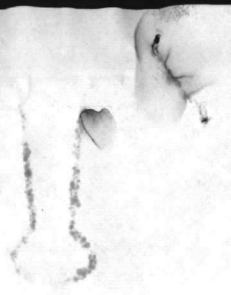


2 Specific
General Comments:

<u>SECTION</u>	<u>COMMENT</u>
Page 2, Second Sentence	unclear
Page 2, Para. 4 a	"Battalion and Separate Company..." vice "Separate Battalion and Company..."
Page 3, Para. 4 b	"...by Transporter authorized by UOA..." vice "...by Permitted Transporter."
Page 3, para. 4 f	"Environmental Engineer" vice "Natural Resources"
page 3, para 5	Should be revised to address present status
page 3, para 7	Recommend NREAD vice Environmental Engineers
Page 4, para 8	Autofreeze is currently disposed of through Sanitary Sewer
Page 4, Para 11	Would DRMO Not be required to Arrange contract?
Page 5, Para 4	No conflict with change recommended for Page 3, para 7
page 7, para 1.3	Authority needs to be specifically referenced to written Marine Corps instruction.
Page 7, para 1.4	Recommend attaching Appendix which provides current definitions.
Page 8, para 1.8	"Volume 1, Section 2.3.2" does not exist



1-10-42

Section

Comment

Page 9, Para 2.0
1ST sentence

" Oil from stormwater storage tanks and oil water separators" vice "Oil from storm water separators."

Page 10, para 3.1
para 3.2.1

Unresolved issue, i.e., who is A/C/S, Facilities going to designate as Used Oil Administrator. Key decision required before plan can be published.

Page 11, 3.2.1

"NAUy on scene Commander" vice "Emergency Coordinator." Note ~~also~~, Fire Chief provides this coordination and notifies ~~responsible~~ responsible officials

Page 11 3.2.2.d

Servicing of Tanks should be on a routine schedule, not on call by work center (except in an emergency)

Page 11 3.2.3a

Recommend wording as follows: "Ensure segregation and proper containerization and identification of used oil generated at work centers within HMDO's cognizance."

Page 11 3.2.3b

Notify Organized Hazardous Material Disposal Coordinator if a used oil cannot be adequately identified



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Additional faint, illegible text, likely bleed-through from the reverse side of the page.

Section

Comments

Page 11, 3.2.3 d

"Ensure Maintenance of... Vice
"Maintain Compliance..."

Page 12, Para. 3.2.6b

Clarify meaning

~~Page 12, 3.2.8~~

Page 12 para 3.2.8

"Base Safety Officer" Vice Safety Department

Page 12 3.2.9b

Reassign "Rent a Solvent" to
NREAD

1
Page 12 3.2.9b

Update Antifreeze

Page 13 para 3.2.9c

What does this mean

Page 14, Para 4.1.1

Recommend adding the following
after first sentence, "NREAD, HMDO
and UOA must work closely
together to ensure proper
segregation and identification of
Dily wastes."

Page
~~17~~ 17, para 6

Antifreeze writeup should
be updated to show
present procedure of discharge
to sanitary sewer

~~Page 17, para 6~~



Section

Page 23 Para 6.1
Para 6.3

Comment

Needs to clarify the problems associated with not segregating the skimming from storm water storage tanks or oil water separators.



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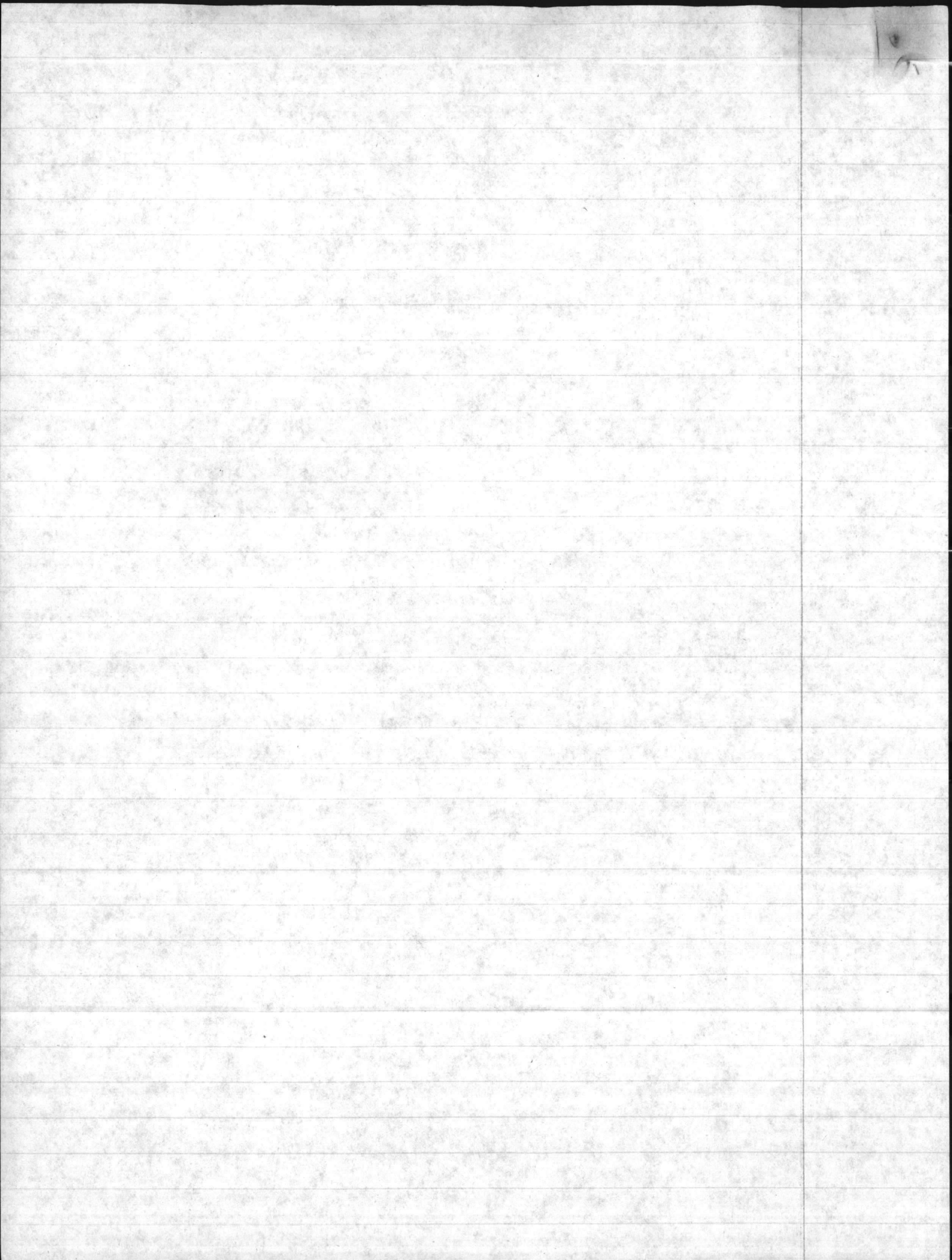
Tom Barbee

11-10-86

Comments on Used Oil Mgt Plan

p. 15, ¶ 4.1.2, cont. lines 7,8: The sentence: "Segregation by category will ensure that compatible chemicals are not mixed." Should it be "incompatible?"

p. 20, ¶ 4.6.2. 2.a.: What equipment is available to prevent tanks from being overfilled?



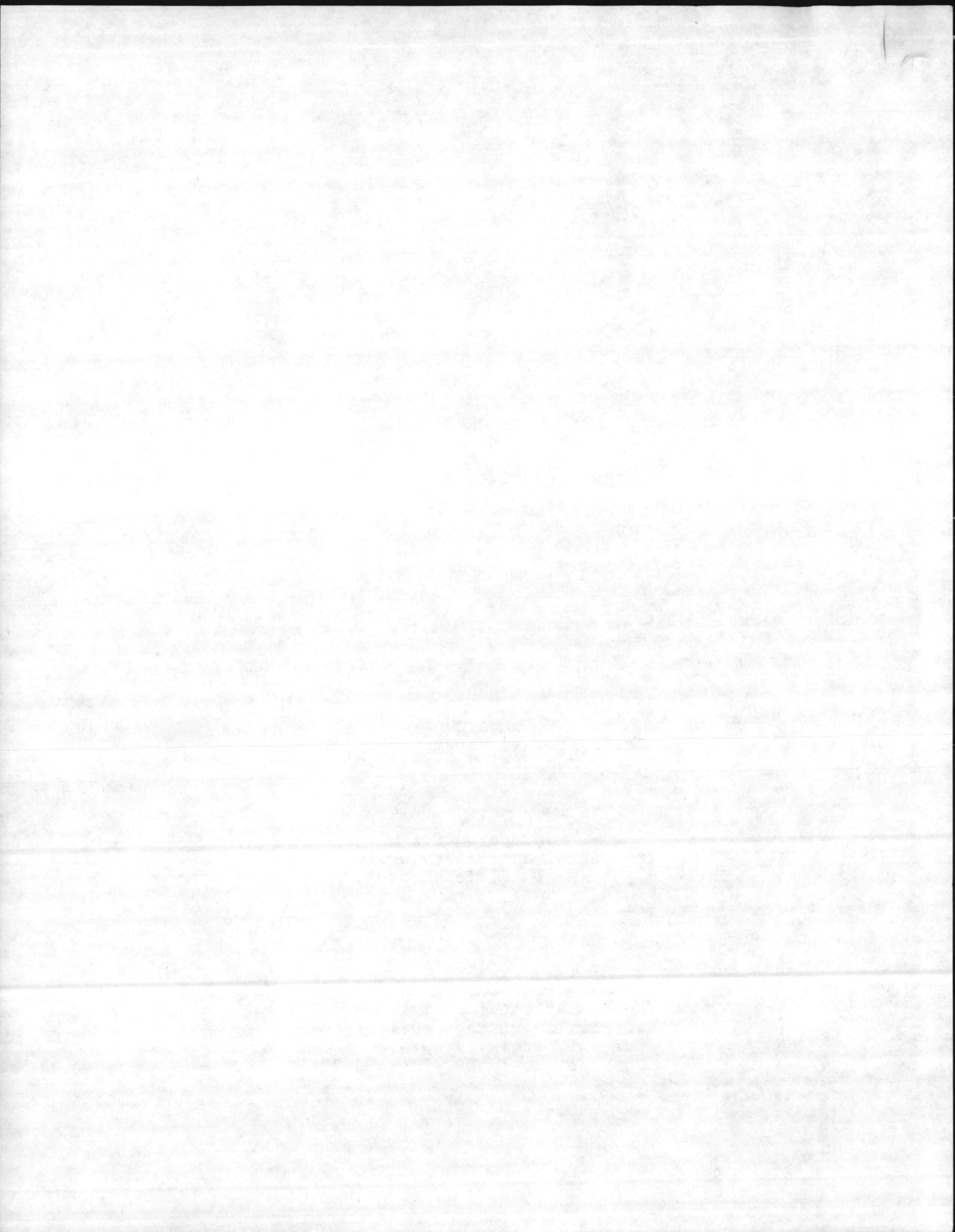
DRAFT
USED OIL MANAGEMENT PLAN
MARINE CORPS BASE
CAMP LEJEUNE, NORTH CAROLINA
VOLUME 3

prepared by
Delta Process Management, Inc.
Memphis, Tennessee

prepared for
Environmental and Safety Designs, Inc.
Memphis, Tennessee

under
Atlantic Division
Naval Facilities Engineering Command
Norfolk, Virginia
Contract No.: N62470-85-B-7979

