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PROCESS DECONTAMINATION AND CLOSURE PROCEDURES CNC CHARLESTON SC

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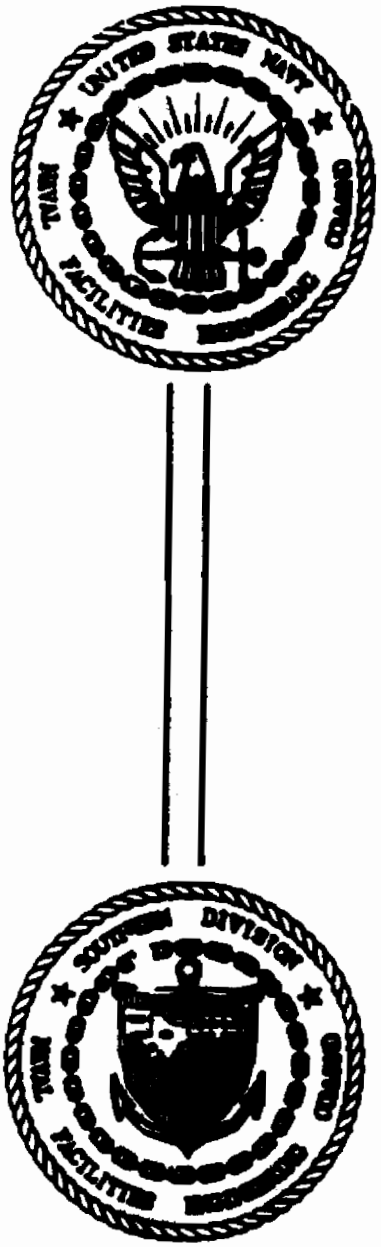
COMPREHENSIVE LONG-TERM ENVIRONMENTAL ACTION NAVY

PROCESS DECONTAMINATION AND CLOSURE PROCEDURES



NAVAL BASE, CHARLESTON
CHARLESTON, SOUTH CAROLINA

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Prepared by:

Department of the Navy
Southern Division
Naval Facilities Engineering Command
North Charleston, South Carolina

EnSafe/Allen & Hoshall
5720 Summer Trees Drive, Suite 8
Memphis, Tennessee 38134
(901) 383-9115

ABB Environmental Services, Inc.
1536 Kingsley Avenue, Suite 127
Orange Park, Florida 32073
(904) 269-7012

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ACRONYMS, ABBREVIATIONS

AST	Aboveground Storage Tank
BEC	BRAC Environmental Coordinator
BRAC	Base Realignment and Closure
BTEX	Benzene, Toluene, Ethylbenzene, and Xylenes
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
EBS	Environmental Baseline Survey
POTW/NOTW	Publicly-Owned Treatment Works/Navy-Owned Treatment Works
RCRA	Resource Conservation and Recovery Act
TCLP	Toxicity Characteristic Leaching Procedure
USEPA	United States Environmental Protection Agency
UST	Underground Storage Tank

1.0 INTRODUCTION

Many Navy activities are closing or realigning as a result of the Base Closure and Realignment Act of 1990. As tenants and commands shut down or move their operations, they will leave behind industrial processes, equipment, storage tanks, and facilities that have used, stored, treated, or handled hazardous materials, hazardous wastes, or petroleum products. These "process units" must be properly decontaminated and/or closed within 90 days of process shutdown to prevent the unpermitted storage of hazardous waste which could lead to regulatory enforcement action and complex RCRA closure requirements. This document has been prepared to assist Southern Division provide consistent guidance concerning process decontamination and/or closure requirements.

As part of the BRAC environmental baseline survey (EBS) conducted at each closing activity, an attempt was made to identify as many of the process units that might require decontamination or closure as possible. A list of the units identified at Naval Base, Charleston — Charleston, South Carolina is included as Appendix A. As the list illustrates, there are many different types of units. Table 1-1 is a list of example processes, equipment, and facilities that could have process closure requirements. The examples on the list have been subdivided into the three broad categories for which decontamination and/or closure guidance have been developed. The list is <u>not</u> all-inclusive and some of the examples provided could fall under a category other than the one shown in some circumstances. Table 1-2 provides shutdown procedures for several types of equipment that will not normally have decontamination or closure requirements.

Figure 1-1 is a decision flowchart prepared to assist the user in determining which guidance is appropriate for a particular unit. Section 2 provides guidance for decontamination of units in the Hazardous Materials category, Section 3 provides guidance for the Hazardous Waste Management category, and Section 4 provides decontamination and closure guidance for underground and aboveground storage tanks.

This document is intended for use by activity personnel with a knowledge of environmental regulations for developing guidance for shop personnel. Process decontamination and closure procedures can also be incorporated into the transition agreement or memorandum of understanding between the closing activity and Southern Division to:

- Ensure that each process unit identified during the EBS that falls into one of the three categories undergoes process decontamination or closure within 90 days to prevent regulatory enforcement action and/or unnecessary RCRA closure requirements.

- Ensure that the decontamination/closure procedures used are negotiated with and approved by the appropriate state/federal regulators and are executed in accordance with the approved procedures.

- Document that each process unit has been decontaminated or closed in accordance with a regulator-approved procedure by having the activity complete a certification form similar to the example included as Appendix B.

Table 1-1
Process Unit Categories

Hazardous Materials Units	
Water/Wastewater Treatment	Oil/Water Separator Cooling Towers Wastewater Treatment Units Laundries Lift Stations Sewer Systems Bilgewater Systems Sumps Grease Traps
Industrial Units	Paint Spray Booths Sandblasting Units Vent Hood/Ventilation Parts Washers/Degreasers Compressed Gas System
Piping Systems—Petroleum	Pipelines Pumphouses Apron Hydrant Fueling Systems
Hazardous Material Management Areas	Hazardous Material Storage Pesticide Shops Incinerators (Non-RCRA Permitted) Flammable Materials Lockers Ordnance Storage Dumpsters
Chemical Processes	Battery Maintenance Dry Cleaners Fuels Blending Systems Solvent Recovery Units Plating Operations Corrosion Control Units Wash Racks/Solvent Pool Filtration/Chlorine Injection Iridite Dripping Process Halon Recycling/Reclamation Photo Labs Vacuum Pressure Impregnation

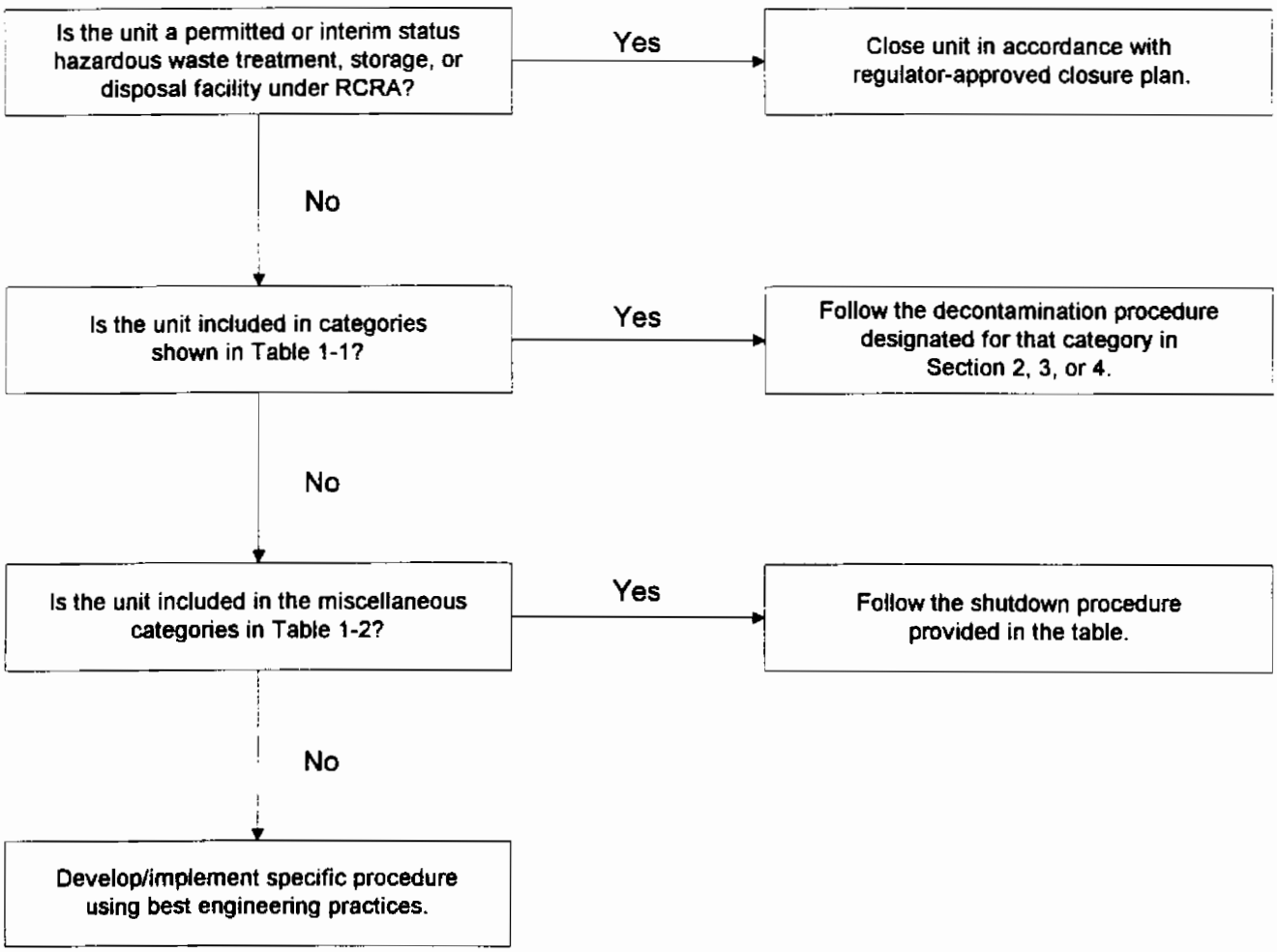
Table 1-1 **Process Unit Categories**	
Hazardous Materials Units	
Equipment	Photo Processing Equipment Abrasive Blast Hood Hazwaste Evacuation Equipment Cranes Heavy Equipment w/Petroleum Blueprint Equipment Hydraulic Equipment X-Ray Equipment
Hazardous Waste Management Units	
Satellite Accumulation Areas < 90 Day Hazardous Waste Storage Units/Tanks Neutralization Tanks	
USTs/ASTs (40 CFR 280)	
Petroleum USTs and ASTs Fuel (heating) Oil Tanks Improperly Abandoned Tanks Field Constructed Tanks Hazardous Substance Tanks	

Table 1-2
Miscellaneous Shutdown Procedures

Boilers, abandoned and operating	1. Seal or remove any asbestos insulation. 2. Disconnect fuel supply lines. 3. Turn off steam water supply and drain boiler tubes. 4. Remove and test ash for hazardous waste classification; dispose of appropriately.
Compressed Gas, Liquified Gas, Fire Suppression Systems	1. Perform leak checks. 2. If leaks are detected, repair and recheck. 3. Certify as leak-free and tag. 4. For fire suppression systems, remove chemical agent.
Compressors, Low and High Pressure	1. Relieve pressure in tank and equilibrate to atmospheric conditions. 2. Fill compressor oil reservoir. 3. Clean area of any stains.
Generators, Auxiliary Power	1. For associated fuel storage tanks, follow the UST/AST guidance. 2. Fill oil reservoirs and grease points. 3. Clean area of any stains.

FIGURE 1-1

DECONTAMINATION/CLOSURE DECISION GUIDANCE



2.0 HAZARDOUS MATERIALS UNITS CATEGORY

2.1 Introduction

The Hazardous Materials Units Category encompasses any process scheduled for closure that currently manages hazardous materials or hazardous constituents. Examples of various types of processes, equipment, and facilities that are included in this category can be found in Table 1-1.

