on Figure 1.

CAX was established in June 1943 as a satellite unit of the Naval Supply Depot to provide bulk storage facilities. Prior to 1943, CAX had been the location of the Penniman Shell Loading Plant (Penniman), which was a large powder and shell loading facility operated by DuPont during World War I. The Penniman facility closed in 1918. Between 1918 and 1943, the property was used for farming or left idle until CAX was commissioned in 1943. Since 1943, CAX has been used for receiving, storing, packaging, and shipping materials to federal facilities on the United States east coast and to major distribution centers in Europe.

Previously operated as an annex to the Fleet and Industrial Supply Center (FISC), Norfolk, CAX provided logistic and supply support to naval shore installations. CAX is the Navy Sea System Command's East Coast consolidated stock point for major shipboard mechanical, electronic, and some navigational equipment. In addition to receiving, storing, issuing, packing and shipping navy stock material, particularly large shipboard equipment (e.g., submarine periscopes, ship propellers, bull gears, antennae, and sonar domes), CAX provides warehouse and distribution services for 39 Storage Authorization Programs and tenant organizations.

In July 1987, CAX was designated the Hampton Roads Navy Recreational Complex. Today the mission of CAX includes supplying Atlantic Fleet ships and providing recreational opportunities to military and civilian personnel; 55% of CAX is undeveloped and rich in

natural resources. Outdoor recreational facilities and activities available include: 13 cabins, 19 recreational vehicle (RV) sites, camp sites, an 18-hole golf course, swimming pool, ball fields, freshwater and saltwater fishing, boating, wildlife watching and hunting (DoN, 1998). CAX currently operates under the command of WPNSTA Yorktown. The transition of CAX control from FISC to WPNSTA occurred in October 1998.

1.3 Facility Enforcement Actions

On October 15, 1992, WPNSTA Yorktown was included on the NPL. A Federal Facility Agreement (FFA) between the United States Environmental Protection Agency (USEPA) Region III, the Commonwealth of Virginia, and the Department of the Navy (the Navy) was finalized for WPNSTA Yorktown in August of 1994. The FFA applies to the investigation, development, selection, and implementation of response actions for all releases or threatened releases of hazardous substances, contaminants, hazardous wastes, hazardous constituents, or pollutants at or from WPNSTA Yorktown. The Naval Weapons Station Yorktown – Cheatham Annex Site (CAX) was proposed to the NPL on February 4, 2000. No documented enforcement activities have been conducted at Sites 2, 3, 5, 6, 8 and 10 under the FFA. Documents listed in Section 2 of this document provide details of various site studies and assessments for these sites.

1.4 Community Participation and Responsiveness Summary

Community involvement for Sites 2, 3, 5, 6, 8, and 10 has occurred through the addition of Cheatham Annex to the Naval Weapons Station Yorktown Restoration Advisory Board (RAB) in 1999. RAB meetings are advertised to the public and held on a quarterly basis. The RAB consists of government officials and local residents. Also, the Administrative Record File for Cheatham Annex is available to the public at the:

Virgil I. Grissom Library
366 Deshazor Drive
Newport News, Virginia 23506
757-369-3190

Documents related to the sites are located in the Administrative Record for Cheatham Annex and include, but are not limited to, the IAS and the Site Management Plan for Cheatham Annex. Upon finalization, the NFRAP Decision Document for Sites 2, 3, 5, 6, 8, and 10 will be included in the Administrative Record File.

Additional information can be obtained from:

Mr. Channing Blackwell
Installation Restoration Program Manager
Naval Weapons Stations Yorktown
Building 406, Code 950
Yorktown, VA 23691-0160
757-887-4086

Communities near WPNSTA Yorktown, Cheatham Annex Site have a good working relationship with the facility due to its “good neighbor” policy that is implemented through the Public Affairs Office. The facility participates in community events and celebrations to foster close ties to the community. No public comments or concerns regarding CAX Sites 2, 3, 5, 6, 8, and 10 have been received during community attendance and participation at the quarterly Remediation Advisory Board Meetings held by WPNSTA Yorktown, Cheatham Annex Site. Federal and state representatives attend the RAB meetings regularly as well as Partnering Meetings. As documented in the specific site background discussion, the Navy has obtained agreement to the no further action remedy from the federal and state representatives.

1.5 Scope and Role of the Remedy

CAX Sites 2, 3, 5, 6, 8, and 10 are part of the on-going comprehensive environmental studies conducted under the IR Program at WPNSTA Yorktown, CAX Site. NEESA identified 12 disposal sites in the Initial Assessment Study (IAS) (NEESA, 1984) and recommended that four sites warranted further investigation. Except for Site 10, none of the sites covered by this NFRAP Decision Document were recommended for further study by the IAS. Similar to the program at WPNSTA Yorktown, the Navy divided the disposal areas identified in the IAS into 12 sites and 6 areas of concern (AOC). No Operable Units have been established at CAX. As recommended by the IAS, further investigations were completed at Site 1 – Landfill Near the Incinerator, Site 9 – Transformer Storage Area, Site 10 – Decontamination Agent Disposal Area Near First Street and Site 11 – Bone Yard. On-going activities are progressing at two of the four sites: a non-time critical removal and wetland creation/restoration at Site 1 and a remedial investigations/feasibility study at Site 11. A limited investigation was conducted at Sites 9 and 10. The investigation of Site 9 concluded that PCB-contaminated soil presented an ecological risk and a Screening Ecological Risk Assessment is on-going at this site. The investigation at Site 10 concluded that no contaminants detected at the site were associated with the disposal of the decontamination agent.