June 9, 1986



MARINE CORPS BASE
CAMP LEJEUNE, NORTH CAROLINA

USED OIL MANAGEMENT PLAN

prepared by

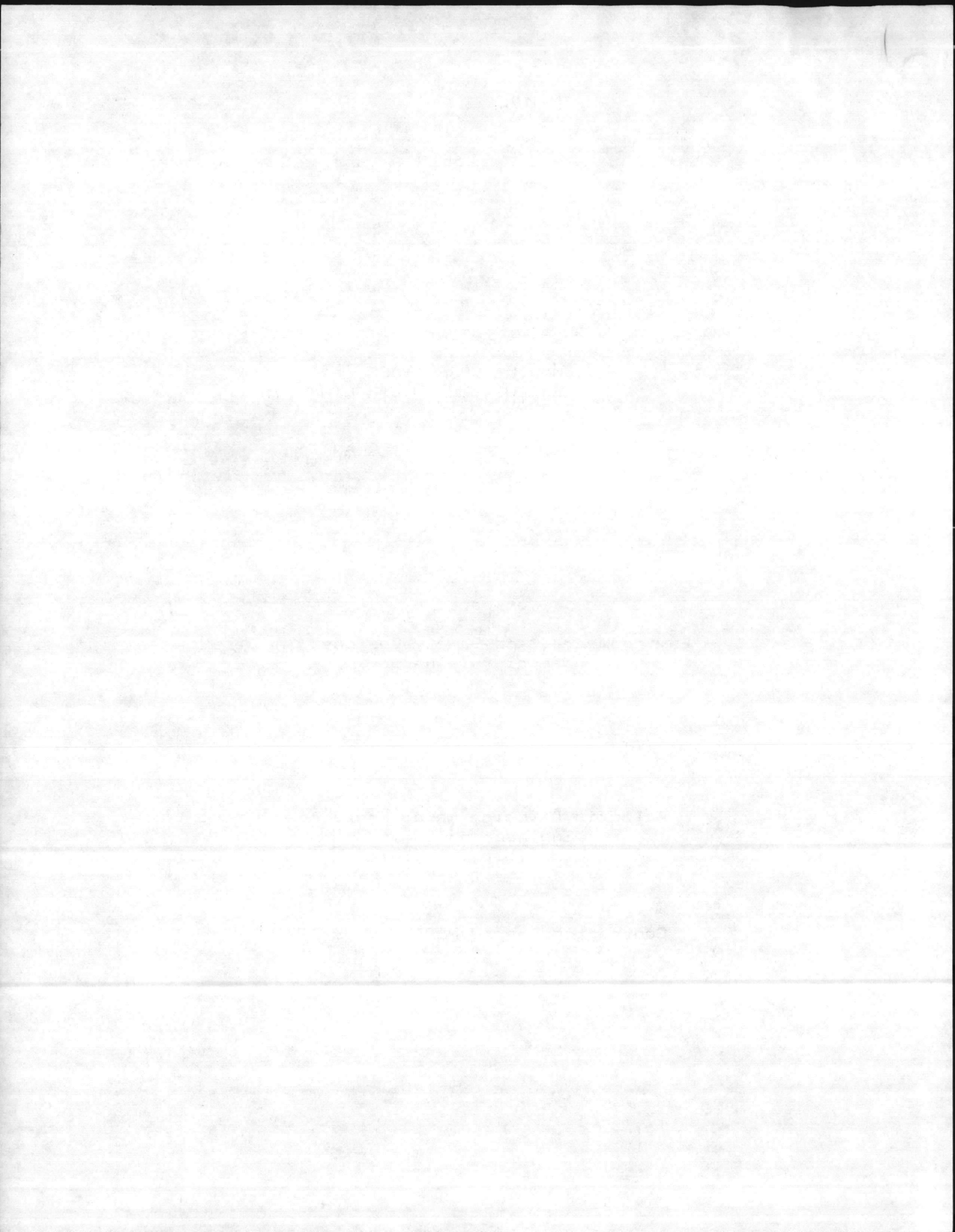
Environmental and Safety Designs, Inc.
Memphis, Tennessee

prepared by

Atlantic Division Naval Facilities
Engineering Command
Norfolk, Virginia

Contract Number: N62467-83-B-7979

June 09, 1986

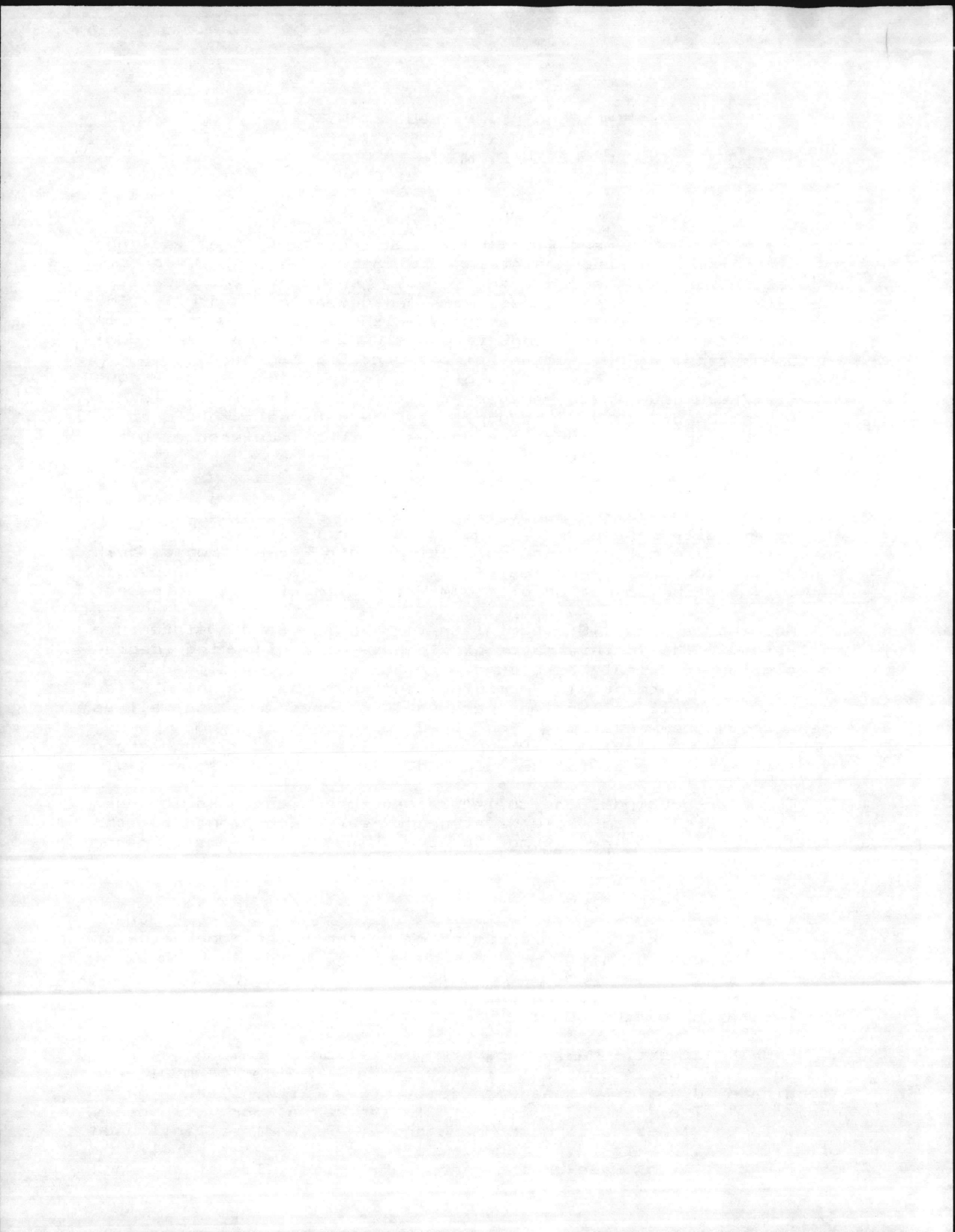


IMPLEMENTATION REQUIREMENTS
FOR MARINE CORPS
CAMP LEJEUNE, NORTH CAROLINA
USED OIL MANAGEMENT PLAN

The Used Oil Management Plan (UOMP) requires certain actions be taken to achieve and maintain compliance with the used oil regulations. Further, Base safety, environmental quality, logistics, and efficiency require a management of used oil. The following is a summary of actions which should be taken on immediate interim and long term basis to assure full UOMP implementation. The success of the Used Oil Management Plan is dependent upon the execution of the complimentary Hazardous Material/Hazardous Waste Management Plan (HM/HW Plan). It is not the intention of the UOMP to duplicate the rationale set forth in the HM/HW Plan. Therefore, throughout the UOMP, reference to the HW/MP (Volume 2) will be made.

Interim Recommendations:

1. Designate overall responsibility to Base Maintenance Utilities for used oil management including used oil pickup from the generators used oil drums or collection tanks, operation of bulk used oil storage, operation of boilers designated for used oil burning, and the operation of storm water oil skimming equipment.
2. Appoint a Used Oil Administrator within Base Maintenance Utilities. The Administrator should have an engineering degree or similar practical background. Although not envisioned as a full time appointment, the Administrator would be responsible for managing used oil collection, personnel and equipment, as well as preparing documentation for used oil control and permit compliance. A working knowledge of applicable federal and state used oil regulations will be required.
3. Transfer personnel and collateral equipment assigned to used oil collection from Base Maintenance Heavy Equipment to the Utilities Branch reporting to the Used Oil Administrator including:
 - a. used oil truck drivers;
 - b. used oil tank truck, vacuum skimming truck, and contaminated fuel tank wagon.
4. The following requirements must be met to ensure full implementation of the UOMP:
 - a. Each regiment, MAG, separate battalion or company shall designate a Hazardous Material Disposal Officer (HMDO) to coordinate used oil management activities within each major command. The HMDO will identify an area for temporary accumulation of used oil with HM/HW containers and available used oil collection tanks. Survey of such an area shall be coordinated with Base Maintenance Utilities (logistics and



facilities requirements), Natural Resources (regulatory compliance assessment) and with the Fire and Safety Departments (for safety and emergency response assessment). The accumulation area must be conformed to Section 4 of the UOMP and HM/HW Plan.

b. All personnel will ensure that used oils are segregated from other wastes according to the UOMP; that used oils are not spilled, improperly stored or disposed of; and that used oils are not transported on public highways except by permitted transporters.

c. Base Maintenance Utilities will initiate planning and facilities requests to assure that all requirements of the UOMP shall be met.

d. Natural Resources shall issue and maintain a new used oil Base Order such that all requirements of the UOMP shall be met.

e. Natural Resources shall provide required environmental training and audits to assure that all requirements of the UOMP shall be met.

f. Natural Resources shall submit and maintain necessary environmental permit applications and notifications.

g. The Safety Department will review protective equipment and safety requirements and provide necessary support to Base Maintenance Utilities and the generating work center.

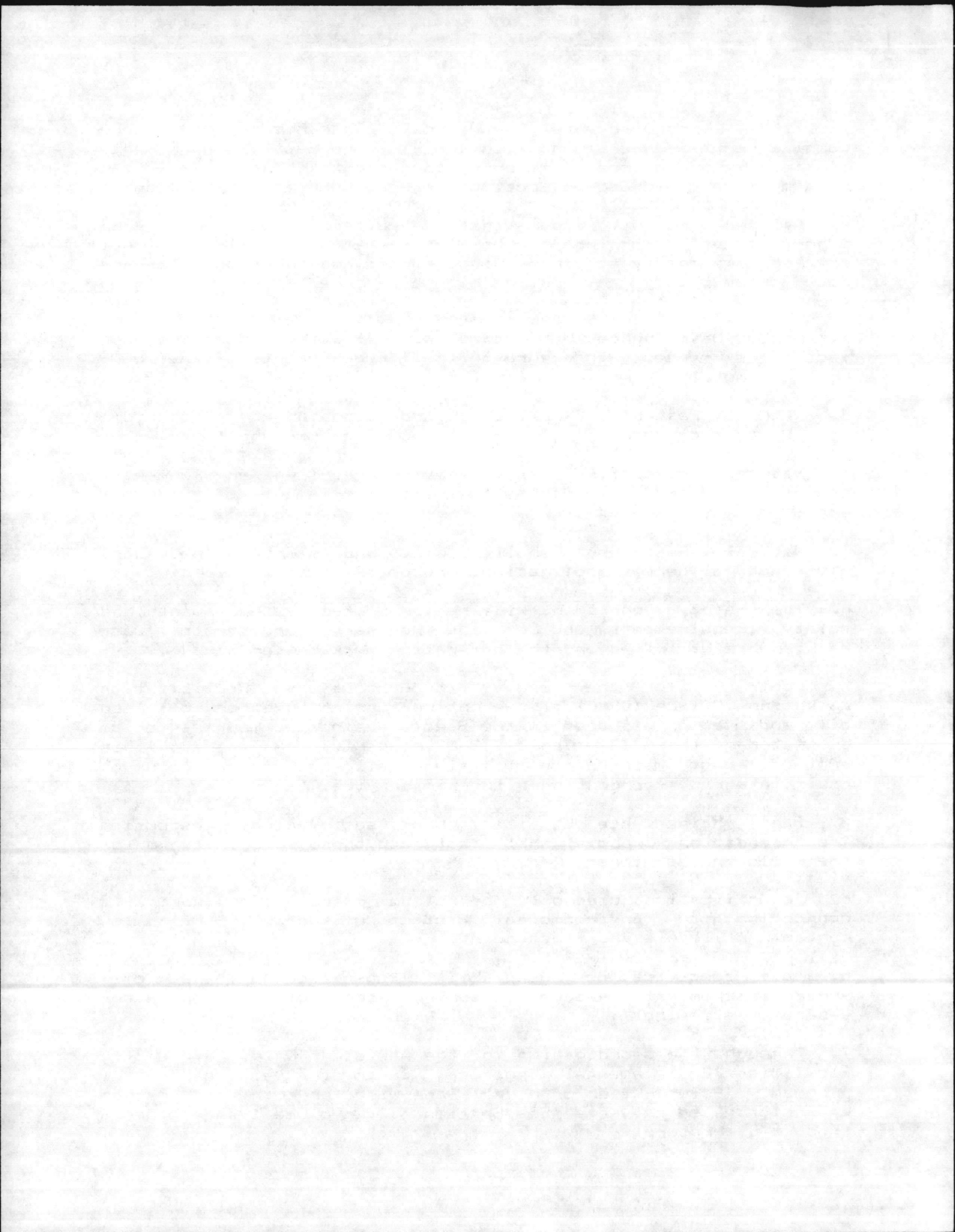
5. Contract for the removal through Defense Reutilization Marketing Office (DRMO) of the entire current inventory of used oil and used oil sludges in the Base's designated fourteen or so bulk storage tanks (See Table 3.3.3 Volume 1). As each tank is emptied, Base Maintenance Utilities shall inspect and document their integrity for continued interim service.