Included in Appendix C is a decision flowchart (#1) for process units managing hazardous materials. The purpose of the flowchart is to direct the user through the regulatory issues involved in this category and **prevent the process unit from being subject to RCRA closure standards. This can be accomplished if the process unit is properly decontaminated in less than 90 days after the unit has ceased operation**. As the flowchart indicates, a process unit that manages a hazardous material or hazardous constituent can become subject to RCRA hazardous waste regulations upon operational shutdown.

Contact the Base Environmental Office or the BRAC Environmental Coordinator (BEC) for a copy of the regulations associated with this procedure.

Health and Safety Requirements

Personnel involved in any unit decontamination operation will have received health and safety training for hazardous waste operations as required by OSHA 29 CFR 1910.120. Documentation of formal health and safety training is required.

Minimum personnel protection will be evaluated for each condition encountered. Required personal protection equipment will be identified based on the type of substances encountered and the concentrations of the substance(s).

2.2 Process Identification

Base_____

Building_____

Provide a description of the process._____

_____

List the materials/products involved with the process unit._____

_____

_____

What is the intended future use of the process unit?_____

_____

2.3 Decontamination Procedures

2.3.1 Process Closure Decontamination Procedures

1. After all observable residual wastes have been removed from the system (including any pipelines associated with the system), the entire system will be pressure washed or steam-cleaned with a detergent solution such as Alconox. The wash water will be collected and stored in appropriate containers (e.g., closed-top drums). The entire system will then be rinsed with tap water. Rinse water can be collected and stored in the same container as the wash water. This should decrease the required number of disposal profile samples, but could increase the volume of contaminated water to be disposed of. If time permits, wash and rinse water can be collected and stored separately, with the rinse water being analyzed only for the contaminants detected in the wash water.

2. The wash and rinse procedure should be repeated until wipe and/or rinse samples indicate that residues on the equipment are below non-detect levels for listed hazardous wastes and TCLP limits for characteristic hazardous wastes that could be present or are below alternate levels specified by regulators. The wipe and/or rinse sample analyses should

be conducted in accordance with the USEPA publication *SW-846, Test Methods for Evaluating Solid Waste, Third Edition.*

3. A disposal profile sample will be collected from the wash/rinse water container(s). Analytical parameters and test methods will be those required by the receiving facility (POTW/NOTW or offsite treatment/disposal facility). If permission is granted, wash/rinse waters will be discharged into a POTW/NOTW, providing they meet the requirements of the POTW/NOTW.

4. Any piping leading to and from the unit must be closed, either by valve or disconnecting the line and capping after decontamination. Any piping leading underground should be cut off at ground level and capped if the unit is going to be dismantled.

5. In the absence of a total decontamination of all process components, the process components could ultimately be considered a hazardous waste as long as they continue to contain hazardous waste residues. The contaminated components would satisfy the definition of a RCRA hazardous waste and have to be handled as such. Unless the contaminated process components were removed and disposed of as hazardous waste, hazardous waste accumulation standards would be applicable and the components might ultimately satisfy the definition of a RCRA hazardous waste landfill and have to be handled as such, including closure and post-closure care (see Appendix C).

2.3.2 Decontamination of Equipment Used During Decontamination

1. If the rinse water is tested and found to contain listed wastes or wastes exhibiting characteristics of a hazardous waste, personal protection expendables will be placed in drums, labeled according to the waste(s), and disposed of as a hazardous waste.

2. Nonexpendables will be washed over a sump with detergent, rinsed, and returned. Filter cartridges from respirators will be removed and handled as an expendable.

3. Clean-up tools/equipment and hand tools will be washed over a sump with detergent, rinsed, and returned.

4. The exterior of any pumps used will be washed over a sump with detergent and rinsed. The interior of the pump will be washed by closed-loop pumping of detergent from the sump followed by a clean water rinse with discharge to the sump.

5. Wash and rinse waters will be collected and handled in the same manner as the wash/rinse waters described in Section 2.3.1.

If upon decontamination or closure, a potential soil or groundwater contamination problem is encountered, the BRAC Environmental Coordinator should be contacted.

3.0 HAZARDOUS WASTE MANAGEMENT UNITS CATEGORY

3.1 Introduction

The Hazardous Waste Management Units Category encompasses any process that is scheduled to be closed and currently manages hazardous waste. Examples of various types of processes, equipment, and facilities included in this category can be found in Table 1-2.

Included in Appendix C is a decision flowchart (#2) for process units managing hazardous waste. The purpose of the flowchart is to direct the user through the regulatory issues involved in this category and **prevent the process unit from becoming an unpermitted storage facility subject to the RCRA closure standards outlined in 40 CFR 264/265. This can be accomplished if the process unit is properly closed in less than 90 days after the unit has ceased operation.** It is necessary to refer to the flowchart before proceeding with the process closure procedure.

Contact the Base Environmental Office or the BRAC Environmental Coordinator (BEC) for a copy of the regulations associated with this procedure.

Health and Safety Requirements

Personnel involved in any unit decontamination operation will have received health and safety training for hazardous waste operations as required by OSHA 29 CFR 1910.120. Documentation of formal health and safety training is required.

Minimum personnel protection will be evaluated for each condition encountered. Required personal protection equipment will be identified based on the type of substances encountered and the concentrations of the substance(s).

3.2 Process Identification

Base_____

Building_____

Provide a description of the process._____

_____

_____

List the materials/products involved with the unit._____

_____

_____

List any hazardous waste(s) involved in the process (per 40 CFR §261.3)._____

_____

_____

What is the intended future use of the process unit?_____

_____

3.3 Decontamination Procedures

3.3.1 Process Closure Decontamination Procedures

1. After all observable residual wastes have been removed from the system (including any pipelines associated with the system), the entire system will be pressure washed or steam-cleaned with a detergent solution such as Alconox. The wash water will be collected and stored in an appropriate container (e.g., closed-top drums).

2. The entire system will then be rinsed with tap water. Rinse water can be collected and stored in the same container as the wash water. This should decrease the required number of disposal profile samples, but could increase the volume of contaminated water

to be disposed of. If time permits, wash and rinse water can be collected and stored separately, with the rinse water being analyzed only for the contaminants detected in the wash water.

3. The wash and rinse procedure should be repeated until wipe and/or rinse samples indicate that residues on the equipment are below non-detect levels for listed hazardous wastes and TCLP limits for characteristic hazardous wastes that could be present or are below alternate levels specified by regulators. The wipe and/or rinse sample analyses should be conducted in accordance with the USEPA publication *SW-846, Test Methods for Evaluating Solid Waste, Third Edition.*

4. Any piping leading to and from the unit must be closed, either by valve or disconnecting the line and capping after decontamination. Any piping leading underground should be cut off at ground level and capped if the unit is going to be dismantled.

5. Collected wash and rinse solutions will be sampled and analyzed for listed and characteristic hazardous wastes that could be present. Sampling and analyses will be conducted in accordance with the USEPA publication *SW-846, Test Methods for Evaluating Solid Waste, Third Edition.*

6. If the wash or rinse waters fail any characteristic test or have detectable concentrations of a listed waste, the solution will be disposed of as hazardous waste. If it is determined that the wash/rinse waters are not a hazardous waste, they will be discharged into a POTW/NOTW, providing they meet the requirements of the POTW/NOTW and permission is granted.

7. In the absence of a total decontamination of all process components, the process components could ultimately be considered a hazardous waste as long as they continue to contain hazardous waste residues. The contaminated components would satisfy the definition of a RCRA hazardous waste and have to be handled as such. Unless the contaminated process components were removed and disposed of as hazardous waste, hazardous waste accumulation standards would be applicable and the components might ultimately satisfy the definition of a RCRA hazardous waste landfill and have to be handled as such, including closure and post-closure care (see Appendix C).

3.3.2 Decontamination of Equipment Used During Decontamination

1. If the rinse water is tested and found to contain listed wastes or wastes exhibiting characteristics of a hazardous waste, personal protection expendables will be placed in drums, labeled according to the waste(s), and disposed of as a hazardous waste.

2. Nonexpendables will be washed over a sump with detergent, rinsed, and returned. Filter cartridges from respirators will be removed and handled as an expendable.

3. Clean-up tools/equipment and hand tools will be washed over a sump with detergent, rinsed, and returned.

4. The exterior of any pumps used will be washed over a sump with detergent and rinsed. The interior of the pump will be washed by closed-loop pumping of detergent from the sump followed by a clean water rinse with discharge to the sump.

5. Wash and rinse waters will be collected and handled in the same manner as the wash/rinse waters described in Section 3.3.1.

If upon decontamination or closure, a potential soil or groundwater contamination problem is encountered, the BRAC Environmental Coordinator should be contacted.

4.0 UST/AST CATEGORY — STATE OF SOUTH CAROLINA

4.1 Introduction

The following process closure procedure applies to underground storage tanks (USTs) and aboveground storage tanks (ASTs) located in the State of South Carolina.

For complete guidance, refer to *South Carolina Code of Regulations, Chapter 61 — Department of Health and Environmental Control, Regulation 92 — Underground Storage Tank Control.*

Contact the Base Environmental Office or the BRAC Environmental Coordinator (BEC) for a copy of the regulations associated with this procedure.

Health and Safety Requirements

Personnel involved in any decontamination operation will have received health and safety training for hazardous waste operations as required by OSHA 29 CFR 1910.120. Documentation of formal health and safety training is required.

Minimum personnel protection will be evaluated for each condition encountered. Required personal protection equipment will be identified based on the type of substance(s) encountered and the concentrations of the substance(s).

4.2 Applicability of the Regulations

Base_____

Building_____

UST/AST ?_____. ***Guidance for ASTs is located at Section 4.5***

Capacity _____ ***gallons***

Contents ***(include all known constituents if mixture)***_____.

_____.

Is the tank/tank system part of a process, or used only for storage?_____.

The requirements of this procedure apply to all owners and operators of a UST system as defined in 40 CFR §280, and summarized below:

"Underground storage tank" or "UST" means any one or combination of tanks (including underground pipes and cathodic protection connected thereto) that is used to contain an accumulation of regulated substances (any petroleum product or CERCLA-listed hazardous substance), and the volume of which (including the volume of underground pipes connected thereto) is 10% or more beneath the surface of the ground. A tank containing less than 4% petroleum of the total volume of its contents and no hazardous substance is not a UST. A tank system classified as a UST may not be re-classified as being a non-UST, unless there has been a change in service. The term "UST" does not include any:

1. Farm or residential tank of 1,100 gallons or less capacity used for storing motor fuel for non-commercial purposes;

2. Tank used for storing heating oil for consumption on the premises where stored;

3. Septic tank;

4. Pipeline facility (including gathering lines) regulated under:

   (i) The Natural Gas Pipeline Safety Act of 1968, or

   (ii) The Hazardous Liquid Pipeline Safety Act of 1979, or

   (iii) Which is an intrastate pipeline facility regulated under state laws;

5. Surface impoundment, pit, pond, or lagoon;

6. Stormwater or wastewater collection system;

7. Flow-through process tank;

8. Liquid trap or associated gathering lines directly related to oil or gas production and gathering operations; or

9. Storage tank situated in an underground area (such as a basement, cellar, mineworking, drift, shaft, or tunnel) if the storage tank is situated upon or above the surface of the floor.

Also, the following tanks are excluded:

1. Wastewater treatment tank systems;

2. Any UST systems containing radioactive material that are regulated under the Atomic Energy Act of 1954;

3. Any UST system that is part of an emergency generator system at nuclear power generation facilities regulated by the Nuclear Regulatory Commission;

4. Airport hydrant fuel distribution systems; and

5. UST systems with field-constructed tanks.

6. Equipment or machinery that contains petroleum for operational purposes such as hydraulic lift tanks and electrical equipment tanks.

7. Any UST system whose capacity is 110 gallons or less.

8. Any UST system that contains a *de minimis* concentration of petroleum.

9. Any emergency spill or overflow containment UST system that is expeditiously emptied after use.

4.3 Decontamination/Closure of Regulated UST Systems

UST systems are regulated under 40 CFR §280. Under 40 CFR §281, EPA has set requirements for State UST Programs. The state program can be no less stringent than the corresponding federal requirements. Therefore, appropriate state UST regulations should be used for closure requirements of UST systems.