Because the types of wastes disposed (non-hazardous at Sites 2, 3, 6, and 8), site conditions that restrict potential contaminant migration (Sites 5 and 10), and that the sites do not pose a significant risk to human health or the environment, no further action is required at these sites. The no further action alternative is the final remedy for these sites.

1.6 Site 2 - Contaminated Food Disposal Area

This section presents the information that supports the NFRAP decision for Site 2 - Contaminated Food Disposal Area. An overview of the site history, site studies performed and location of the site are provided in these subsections.

1.6.1 Site Name, Location, Description and History

Site 2 – Contaminated Food Disposal Area is located in a grassy area in the woods behind the cold storage warehouse (CAD Building 40). Ammonia-contaminated frozen food was buried in a disposal pit approximately 50 feet in diameter and 12 to 15 feet deep in 1970. The

ammonia was the result of a leak that developed in one of the cold storage rooms. The food was buried with cellophane wrappers and boxes intact. The site was overgrown at the time of the IAS of Naval Supply Center, Cheatham Annex and Yorktown Fuels Division (NEESA, 1984). The IAS concluded that additional study was not warranted for the site because the wastes buried at the site would naturally decompose. There has been no investigation at the site other than the IAS conducted in 1984. During the December 3-5, 2001 Partnering Meeting, attended by individuals from U.S. Environmental Protection Agency Region III, Virginia Department of Environmental Quality, LANTDIV, Baker, and the U.S. Fish and Wildlife Service, a site visit was conducted and it was concluded that Site 2 - Contaminated Food Disposal Area, warranted no further action given that only spoiled food was disposed of at the site.

Soil in this area is sandy loam and is moderately well-drained. Surface water drainage from the site is towards Cheatham Lake (NEESA, 1984).

Site 2 – Contaminated Food Disposal Area is within a managed forest area that is not currently being used.

1.7 Site 3 - Submarine Dye Disposal Area

This section presents the information that supports the NFRAP decision for Site 3 – Submarine Dye Disposal Area. An overview of the site history, site studies performed and location of the site are provided in these subsections.

1.7.1 Site Name, Location, Description and History

This site is located at the northeastern corner of Building CAD 15. The area is presently used as a storage lot. Dye was stored in 55-gallon drums on two or three pallets located between the warehouses. The drums corroded and dye leaked onto the ground and into the storm sewer system. On rainy days, puddles containing a green fluorescein dye were observed. At times, the dye would leak into the storm sewer leading to the York River, turning the river green. The Coast Guard notified the Activity and the drums were subsequently removed in the early 1970s. The IAS concluded that additional study was not warranted for the site because the dye no longer posed an environmental hazard.

Soils at the site are well drained with loamy subsoil and clayey sub-stratum. Depth to groundwater is about 20 feet and direction of flow is toward the York River (NEESA, 1984).

The IAS concluded that additional study was not warranted for the site because the dye no longer posed an environmental hazard. There has been no investigation beyond the ISA (NEESA, 1984). During the December 3-5, 2001 Partnering Meeting, attended by individuals from U.S. Environmental Protection Agency Region III, Virginia Department of Environmental Quality, LANTDIV, Baker, and the U.S. Fish and Wildlife Service, a site visit was conducted and it was concluded that CAX Site 3, Submarine Dye Disposal Area, warranted no further action given that after reviewing the MSDS on fluorescein dye, the dye was shown to be non-hazardous. The MSDS for fluorescein dye is provided in Appendix A.

Fluorescein dye rapidly degrades under normal atmospheric conditions to a non-hazardous compound and is completely soluble in water.

Site 3, an unpaved strip of land next to Warehouse 15, is currently a temporary storage lot.

1.8 Site 5 - Photographic Chemicals Disposal Area

This section presents the information that supports the NFRAP decision for Site 5 – Photographic Chemicals Disposal Area. An overview of the site history, site studies performed and location of the site are provided in these subsections.

1.8.1 Site Name, Location, Description and History

In 1967 or 1968 outdated photographic chemicals were reportedly disposed in a pit of unknown dimensions. This site was originally a borrow pit located behind (southeast) of the old DuPont Penniman Shell Loading facility, near Second Street.

Groundwater drainage is most likely toward Penniman Lake and ultimately to the York River. Soils around Site 5 are moderately well drained with a clayey substratum. It is possible that the bottom of the pit rests in this clay layer which would restrict migration of the disposal wastes to groundwater (NEESA, 1984).

The IAS (NEESA, 1984) concluded that, based on the small quantity of 20 to 40 gallons and clayey substratum that further study was not warranted.

In June 1998 Baker and LANTDIV representatives visited Site 5 and reconnoitered the area to locate the site. No signs of contamination, distressed areas, or evidence of the disposal pit could be seen. Based on the small quantity of the chemicals that were reportedly disposed and the lack of evidence of contamination, the site is not considered to be a significant source of contamination. The Field Investigation Report letter based on this site visit recommended that no further action be taken at Site 5.