6. Base Maintenance Utilities upon satisfactory inspection (recommendation 5 above) shall designate these interim tanks for the following services:

a. "specification used oil" (petroleum based spent lubricants conforming to Environmental Protection Agency (EPA) low contaminant levels and flash point);

b. "off specification used oil" (known contaminated oil, synthetic/chemical based oil, contaminated fuel, and oil/water separator skimmings).

7. Through the coordination of the Assistant Chief of Staff, Facilities Environmental Engineer, contract a "solvent rental program" (Safety-Kleen or equal) Base-wide for both hydrocarbon and chlorinated solvents (See Section 3.3.2 Volume 1 and Volume 8 Product Literature).



8. The Facilities Environmental Engineer will investigate antifreeze disposal into the Base waste water system with the pollution authorities (See Section 3.3.3 Volume 1).

9. Base Maintenance Utilities will improve its storm water oil/water separator system and equipment as follows:

- a. purchase and operate a portable tube type skimming device(s).
- b. equipment and procedural recommendations of Section 3.3.4 Volume 1.

10. Base Maintenance (not limited to the Utilities Branch) shall purchase and operate other trial collateral equipment detailed in Section 3.3.1 Volume 1 and Volume 8 Product Literature as follows:

- a. Drain oil fuel blending pump systems for burning 5% used oil in diesel engines;
- b. Contaminated fuel dewatering systems;
- c. Oil lubricant conservation devices.

11. As discussed in Section 3.3.1 Volume 1 Base Maintenance Utilities shall initiate or cause to initiate service contracts or other running arrangements for used oil fuel reprocessing such as:

- a. Within the Services such as the Navy's Craney Island facility;
- b. Private qualified used oil firms;
- c. Model Installation Proposals for direct contracting of used oil where the safety, environmental quality and efficiency of the Base are impaired through DRMO procedures.

Long Term Recommendations:

1. As discussed, Section 3.3.1 Volume 1, Base Maintenance Utilities will initiate the construction request for properly designed roofed containment pads for HM/HS/used oils and used oil collection tanks for the implementation of source segregation at the generating work centers.

2. As discussed, Section 3.3.1 Volume 1, Base Maintenance Utilities, will initiate the constructions request for two bulk used oil tank farms, one at the Air Station and one at the Industrial Air, both conforming to RCRA and other accepted standards (OSHA, NFPA, API and Base siting criteria).

3. As discussed, Section 3.3.1, Volume 1, Assistant Chief of Staff, Facilities Environmental Engineer will coordinate closure and or retirement of the former fuel tanks now currently utilized

for bulk used oil and implement LUST provisions for underground used oil collection or bulk used oil tanks.

4. After implementation of a "solvent rental program", the Facilities Environmental Engineer will investigate installation of on-site solvent stills where and if specifically justified (See Section 3.3.2 Volume 1).

5. Base Maintenance Utilities will initiate the third Boiler replacement, fuel oil No. 6 storage and related used oil burning projects for Courthouse Bay with the revisions noted in Section 3.3.5 Volume 5.

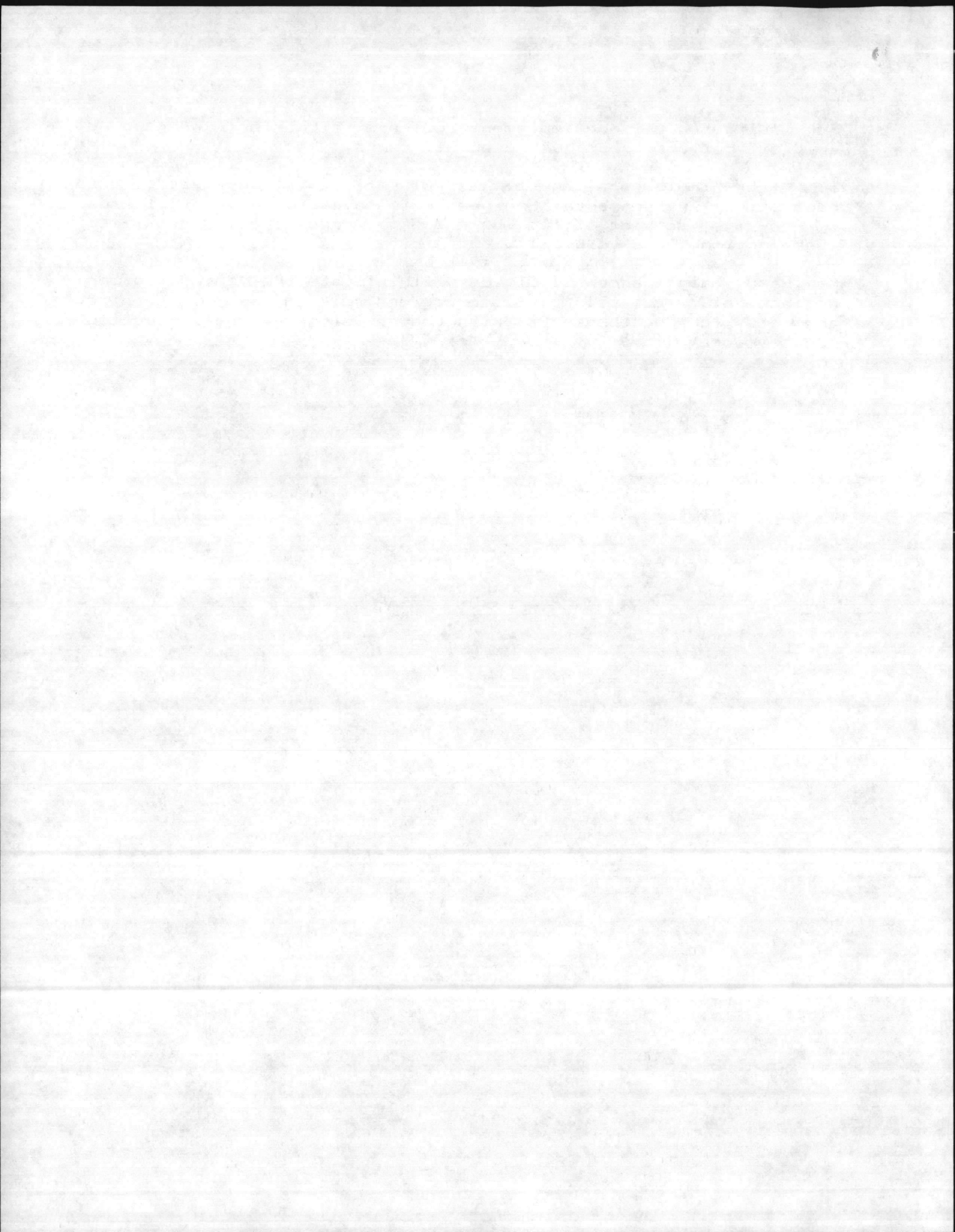


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CAMP LEJEUNE, NORTH CAROLINA

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USED OIL MANAGEMENT PLAN
MARINE CORPS BASE
CAMP LEJEUNE
JACKSONVILLE, NORTH CAROLINA

1.0 INTRODUCTION

1.1 Applicability

The Resource Conservation and Recovery Act (RCRA) authorized the Environmental Protection Agency (EPA) to implement regulations for the control of used oil with primary emphasis on health and the environment. Under authority granted by the EPA, the State of North Carolina is expected to adopt these used oil regulations. The EPA and (expected) North Carolina regulations contain requirements for identification, storage, transportation, recycling, disposal, and burning of used oil. These regulations are (or will be) applicable to the Marine Corps Base Camp Lejeune (Camp Lejeune). The United States Government has also issued several directives applicable to Camp Lejeune on the use of solvents and the conservation of lubrication products.

1.2 Purpose and Scope

The purpose of this plan is to create a functional management system for compliance with used oil regulations and government directives. Further, Camp Lejeune safety, environmental quality, logistics, and efficiency all require a management plan for used oil. The plan assigns responsibilities and establishes procedures for the management of used oil at Camp Lejeune.

1.3 Authority

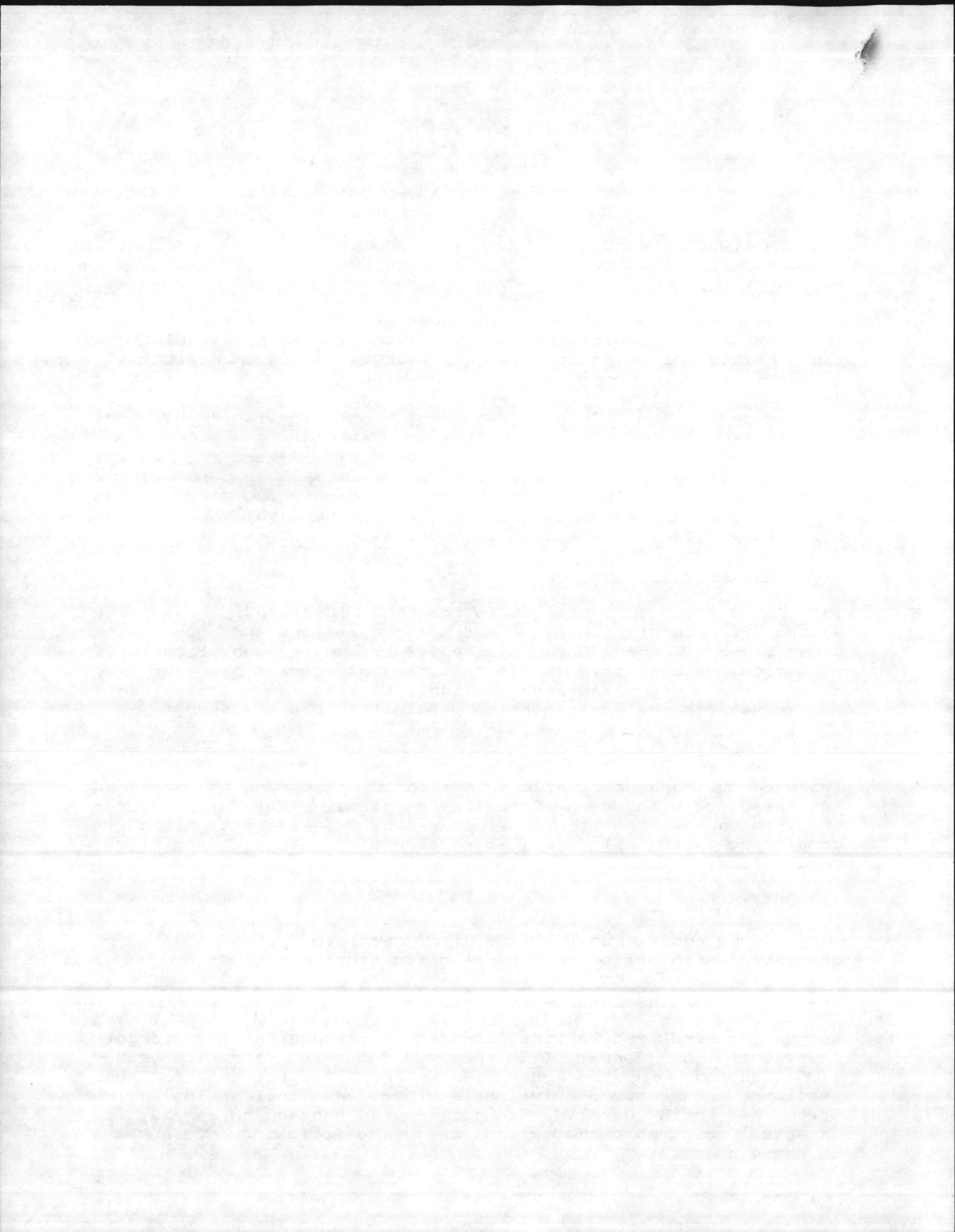
The Used Oil Management Plan (UOMP) for Camp Lejeune is prepared in accordance with Marine Corps instructions. This instruction requires activities to develop used oil management plans in compliance with all applicable federal, state, and local regulations.