4.3.1 Decontamination

Owners and/or operators must empty the tank(s) by removing all liquids and accumulated sludges into the appropriate size container, or removal by vacuum truck. The removed contents will then be sampled and analyzed for constituents set forth by the chosen disposal facility.

The tank should then be decontaminated according to the procedures listed below. If the procedures cannot be performed because the tank is not enterable or accessible, the tank should be removed.

1. After all residual wastes have been removed from the tank system, the inside of the system will be pressure washed or steam-cleaned with a detergent solution such as Alconox. The wash water will be collected in appropriate containers (e.g., closed-top drums).

2. The tank system will then be rinsed with clean water using a pressure washer or steam-cleaner. The rinse water can be collected and stored separately or in the same containers as the wash water. Combining the wash and rinse waters should decrease the required number of disposal profile samples, but could increase the volume of contaminated water to be disposed of.

3. The wash and rinse procedure should be repeated until rinse samples indicate that residues in the tank are below levels previously negotiated with the appropriate regulatory agency. Analytical parameters and test methods will be those required by the regulatory agency.

4. A disposal profile sample will be collected from the wash/rinse water container(s). Analytical parameters and test methods will be those required by the receiving facility (POTW/NOTW or offsite treatment/disposal facility). Wash/rinse waters will be discharged into a POTW/NOTW, providing they meet the requirements of the POTW/NOTW and permission is granted. If the POTW/NOTW will not accept the wash/rinse waters, contracted off-base disposal will be necessary.

4.3.2 Temporary Closure (40 CFR §280.70)

When a UST system is temporarily closed, owners and operators must continue operation and maintenance of corrosion protection, and any release detection. However, release detection is not required as long as the UST system is empty. The UST system is empty when all materials have been removed using commonly employed practices so that no more than 2.5 centimeters (1 inch) of residue, or 0.3 percent by weight of the total capacity of the UST system, remain in the system.

When a UST system is temporarily closed for 3 months or more, owners and operators must also comply with the following requirements:

1. Leave vent lines open and functioning; and

2. Cap and secure all other lines, pumps, manways, and ancillary equipment.

When a UST system is temporarily closed for more than 12 months, owners and operators must permanently close the UST system if it does not meet the performance standards for new UST

systems. Owners and operators must permanently close the substandard UST systems at the end of this 12-month period, unless the implementing agency provides an extension of the 12-month temporary closure period. Owners and operators must complete a site assessment before such an extension can be applied for.

4.3.3 Permanent Closure (40 CFR §280.71)

At least 30 days before beginning either permanent closure or a change in service, owners and operators must notify the implementing agency of their intent to permanently close or make the change in service, unless such action is in response to corrective action.

To permanently close a tank, owners and operators must empty and clean it by removing all liquids and accumulated sludges. All tanks taken out of service permanently must also be either removed from the ground or filled with an inert solid material.

Continued use of a UST system to store a non-regulated substance is considered a change in service. Before a change in service, owners and operators must empty and clean the tank by removing all liquid and accumulated sludge and conduct a site assessment.

4.3.4 Assessing the Site at Closure (40 CFR §280.72)

Before permanent change in owner, closure or a change in service is completed, owners and operators must measure for the presence of a release where contamination is most likely to be present at the UST site. In selecting sample types, sample locations, and measurement methods, owners and operators must consider the method of closure, the nature of the stored substance, the type of backfill, the depth to groundwater, and other factors appropriate for identifying the presence of a release.

If contaminated soils, contaminated groundwater, or free product as a liquid or vapor is discovered during the assessment, or by any other manner, owners and operators must begin corrective action.

Due to changing regulations, the information contained in this procedure should be verified before implementing the procedure.

4.4 Decontamination/Closure of Non-Regulated Tank Systems

Tank systems that fall under this section are assumed to contain non-regulated substances that are not a hazardous waste, or do not fall under the definition of a UST. Because these tank systems are unregulated, they do not have specific regulatory requirements associated with them.

It is recommended that the procedures outlined in Section 4.3 be used as guidance when decontaminating or closing non-regulated tank systems.

4.5 Decontamination/Closure of ASTs

Although there is currently no one, comprehensive federal regulatory program governing ASTs, there are a variety of existing statutes and regulations that apply directly or indirectly to ASTs. These statutes and regulations focus primarily on containment rather than structural integrity, monitoring, testing, and closure. AST regulation has historically been related to fire prevention and safety, rather than environmental protection.

For the purposes of this closure procedure, decontamination will be dependent upon what is stored in the AST. If a hazardous waste, or a mixture containing a hazardous waste, is being stored or is part of a treatment process, the decontamination procedure for units managing hazardous waste should be followed. If the contents are not a hazardous waste or substance, the decontamination procedure for USTs should be followed.

Larger ASTs, shop-fabricated or field-erected, are found in a number of different configurations. Decontamination of these larger ASTs should be approached with extreme care because of the dangers associated with confined space entries. Large amounts of water will be generated during decontamination and should be run through an oil/water separator if possible.

If upon decontamination or removal a potential soil or groundwater problem is encountered, the BEC should be contacted.

APPENDIX A

PROCESS CLOSURE INFORMATION

(EXAMPLE)
PROCESS DECONTAMINATION/CLOSURE CERTIFICATION FORM

1. **Name/Type of Unit:** (e.g., Hydraulic Crane)

2. **Unit Size:** (e.g., 150 ton XYZ crane)

3. **Location:** (Building number, specific location within the building)

4. **Type of Hazardous Material/Waste (select one) Stored or Used in Unit:** (e.g., Hydraulic fluid possibly contaminated with PCBs)

5. **Volume of HM/HW Stored in Unit:** (e.g., 50 Gallons)

6. **Applicable Regulation:** (Include rationale, e.g., TSCA 40 CFR - applies to the hydraulic fluid in equipment)

7. **Date of Process Shutdown or Equipment Taken Out of Service:**

8. **Date of Decontamination and/or Closure:**

9. **Fate of Unit (reuse, abandonment in place, or disposal):**

10. **Health and Safety:** [e.g., The personnel shall wear level D PPE. The PPE will include tyvek, rubber gloves, no respiratory protection will be necessary (reference OSHA/NIOSH guidance), etc.]

11. **Decontamination Procedures:** [e.g., The hydraulic fluid will be drained, the system will be pressure washed for 15 minutes at 20 psi, and rinsate shall be collected in a mobile tank/container and tested for PCBs (test method _____ SW 846). Based on the testing results, the rinsate shall be disposed of appropriately. All decontamination procedures were approved by South Carolina Department of Health and Environmental Control in a letter to Mr. John Q. Public, Code 1000, of NAS Charleston, SC dated ZZ/XX/YY.]

12. **Sampling/Analysis Plan for Waste Material, Wash/Rinse Waters, etc.:** (The plan should be similar to a QA/QC plan, i.e. constituent specific, identify analytical procedures, detection limits.)

13. **Cleanup Standard:** (Comparison of a standard to results, e.g., background vs. non-detect vs. TCLP, etc.)

14. **Waste Management Procedures:** (How and where waste will be stored/disposed of. For example the hydraulic fluid shall be contained in DOT-approved 55-gallon drums. The drums will have appropriate PCB labeling and be stored within a temporary storage area that meets all TSCA requirements.)

15. **Recommendations/Procedures If Total Decontamination Cannot Be Achieved:** (No action necessary, repeat procedures, or remove and dispose of as HW, etc.)

16. **Certification:** To the best of my knowledge, the (specific type of unit) was decontaminated as stated above with ___no modifications or with the ___ attached modifications and all information stated herein is true and accurate.

_____
John Q. Public

APPENDIX B

PROCESS DECONTAMINATION CLOSURE/CERTIFICATION FORM

Facilities Requiring Process Closure – Naval Shipyard

Building Number	Building Name	Description/Comments
OL 1	Open Land Area (OL – 1)	Chemical disposal area (SWMU 14) Spoil area sludge pit (PSWMU 154) Dump area – (PSWMU 188) Thirty three magnetic anomalies (potential USTs)
2	Ship Fitter Shop, Structural and Pipe Group	Boiler maker shop Hazardous Substance locker SAA #25 – cutting fluid, spray paint Shipfitter shop – presses, lathes, drills, rollers Zinc anode block storage Cutting, grinding, welding operations One 14000 gallon hydraulic fluid AST One 5236 gallon and one 15350 gallon burnt slag AST One 523 gallon and one 448 gallon overspray debris AST One 9000 gallon liquid nitrogen AST
2 A	Shipfitter Shop and Sail Loft	Shipfitter shop Paint booth SAA – PSWMU 61 Hazardous substance lockers Welding, cutting, grinding, flame spray, aluminum coating operations Sump
NS 2	Utility Building	Two #2 fuel oil boilers Flammable storage locker One 25000 gallon #2 fuel oil UST Sump Oil/water separator

Facilities Requiring Process Closure – Naval Shipyard

Building Number	Building Name	Description/Comments
3	Inside Machine Shop	Hazmat storage Two dry–type paint booths One wet epoxy paint booth Paint bake oven Dry cleaning solvent tanks Mercury gauge work area
ARDM 3	Floating Dry Dock	SAA – paint locker Flammable Storage locker Radioactive materials area Ballast tanks Hydraulic rams One 1000 gallon empty AST
NS 3	Fuel Pumphouse	Pumping station Hydrocarbon storage Three fuel USTs (two are only suspect) Sump
4	Administration Offices, Engineering and IRM	Hydraulic elevator
NS 4	Fuel Oil Storage	~ 10 ft x 15 ft fuel oil UST
5	Woodworking Shop	Wood working and carpentry shop Halon fire suppressant system Baghouse and cyclone collection system

Facilities Requiring Process Closure – Naval Shipyard

Building Number	Building Name	Description/Comments
6	Forge Shop and Propeller Repair Shop	Forge shop (foundry) Zyglo process One 1000 gallon ammonia AST Eight liquid nitrogen cylinders Two 2500 gallon #2 fuel oil USTs Three furnaces Sandblasting and beadblasting Quenching tanks; salt baths Emergency generator Fire engine pump Two sumps
NS 6	Freshwater Pumphouse	Four pumps One 500000 gallon freshwater tank Fuel oil storage
7	Controller Department and IRM	Two film processors (with toners, cleaners and solvents) Halon fire suppression One 4000 gallon UST (listed, not found)
8/8A	Administrative Offices, VSTA	Two flammable storage lockers
SWMU 8	Oil Sludge	Oil sludge pits Five wells
9	Temporary Service Shop	SAA #3 <90 day sotrage area (permit 36) #2 fuel oil torch Three gasoline engines Back – up pumps Arc melting process Mixing and shakeout process

Facilities Requiring Process Closure – Naval Shipyard

Building Number	Building Name	Description/Comments
9 continued	Temporary Service Shop	Foundry and grinding processes Boiler tube degreasing bath Oil/water separator One 500 gallon and one 1000 gallon sludge oil AST Hazardous Substance lockers Scrap metal pit
OL 9	Open Land Area 9	Hazardous Material Storage and dumping
X 10	General Warehouse – MWR	Vehicle Maintenance shop Storage sheds One 500 gallon fuel AST
11	Miscellaneous Shop and Test	Hazardous Substance locker Eight 1000 gallon nuclear grade water ASTs Nuclear control material cage
12 A	Public Works Office	Dumpster
12 B	Public Works Office	Dumpster
13	QA Office and Supply Admin	Machine shop Lab – potential radiation contamination area Five radiological pits and radiological vault Colbalt 60 source radiograph Film developing dark room Chemical inspection area Two 550 gallon USTs SAA – lab waste Three X–ray machines Arc welder