During the December 3-5, 2001 Partnering Meeting, attended by individuals from U.S. Environmental Protection Agency Region III, Virginia Department of Environmental Quality, LANTDIV, Baker, and the U.S. Fish and Wildlife Service, a site visit was conducted and it was concluded that CAX Site 5, Photographic Chemicals Disposal Area, warranted no further action given that only a small volume of photochemicals was disposed in an area that cannot be located using historical records and the disposal of these wastes in a “marl” pit consisting of clayey native soils that would prohibit transport of the photochemicals.

Site 5 is a maintained grassy area that appears to be periodically mowed, but is not currently in use.

1.9 Site 6 - Spoiled Food Disposal Area

This section presents the information that supports the NFRAP decision for Site 6 – Spoiled Food Disposal Area. An overview of the site history, site studies performed and location of the site are provided in these subsections.

1.9.1 Site Name, Location, Description and History

Site 6 is located west of the old DuPont Penniman Shell Loading facility. Reportedly, approximately 750 cubic yards of food spoiled in cold storage was buried in a 12 to 15 foot deep pit around 1970. Disposal was not ongoing, and the spoiled food had no hazardous properties. The site was overgrown at the time of the IAS (NEESA, 1984). The IAS concluded that additional study was not warranted for the site due to the non-hazardous condition of the decomposed food disposed at the site.

Soils in this area have a loamy subsoil and clayey substratum. Groundwater drainage is probably toward King Creek (NEESA, 1984).

The IAS (NEESA, 1984) concluded that, based on the non-hazardous nature of decomposing food, further study was not warranted.

During the December 3-5, 2001 Partnering Meeting, attended by individuals from U.S. Environmental Protection Agency Region III, Virginia Department of Environmental Quality, LANTDIV, Baker, and the U.S. Fish and Wildlife Service, a site visit was conducted and it was concluded that CAX Site 6, Spoiled Food Disposal Area, warranted no further action given that only spoiled food was disposed of at the site.

Site 6 is a managed forest that is not currently in use.

1.10 Site 8 - Landfill Near Building CAD 14

This section presents the information that supports the NFRAP decision for Site 8 – Landfill Near Building CAD 14. An overview of the site history, site studies performed and location of the site are provided in these subsections.

1.10.1 Site Name, Location, Description and History

Site 8 is located approximately 300 feet north of Building CAD 14 and is estimated to be less than one quarter acre in size. The disposal area reportedly consisted of a series of trenches 2,000 feet long and 10 feet deep. The site was used at various times since the early 1940s but was most active before the Landfill near the Incinerator (CAX Site 1) was opened. Waste was reportedly disposed at the site as recently as 1980.

Specific information documenting disposal practices is not available. Reportedly, only non-hazardous materials such as spoiled meat, spoiled candy, and clothing have been disposed at the site. The surface of the site is level and overgrown with tall grasses, and at

the time of the IAS (NEESA, 1984), there was no surface evidence of waste and no stressed vegetation.

The IAS concluded that additional study was not warranted for the site because only non-hazardous wastes were disposed at the site. Based on the inert nature of the wastes that were disposed at Site 8, the site is not considered to be a significant source of contamination.

During the December 3-5, 2001 Partnering Meeting, attended by individuals from U.S. Environmental Protection Agency Region III, Virginia Department of Environmental Quality, LANTDIV, Baker, and the U.S. Fish and Wildlife Service, a site visit was conducted and it was concluded that CAX Site 8, Landfill near Building CAD 14, warranted no further action given that only non-hazardous materials such as spoiled meat, spoiled candy, and clothing were disposed of at the site and all anecdotal records indicated that the clothing was not impregnated with any chemicals.

Site 8 is in a managed forest area that is not currently being used.

1.11 Site 10 - Decontamination Agent Disposal Area Near First Street

This section presents the information that supports the NFRAP decision for Site 10 – Decontamination Agent Disposal Area Near First Street. An overview of the site history, site studies performed and location of the site are provided in these subsections.

1.11.1 Site Name, Location, Description and History

Site 10 is located south of First Street in the southernmost part of the old DuPont Penniman Shell Loading facility. An estimated 75 to 100 gallons of decontamination agent, DS-2, was reportedly buried at the site before 1982. DS-2, which is toxic to humans and corrosive to metals, is used for decontaminating equipment contaminated with nerve or blister agents. It is not known if the DS-2 was neutralized prior to disposal.

DS-2 is comprised of 70% diethylene triamine; 28% ethylene glycol monomethyl ether, and 2% sodium hydroxide. As summarized on the MSDS for DS-2 (Appendix B), it is a clear, amber solution with an ammonia-like odor, a specific gravity of 0.97 to 0.98 that reacts with metals (aluminum, cadmium, copper, tin, zinc), some plastics, wool, leather, and reacts violently with acids and oxidizing agents. Health hazard data indicates that it is non-carcinogenic and that direct exposure to DS-2 can cause irritation to eyes, skin, throat, inhalation routes (i.e. nose, lungs) and ingestion routes. In the event of a release, the MSDS recommends ventilation of the area, avoid breathing vapors and to neutralize the area with sodium bisulfate and then absorb with vermiculite or similar material. Then, then to collect the adsorbed material, place in a drum and dispose of according to local and federal regulations.