1.4 Definition

The UOMP adopts definitions for regulated items that are consistent with state and federal definitions.

1.5 Status of Federal Used Oil Regulations in North Carolina

Current federal regulations for used oil management are largely represented by January 1985 proposed rules and three November 1985 sections in the Federal Register. A portion of these sections are proposed rules while others are final rules. The State of North Carolina has not adopted these rules but is expected to do so verbatim in 1986. The following is a summary of these rules:



<u>Rule Number</u>	<u>Summary of Rules</u>
40 CFR; Parts 261, 264, 265, 266 & 271; pp 49164-49211	Burning of waste, fuel and used oil fuel in boilers and industrial furnaces. Rules for materials and combustion devices that are regulated. Contains administrative and storage requirements. Notification of Hazardous Waste Activity form and definitions.
40 CFR; Parts 260, 261, 266, 270 & 270; pp 49212-49257	Recycled used oil standards. Includes definition of recycled oil, standards for generators, transporters, owners and operators of used oil recycling facilities. Specifications of used oil fuel is defined.
40 CFR; Parts 260, 261, 271, & 302; pp 49258-49270	Identification and listing of Hazardous waste; used oil. Includes definition of used oil, designation of reportable quantities with regard to CERCLA and Clean Water Act.

A more detailed discussion of these rules is contained in Volume 1 Section 2.3.1.

1.6 North Carolina Used Oil Regulations

It is expected that North Carolina will have full authorization from the EPA to administer a used oil program. Thus, it is expected that Camp Lejeune will be regulated by the State of North Carolina. The rule making and enforcement agency in North Carolina for used oil management is:

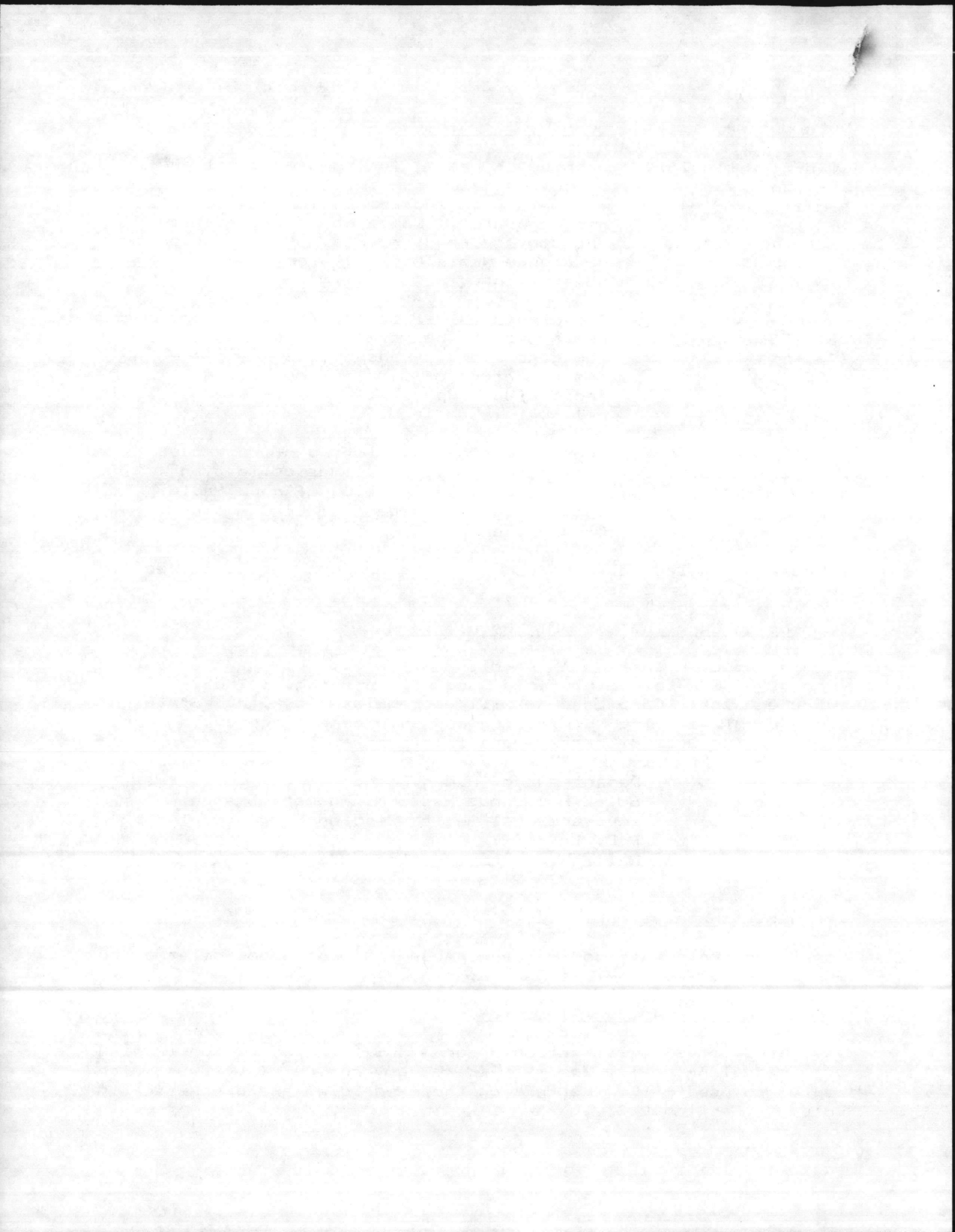
Department of Human Resources
Solid Hazardous Waste Management Branch
Environmental Health Section
P.O. Box 2091
Raleigh, North Carolina 27602
(919) 733-2178

1.7 Local Regulations

Local governmental bodies have passed no ordinances related to used oil that will affect Camp Lejeune.

1.8 Other Governmental Policies

The Used Solvent Elimination Program (USE) and the lubricating oil recycling policy are two federal government directives which apply to used oil. Letters on these policies are discussed in Volume 1 Section 2.3.2.



2.0 USED OIL GENERATED

Camp LeJeune generates a wide variety of used oils primarily in the form of spent engine lubricants; oil from stormwater separators; and contaminated fuel. Related hazardous wastes and other spent materials such as parts cleaning solvents and antifreeze are incompatible with used oil.

Due to the need to accumulate used oil prior to off-site or on-site disposal, Camp Lejeune also stores used oil. As the UOMP is implemented, Camp Lejeune will also become a used oil recycler and a burner (specification fuel only). Depending upon the level of segregation of incompatibles discussed above, the regulatory requirements for the used oil will vary. For instance, "specification used oil fuel" is nearly exempt from regulatory controls.

3.0 SUMMARY OF THE USED OIL MANAGEMENT PLAN (UOMP)

3.1 Overview

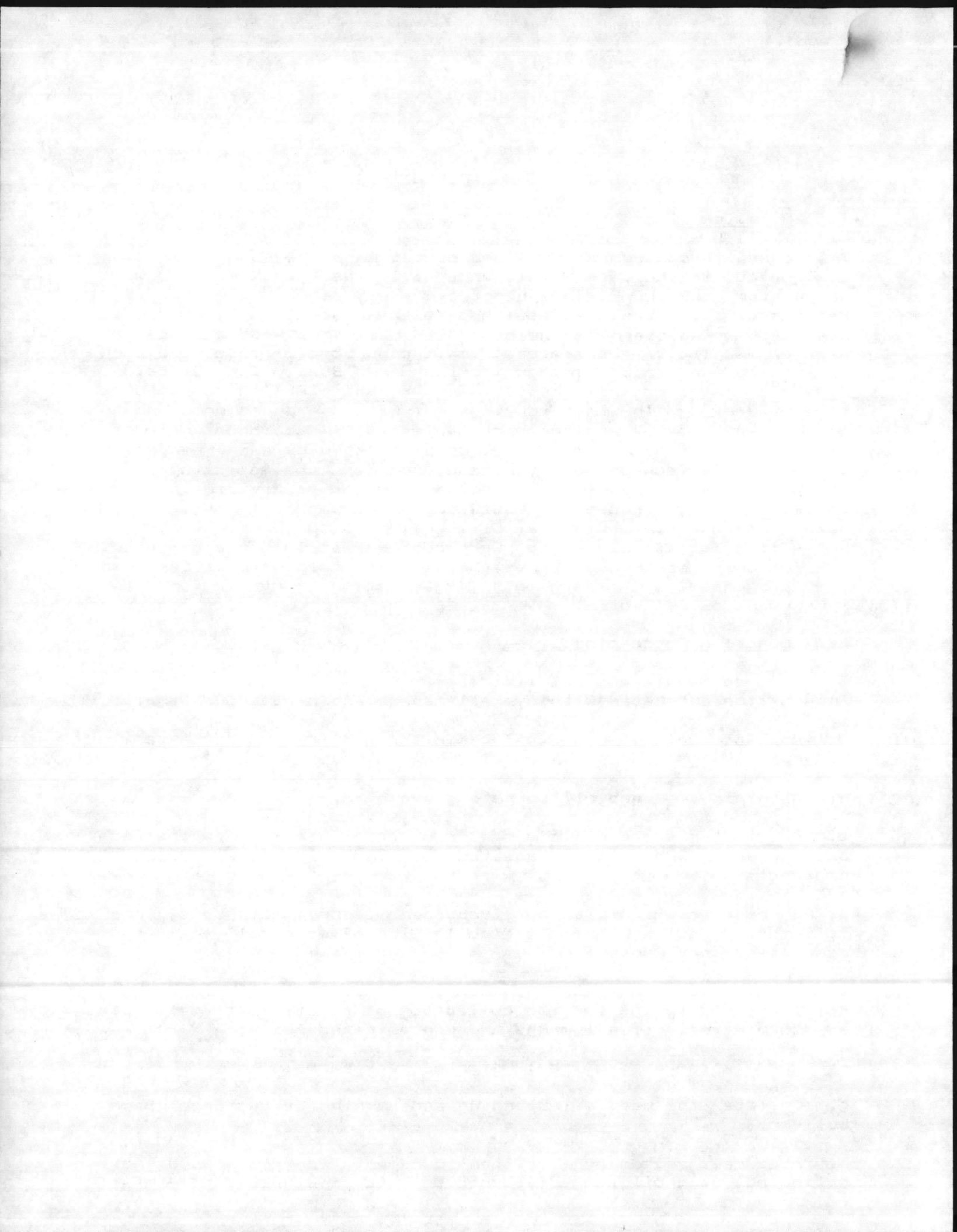
The overall management of used oil at Camp Lejeune has been designated in the Base Maintenance Utilities Branch which will administer the UOMP in support of the Base. Some specific responsibilities are also assigned to the generators of used oil, and DRMO which operates the permitted hazardous waste container storage facility. Generators, for the purpose of this plan, are defined as each major command (Marine Corps Base, 2nd Division, 2nd FSSG, Naval Regional Medical Center, and MCAS) which produces the used oil. The individual groups within each major command are defined as generating work centers. A Hazardous Material Disposal Coordinator (HMDC) will be designated by each generator to act as liaison between the generators and the Assistant Chief of Staff, Facilities for used oil management activities. Each regiment, MAG, or separate battalion or company will designate a Hazardous Material Disposal Officer (HMDO) to coordinate HM/HW activities for all generating work centers within his cognizance. The following section outlines the specific responsibilities for the personnel and management organizations involved in the management of used oils.

3.2 Specific Responsibilities

3.2.1 Base Maintenance Utilities

This office entrusted with overall management of the UOMP shall:

- a. Appoint qualified used oil administrator from within the office;
- b. Maintain the used oil operating budget;
- c. Administer used oil disposal contracts initiated by the Base and support DRMO when requested for DRMO initiated disposal contracts;
- d. Furnish or cause to be furnished labor, materials, and collateral equipment for the collection of used oil from the generating work center;
- e. Furnish or cause to be furnished labor, materials, and collateral equipment for the collection of related materials such as storm water; oil skimmings and contaminated fuels;
- f. Operate the used oil bulk storage tank farms;
- g. Operate the used oil blending and burning at designed Base boilers;
- h. Prepare necessary written documentation on used oil collected, used oil stored, burned on-site or disposed off-site;



- i. Prepare and submit authorization requests for required facilities;
- j. Ensure the necessary used oil and hazardous waste training of Base Maintenance personnel;
- k. Respond to used oil spills in support of the Emergency Coordinator;
- l. Sample and analyze for routine used oil quality control.