Facilities Requiring Process Closure – Naval Shipyard

Building Number	Building Name	Description/Comments
NS 16	Administrative Office DESRON 4	Two flammable storage lockers
SWMU 19	Solid Waste Transfer Station	Staging area – temporary solid waste storage
21	Storage (Shop 99)	Sludge tanks
25	Transportation Shop & Garage	Repair shop; electric shop; carpenter's chop; paint shop Nuclear maintenance shop Dry filter paint booth Waste oil tank (listed, not found) SAA – PSWMU 105
30	Public Works Building Trades	Carpentry and pipe shop Cyclone vacuum separator
SWMU 31	Waste Paint Storage Area	SAA – Waste Paint Storage Area
32	Central Power Plant	Five boilers One generator SAA – PSWMU 106 <90 day storage area Water filtration system Coal and ash silos Two 5000 gallon #2 fuel oil ASTs Two 5000 high purity water ASTs One 45000 gallon steam condensate AST One 130000 gallon diesel fuel AST
X 33 A	Transformer Vault	One 8000 gallon fuel oil UST

Facilities Requiring Process Closure – Naval Shipyard

Building Number	Building Name	Description/Comments
35	Welding School	Welding machines Fire extinguishers Helium and argon empty cylinders Flammable storage cabinet
SWMU 36	Ground Beneath Battery Shop	Ground contamination from sulfuric acid spills
NSC 39	Diesel Oil Pumphouse (Abandoned)	Diesel oil pumphouse One fuel and one gas AST
42	Motor Pool Dispatch Office	Pesticide storage area (past?) One 1000 gallon kerosene UST
43	Central Tool Shop and Service Group Office	Cutting, grinding, cleaning operations Hazardous substance locker SAA – PSWMU 37 Vacuum dust collector
44	Old Plating Shop	SAA #70 Twenty–two fume exhaust hoods Twenty process tanks Anodizing process <90 day storage area Seven storage tanks (empty?) Sump Two USTs (chromic acid wastewater, cyanide wastewater) Clarifier
NS 44	Heating Plant	Containment pits Two #5 fuel oil boilers Oil/water separator Underground fuel pipes

Facilities Requiring Process Closure – Naval Shipyard

Building Number	Building Name	Description/Comments
NSC 45	Warehouse	Battery charging station
46	Compressor and Salt Water Pumphouse	Air compressors Paint and absorbent storage Four 2500 gallon fuel oil UST
53	Fresh Water Storage Underground	Two freshwater USTs
54	Freshwater Pumphouse	Freshwater pumphouse One 560 gallon #2 fuel oil UST
55	Collimation Tower and Equipment Room	Cooling tower
56	Electrical/Mechanical Group Shops	Pipe shop #2 fuel oil annealing furnace #2 fuel oil UST SAA #7 Hazardous material storage area
57	Rigger Shop (Shop 72)	Rigger shop Hazardous substance lcokers SAA – PSWMU 68 SAA #25 Acid bath/basins Emergency generator
58	Dispensary	X–ray process SAA #53 One 30 gallon storage AST for radiation decon shower Radioactive source storage

Facilities Requiring Process Closure – Naval Shipyard

Building Number	Building Name	Description/Comments
59	Resource Department, Structural Group	Sheet metal and boiler shop Hydraulic equipment SAA Flammable locker Mixing tanks (penetone and rinse water)
62	Operations Project Office	Pipe shop and paint shop Welding machines MAPP gas cylinders Hazmat storage
63	Navy Yard Cafeteria	Four 55 gallon drums of cooking grease Sump
68	Battery Shop (Electric Shop)	Battery shop (charging) Four 6000 gallon sulfuric acid ASTs One 750 gallon acid waste UST Flammable storage locker Hazardous materials storage locker Old acid neutralizing pit
69	Storehouse, Receiving and Shipping	Large chemical storage area Galvanizing plant
NH 72	Heating Plant Building	Two boilers (natural gas and #5 fuel oil) SAA (PSWMU 88) One 8300 gallon fuel UST Underground fuel pipes
75	Substation	Battery bank Abandoned AST

Facilities Requiring Process Closure – Naval Shipyard

Building Number	Building Name	Description/Comments
76	Human Resources and Safety	Laboratory
77	Substation, Restroom, Shop	Nuclear fueling/defueling Hazardous substance locker Generator Two 5000 gallon ammonium hydroxide AST One liquid nitrogen AST Sixteen nitrogen tanks
78	Elevated Water Tank	Water tank
79/79A	Nuclear Repair Facility	One 750 and one 5000 gallon water AST
80	Outside Machine Shop	SAA – PSWMU 47 <90 day storage area Oil/water separator Steam cleaning area Flammable storage lockers Portable storage shed Nitrogen staging area
85	Substation, Piers 317D and 317E	Hazardous substance lockers Sandblast unit
88	Salt Water Pumphouse #2	Pumphouse
91	Substation	Battery bank
96	Substation and Storage	Electric materials storage

Facilities Requiring Process Closure – Naval Shipyard

Building Number	Building Name	Description/Comments
97	Air Compressor House	Two air compressors Oil storage
101	Material and Tool Storehouse	Radioactive material storage Flammable storage cabinet
122	Transportation Motor Pool	Oil and auto maintenance supplies Two 2000 gallon portable diesel and gas ASTs
123	Boiler House	Oil–fired boiler Oil/water separator One 200000 gallon fuel oil AST One ~500 gallon LP gas AST
125	Substation	Six DC generators
127	Saltwater Pumphouse	Two saltwater pumps One flammable storage cabinet One AST (suspect)
PSWMU 127	Sanitary Sewer System & Storm Water	Sanitary sewer collection system Gravity sewers Twenty–two pump stations Secondary biotreatment
136	Condensate Storage and Pump House	One 45000 gallon water AST (condensate storage) Pumps
137	Oxygen Charging Station	Oxygen, nitrogen and argon cylinder storage Cylinder recharging station

Facilities Requiring Process Closure – Naval Shipyard

Building Number	Building Name	Description/Comments
PSWMU 148	Basewide set of sites suspected of unexploded ordnance	Unexploded ordnance sites
PSWMU 150	Oil in soil at waterfront	Soil contamination
174	Switch house (Elec)	Lift station
177	Electric and Electronics Shop	Corrosion inhibitor bath – iridite dipping tank Four paint booths Degreasing operations SAAs Storage sheds Lead–acid battery charging Parts cleaning tanks VPI process Oven Flammable Storage locker Sump Abrasive blasting booths
185	Dredge Pumping Station Number 1	Pump/sump
187	Module Maintenance Facility, Operations	Electronics shop and lab Vacuum system Cleaning tank Dry and Spray paint booths
190	Radcon Training and Offices Building	Pest control spraying Compressor (removed?) Sump (removed?) Small radiation calibration sources

Facilities Requiring Process Closure – Naval Shipyard

Building Number	Building Name	Description/Comments
194	Paint Shop Storage	Paint shop storage Paint mixing area SAA Sandblast grit storage Flammable storage locker
195	Rigger Shop Services and	Waste paint storage area
196	Water Tower Tank	250000 gallon water tower tank
197	Pumpwell for Dry dock #5	Sump Hazardous substance locker Acetylene cylinder
210	Chlorinator Station	Chlorinator
211	Chlorinator Station	Chlorinator
212	Abrasive Blasting Facility	Sandblast chamber (abrasive blast booth) Grit recycling hopper Thinner – recovery unit SAA Baghouse
216	Electrical Shop Cable Warehouse	Flammable storage locker Material storage area
217	Neutron Generator House	Paint booth

Facilities Requiring Process Closure – Naval Shipyard

Building Number	Building Name	Description/Comments
218	Missile Ordinance System Shop	Paint spray booth SAA Sandblast operation Hazmat storage area Flammable storage locker Hydraulic oil AST
221	Lead Storage Building	Lead storage area Radiological material storage Chemical vats
222	Dry Dock Support Repair Facility	Hazardous and flammable storage lockers Radiological control areas Small ASTs
223	Paint Shop	Sandblasting equipment Six dry paint booths Temporary mercury storage Three compressed air ASTs Baghouses Piles/drums of abrasive blast grit
226	Plating Plant and Pump, Valve	One 300 gallon boiler fuel AST One 750 gallon TEP fuel AST Settling tank Coolant recovery unit Plating facility Pump and valve testing shop Boilers and Scrubbers ~ 120 plating dip tanks Waste treatment facility Hydraulic oil storage tank

Facilities Requiring Process Closure – Naval Shipyard

Building Number	Building Name	Description/Comments
228	Pipe Insulation Facility	Adhesive processes <90 day storage area Cutting processes Exhaust system hoods Baghouses
234	Engineering Management Building	Photo processing lab SAA #55 Pesticide control Blueprint shop Hotwater rinse tank
235	CO2 and MAPPGAS Facility	MAPP gas and carbon dioxide cylinder filling station #2 fuel oil furnace One 2000 gallon MAPP gas AST One 1100 lb liquid carbon dioxide AST One 250 gallon fuel oil AST
238	Repair Equipment Building	Hazmat storage
239	Respirator Care Facility	Hazardous Substance storage locker Asbestos recovery processes Surfactant processes HEPA air filtration systems
240	Carwash Facility	Drum storage Plate shop Water wash One 5000 gallon oil/water separtor

Facilities Requiring Process Closure – Naval Shipyard

Building Number	Building Name	Description/Comments
241	Crane Maintence	Sandblast area; welding area Paint spray booth Four SAAs Boiler One 200 gallon fuel oil AST One 200 gallon diesel AST One 6000 gallon UST Oil/water separator Sump
242	Automobile Maintenance Building	Paint storage cabinets MAPP gas cylinders Paint spray booth Railroad maintenance pit Two 5000 gallon motor oil UST Two 1000 gallon and one 5000 gallon waste oil UST SAA Two 250 gallon motor oil AST One 200 gallon diesel AST Sump
246	Mixed Waste Storage	Mixed waste
247	Waterfront Support Building	Flammable storage lcoker Hazardous substance locker
249	Public Works Maintence	SAA #52 Oil dispensing machine Old pesticide mixining area Dumpsters One 200 gallon heating oil tank

Facilities Requiring Process Closure – Naval Shipyard

Building Number	Building Name	Description/Comments
250	Water Front Service Support	Six flammable storage lockers SAA MAPP gas, oxygen and argon tanks Hazardous substance locker Nuclear power parts and materials storage
252	RADCON Training Facility	Flammable Storage locker Minor calibration check
301	Dry Dock #1	SAA Sludge oil tank Receptacle tank Oxygen and MAPP gas tanks Sandblast machines Painting machines Welding compressors Portable boiler
301 B	Pumphouse and Pumpwell	Sump/pump
302	Dry dock #2	Paint, welding, defueling and abrasive blasting operations Waste paint storage area Vacuum tank Radioactive material storage area
302 B	Pumpwell	Pumphouse Flammable storage cabinet Three 5000 gallon ASTs (empty) One nitrogen gas tank Sump

Facilities Requiring Process Closure – Naval Shipyard

Building Number	Building Name	Description/Comments
303	Drydock #3	Abrasive blast media Sump/pump Large industrial cranes Snorkel lifts Welding and Painting equipment
303 B	Pumpwell	Pumps and sumps
304	Dry dock #4	Welding and paint equipment Large industrial cranes Snorkel lifts Abrasive blast media Vacuum cans Pump
305	Dry dock #5	Hydrualic elevator SAA Welding operations Abrasive blast media containers Six pumps and six sumps
314	Industrial Pier D	Seven flammable storage lockers Four 1500 gallon vacuum cans of sludge oil One 10100 gallon portable AST of #5 jet fuel
317 A	Margil Wharf	Two large portable refrigeration units Boiler barge Flammable Storage locker Several 55 gallon drums of hazardous materials Three large portable storage sheds

Facilities Requiring Process Closure – Naval Shipyard

Building Number	Building Name	Description/Comments
317 B	Repair Wharf F	Fire suppression system Acetylene, helium and oxygen tanks SAAs
317 C	Industrial Pier "F"	Fuel, lube and chemical tank storage boiler
317 D	Industrial Pier "G"	Flammable Storage lockers Hazmat storage Pesticide spraying SAA Bulk chemical storage Fuel pipes SAA
317 E	Industrial Pier "H"	Hazmat Storage Pesticide spraying SAA Bulk chemical storage Two 1500 gallon portable sludge oil tanks One 1000 gallon blast grit container One 2500 gallon sulfamic acid AST One 3000 gallon lithium bromide AST Fuel pipes
317 F	Industrial Pier "J"	Fire suppression system Fiberglass ballast containers Oxygen and MAPP gas tanks Portable sludge oil tanks