Diethylene Triamine, a major component of DS-2, is a general purpose room temperature epoxy curing agent. As described in the MSDS for Diethylene Triamine (Appendix B), it is used as a solvent for sulfur, acidic gases, various resins, dyes and a fuel component. Diethylene Triamine is non-carcinogenic and due to its corrosive nature has similar health

hazard precautions as for DS-2. Diethylene Triamine is miscible in water which suggests that it would be unlikely for it to adsorb onto soil particles.

The MSDS for Ethylene Glycol Monomethyl Ether (Appendix B), a second major component of DS-2, is a solvent for dyes, nitrocellulose and resins, nonaqueous wood stains, lacquers, mutual solvent for mineral-oil-soap and mineral-oil-sulfonated-oil mixtures, brake fluids diluent, setting the twist and conditioning yarns and cloth, textile printing, textile soaps and organic synthesis. It is miscible in common organic solvents such as acetone, benzene, chloroform, ethanol and ether. Like Diethylene Triamine it is miscible in water and, most likely, would not adsorb onto soil particles.

The MSDS health hazard warnings for DS-2 and its individual components are precautionary guidance to prevent over-exposure to fresh product. Included in the MSDS is guidance for spill response to accidental release of the product at the time of the release. Although DS-2 is a stable compound, the MSDS does not address degradation of DS-2 under normal atmospheric conditions.

At the time of the IAS, the surface of the site was covered with a variety of grasses. No evidence of stressed vegetation was noted and surrounding vegetation and animal life showed no visible adverse effects.

The IAS recommended that a magnetometer survey be performed to locate metallic containers of DS-2. A magnetometer survey of Site 10 was performed in December 1985 (Geosight, 1985). The mounds of soil present in the wooded area appeared to contain little iron. The magnetometer survey was summarized in the Final Remedial Investigation Interim Report (Dames and Moore, 1991). The report recommended that historical aerial photographs be reviewed to ascertain additional information about the disposal activities and that a risk assessment be performed.

The Site Investigation for Site 10 was performed in 1994. As part of the Site Investigation, three monitoring wells were installed within the shallow aquifer. One surface soil sample and three subsurface soil samples, 0 to 2, 2 to 4, 4 to 6 ft bgs, were collected from each monitoring well boring. Groundwater samples were collected from each well. The report concluded that low levels of contamination in soil and groundwater did not appear to be related to DS-2. 2 and were not suspected to be indicative of a significant source of contamination. In general, no clear evidence of drum disposal was found.

In 1997, as part of the Site Screening Process (SSP) investigation Baker re-sampled the three Site 10 monitoring wells to confirm the Site Investigation results. No organic compounds were detected in groundwater.

SI and SSP investigation sampling did not locate any significant sources of contamination at the site. The buried containers of DS-2 have not been located to date. Based on the results of these investigations and the relatively small volume of DS-2 that was reportedly buried, the site does not appear to pose a significant threat to human health or the environment.

Site 10 is located along the edge of a managed forest area, adjacent to paved area. Site 10 is not currently being used for any purpose.

2.0 REFERENCES

Baker Environmental, Inc. December 3-5, 2001. Partnering Meeting Number 42 NASO Yorktown/Cheatham Annex Minutes.

Baker Environmental, Inc. March 21, 2001. Installation Restoration Program Site Management Plan Fiscal Year 2001, Naval Weapons Station Yorktown, Yorktown, Virginia, Cheatham Annex Site.

Baker Environmental, Inc. 1998. Field Investigation Report Letter Site 5.

Baker Environmental, Inc. September 1997. Final Site Screening Process Report for Sites 1, 10, and 11. Fleet Industrial Supply Center Cheatham Annex, Williamsburg, Virginia.

Baker Environmental, Inc. November 1994. Site Investigation for Sites 1, 10 & 11.

Baker Environmental, Inc. April 1991. Final Report New Hazard Ranking System Deficiency Information Collection Efforts NSC Cheatham Annex Naval Facility.

Dames and Moore. February 1991. Final Remedial Investigation Interim Report, Fleet Industrial Supply Center Cheatham Annex, Williamsburg, Virginia.

Dames and Moore. March 1989. Draft RI Interim Report.

Dames and Moore. June 1988. Confirmation Study Step 1A (Verification), Round Two.

Dames and Moore. June 1986. Confirmation Study Step 1A (Verification), Round One.

Geosight. December 27, 1985. A Magnetic Survey at NSC Cheatham Annex. Prepared for Dames and Moore.

NEESA. 1984. Initial Assessment Study of Fleet and Industrial Supply Center (Norfolk) Cheatham Annex and Yorktown Fuels Division.

USEPA, 1999. A Guide to Preparing Superfund Proposed Plans, Records of Decision, and Other Remedy Selection Decision Documents.