3.2.2 Generating Work Centers

Each generating work station shall:

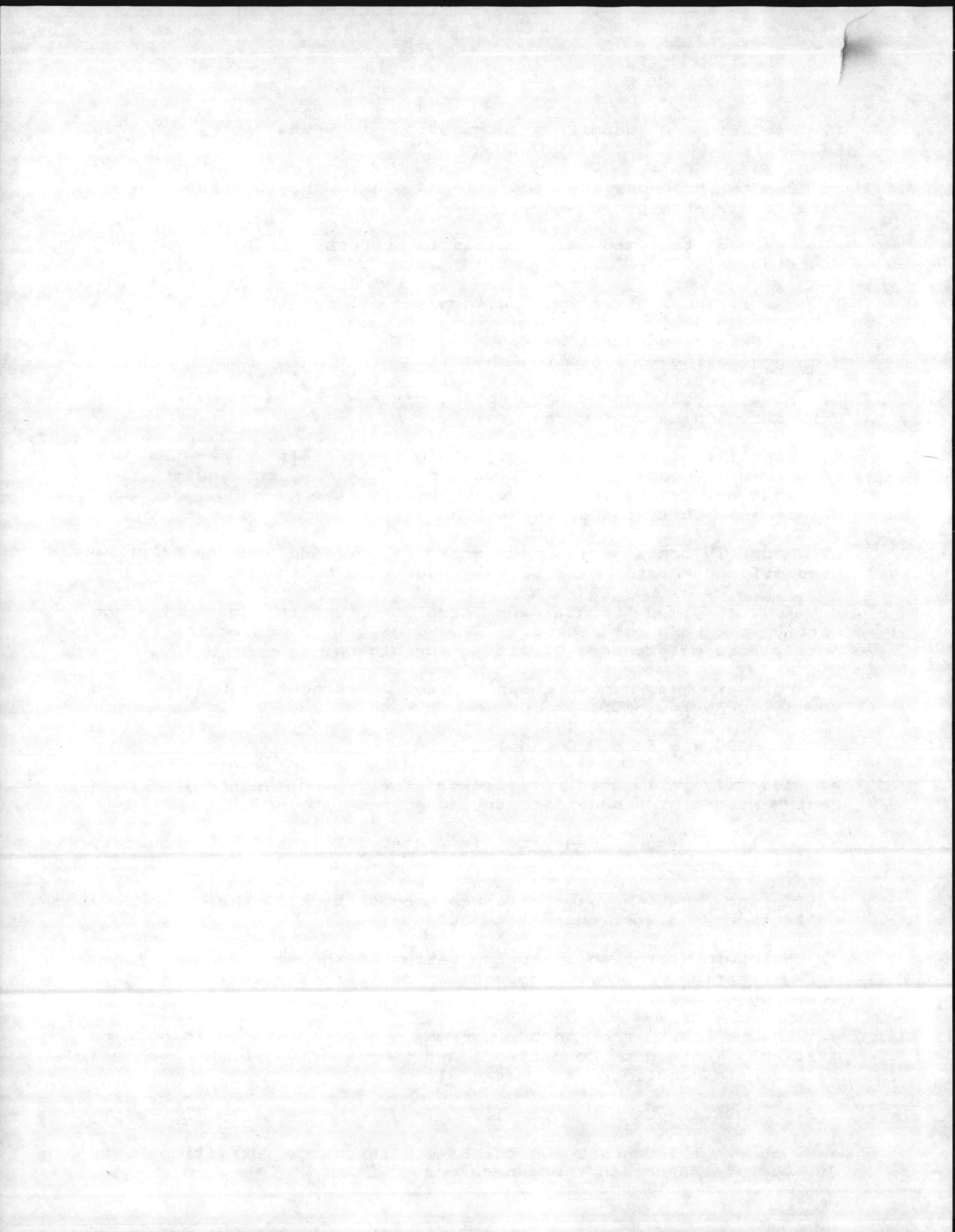
- a. Have a designated HMDO to interface with Base Maintenance Utilities and Natural Resources;
- b. Identify used oils and related materials generated and inventory support facilities for their containment and segregation prior to pickup. Notify their HMDO and Base Maintenance Utilities of these findings;
- c. Properly containerize, segregate, label, and package or store used oil and related materials as specified by the HMDO;
- d. For drummed containers complete turn-in document and notify the HMDO for pickup. For used oil in collection tanks notify Base Maintenance Utilities for pickup;
- e. Maintain emergency response and personnel equipment as specified by the HMDO.

3.2.3 HMDO's - Each HMDO shall:

- a. Identify all used oil generated at each generating work center within his cognizance to the appropriate HMDC;
- b. Contact Natural Resources if a used oil cannot be adequately identified;
- c. Ensure that no used oils are accumulated at the temporary collection area for longer than 90 days;
- d. Maintain compliance documentation at the work center (used oil generation summary, inspection logs, storage logs, personnel training records); and
- e. Ensure that the proper personal protective equipment is available, in good condition, and is properly used by workers involved in handling waste material.

3.2.4 HMDC's - Each HMDC shall:

- a. Act as liaison between the Base Maintenance Utilities Used Oil Administrator and the generators;



b. Coordinate the identification and funding of used oil related personnel training requirements of organizations within the HMDC's command in cooperation with the office of the Assistant Chief of Staff, Manpower;

3.2.5 Natural Resources

Natural Resources shall provide environmental support for used oil management:

a. Update the Used Oil Management Plan, Base Orders, SPCC, and Contingency Plan;

b. Prepare used oil (hazardous waste) environmental reports, notifications, and or permits;

c. Provide used oil training for Base Maintenance Utilities, HMDOs, HMDCs, Generating Work Stations, DRMO and others;

d. Sample and analyze used oil for regulatory compliance;

e. Audit the logs and inspections of used oil facilities by Base Maintenance, the Generating Work Stations and DRMO;

f. Provide guidance on used oil spill control, cleanup, and related used oil disposal.

3.2.6 DRMO

DRMO is normally not involved with bulk used oil until a storage tank is full. For all drummed containers refer to the HM/HW Management Plan Volume 2. For bulk used oil DRMO shall:

a. Administer disposal contracts for all used oil which DRMO accepts accountability;

b. Audit and review procedures for all used oil disposed of by others.

3.2.7 TMO

TMO is normally not involved with bulk used oil. For all drummed containers refer to the HM/HW Management Plan Volume 2.

3.2.8 Safety Department

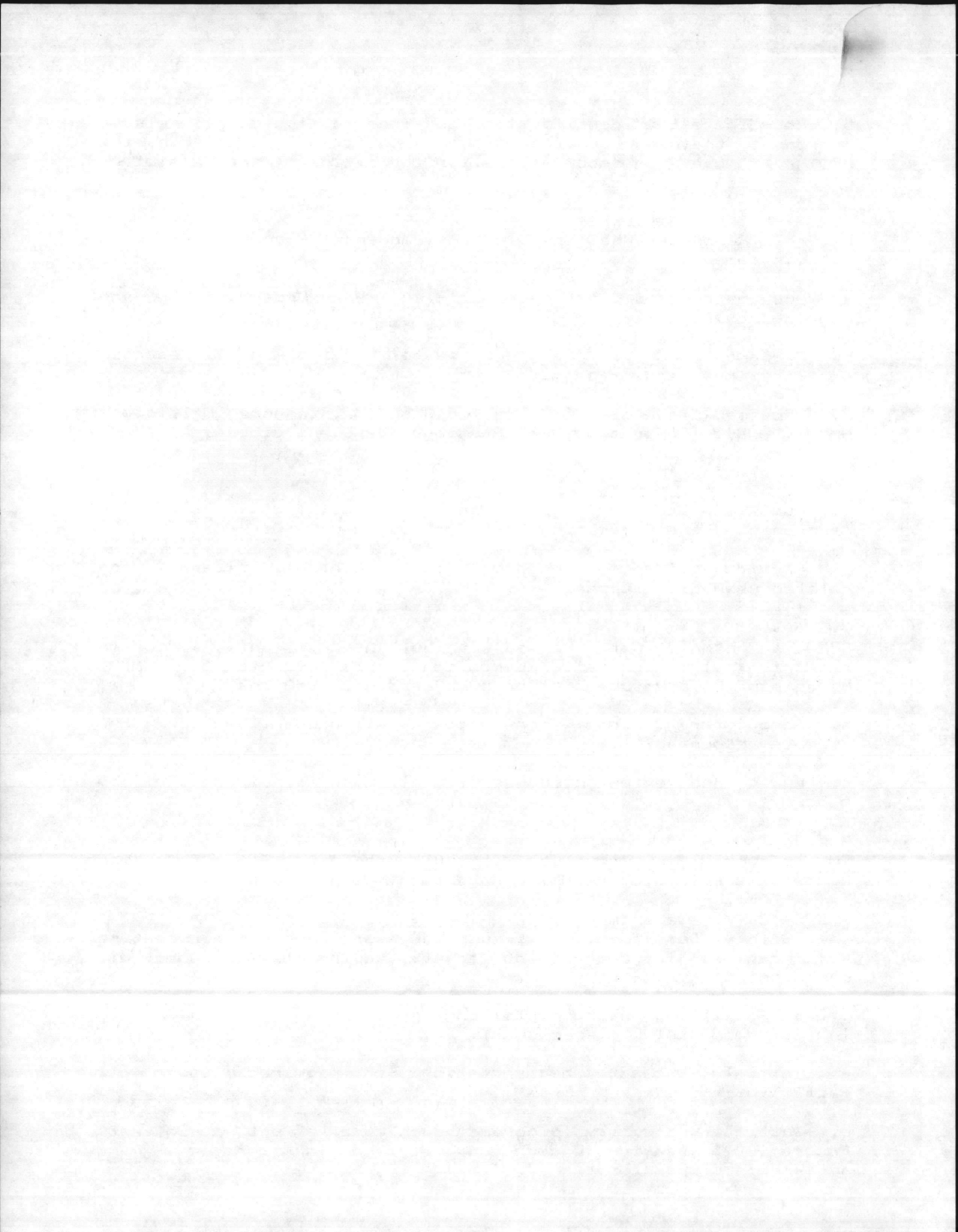
The Safety Department shall provide assistance to generating work centers in determining safety equipment for used oil containment areas.

3.2.9 Facilities Environmental Engineer

The Environmental Engineer shall:

a. Initial project documentation for required used oil facilities;

b. Initiate corollary programs such as all "Rent a Solvent" Program, & Leaking Underground Storage Tank project, and antifreeze disposal options;



c. Audit the environmental off-site contractors which impact used oil performance;

d. Provide environmental and engineering support to Base Maintenance Utilities & Natural Resources as required.

3.3 How to Use the UOMP

The Used Oil Management Plan is divided into sections that are applicable to Base Maintenance Utilities, generating work centers, and Natural Resources. The Appendices and other Volumes contain additional information, compliance documentation, and references. The UOMP sections and their applicability are shown below:

- Section 1 - All
- Section 2 - All
- Section 3 - All
- Section 4 - Generating Work Centers, HMDC's, HMDO's
- Section 5 - DRMO
- Section 6 - Base Maintenance Utilities
- Appendix A - Used Oil Reference Guide
- Appendix B - Waste Analysis Plan
- Appendix C - Recordkeeping and Reporting Summary
- Appendix D - Used Oil Summary Table
- Appendix E - Personnel Training Program
- Appendix F - Shipping and Transportation
- Related Volumes not in UOMP
- Volume 1 - HM/HW and Used Oil Summary Report
- Volume 2 - HM/HW Management Plan
- Volume 4 - Revised SPCC Plan
- Volume 5 - Revised Oil Spill Contingency Plan
- Volume 6 - HS Contingency Plan
- Volume 7 - Project Documentation
- Volume 8 - Product Literature

4.0 REQUIREMENTS FOR GENERATING WORK CENTERS

4.1 General Requirements

The following used oil management requirements apply to all generating work centers. The requirements for generating work centers are in part derived from regulations final and proposed that are specific and detailed. Some of the requirements below are therefore not discretionary. In addition, the success of the UOMP in achieving compliance is dependent on the generating work centers following federal rules for collecting and identifying used oil. The temporary collection points for used oil are also subject to certain rules which have been incorporated into the UOMP.

In this section there are several references to temporary storage or contained areas. The UOMP requires that each generator designate such an area for temporary storage, and these areas must conform to certain standards. This plan assumes that there will be only one temporary storage area per generating work center; if multiple containers storage areas are used, they must all be conformed to the requirements.

A Hazard Material Disposal Officer (HMDO) will coordinate each generating work controls used oil activities with Base Maintenance Utilities and Natural Resources.