Facilities Requiring Process Closure – Naval Shipyard

Building Number	Building Name	Description/Comments
333	Pier "C"	SAA – paints Three 1000 gallon hazardous liquid AST Hazmat storage area One 1000 gallon sludge AST
342	Substation/Insulator Shop	Insulator shop
351	Pier E	SAA – PSWMU 57 Salt water fire suppression system Paint storage Argon, helium and oxygen welding tanks Four flammable storage lockers
352	Repair Wharf Charlie (C)	Hazmat storage Three large refrigeration units Stripping machine Two abandoned water coolers Operating crane Two boilers One 20000 gallon fuel oil UST (listed, not found)
353	Bulkhead, Building ways	Hazardous substance locker Flammable substance locker Welding equipment and gases One 1000 gallon mechanical foam AST
355	Bulkhead Piers 352 and 314	Fire suppression system Pumping station Two flammable storage lockers
356	Bulkhead, Drydocks 3 to 4	Saltwater pumphouse

Facilities Requiring Process Closure – Naval Shipyard

Building Number	Building Name	Description/Comments
374	PW Boathouse	Storage shed for generators and pumps Compressed air system
377	Dredge Booster Station Number 2	Booster pump Two water producing wells Septic tank Two 1000 gallon and one 500 gallon diesel fuel ASTs One 1000 gallon portable tank gasoline Water storage tank
380	Hose House for Ship to Shore Sewage	Welding machine Gas cylinders Two flammable storage lockers
381	Storage/Administration Facility	Pesticide storage with small quantity mixing Aerosol storage Exhaust hood One 500 gallon pesticide AST
384	Stormwater Pumping Station	Pumps
400	Public Works Facility	Underground lead conduit Backup generator One 250 gallon diesel AST
401	Cooling Tower	Cooling tower
414	Fire Protection Pumping Station	Pump Flammable storage locker

Facilities Requiring Process Closure – Naval Shipyard

Building Number	Building Name	Description/Comments
417	Salt Water Pumphouse	Two pumps One flammable materials locker
420	Maintenance Shed	
445 A	Gas bottle shed	Oxygen, argon, propane cylinders
445 C	Gas Bottle Shed	Nitrogen, argon and empty cylinders
445 D	Gas Bottle Shed	Argon, oxygen, helium, nitrogen, acetylene and refrigerant cylinders
451 D	Switching Station	Battery bank Sump
451 H	Substation	Battery bank
451 L	Switching Station	Battery bank
451 B	Substation	Battery bank Sump
451 M	Switching Station	Battery charger; battery bank
451 X	Switching Station	Battery bank
454	Substation	Battery charger Battery banks
455	Substation	One 2000 gallon fuel oil UST (listed, not found)

Facilities Requiring Process Closure – Naval Shipyard

Building Number	Building Name	Description/Comments
459	Switching Station	Battery banks with lead waste Flammable storage locker One 20000 gallon fuel oil UST (listed, not found)
460	Switching Substation	Battery bank ~ 10 empty flammable storage lockers
466	Switching substation	Charger and battery bank
560	Coal Storage Yard	Coal storage yard Two inactive septic tanks
656	Navy Exchange, Retail and Warehouse	One #2 fuel oil boiler One 5800 gallon fuel oil UST
715/716	Deep Well Pumphouse and Well	Deepwell pumphouse Artesian well One 2000 gallon fuel oil UST (listed, not found0
903	Storage Building	Storage shed – lead cable, old boilers, old batteries Asbestos dumpster
910	Detention Pond (Shop 03)	Two detention ponds
1024	Shop Staging Storage	Storage yard Five drums of hydraulic fluid Oil/water separator Acid bath (listed, not found) One 500 gallon used oil AST Two 1000 gallon new oil AST Two 500 gallon AST One 100 gallon contaminated oil AST

Facilities Requiring Process Closure – Naval Shipyard

Building Number	Building Name	Description/Comments
1035	Paint Shop 71	Paint shop/storage Spray booth
1119	Operations Support Offices	Flammable materials locker
1141	Shipyard Security Office	Soil remediation (oil contamination)
1171	Material and Equipment Storage	Waste processing from NNPP Storage area for radioactive materials
1173	Storage and Office Area	Boron, paint and solvent storage
1174	Training and Administrative Offices	Radioactive calibration sources One 1000 gallon fuel oil UST One 250 gallon propane AST
1190	Compressor House	Compressor
1193	Office	Pest control plan – regular spraying Lead shielding in walls One #2 fuel oil boiler Two hazardous substance storage locker One 200 gallon fuel oil AST
1241	Electric Repair Shop	Abrasive blasting glove box
1245	Woodworking Shop (Field)	Temporary storage shed ~15–20 flammable storage lockers SAA #23
1248	Storage (Shop 07)	Equipment storage

Facilities Requiring Process Closure – Naval Shipyard

Building Number	Building Name	Description/Comments
1269	Storage (Shop 03)	Equipment storage
1271	Garbage Handling (Container Cleaning)	Garbage disposal area Dry trash container with hydraulic press Sump
1275	Abrasive Blast Slab	Abrasive blast slab Paint storage
1277	Storehouse	One 250 gallon propane AST Battery charging area
1278	Battery Processing Slab	Battery processing slab Concrete pit for acid treatment Staging/short–term storage of acids <90 day storage Acid neutralization tank Waste oil storage AST
1295	Steam Condensate Storage Tank	One 45550 gallon condensate AST
1297	Storage Sand Bin (Shop 81)	Hazardous and flammable materials storage lockers (~ 10)
1298	Brick Storage (Shop 41)	Welding shop Waste oil tank Kerosene tank; carbon removers Caustic bath (removed?)
1314 CI A	Material Storage Shop 81	Hazardous materials storage
1316	Tool Storage for Shop 07	Equipment storage for pesticide application

Facilities Requiring Process Closure – Naval Shipyard

Building Number	Building Name	Description/Comments
1317	Crane Operators Building	Fuel oil generator
1358	Cooling Tower for Building 177	Cooling tower Sump
1363	Cooling Tower for Building 32	Pumphouse (retired) Chillers
1364	Sandhopper	Sandhopper Sandblast grit storage
1365	Sandhopper	Sandhopper Sandblast grit storage
1374	Cooling Tower for Building 46	Two cooling towers (condensers)
1393	Sand Hopper	Sand hoppers Sandblast grit storage
1394	Pure Water Facility Tanks (Two)	Two 5000 gallon nuclear grade water ASTs
1421	Cooling Tower for Building 97	Cooling tower
1426	Contaminated Waste Storage	Radioactive material storage
1443	Time Clock Station 8	Oxygen, argon and carbon dioxide cylinders
1453	Cleaning and Preservative Plant	SAA #25 Flammable storage locker
1454	Equipment Storage	Equipment Storage

Facilities Requiring Process Closure – Naval Shipyard

Building Number	Building Name	Description/Comments
1711	Incinerator	Maintenance and waste processing facility for NNPP
1717	Flushing Equipment Storage	SAA #61 – paint storage and waste Hazmat storage area
1723	Boiler Tube and Firebrick Storage Shed	Boiler tube mock – up Flammable storage locker
1746	Storage Shed	Six flammable storage cabinets Hazardous storage locker
1760	Contaminated Storage	Radioactive material contaminated storage (NNPP)
1761	Sewage Pumping Station	Pump room
1762	Sewer Pumping Station #2	Pump room
1763	Sewer Pumping Station #3	Pump room
1764	Sewer Pumping Station #4	Pump room
1765	Sewer Pumping Station #5	Pump room
1766	Sewer Pumping Station #6	Pump room
1767	Sewer Pumping Station #7	Pump room
1768	Sewer Pumping Station #8	Pump room
1769	Sewer Pumping Station #9	Pump room
1770	Sewer Pumping Station	Pump room
1782	Canteen #2 Shelter	Pesticide spraying
1783	Sewage Pumping Station	Pump house
1784/	Industrial Waste Treatment Facility	Two tanks

Facilities Requiring Process Closure – Naval Shipyard

Building Number	Building Name	Description/Comments
1787	Sewer Pumping Station	Pumphouse
1793	Substation Building	Battery storage Oil–filled breaker storage
1797	Acid Waste Treatment Facility	Two acid waste treatment tanks Battery disassembly platform Settling tank Pump
1801	Piermaster Building	Liquid nitrogen tanks
1806	Sewage Pumping Station	Pumphouse
1807	Sewage Pumping Station	Pumphouse
1808	Sewer Pumping Station/Boiler House	Pumphouse
1809	Sewage Pumping Station	Pumphouse
1811	Sewage Surge Tank	Surge Tank
1812	Sewage Pumping Station	Pumphouse
1813	Flammable Storage Building	Flammable storage and paint
1824	Hazardous/Flammable Storage Facility	Hazardous/flammable storage ~9 rooms of storage – paints, flammables, corrosives, mercury exclusion, cyanide, metals
1829	Storage shelter	Argon cylinders Coatings, kerosene and primer storage

Facilities Requiring Process Closure – Naval Shipyard

Building Number	Building Name	Description/Comments
1838	General Storage	Construction material storage One 3000– 4000 gallon tank (abandoned) Drums Possible asbestos waste storage One 250 gallon JP5 AST
1855	Canteen #4	Pesticide spraying
3902	Paint and Storehouse (Old corral)	Paint, oil and PCB Storage Plating waste storage (cyanide and sludge) Seven groundwater monitoring wells
3909	Fuel oil tank	One 200000 gallon #5 fuel oil AST
4000	Shipboard Electronics System Evaluation	Diesel emergency generator One 300 gallon diesel fuel AST One 500 gallon diesel fuel UST

Facilities Requiring Process Closure – Naval Station

	Building Number		Building Name	Description/Comments
NS	1		Administrative Building	Photo lab CO2 tanks for fire suppression system Portable storage locker
	2		Degaussing Facility and Boat Pier (533)	Hazardous Materials Storage locker SAA #25 (PSWMU 40) Tanks listed but not observed: 14000 gallon hydraulic fluid AST 5236 gallon burnt slag AST 15350 gallon burnt slag AST 523 gallon overspray debris AST 448 gallon overspray debris AST 9000 gallon liquid nitrogen AST
X	2	N	General Warehouse	Storage
OL	3		Open Land Area #3	Three suspected dumping areas
OL	4		Open Land Area #4	Numerous piles of material (pipes, trash, construction debris) PSWMU 202 – two unexploded depth bombs
	5		Stray Magnetic Field Warden (533)	Sewage sludge tank
NS	7		Administrative Building	Three Hazardous Materials Storage lockers
NS	10		Pier Uniform	SAA #Pier U – Hazardous materials storage area
X	11		Public Works Maintenance Shop	Scrap metal storage
X	12		Carpentry Shop	Four Flammable Storage lockers Drum Storage area

Facilities Requiring Process Closure – Naval Station

	Building Number	Building Name	Description/Comments
	17	Quaywall	Hazardous Storage locker Flammable Storage locker
NS	19	Covered Storage (Moto 10)	Two Hazardous Materials Storage Locker
NH	21	General Purpose Laboratory	Caustic tank (now used for dry storage)
NS	23	Machine Shop	One dry (unknown size) UST Mercury storage Five Flammable Storage lockers
NS	26	Administrative Building	Welding Shop; Carpentry Shop Oil/Water separator Sealed and abandoned UST Four Flammable Storage lockers: acid, alkaline, corrosive Oil/sludge tank of ~ 6000 gallons Boiler Cyclone separator Three dip tanks: citric acid, trisodium phosphate
	28	Bachelor Officers' Quarters (BOQ)	One 10000 gallon and one 4000 gallon UST #5 fuel oil Three #5 fuel oil boilers Two propane ASTs Grease pit??? (dugout pit by Blue Water Cafe)
NS	43	Enlisted Dining Hall	Two cold storage lockers (food storage)