Weston. November 1994. Final Site Investigation for Sites 1, 10, and 11. Fleet Industrial Supply Center Cheatham Annex, Williamsburg, Virginia

WEBSITE: <http://msds.pdc.cornell.edu/msds/siri/msds/h/q385/q492.html>

ABBEY COLOR -- URANINE MIL-S-17980 D - SEA MARKER, FLUORESCEIN DYE
MATERIAL SAFETY DATA SHEET

NSN: 6850002709986

Manufacturer's CAGE: 6U637

Part No. Indicator: A

Part Number/Trade Name: URANINE MIL-S-17980 D

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General Information
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Item Name: SEA MARKER, FLUORESCEIN DYE
Company's Name: ABBEY COLOR
Company's Street: 400 E TIOGA ST
Company's City: PHILADELPHIA
Company's State: PA
Company's Country: US
Company's Zip Code: 19134
Company's Emerg Ph #: 215-739-9960
Company's Info Ph #: 215-739-9960
Distributor/Vendor # 1: SOUTH TEXAS LIGHTHOUSE FOR THE BLIND
Distributor/Vendor # 1 Cage: 2W550
Distributor/Vendor # 2: NATIONAL INDUSTRIES
Distributor/Vendor # 2 Cage: 1B006
Record No. For Safety Entry: 008
Tot Safety Entries This Stk#: 009
Status: SE
Date MSDS Prepared: 24FEB95
Safety Data Review Date: 05OCT95
Supply Item Manager: CX
MSDS Preparer's Name: UNKNOWN
MSDS Serial Number: BJRDM
Specification Number: MIL-S-17980D
Spec Type, Grade, Class: NONE
Hazard Characteristic Code: N1
Unit Of Issue: BX
Unit Of Issue Container Qty: 12 X 3.4 OZ
Type Of Container: PACKET
Net Unit Weight: 2.7 LBS
NRC/State License Number: NOT RELEVANT
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Ingredients/Identity Information
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Proprietary: NO
Ingredient: FLUORESCEIN, DISODIUM SALT/C.I. ACID YELLOW 73
Ingredient Sequence Number: 01
Percent: UNKNOWN
NIOSH (RTECS) Number: LM5425000
CAS Number: 518-47-8
OSHA PEL: NOT ESTABLISHED
ACGIH TLV: NOT ESTABLISHED
Other Recommended Limit: 10 MG/M3 (MFR)

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Physical/Chemical Characteristics
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Appearance And Odor: ORANGE POWDER. NO ODOR.
Melting Point: UNKNOWN
Specific Gravity: UNKNOWN
Decomposition Temperature: UNKNOWN
Evaporation Rate And Ref: NOT RELEVANT
Solubility In Water: MODERATE
Viscosity: NOT RELEVANT
Corrosion Rate (IPY): UNKNOWN
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Fire and Explosion Hazard Data
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Flash Point: NONE
Extinguishing Media: WATER, DRY CHEMICAL, CARBON DIOXIDE.
Special Fire Fighting Proc: WEAR PROTECTIVE CLOTHING AND NIOSH-APPROVED
SELF-CONTAINED BREATHING APPARATUS.
Unusual Fire And Expl Hazrds: AS WITH ANY FINELY DIVIDED ORGANIC SOLID,
DUST MAY BE EXPLOSIVE IF MIXED WITH AIR IN CRITICAL PROPORTIONS AND IN
THE
PRESENCE OF AN IGNITION SOURCE.
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Reactivity Data
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Stability: YES
Cond To Avoid (Stability): CONTACT WITH ACIDS.
Materials To Avoid: OXIDIZING AGENTS, ACIDS
Hazardous Decomp Products: CARBON MONOXIDE, CARBON DIOXIDE, OXIDES OF
NITROGEN
Hazardous Poly Occur: NO
Conditions To Avoid (Poly): NOT RELEVANT
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Health Hazard Data
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LD50-LC50 Mixture: LD50 (ORAL RAT) IS 6721 MG/KG.
Route Of Entry - Inhalation: YES
Route Of Entry - Skin: NO
Route Of Entry - Ingestion: NO
Health Haz Acute And Chronic: TARGET ORGANS:EYES, SKIN, RESPIRATORY
TRACT.
ACUTE- EYE/SKIN:MAY CAUSE IRRITATION. INHALATION:DUST MAY CAUSE
RESPIRATORY
TRACT IRRITATION. INGESTION:UNKNOWN. CHRONIC- UNKNOWN.
Carcinogenicity - NTP: NO
Carcinogenicity - IARC: NO
Carcinogenicity - OSHA: NO
Explanation Carcinogenicity: NONE
Signs/Symptoms Of Overexp: IRRITATION

Med Cond Aggravated By Exp: NONE KNOWN.
WASH WITH SOAP & WATER. INHALED:REMOVE TO FRESH AIR. PROVIDE CPR/OXYGEN
IF
NEEDED. ORAL:IF CONSCIOUS, DRINK WATER & INDUCE VOMITING. CALL
PHYSICIAN
IMMEDIATELY. NEVER GIVE FLUID OR INDUCE VOMITING IF PATIENT IS
UNCONSCIOUS
OR HAS CONVULSIONS.