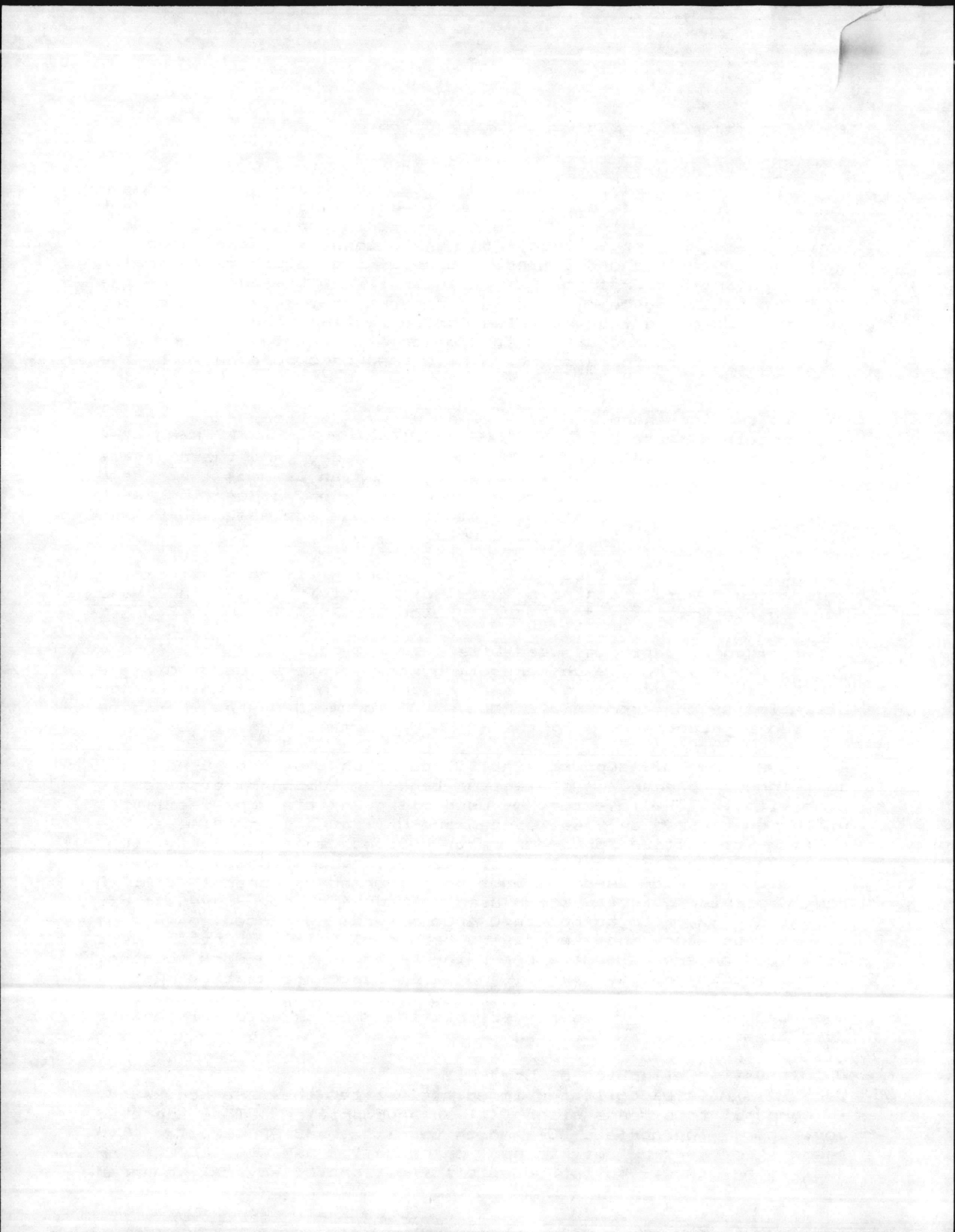
4.1.1 Identification of Used Oils

It is vital that each generating work center's used oil be identified, inventoried, and reported to Base Maintenance Utilities by the appropriate HMDO. All drummed wastes are to be handled in accordance with the HM/HW Management Plan.

An inventory of support facilities such as the used oil containment pad and/or collection tank for temporary storage is also vital. The inventory of used oil quantities and facilities will be utilized by Base Maintenance Utilities to provide a more optimum collection procedure and revised support facilities. Since the type and quantities of used oil generated may change, a periodic review of used oil must be performed. Appendices A, B and C provide guidelines for used oil and facility inventories. Assistance may also be obtained from Natural Resources. In some cases laboratory analyses may be required. If mixtures of used oils and hazardous wastes are being created at the work center, each component of the mixture and an estimate of quantity must be entered on the storage log at the work center and submitted with the used oil when it is turned into the HMDO or Base Maintenance Utilities.

4.1.2 Daily Collection of Used Oil

Used oils must be collected immediately after they are generated. In general this means either (1) an appropriate DOT - approved container, appropriate DOT, North Carolina, and EPA labels, with associated records maintained on a daily basis or (2) for qualifying specification used oil fuel one of several hundred



collection tanks ranging from 100 to 3000 gallon size with appropriate labeling placards and records. For used oils and related wastes generated in small quantities the following segregation scheme should be followed. All drummed wastes are to be handled in accordance with the HM/HW Management Plan.

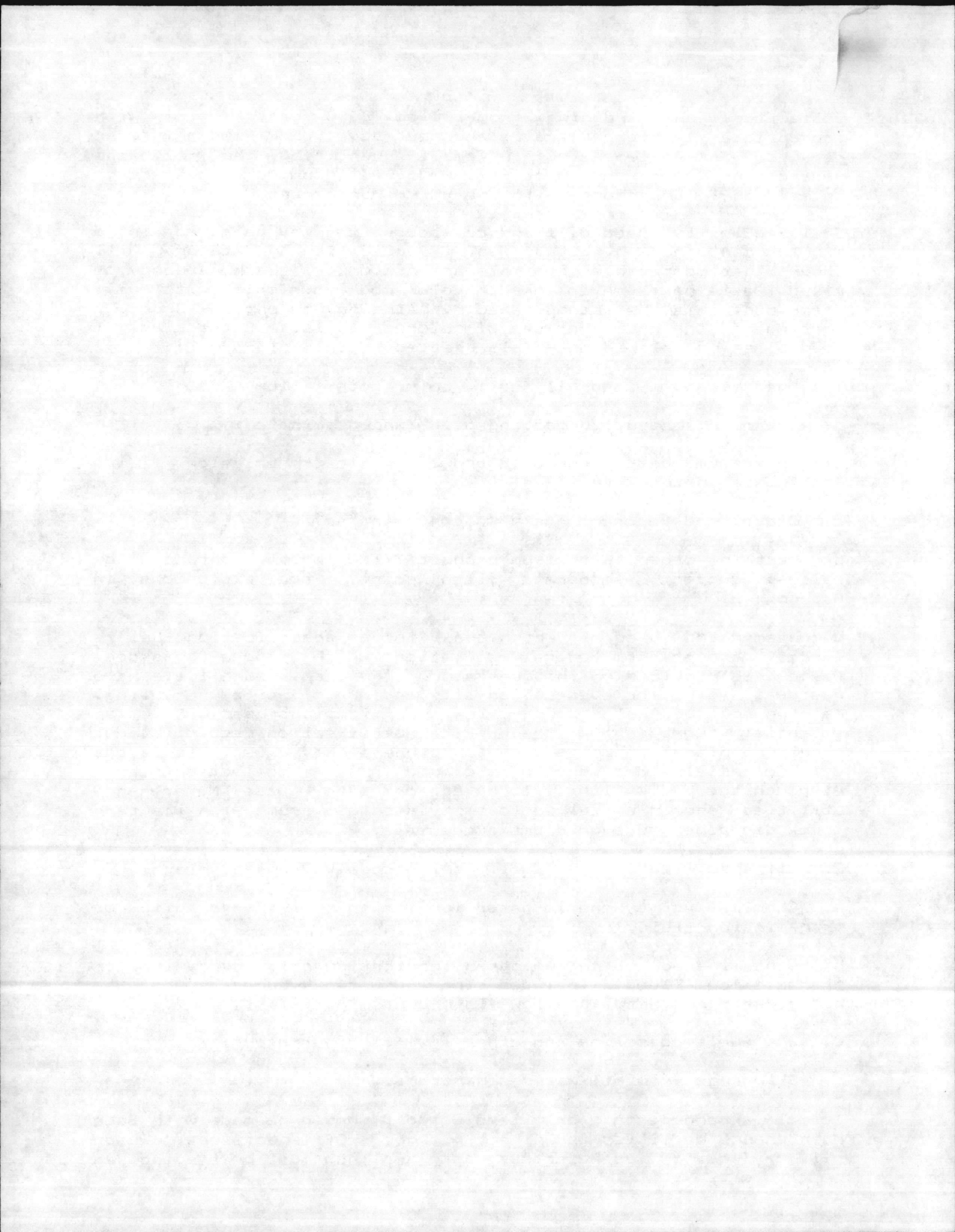
Small quantity used oils and related wastes may be mixed in a single container by categories. Segregation by category will ensure that compatible chemicals are not mixed. Each category of mixed waste has been assigned a color code to simplify its use. Color coding may be accomplished by painting the entire drum, a portion of the drum, or use of colored labels. - Categories of used oils and relaxed materials created by this plan are:

1. Specification used oil fuel: color code yellow
 - a. Petroleum based lubricating oils (uncontaminated)
 - b. Petroleum based hydraulic and automatic transmission fluids (not contaminated with freon)
 - c. Diesel and kerosene fuels (uncontaminated)
 - d. Certain other petroleum products (low metal content, low halogen content, moderate flash point, see exclusions in Appendix B)

Uncontaminated used oil which qualifies as specification fuel is largely exempt from federal regulations which impose hazardous waste restrictions on the generator. Further, such fuels have residual value for eventual on-site and or off-site recycling. Maintenance of color code yellow specifications used oil is an essential ingredient of the UOMP! Specification used oil fuel should be placed in collection tanks where they exist. It is the only material that should be placed in the collection tank. Although the HM/HW Plan is to be conformed to, Base Maintenance Utilities should be called to empty used oil drums with its tank truck dip pipe whenever drums accumulate.

2. Off specification used oil: color code yellow and black.
 - a. Chemical or synthetic based lubricating oil, hydraulic or transmission fluid.
 - b. Contaminated petroleum based lubricating oil, hydraulic or transmission fluid (includes dirt and water sludges as well as halogenated and metal and low flash contaminants).
 - c. Jet fuels, gasoline and other low flash petroleum.
 - d. Skimmings from oil/water separators.

Normal arrangements for items C and D should be made with Base Maintenance Utilities for direct pickup. Off specification used oil may qualify as hazardous waste and thus must be treated as



such. Off specification used oil should not be placed in collection tanks. If it is done, the entire tank contents is a listed hazardous waste with poor recycle properties. Although the HM/HW Plan is to be conformed to, Base Maintenance Utilities should be called to empty used oil drums with its tank truck dip pipe.

3. Solvents - nonhalogenated: Color code red.

- a. PD-680 Type I (or Type # if flash point is 140F or less)
- b. toluene
- c. methyl ethyl ketone (MEK)
- d. naptha
- e. xylene
- f. paint thinners (containing no paint waste)
- g. mineral spirits
- h. other nonhalogenated solvents

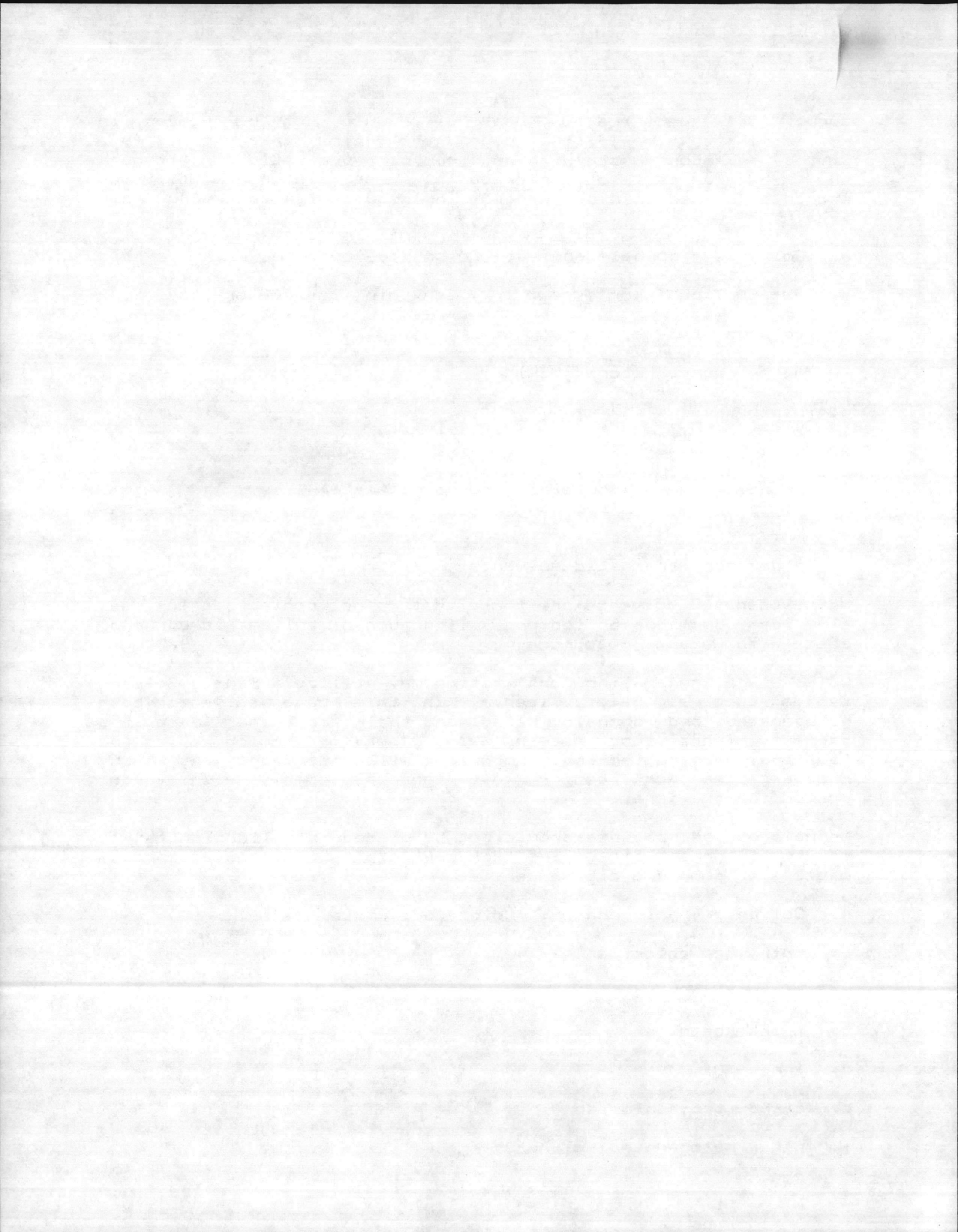
Nonhalogenated solvents are those that do not contain chlorides, flourides, bromides or iodides. If nature of solvent is unknown, check with Natural Resources.