Facilities Requiring Process Closure – Naval Station

Building Number	Building Name	Description/Comments
NH 45	COMNAVBASE – HQ	X–ray room on top floor when building part of hospital (unsure if still present – lead lining in walls) sprayed with pesticide every two weeks Four Flammable Storage lockers (listed, not found)
NH 46	Administrative Office	Four 2500 gallon fuel oil USTs (4 listed, 2 found) Four fuel oil boilers
NS 46	Naval Station Headquarters Building	Three USTs (listed, not found) Armory Bank of lead–acid batteries Hazardous Materials Storage area Electric boiler
NH 47	Administrative Office (NSGA Operations)	Three Flammable Storage lockers
NS 48	Tennis Court	Pesticide Spraying in area
NH 49	Administrative Office (Navy Hospital)	Heating/cooling pump room 25 gallon Condensate tank Air pump with K–22 refrigerant Refrigeration machine and generator Two Flammable Storage lockers
NH 50	Administrative Office	Emergency generator One 150 gallon diesel AST

Facilities Requiring Process Closure – Naval Station

Building Number	Building Name	Description/Comments
NH 51	Photo Lab	Photo lab – hazardous waste generation point SAA Hazardous Substance lockers Silver recovery system
NH 53	Administrative Office (Naval Investigative Service)	#5 fuel oil boiler SAA 19; five flammable storage lockers One 800, one 2000 and one 3000 gallon UST of fuel oil Welding shop
NS 53	Barber Shop/Maintenance Shop	#2 fuel oil boiler
NH 54	Administrative Office (NSQA Operations/Communications)	Two USTs of unleaded gas
NS 54	Billeting Office	Two USTs of unleaded gas – (removed??)
X 54	Indoctrination Division	One empty 2500 gallon fuel AST Flammable storage locker Trane air pump
X 55	Ammunition Storage	Ammunition Storage
X 56	Ammunition Storage	Dynamite Storage Temporary Paint Storage

Facilities Requiring Process Closure – Naval Station

	Building Number	Building Name	Description/Comments
	59	Sheetmetal Shop and Boiler Shop	One 345 gallon paint AST One 200 gallon penetone AST Mixing tanks
NH	61	Family Service Center	Hazardous Materials Storage Area One 1050 gallon #2 fuel oil AST
NH	62	Family Service Center	#2 fuel oil boiler One 1050 gallon #2 fuel oil AST
NS	66	Barracks	One 250 gallon propane AST Flammable Storage locker
NS	67	Barracks	One 400–500 gallon propane AST (listed, not found) PSWMU #99; SAA (material unknown)
NH	68	Medical Storehouse	#2 fuel oil boiler One 1000 gallon #2 fuel oil AST X–ray machine storage Battery charging area
NS	71	Naval Exchange Cafeteria Restaurant/ Snack Bar	Boiler One 8000 gallon #5 fuel oil AST One 2000 gallon diesel fuel AST Coolers and freezers Compressors

Facilities Requiring Process Closure – Naval Station

	Building Number	Building Name	Description/Comments
	79 A	RADCON	NNPP radioactive materials storage One 500 gallon radioactive liquid AST Three 5000 gallon (removed) radioactive liquid ASTs One 20000 gallon water AST One 10000 gallon and one 20000 gallon potassium chromate AST Two Flammable Storage locker
NS	79	Dispensary	One #2 fuel oil boiler One fuel oil UST One AST Emergency Generator Hazardous Substance lockers X–ray film developing machine Labs for testing blood and urine samples X–ray machine with silver recovery unit
	81	Fire Station Number 2	#2 fuel oil boiler @7630 gal/year One 2000 gallon #2 fuel oil UST Flammable Storage locker
M	82	NAVSTA Security	30 KW emergency generator Fire suppression system One 200 gallon diesel fuel AST Armory
NS	84	Naval Security Group Security	One 1010 gallon #2 fuel oil AST Flammable Storage locker

Facilities Requiring Process Closure – Naval Station

	Building Number	Building Name	Description/Comments
	86	Cooper River Center	#5 fuel oil boiler One 6000 gallon #5 fuel oil AST
	89	Exchange Maintenance Shop	One 1000 gallon fuel oil UST Flammable Storage locker (walk – in)
	92	Indoor Swimming Pool	Sump in filter room to sanitary sewer system Three chlorine gas canisters
	132	Storage Building	Hazardous Materials Storage lockers One 500 gallon fuel oil UST Boiler (removed??) Acetylene Tanks Propane tanks Open air compressor shed containing "Disease Hazard" Materials
	169	Equipment Storehouse	Two 25000 gallon gasoline USTs (removed??)
	180	Recreation Building	#2 fuel oil boiler One 4000 gallon fuel oil UST
	186	Fire Station Number 1	Unused diesel generator One 10 gallon diesel fuel tank
M	192	Security Training Building	PSWMU 187 – indoor pistol range Armory vault

Facilities Requiring Process Closure – Naval Station

Building Number	Building Name	Description/Comments
200	Port Services with Tower	One #2 fuel oil boiler One 200 gallon fuel oil UST One 500 gallon gasoline AST Machine shop Five Hazardous/Flammble Storage lockers Two storage lockers with acid for batteries Oil/water separator
214	Filter House for Facility 184	Onsite chlorinator with two chlorine cylinders
220	Golf Course Snack Bar Pro Shop	Boiler One 270 gallon #2 fuel oil AST
225	Navy Lodge Motel	Hazardous Substance closet
245	Fire Station Support Building	Halon, CO2, air tanks Spray paint booth (not in use) Exhaust hood (not in use) Two Flammable Storage lockers (empty)
327	Pier "N"	Two 21000 gallon waste oil containers One sump
328	Pier "P"	Two SAAs (PSWMU 196 and 197)
329	Pier "Q"	One SAA (PSWMU 193) Dry trash dumpster

Facilities Requiring Process Closure – Naval Station

Building Number	Building Name	Description/Comments
330	Pier "R"	Dry trash dumpster
332	Pier "Y"	One 80 gallon diesel AST One diesel generator Pump for fire suppression system
335	Ship Berthing Bulkhead	Flammable Storage locker Four SAAs (PSWMU 65, 108, 196, 197)
337	Pier Z	Sumps in lower level for pumping waste material from trenches SAA #65
419	Recreational Storage	Herbicides, Pesticides, Mixing Equipment
590 A	RADCON Administrative Building	#2 fuel oil boiler One 2000 gallon #2 fuel oil UST Sump in boiler room Lead–acid battery storage
601	Fuel oil 12000 gallon tank	One 12000 gallon #2 fuel oil AST
602	8000 Gallon Fuel Oil Tank	8000 gallon fuel oil tank Pipelines
623	Visual Merchandizing Department	Heat pump

Facilities Requiring Process Closure – Naval Station

Building Number	Building Name	Description/Comments
635	Degaussing Generator Building	Two 30 KW generators
636	Auto Hobby Shop	Dry type filter spray booth One 500 gallon waste oil AST One 500 gallon propane AST One Flammable Storage locker Two SAAs Sodium hydroxide bath
637	Chemical Storage	Chemical Storage locker (boiler chemicals)
638	Bath House – CPO Club	Swimming pool chlorinators; chlorine gas and powder algicide
640	Steamers	#2 fuel oil boiler One 3000 gallon fuel oil UST (listed, not found) One 4000 gallon #2 fuel oil AST
641	Warehouse/Administrative (SUBRON4)	Boiler One 560 gallon #2 fuel oil UST Flammable Material Storage locker
642	Macdonald's restaurant	Trash dumpster Storage shed – cleaners, paint, gasoline
644	Sea Lanes Bowling Center	#2 fuel oil boiler One 5000 gallon #2 fuel oil UST Two Flammable Material Storage lockers

Facilities Requiring Process Closure – Naval Station

	Building Number	Building Name	Description/Comments
	646/646A	Administrative and Training Building–COMSUBGRU 6	Diesel fuel boiler – 1340000 BTU Dust collection system to minimize dust from paper shredding One 2500 gallon diesel fuel UST One 2000 gallon UST removed but soil contamination present
	648	NEX Gear Locker	#2 fuel oil boiler Four sumps to stormwater drainage system One 1000 gallon #2 fuel oil AST
	650	Naval Station	Boiler One 1000 gallon #2 fuel oil UST
NS	652	BEQ – Mathis Hall	Sump in machine room
	653	Enlisted Men's Barracks	#2 fuel oil boiler One 2000 gallon fuel oil UST (listed, not found) One 2000 gallon fuel oil AST (listed, not found)
	654	Personnel Support Detachment	Boiler – 762000 BTU One 2000 gallon fuel oil UST with two vents
	655	Charleston Commissary	Boiler – 1.38 MBTU One 2500 gallon fuel oil AST One 200 gallon fuel oil aST
	656	Navy Exchange, Retail and Warehouse and Service Outlets	One #2 fuel oil boiler One 5800 fuel oil UST

Facilities Requiring Process Closure – Naval Station

Building Number	Building Name	Description/Comments
657	America's Original Sports Bar/ James E Williams Complex	Boiler Two 5000 gallon #2 fuel oil USTs Flammable Storage locker Acid corrosive cabinet
658	Barracks	Confirmed Asbestos Insulation
659	Pier "Y" Boat House	One Hazardous Materials Storage locker Flammable Storage locker
660	Special Mag Test Facility	One 80 gallon and one 50 gallon diesel AST One 2500 gallon water AST Generator Hazardous Substance locker Water pump for fire suppression system
661	Communications Center	Fuel burning generator Inactive septic tanks One 5000 gallon fuel oil UST Two 5000 gallon #2 fuel oil UST Lawn equipment shed One #2 fuel oil boiler Four flammable storage lockers Flammable Storage shed
662	Antenna Field (Abandoned)	Built on SWMU 9 – contaminated soils

Facilities Requiring Process Closure – Naval Station

Building Number	Building Name	Description/Comments
664	Subgroup 6 Storage	Mercury listed as present on site; requires disposal
665	Consolidated Package Store	Two walk–in refrigerators Septic tank (removed??)
670	Raquet and Fitness Center	Chlorinator for spa Pool chemicals
672	George E Dervin Hall (Combat System Training Group)	Seven Flammable Storage lockers Dumpster Four Storage sheds
673	Navy Center for Tactical Systems Interoperability	Climate and air filtration unit Fire supression system with four CO2 tanks
674	Performance Monitoring Facility	Laboratory/Storage room Electrical shop HAZMAT storage cabinet
675	Dental Clinic	Dental clinic Propane generator; emergency electric generator SAA <90 day storage areas Two Flammable Storage lockers X–ray machine Grinders and polishers Two propane tanks HEPA air filters

Facilities Requiring Process Closure – Naval Station

Building Number	Building Name	Description/Comments
678	Administrative Building Desron 20/Desron 36	One Flammable Storage locker One Hazardous Substance locker Metal Storage shed
680	Fleet Maintenance Building (SIMA)	Sandblasting unit with internal filters and roof vent One oil/water separator (with Bldg 681) One waste oil/sludge tank Sump in center of shop floor One ~50 gallon diesel AST SAA #50 Seven Flammable Storage lockers Three Acid Storage lockers Three Dip tanks (Citrasol, sodium hydroxide, water)
681	Shop and Administration Building (SIMA)	Paint spray booth – dry type filter Abrasive blasting booth – dry type filter Hopper One oil/water separator (with Bldg 680) One 20000 gallon fuel oil UST Lagging shop, hydraulics shop, machine shop, electric shop Varnish dip tank SAA #50 Sludge/oil tank Twenty–six (26) Flammable Storage lockers Seven Acid Storage lockers
682	Marina Office	One 150 gallon unleaded gasoline AST Storage shed