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Precautions for Safe Handling and Use

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Steps If Matl Released/Spill: WEAR APPROPRIATE SAFETY EQUIPMENT.
CONTAIN
AND CLEAN UP SPILL IMMEDIATELY. PREVENT FROM ENTERING FLOOR DRAINS.
SWEEP
POWDERS. AVOID DUSTING. TRANSFER TO A SUITABLE CONTAINER FOR DISPOSAL.
SCRUB AREA WITH DETERGENT AND FLUSH WITH WATER.
Neutralizing Agent: NOT RELEVANT
Waste Disposal Method: MATERIAL NOT HAZARDOUS ACCORDING TO 40 CFR PART
261. DISPOSE OF WASTE IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL
REGULATIONS. CONTAINERS SHOULD BE TRIPLE RINSED ACCORDING TO FEDERAL
REGULATIONS PRIOR TO DISPOSAL.
Precautions-Handling/Storing: STORE IN A COOL, DRY AREA AWAY FROM
INCOMPATIBLE MATERIALS. KEEP CONTAINERS CLOSED. AVOID PROLONGED OR
REPEATED
CONTACT.
Other Precautions: STORE AND HANDLE THIS PRODUCT WITH CARE IN ACCORD
WITH
GOOD INDUSTRIAL PRACTICE AND AVOID PERSONAL CONTACT. WASH THOROUGHLY
AFTER
HANDLING. KEEP OUT OF REACH OF CHILDREN.

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Control Measures

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Respiratory Protection: NONE NORMALLY REQUIRED. IF TLV EXCEEDED (10
NG/M3)
, WEAR NIOSH APPROVED DUST RESPIRATOR, MOLDEX 2200.
Ventilation: SPECIAL VENTILATION NOT NORMALLY REQUIRED. USE LOCAL
VENTILATION IF EXPOSURE LIMITS EXCEEDED.
Protective Gloves: PLASTIC OR RUBBER GLOVES
Eye Protection: SAFETY GLASSES WITH SIDE SHIELDS
Other Protective Equipment: TO MINIMIZE SKIN CONTACT WEAR APRON,
COVERALL.
EYE WASH STATION, EMERGENCY SHOWER
Work Hygienic Practices: OBSERVE GOOD INDUSTRIAL HYGIENE PRACTICES AND
RECOMMENDED PROCEDURES. WASH THOROUGHLY BEFORE EATING,
DRINKING/SMOKING.

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Transportation Data

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Trans Data Review Date: 95278

DOT PSN Code: ZZZ
DOT Proper Shipping Name: NOT REGULATED BY THIS MODE OF TRANSPORTATION
IMO PSN Code: ZZZ
IMO Proper Shipping Name: NOT REGULATED FOR THIS MODE OF TRANSPORTATION
IATA PSN Code: ZZZ
IATA Proper Shipping Name: NOT REGULATED BY THIS MODE OF TRANSPORTATION
AFI PSN Code: ZZZ
AFI Prop. Shipping Name: NOT REGULATED BY THIS MODE OF TRANSPORTATION

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Disposal Data
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Label Data
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Label Required: NO
Technical Review Date: 05OCT95
Label Status: N
Signal Word: CAUTION!
Acute Health Hazard-Slight: X
Contact Hazard-Slight: X
Fire Hazard-None: X
Reactivity Hazard-None: X
Label P.O. Box: 9697

WEBSITE: <http://msds.pdc.cornell.edu/msds/siri/msds/h/q202/q358.html>

DALDEN -- DECONTAMINATING AGENT, DS2 - DECONTAMINATING AGENT
MATERIAL SAFETY DATA SHEET
NSN: 4230011368888
Manufacturer's CAGE: 0EV88
Part No. Indicator: A
Part Number/Trade Name: DECONTAMINATING AGENT, DS2

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General Information

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Item Name: DECONTAMINATING AGENT
Company's Name: DALDEN CORP
Company's P. O. Box: 1865
Company's City: GRAPEVINE
Company's State: TX
Company's Country: US
Company's Zip Code: 76051
Company's Emerg Ph #: 800-424-9300 (CHEMTREC)
Company's Info Ph #: 817-430-4288
Distributor/Vendor # 1: ALL-BANN ENTERPRISES INC (714-630-7711)
Distributor/Vendor # 1 Cage: 27742
Record No. For Safety Entry: 001
Tot Safety Entries This Stk#: 003
Status: SE
Date MSDS Prepared: 19APR91
Safety Data Review Date: 06JUL93
Supply Item Manager: BF
MSDS Serial Number: BQYKW
Specification Number: MIL-D-50030
Spec Type, Grade, Class: DS-2
Hazard Characteristic Code: C2
Unit Of Issue: EA
Unit Of Issue Container Qty: 14 LITER CO
Type Of Container: 14 LITER CO
Net Unit Weight: 30.8 LBS

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Ingredients/Identity Information

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Proprietary: NO
Ingredient: DIETHYLENE TRIAMINE
Ingredient Sequence Number: 01
Percent: 70
NIOSH (RTECS) Number: IE1225000
CAS Number: 111-40-0
OSHA PEL: 1 PPM
ACGIH TLV: 1 PPM, SKIN 9293
Other Recommended Limit: NONE RECOMMENDED

Proprietary: NO
Ingredient: ETHYLENE GLYCOL MONOETHYL ETHER, [2-METHOXYETHANOL (EGME)]

(SARA III)
Ingredient Sequence Number: 02
Percent: 28
NIOSH (RTECS) Number: KL5775000
CAS Number: 109-86-4
OSHA PEL: 25 PPM,SKIN
ACGIH TLV: 5 PPM,SKIN 9293
Other Recommended Limit: NONE RECOMMENDED