NOTE: The generating work station may utilize a Rent a Solvent System such as Safety-Kleen. In this case solvents both halogenated and nonhalogenated and their containers are the property of the vendor not the Base. Therefore, color coding and labeling and collection procedures will not apply as such. However, the work center must rigorously comply with vendor posted instructions.

Nonhalogenated solvents should not be placed in collection tanks. If it is done, the entire tank contents is a listed hazardous waste with poor recycle properties.

4. Solvents - halogenated: Color code white.

- a. methylene chloride
- b. trichloroethane
- c. trichoroethylene
- d. freon
- e. carbon tetrachloride
- f. other halogenated solvents.



Some products contain both halogenated and nonhalogenated solvents. These solvents should be placed in the "solvents-halogenated" category. Never place caustic materials in this category as toxic fumes may result. NOTE: Above comment on "Rent a Solvent" system applies to Item 4 also.

Halogenated solvents should not be placed in collection tanks. If it is done, the entire tank contents is a listed hazardous waste with poor recycle properties.

5. Mixed Paint Wastes: Color code blue.

- a. paint sludges
- b. paint scrapings
- c. paint strippers (nonhalogenated)
- d. contaminated paint thinners

Mixed paint wastes should not be placed in collection tanks.

6. Antifreeze: Color code aqua green

- a. military vehicles and equipment
- b. publicily owned vehicles

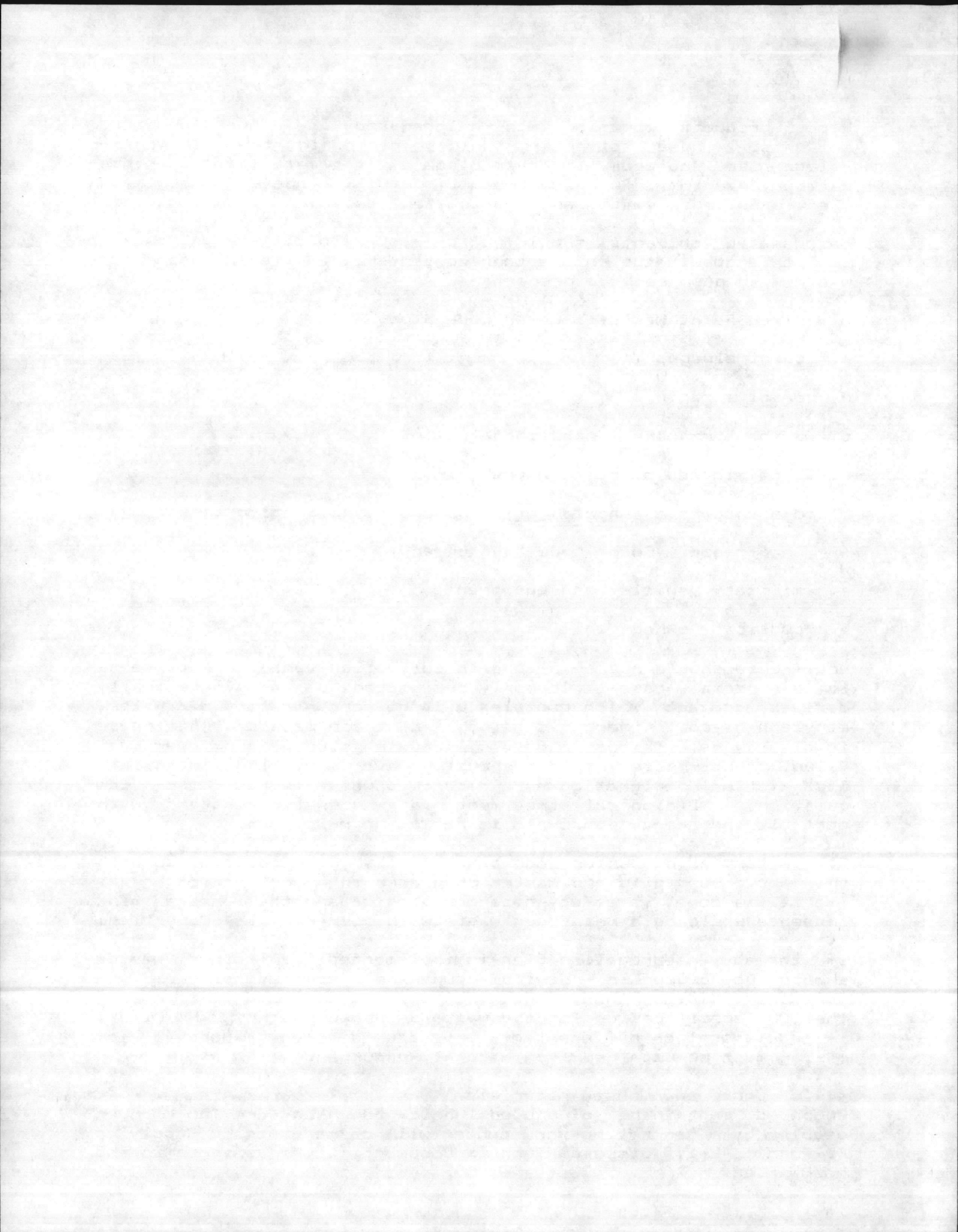
Antifreeze should not be placed in collection tanks. Antifreeze is a special case! Commonly designated as a synthetically derived coolant which contains a large concentration of water, ethylene glycol, inorganic salts, and trace metals. Antifreeze is clearly deleterious to used oil causing sludges and lower fuel value. Antifreeze could eventually have recycling potential. Its eventual designation as a hazardous waste is not out of the question. Biological treatment in wastewater systems with controls and agency approvals is not to be ruled out.

7. Battery acid: Color code pink. It is never to be mixed with the above used oils and wastes or placed in a collection tank. If it is done, a safety hazard may exist and the entire tank contents would be a hazardous waste with poor recycle properties.

If the above segregation plan is implemented, all other wastes should be placed in individual containers without mixing. (A container smaller than a 55 gallon drum may be used if it meets the DOT specification for the waste as shown in the HM/HW Plan). If additional or different mixtures are desired, approval for mixing must be obtained from Natural Resources.

4.1.3 Unopened, Unused Materials

Unopened containers of unused lubricants which are no longer usable by a generating work center will be returned to Supply on DD-Form 1348-1, Disposal Turn-in Document (DTID) as shown in the HM/HW Plan.



4.1.4 Open or Partially Used Materials

When materials which are lubricants have been opened or partially used and the remainder of the materials are not needed, the work center will containerize these lubricants for turn in the HMDO.

4.2 Container Readiness and Preparation

- a. Refer to HM/HW Plan
- b. Reserved for future unique used oil container preparation.

4.2.1 General Container Requirements

The management of all wastes other than used oils are included in the HM/HW Management Plan. Used oil management practices are contained herein.

- a. Refer to HM/HW Plan
- b. Reserved for future unique used oil container requirements.

4.2.2 Selection of Containers

- a. Refer to HM/HW Plan
- b. Reserved for future unique used oil container selection requirements.

4.2.3 Reuse of Containers

- a. Refer to HM/HW Plan
- b. Reserved for future unique used oil container reuse requirements.

4.2.4 Labeling and Marking of Containers

- a. Refer to HM/HW Plan
- b. Reserved for future unique label requirements for used oil container.

4.3 Handling of Empty Containers

- a. Refer to HM/HW Plan
- b. Reserved for future unique used oil empty container requirements.

4.4 Placement, Inspection and Safety Measures for Storage

- a. Refer to HM/HW Plan.
- b. Reserved for future unique used oil container placement, labeling, and storage safety measures.
- c. Safety measures for temporary collection areas.

2. The area must have portable fire extinguishers if ignitable waste is stored.
3. Adequate aisle space must be maintained.
4. The area must be addressed in a Contingency Plan.
5. All personnel who use the area must have been trained in hazardous waste or used oil management.
6. Storage areas must be designed so that any leak will be contained on-site.
7. Storage areas must be covered to prevent standing water.

4.5 Spill/Leak Response

Refer to Volume 5 Oil Spill Contingency Plan.

4.6 Requirements For Used Oil Collection Tanks

4.6.1 Overview

The majority of oil at Camp Lejeune is disposed of in collection tanks. Activities using drums or other containers are covered in Section 4.2-4.4. There are several hundred collection tanks ranging from 100 to 3,000 gallon size with 300 to 600 gallon sizes most common. About one third of the tanks are underground which will need to be rectified in the Leaking Underground Storage Tank (LUST) program. A list of the Base collection tanks is contained in Appendix A, Used Oil Reference Guide.

4.6.2 Used Oil Collection Tanks

Note: The requirements discussed below are subject to change based upon final Federal or North Carolina rules and upon the final permit for the tanks. Requirements of the final permit or amendments for the used oil collection tanks shall be met as part of the UOMP.

The following operating requirements shall be met by the generating work center;

1. No waste other than uncontaminated petroleum based lubricants and high flash fuels will be placed in the used oil collection tanks:
 - a. Among the wastes which are to be excluded specifically are parts cleaning solvents either hydrocarbon or halogenated types paint and paint wastes, pesticides, battery acid, and antifreeze;

b. Further exclusions from the collection tanks include low flash fuels (gasoline and JP-4), synthetic based used lubricants or oils, and oil skimming from the storm water separators. If in doubt, contact Natural Resources through the appropriate HMDO for interpretation.

2. The used oil collection tanks will be inspected at least weekly. At a minimum, the following will be inspected:

a. Level control equipment to ensure that the level cannot be overfilled;

b. Construction materials of the tank and associated equipment to ensure that no deterioration, corrosion, or erosion has occurred;

c. The area around each tank to determine if leaks have occurred;

d. Associated safety and security equipment.

These inspections must be documented on an inspection log, which at a minimum, should contain the item inspected, the problems that might be encountered, the date, the time of the inspection and the inspectors name.

3. Reserved for Part B permit requirements.

4. Reserved for used oil permit requirements.

5. Reserved for LUST requirements.

4.7 Summary of Requirements For Work Centers

The following checklist summarizes the compliance requirements for used oil generating work stations:

1. Identify all used oils generated. Inventory support facilities, containment area and collection tank, for their temporary storage and segregation. Notify Base Maintenance Utilities through the HMDO.