Facilities Requiring Process Closure – Naval Station

Building Number	Building Name	Description/Comments
687	Shop Building	Stormwater sump (SW corner of facility)
685	Ship Radar Cal Facility with Tower	Hazardous Materials Storage (behind facility) Flammable Storage Lockers Cylinders
688	Floating Pier	Pump station
810	MWR Recycling Center	Two diesel generators Storage shed – recycling Temporary Storage Area – recyclables SAA
824	Storage Shed	Propane tank One 200 gallon propane AST
850	Volleyball/Basketball Court	One 2000 gallon and one 3000 gallon fuel oil tank
851	Gas/Diesel Pumping Station	One 500 gallon gasoline UST; one 500 gallon diesel UST Five Hazardous materials storage locker Paint Storage locker Nine oxygen tanks One diesel pump; one gas pump SAA #19
M 1067	Store House	Wash rack Storage of POLs

Facilities Requiring Process Closure – Naval Station

	Building Number	Building Name	Description/Comments
M	1116	General Warehouse	Grease pit
M	1123	Storehouse and Boiler Room	Boiler One 270 gallon fuel AST Small incinerator
NH	1137	Administrative Office	#2 fuel oil boiler Sump in boiler house One 1010 gallon #2 fuel oil AST Hazardous Substance lockers Metal Equipment Storage shed
M	1150	Counseling and Assistance Center	One #2 fuel oil fuel boiler One #2 fuel oil AST
	1177	Fire Station No 3	#2 fuel oil furnace/boiler One 560 gallon #2 fuel oil AST One Flammable Storage locker
	1179	Chapel	SAA (PSWMU 175)
	1189	Fire Prevention and Inspection Division and MWR Laundry	Dry cleaning operations (no longer in operation)
	1265	Swimming Pool Storage	Pool chemicals and supplies storage
	1267	Receiving and Shipping Transit Shed	Radioactive materials storage (low level sources)

Facilities Requiring Process Closure – Naval Station

Building Number	Building Name	Description/Comments
1346	Service Station/Minimart	Gas and natural gas furnace Eleven leaded and unleaded gas USTs. Auto lubes, oils and supplies SAA #57
1347	Auto Hobby Shop	Two SAAs Paint booth
1401	Football Fields	Three tanks (???)
1410	Golf Course	Use of herbicides and pesticides (possible storage on site) Equipment storage
1431	Small Equipment Storage Shed	Hazardous Materials Storage
1448	Filter House for Structure Number NS–59	One 400 gallon hot water AST Gas chlorine canister; powdered chlorine
1494 A	Tool Storage – BRIG	Lawn Equipment Storage Gasoline and motor oil storage
1508	Car Wash and Hobby Shop	One 40 gallon hydraulic fluid UST (leaking) Two 40 gallon hydraulic fluid AST Storage of solvents and auto cleaning supplies
1646	Golf Course Warehouse (Pesticide Storage and Mixing Warehouse)	One (unknown size) diesel fuel AST Herbicides and pesticides and related mixing equipment Lawn Equipment Storage

Facilities Requiring Process Closure – Naval Station

Building Number	Building Name	Description/Comments
1708	Generator Building	One 2200 gallon diesel fuel AST (empty)
1718	Septic Tank and Drain Field	Septic tank and drain field (abandoned)
1721	Refrigeration Equipment Building	Refrigerator
1749	Maintenance Equipement Storage Shed	Oxygen, acetylene and argon cylinders
1776	Mechanics Shop	One 300 gallon used oil AST One Flammable Storage locker Battery locker Oil/water separator
1786	A/C Equipment and Cooling Tower	Two 480V chillers and associated cooling tower
1795	General Storage	One (unknown size) propane AST
1816	Storage and Engine Shop	Lawn Equipment Storage Flammable Storage lockers Welding Shop
1817	Facilities Maintenance	One 250 gallon waste oil AST Hazardous materials storage area SAA Four Flammable Storage lockers
1841	Naval Dental Clinic Storage	Paint, Solvent and Lubricant Storage

Facilities Requiring Process Closure – Naval Station

Building Number	Building Name	Description/Comments
1843	Incinerator	Incinerator with paper burning (800–1200 lb/day) One 500 gallon propane AST
1848	Public Toilet and Pressbox	Furnaces with vent stack
1874	Port Services Storage	Seven 55 gallon drums (hydraulic fluid, lube oil, sodium hydroxide, ethylene glycol)
1875	Bachelor Officer's Quarters Storage	Storage of cleaning compounds
1877	Washrack	Washrack
1879	Equipment Building	Four Flammable Storage lockers One Corrosive locker
1883	CBU – 412 Storage	SAA; cleaning supplies
1888	Indoor Pistol Range	HEPA vacuum system to prevent lead particles from spreading Underground septic tank (in service) pistol range (lead)
1899	Steelworker Shop	Welding operations
1984	Pistol Range Classroom	Sump for used lead slugs Septic system

Facilities Requiring Process Closure – Fleet Industrial Supply Center

Building Number	Building Name	Description/Comments
14	Small Craft Ready Fuel Storage (not in use)	One 220 000 gallon fuel storage AST (empty)
39 A	Ballast/Sludge Storage Tank (SWMU 24)	One 741 000 gallon oil/ballast water separator with piping
39 D	Ballast/Sludge Storage Tank (SWMU 24)	One 741 000 gallon oil/ballast water separator with piping
39 L	Diesel Tank, 6,500 Gallon	One 6500 gallon diesel AST and piping
39 M	Diesel Pumphouse	Diesel pump equipment Piping Lubricants
39 N	Motor Gas Tank	One 825 gallon gasoline UST (removed 1984)
NSC 45	Warehouse	ACM pipe insulation Battery charging station Batteries
64	Warehouse	Possible POLs in stored engines
NSC 66	Storage Warehouse	One 250 gallon propane tank
NSC 67	Warehouse	ACM pipe insulation One 55 gal drum radioactive instruments Three shelves of radioactive parts
83	Business Opportunity Center	Check for UST since building used to have a boiler
98	Fuel Oil Booster Pumphouse and Three Fuel Transfer Pipelines	Fuel oil pump equipment Pipelines

Facilities Requiring Process Closure – Fleet Industrial Supply Center

Building Number	Building Name	Description/Comments
135	Operational Storage	Paints Batteries Check for gasoline USTs since area was a gas station
148	Stripper – Concrete Tank	One 220 000 gallon special fuel AST (empty)
172	Operational Storage	Two Flammable Storage lockers Leaking POL for equipment
191	Controlled Humidity Warehouse	Two diesel ASTs One fuel oil AST Possible UST Boiler Hazmat Storage
193	Cold Storage Warehouse	One 1500 gallon AST (possibly removed)
198	Supply Receiving, Shipping and Administration Building	Two cooling towers One 2000 gallon diesel AST Emergency generator
219	Battery Charging Station	Battery charger Batteries Gasoline for forklifts
224	Ships Outfitting, Clothing Storage	One 500 gallon UST Boiler Hazmat storage

Facilities Requiring Process Closure – Fleet Industrial Supply Center

Building Number	Building Name	Description/Comments
233	Battery Charging Facility	Batteries and acids SAA One 250 gallon propane tank 55 gallon waste drums
290	Uninterruptable Power Source (UPS) Building	Batteries Inactive acid distribution box
321	Supply Pier Alpha	Two 55 gallon oil drums Hazmat storage
325	Fueling Pier Kilo	Fueling lines, equipment and sumps Two 1000 gallon waste oil tanks
547	Open Storage Area	Stained soils need sampling Hazmat storage
1001	Cylinder/POL Storage Shed	Oils, solvents, flammable gases, batteries and petroleum products
1079	Hazardous/Flammable Storage Building	One boiler Five 500 gallon waste USTs Hazmat storage
1127	Preservation and Packaging Shop	Paints and solvent storage
M 1136	Administrative Building	Boiler One 375 gallon fuel oil UST One 500 gallon fuel oil AST

Facilities Requiring Process Closure – Fleet Industrial Supply Center

Building Number	Building Name	Description/Comments
1138	Bin Issue Warehouse	Flammable Storage lockers Two propane tanks
1226	Shop Repair Storage	Boiler One 750 gallon kerosene AST One septic tank
1449	Portable Field Office	One 250 gallon propane tank Acetylene tanks (possible)
1514	Pumping Station	One 550 gallon diesel AST Pump lubricants
1601 B	Warehouse	Cleaning compounds storage
1602 C	Warehouse	Nitrogen tanks Cleaning compounds storage
1603	MTIS – Material Turn In Site	One 1000 gallon propane tank
1604	Storage Warehouse	Hazmat Storage
1605	Warehouse (DRMO) Repairables Processing	One propane tank POL contamination
1606	DRMO Warehouse, Service East	Hazmat Storage
1612/SWMU 2	Open Storage Yard/Scrap Yard	SWMU #2 investigation required
1614	Open Storage	One 80000 gallon fuel oil rail car

Facilities Requiring Process Closure – Fleet Industrial Supply Center

Building Number	Building Name	Description/Comments
1620	Warehouse, Operational Storage	Two Flammable/Hazardous Storage lockers Overpack (empty drums) behind building
1621	Storage Building	Two Flammable Storage lockers One 1000 gallon propane tank
1622	Polaris Materials Office (PMO)	One 1000 gallon propane tank
1623	Polaris Materials Office (PMO)	One 500 gallon propane tank
1624	Battery Charging Facility	Flammable Storage lockers Batteries POL associated with forklifts
1627	Storage Facility	Two 250 gallon propane tanks
1628	Publications and Printing Plant	Friable ACM in floor mastic Lithographic printing process Three Flammable Storage lockers One 5 gallon pail of plating solution
1629	Flammable Storage Shelter	55 gallon Hazmat/Flammable drums
1631	Vehicle Storage Shed	Fuel, oils, waste solvent storage One 250 gallon propane tank Two POL catch basins
1634	Band Saw Shelter	One Flammable Storage locker
1640	Conforming Storage Facility	One 500 gallon fuel oil tank Hazardous Waste storage

Facilities Requiring Process Closure – Fleet Industrial Supply Center

Building Number	Building Name	Description/Comments
1647	Pumphouse for Bldg 1639	One 70 gallon diesel tank
1653	Fuel Testing Laboratory	Oil/water separator One 500 gallon propane tank Three Flammable Storage lockers Fuel sample wastes Cleaning equipment
1810	Air Compressor Building	Compressor and lubricating oils
3900 E	Diesel Oil Tank, 2350000 Gallon	One 2.3M diesel tank with associated piping
3900 F	Diesel Industrial Supply Center	One 2.3M diesel tank with associated piping Spill area associated with tank (soil contamination)
3900 I	Diesel Oil Pumphouse/Laboratory	Pumps and associated piping Valve pits
3901 A	Ballast/Sludge Storage Tank	One 103K waste oil tank Oil/water separator Overflow sump
3901 B	Sludge Pumphouse	Pump and associated piping Pump sump
3906 O	Ballast/Sludge Storage Tank	Ballast/Sludge Storage Tank

Facilities Requiring Process Closure – Fleet Industrial Supply Center

Building Number	Building Name	Description/Comments
3906 P	Diesel Fuel Oil Tank, 2,128,000 Gallon	Diesel Fuel Oil Tank, 2,128,000 Gallon
3911	Lubricant Storage Tank	One 50K lubricant storage tank with associated piping Pumps
3912	Lubricant Storage Tank	One 50K lubricant storage tank with associated piping Pumps
3913	Tank Truck/Car Loading	Transfer pumps and piping Oil/water separator and associated AST POL residues
3915	Lubricant Storage Tank, 1008000 Gallon	One 1008000 gallon recovered oil tank and associated piping Retention pond
3916	Diesel Oil Tank 4200000 Gallon	Diesel Oil Tank 4200000 Gallon and associated piping
3917	Diesel Oil Tank 4200000 Gallon	Diesel Oil Tank 4200000 Gallon and associated piping
3926	Ballast Water Treatment Facility	Oil/water separator with associated pumps and piping