Proprietary: NO
Ingredient: SODIUM HYDROXIDE (SARA III)
Ingredient Sequence Number: 03
Percent: 2
NIOSH (RTECS) Number: WB4900000
CAS Number: 1310-73-2
OSHA PEL: 2 MG/M3
ACGIH TLV: C 2 MG/M3; 9293
Other Recommended Limit: NONE RECOMMENDED
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Physical/Chemical Characteristics
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Appearance And Odor: CLEAR AMBER SOLUTION. AMMONIA-LIKE ODOR.
Boiling Point: 380F,193C
Melting Point: NOT KNOWN
Vapor Pressure (MM Hg/70 F): NOT KNOWN
Vapor Density (Air=1): NOT KNOWN
Specific Gravity: 0.97 -0.98
Decomposition Temperature: NOT KNOWN
Evaporation Rate And Ref: NOT KNOWN
Solubility In Water: NOT KNOWN
Corrosion Rate (IPY): UNKNOWN
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Fire and Explosion Hazard Data
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Flash Point: 168F,76C
Flash Point Method: PMCC
Lower Explosive Limit: NOT KNOWN
Upper Explosive Limit: NOT KNOWN
Extinguishing Media: CARBON DIOXIDE, ALCOHOL FOAM, WATER.
Special Fire Fighting Proc: WEAR SELF-CONTAINED BREATHING APPARATUS
(SCBA)
AND FULL PROTECTIVE GEAR.
Unusual Fire And Expl Hazrds: NEVER MIX OR STORE ACIDS, OXIDIZING
AGENTS,
OR STB (SUPERTROPICAL BLEACH) TOGETHER WITH DS2. HYPOCHLORITES MAY
CAUSE
FIRE AND/OR EXPLOSION WHEN MIXED WITH DS-2.
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Reactivity Data
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Stability: YES

Cond To Avoid (Stability): AVOID TEMPERATURES ABOVE 160F.
Materials To Avoid: METALS (ALUMINUM, CADMIUM, COPPER, TIN, ZINC), SOME
PLASTICS, PAINT, WOOL, LEATHER. REACTS VIOLENTLY WITH ACIDS, OXIDIZING
AGENTS.

Hazardous Decomp Products: NONE SPECIFIED BY MANUFACTURER.

Hazardous Poly Occur: NO

Conditions To Avoid (Poly): WILL NOT OCCUR.

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Health Hazard Data
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LD50-LC50 Mixture: NONE SPECIFIED BY MANUFACTURER.

Route Of Entry - Inhalation: YES

Route Of Entry - Skin: YES

Route Of Entry - Ingestion: YES

Health Haz Acute And Chronic: EYES: IRRITATION, BURNS, SEVERE EYE
DAMAGE,

BLINDNESS. SKIN: REPEATED CONTACT MAY CAUSE IRRITATION, DERMATITIS.

INHALATION: NOSE, THROAT, CHEST IRRITATION, HEADACHE, NAUSEA, VOMITING,

LOSS OF COORDINATION, LUNG DAMAGE. INGESTION: BURNS OF MOUTH, THROAT,

STOMACH, NAUSEA, VOMITING, DIARRHEA, KIDNEY DAMAGE, COLLAPSE, DEATH.

Carcinogenicity - NTP: NO

Carcinogenicity - IARC: NO

Carcinogenicity - OSHA: NO

Signs/Symptoms Of Overexp: EYES: IRRITATION, BURNS, EYE DAMAGE,
BLINDNESS.

SKIN: IRRITATION, DERMATITIS. INHALATION: NOSE THROAT AND CHEST
IRRITATION,

HEADACHE, DIZZINESS, FATIGUE, NAUSEA, VOMITING, LOSS OF COORDINATION,
LUNG

DAMAGE. INGESTION: BURNS OF MOUTH, THROAT, STOMACH, NAUSEA, VOMITING,
DIARRHEA, WEAKNESS, KIDNEY DAMAGE, COLLAPSE, DEATH.

Med Cond Aggravated By Exp: OVEREXPOSURE MAY AGGRAVATE EXISTING
RESPIRATORY CONDITIONS, SUCH AS ASTHMA, BRONCHITIS, INFLAMMATORY OR
FIBROTIC RESPIRATORY DISEASE.

Emergency/First Aid Proc: EYES: FLUSH WITH LARGE AMOUNTS OF WATER. GET
MEDICAL ATTENTION. SKIN: REMOVE CONTAMINATED CLOTHING. FLUSH AREA WITH
LARGE AMOUNTS OF WATER. GET MEDICAL ATTENTION. INHALATION: MOVE TO
FRESH

AIR. IF NOT BREATHING GIVE CPR. IF BREATHING DIFFICULT GIVE OXYGEN. GET
MEDICAL ATTENTION. INGESTION: GIVE 2 GLASSES OF WATER. DO NOT INDUCE
VOMITING. GET MEDICAL ATTENTION.

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Precautions for Safe Handling and Use
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Steps If Matl Released/Spill: VENTILATE AREA. AVOID BREATHING VAPOR.

CONTAIN SPILL. NEUTRALIZE WITH SODIUM BISULFATE. ABSORB WITH
VERMICULITE,

CLAY, DIATOMACEOUS EARTH. COLLECT MATERIAL IN STEEL DRUMS FOR DISPOSAL.

Neutralizing Agent: SODIUM BISULFATE

Waste Disposal Method: DISPOSE OF WASTE IN ACCORDANCE WITH LOCAL, STATE
AND FEDERAL REGULATIONS.

Precautions-Handling/Storing: AVOID HIGH TEMPERATURES (ABOVE 160 F).

Other Precautions: DS2 WILL REACT VIOLENTLY WITH ACIDS. OXIDIZING AGENTS (HYPOCHLORITES) MAY CAUSE FIRE AND/OR EXPLOSION WHEN MIXED WITH DS2.

Control Measures

Respiratory Protection: WHEN CONCENTRATIONS EXCEED TLV, USE AN APPROVED ORGANIC VAPOR RESPIRATOR OR SUPPLIED AIR RESPIRATOR IN POSITIVE PRESSURE MODE. FOLLOW MANUFACTURERS RECOMMENDATIONS AND LIMITATIONS.
Ventilation: GENERALLY, MECHANICAL VENTILATION IS ADEQUATE.
Protective Gloves: BUTYL RUBBER.
Eye Protection: CHEMICAL TYPE GOGGLES WITH FACE SHIELD.
Other Protective Equipment: CHEMICAL APRON, EYE WASH STATION AND SAFETY SHOWER. DO NOT WEAR CONTACT LENSES.
Work Hygienic Practices: WASH AFTER HANDLING AND BEFORE EATING, DRINKING, OR SMOKING. LAUNDRY CONTAMINATED CLOTHING BEFORE REUSE.
Suppl. Safety & Health Data: REPEATED OVEREXPOSURE MAY CAUSE INJURY TO BONE MARROW AND BLOOD CELLS, KIDNEY, LIVER, AND TESTES.

Transportation Data

Trans Data Review Date: 93183
DOT PSN Code: DVZ
DOT Proper Shipping Name: CORROSIVE LIQUIDS, FLAMMABLE, N.O.S.
DOT Class: 8
DOT ID Number: UN2920
DOT Pack Group: I
DOT Label: CORROSIVE, FLAMMABLE LIQUID
IMO PSN Code: ESA
IMO Proper Shipping Name: CORROSIVE LIQUID, FLAMMABLE, N.O.S. o
IMO Regulations Page Number: 8148
IMO UN Number: 2920
IMO UN Class: 8
IMO Subsidiary Risk Label: FLAMMABLE LIQUID
IATA PSN Code: HKC
IATA UN ID Number: 2920
IATA Proper Shipping Name: CORROSIVE LIQUID, FLAMMABLE, N.O.S. *
IATA UN Class: 8
IATA Subsidiary Risk Class: 3
IATA Label: CORROSIVE & FLAMMABLE LIQUID
AFI PSN Code: HKC
AFI Prop. Shipping Name: CORROSIVE LIQUID, FLAMMABLE, N.O.S.
AFI Class: 8
AFI ID Number: UN2920
AFI Pack Group: I
AFI Label: 3
AFI Basic Pac Ref: 12-4
N.O.S. Shipping Name: SODIUM HYDROXIDE, DIETHYLENETRIAMINE, ETHYLENE GLYCOL MONOMETHYL ETHER

Disposal Data

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Label Data

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Label Required: YES
Technical Review Date: 06JUL93
Label Status: F
Common Name: DECONTAMINATING AGENT, DS2
Chronic Hazard: YES
Signal Word: DANGER!
Acute Health Hazard-Severe: X
Contact Hazard-Severe: X
Fire Hazard-Moderate: X
Reactivity Hazard-None: X
Special Hazard Precautions: EYES: IRRITATION, BURNS, SEVERE EYE DAMAGE,
BLINDNESS. SKIN: MAY CAUSE IRRITATION, DERMATITIS. INHALATION: NOSE,
THROAT, CHEST IRRITATION, HEADACHE, NAUSEA, VOMITING, LOSS OF
COORDINATION,
LUNG DAMAGE. INGESTION: BURNS OF MOUTH, THROAT, STOMACH, NAUSEA,
VOMITING,
DIARRHEA, KIDNEY DAMAGE, COLLAPSE, DEATH. FIRST AID: EYES: FLUSH WITH
LARGE
AMOUNTS OF WATER. GET MEDICAL ATTENTION. SKIN: REMOVE CONTAMINATED
CLOTHING. FLUSH AREA WITH LARGE AMOUNTS OF WATER. GET MEDICAL
ATTENTION.
INHALATION: MOVE TO FRESH AIR. RESTORE BREATHING IF NECESSARY. GET
MEDICAL
ATTENTION. INGESTION: GIVE 2 GLASSES OF WATER. DO NOT INDUCE VOMITING.
GET
MEDICAL ATTENTION.
Protect Eye: Y
Protect Skin: Y
Protect Respiratory: Y
Label Name: DALDEN CORP
Label P.O. Box: 1865
Label City: GRAPEVINE
Label State: TX
Label Zip Code: 76051
Label Country: US
Label Emergency Number: 800-424-9300 (CHEMTREC)