Facilities Requiring Process Closure – Fleet and Mine Warfare Training Center

Building Number	Building Name	Comments/Description
202/208	Instruction Building/5000 Gallon Underground Fuel Oil Tank	Mercuric Nitrate and Waste oil storage areas Boiler Asbestos rooms 201, 207, 213 and 125
204/1424	Pumphouse (202) Potable Water Tank (1424)	Pumphouse Potable Water Tank
203	Gas Storage	Flammable Gas cylinder
643	Training Building	Water cooler One 6000 gallon fuel oil UST Boiler Hazardous and Flammable Storage lockers
645	Engine Overhaul Facility	Friable asbestos pipes and elbows POL ASTs Diesel Engine Traner Hazmat and Flammable Storage lockers
647	Training Building	One 4000 gallon fuel oil AST Boiler Hazmat and Flammable Storage locker
1281	Cooling Tower	Cooling tower and associated water treatment chemicals
1302	Helicopter Mock–up Pad / SWMU 13	Clean mock–up pad – SWMU 13
1303	Damage Control Mock–up	Flammable and Hazardous materials storage lockers SWMU 13

Facilities Requiring Process Closure – Fleet and Mine Warfare Training Center

Building Number	Building Name	Comments/Description
1306	Aboveground Storage Tank	One 5000 gallon diesel fuel AST
1308	Oil/ Water Separator	Oil/water separator Recyclable waste oil tank
1309	Engine Room Mock – up Facility/SWMU 13	Clean mock – up facility – SWMU 13 Propane tank
1310	Carrier Compartment Mock – up/SWMU 13	Clean mock – up facility – SWMU 13
1313	Hose Storage	One 1000 gallon diesel fuel UST Fire fighting chemicals
1351	Paint Locker	Paint locker Friable asbestos
1352	Air Compressor Shed	Compressor and associated oils
1715	Maintenance Shop	HazMat and Flammable Storage lockers
1819	Maintenance Shed/Mechanical Equipment Storage	Lawn equipment POL HazMat and Flammable Storage lockers

Facilities Requiring Process Closure – Naval Station Annex

Building Number	Building Name	Description/Comments
2501	Radar Lounge/Air Force Property	Asbestos dust under building
2505	U.S. Marine Corps 4th LSB, Company C;	Waste oil storage drums Hazardous Materials lockers One 800 gallon oil/water separator One 225 gallon waste oil tank
2506	Barracks – Vacant	Friable asbestos in crawl space
2508	Maintenance Shop	Four boilers with boiler chemicals Damaged ACM pipe mastic
2509	Radar Tower	Four boilers One 1000 gallon diesel UST
2513	Diesel Plant	Two 42K diesel ASTs (empty) One 300 gallon diesel AST
2517	Administration for NMCR	Boiler One 2000 gallon diesel UST
2521	Armory	Small fire arms and ammunition
2522	Mobile Mine Assembly Group (MOMAG Eleven)	One 8000 gallon diesel fuel UST
2524	Supply and Component Testing	Two 1000 gallon ASTs One 2000 gallon UST Three boilers Friable asbestos pipe insulation

Facilities Requiring Process Closure – Naval Station Annex

Building Number	Building Name	Description/Comments
2530	Maintenance Storage	Lawn Equipment Gasoline and oil containers ACM floor tiles
2532	Paint Storage	Paints, solvents and POLs <90 day Accumulation area
2533	Storage for MCRC	Electric boiler Abandoned UST
2536	ADMIN CO MOMAG	Hazardous Materials and Flammable Storage lockers
2552	Swimming Pool	Abandoned UST
2556	Mine Assembly and Storage Building	Numerous Flammable and Hazardous Materials lockers Paint booth Sandblasting booth Boiler Fuel oil AST
2557	Sewage Pumping Station	Sewage pumping station

Facilities Requiring Process Closure – Chicora Tank Farm

Building Number	Building Name	Description/Comments
3906 K	Diesel Fuel Oil Tank 2,128,000 Gallon	Fuel tank, pumps and associated piping
3906 L	Diesel Fuel Oil Tank 2,130,000 Gallon	Fuel tank, pumps and associated piping
3906 M	Ship Fuel Oil Tank 2,132,000 Gallon	Fuel tank, pumps and associated piping
3906 N	Ship Fuel Oil Tank 2,126,000 Gallon	Fuel tank, pumps and associated piping
3906 Q	Operational Storage	Paint, lubricant and fuel disposal
3920	Runoff Oil/water Separator	Oil/water separator

Facilties Requiring Process Closure – Submarine Training Facility

Building Number	Building Name	Comments/Description
FBM 61	Fleet Ballistic Missile Submarine Training Facility	Four SAAs Fuel oil spill (SWMU 17) Two #5 fuel oil boilers Two #2 fuel oil boilers Oil/water separator Boiler room trenches Three cooling towers Various hydraulic equipment Fourteen sumps to oil/water separator Four monitoring pits with SWMU 17 Four fuel oil USTs Numerous flammable, corrosive and acid lockers
600	30,000 Gallon Fuel Oil Tank	One 30K AST with #5 fuel oil; associated piping
686	Operational Trainer Facility	One 4000 gallon UST with #2 fuel oil One boiler Chlorine storage

Facilities Requiring Process Closure – Reserve Readiness Center

Building Number	Building Name	Comments/Description
RTC 1	Naval Reserve Readiness Centre	Batteries and Battery storage area
RTC 4	Paint Storage	Paints, solvents, POLs Lawn equipment
1656	Transit Cargo Handling Warehouse	Oil/water separator POLs, solvents

Facilities Requiring Process Closure – Naval Weapons Station Housing

Building Number	Building Name	Description/Comments
Quarters A	Quarters A, Comsix/Comnavbase (flag)	Boiler with 550 gallon #2 fuel oil UST
Quarters B	Quarters, Cominflant (Flag)	Boiler with 550 gallon #2 fuel oil UST
Quarters G	Officer's Quarters G	Boiler with 550 gallon #2 fuel oil UST Household chemicals
Quarters I	Officer's Quarters	Boiler with 1000 gallon #2 fuel oil UST
M8	M8 Quarters	Boiler with 1000 gallon #2 fuel oil UST
Quarters R	Officer's Quarters R	Boiler with 550 gallon #2 fuel oil UST
Quarters T	Quarters T/1531 Hobson Avenue	Boiler with 550 gallon #2 fuel oil UST
701	Housing	Boiler with 280 gallon #2 fuel oil UST
758–NHA	Quarters 758–NHA/795 Avenue F	Boiler with 550 gallon #2 fuel oil UST
760 NHD	Officer's Quarters	Boiler with 550 gallon #2 fuel oil UST

Facilities Requiring Process Closure – Short Stay

Building Number	Building Name	Comments/Description
30SS	Sewage Treatment Plant	Three 300 lb chlorine gas cylinders Three 300 lb sulfur dioxide cylinders Aerobic digestor Aeration chamber Clarifier and blower
44SS	North Water Well	Chlorinator and chlorine gas cylinders
45SS	West Water Well	Chlorinator and chlorine gas cylinders
48SS	Storage	Unremediated spills Diesel fuel drums Paint wastes
49SS	Fire Fighting Pump Station	Two 70 gallon propane tanks One 5 gallon sulfuric acid canister
85SS	Bath house, Laundry	Septic tank and drain field
86SS	Drain Field	Septic system drain field
135SS	Maintenance Bldg/Flammable Storage	One 545 gallon gasoline AST Empty gas cans
136SS	Service Station (gas pump)	One 2500 gallon gasoline UST with pump
192SS	Dock/Gas Pump	Gasoline piping and pump to 136SS UST
194SS	Sewage Lift Station	Clean lift station

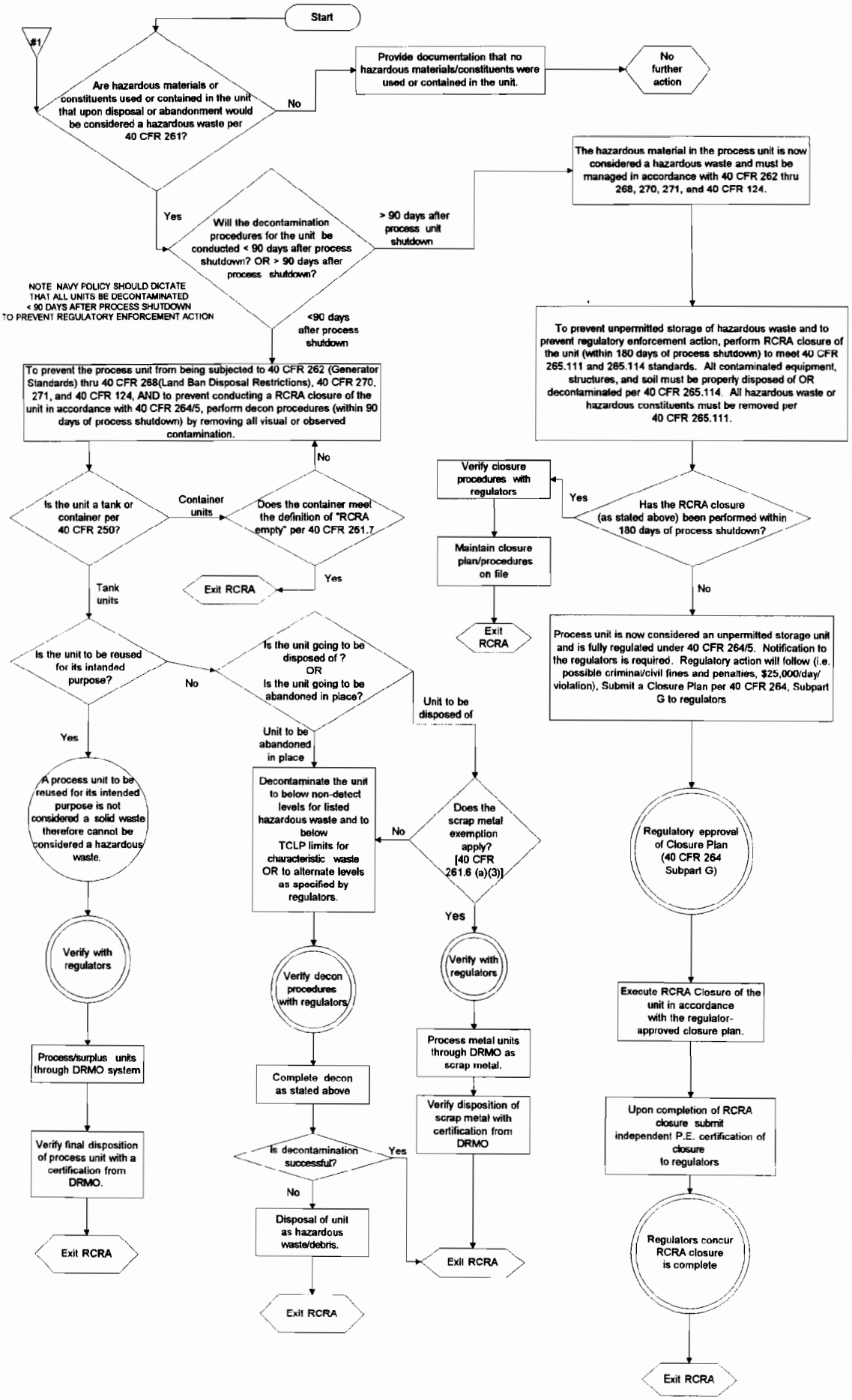
Facilities Requiring Process Closure – Short Stay

Building Number	Building Name	Comments/Description
196SS	Boat Repair Shop 196, 135, 90, 192SS	Gasoline and waste oil storage containers
197SS	Paint Stowage	Disposal of paints, solvetns and oils
202SS	Wells, 44SS, 45SS, 202SS	Chlorinator with chlorine gas
237SS	Diesel Storage	One 400 gallon diesel AST

APPENDIX C

REGULATORY DECISION FLOWCHARTS

FLOWCHART #1
DETERMINATION OF DECONTAMINATION STANDARDS FOR PROCESS UNITS THAT ARE SCHEDULED TO BE SHUTDOWN WHICH CONTAIN HAZARDOUS MATERIALS/CONSTITUENTS



FLOWCHART #2
DECONTAMINATION/CLOSURE STANDARDS FOR PROCESS UNITS THAT ARE SCHEDULED TO BE SHUTDOWN WHICH CURRENTLY MANAGE HAZARDOUS WASTE