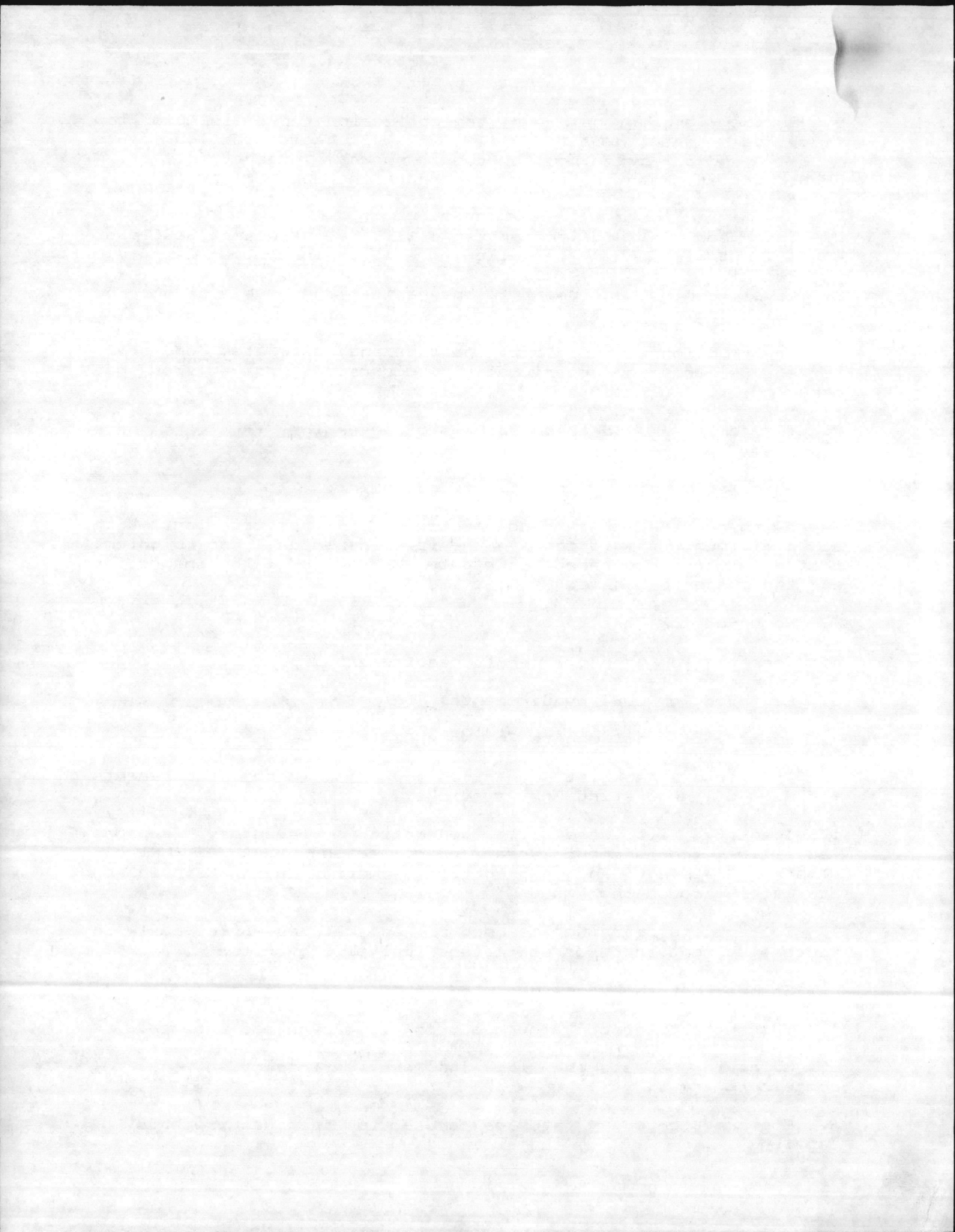
2. Collect and containerize used oil and related wastes daily in segregated containers or use categorical mixing criteria.

3. Ensure that the container used is DOT approved.

4. Ensure that the container is properly marked and labeled.

5. Maintain a storage log and weekly inspection log of containers area.

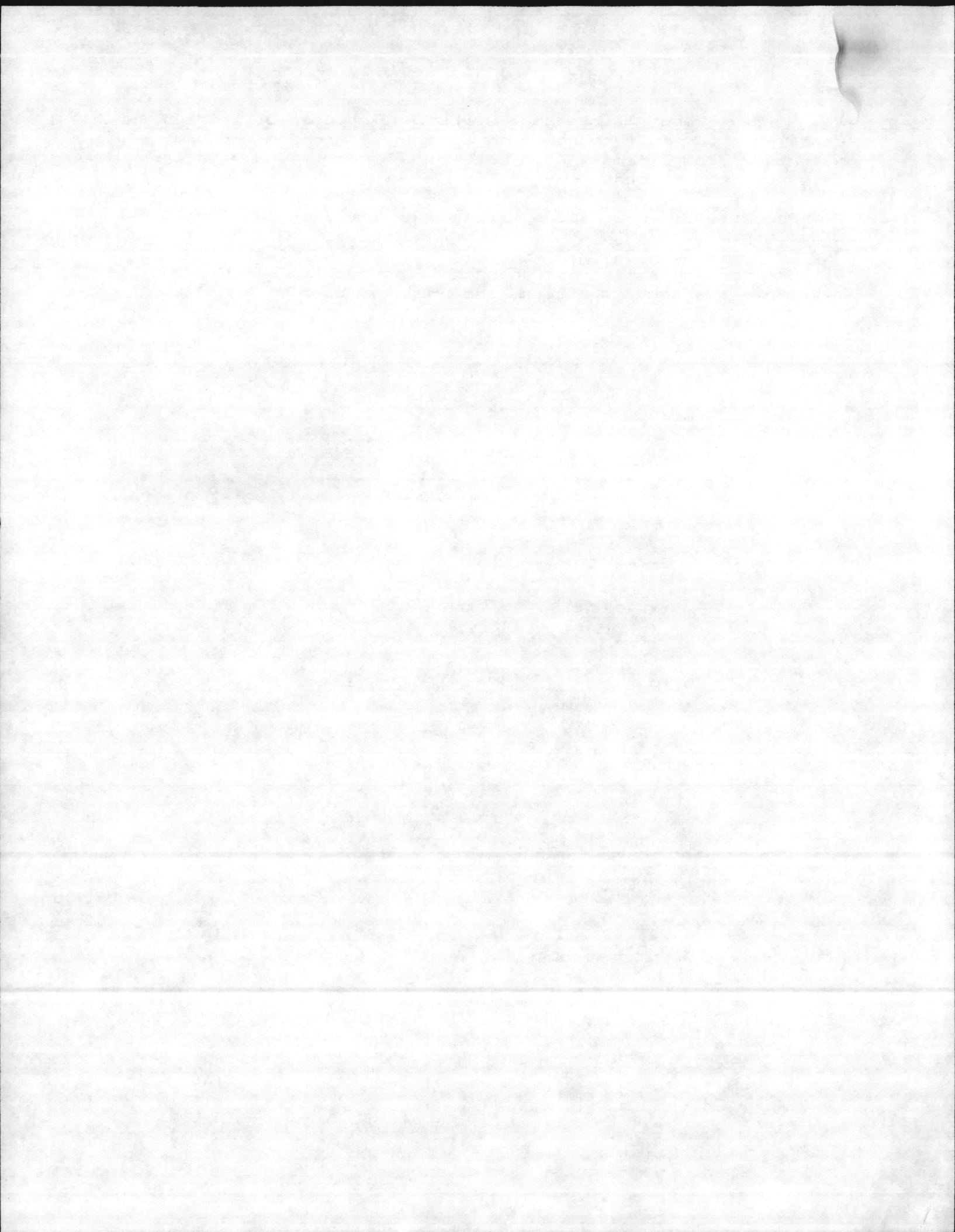
6. Conform temporary storage areas to the requirements of Section 4.4.



7. Notify Base Maintenance Utilities for used oil pickup when container is full or when it has been in storage for 60 days, whichever comes first. Do not store used oil for more than 90 days at the work center.

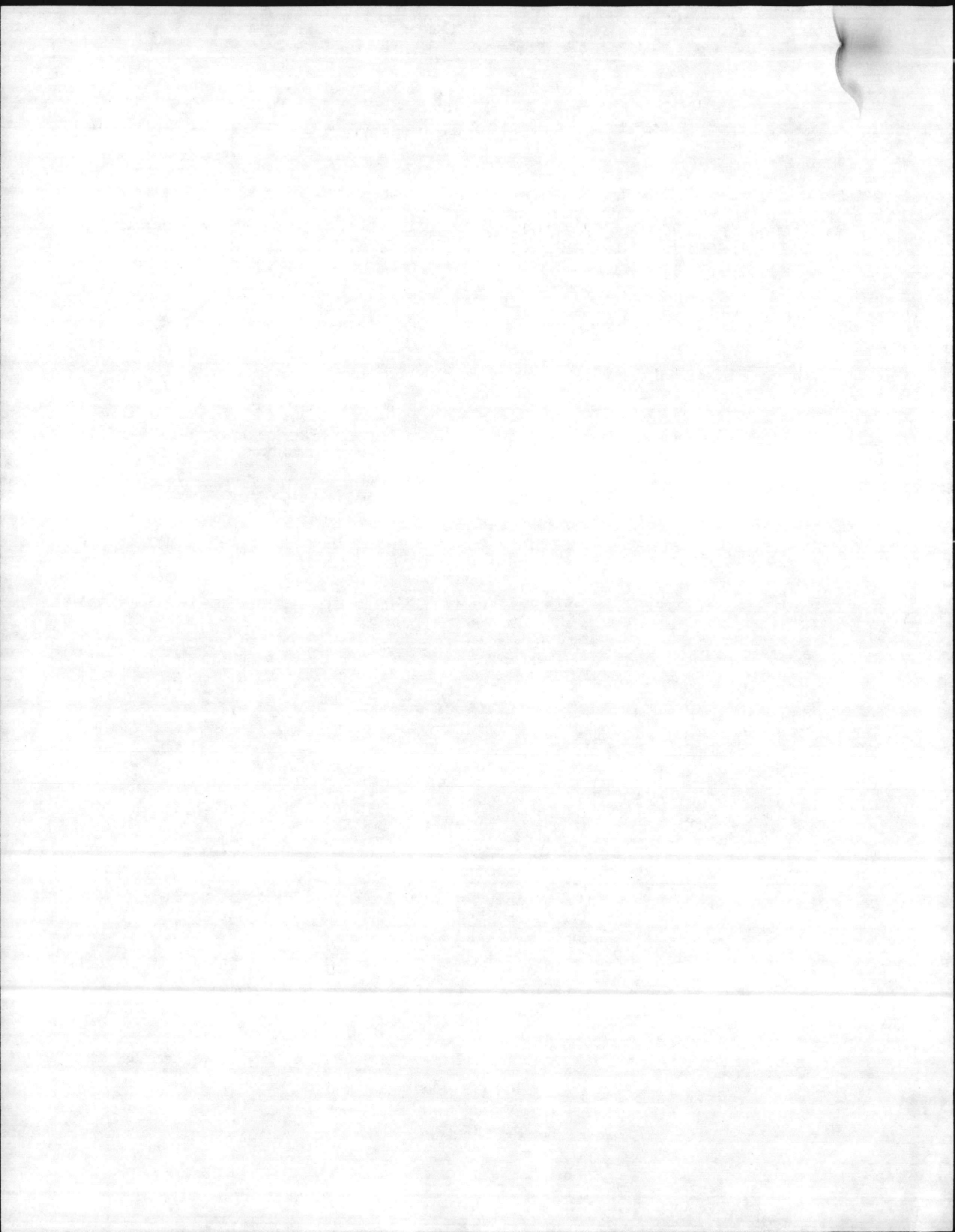
8. Promptly clean-up all spills and notify Emergency Coordinator of all spills.

9. Ensure that proper personal protective equipment is available, in good condition, and properly used.



5.0 REQUIREMENTS FOR PERMITTED STORAGE OF HAZARDOUS WASTE AND
USED OIL IN CONTAINERS

- a. Refer to HM/HW Plan.
- b. Reserved for future unique used oil container requirements at permitted container storage.



6.0 REQUIREMENTS FOR BASE MAINTENANCE OPERATED USED OIL FACILITIES

6.1 Overview

When used oil collection tanks or used oil drum containers are filled, Base Maintenance Utilities is called for pickup. Typically, a 4,000 gallon tank truck is dispatched equipped with transfer dip pipe. A second major source of used oil is from Camp Lejeune 115 or so storm water separators operated by Base Maintenance Utilities. A 4,000 gallon vacuum skimming truck is dispatched for collecting these waste oils. A third major source of used oil is from periodic generation of contaminated fuels, usually water or dirt. A third 2,000 gallon tank trailer is used for collecting contaminated fuel. NOTE: All other drummed wastes are picked up by TMO or delivered by the work center to DRMO per the HM/HW Plan.

The majority of the used oil collected is transferred to bulk storage. Camp Lejeune does not currently have bulk used oil storage which conforms to the Federal regulations. It does have fourteen former fuel tanks which are in this service. Construction of two tank farms, one at the Air Station and one at the Industrial Area, built to applicable standards and regulations are recommended. The Base Maintenance Utilities office will be responsible for over-seeing the safe operation, maintenance, and security of current interim and proposed facilities. The interim tanks and proposed used oil tank farms may, from time to time, contain used oil classified as hazardous waste. Therefore, the hazardous waste related compliance requirements of the Federal used oil regulations should be followed.

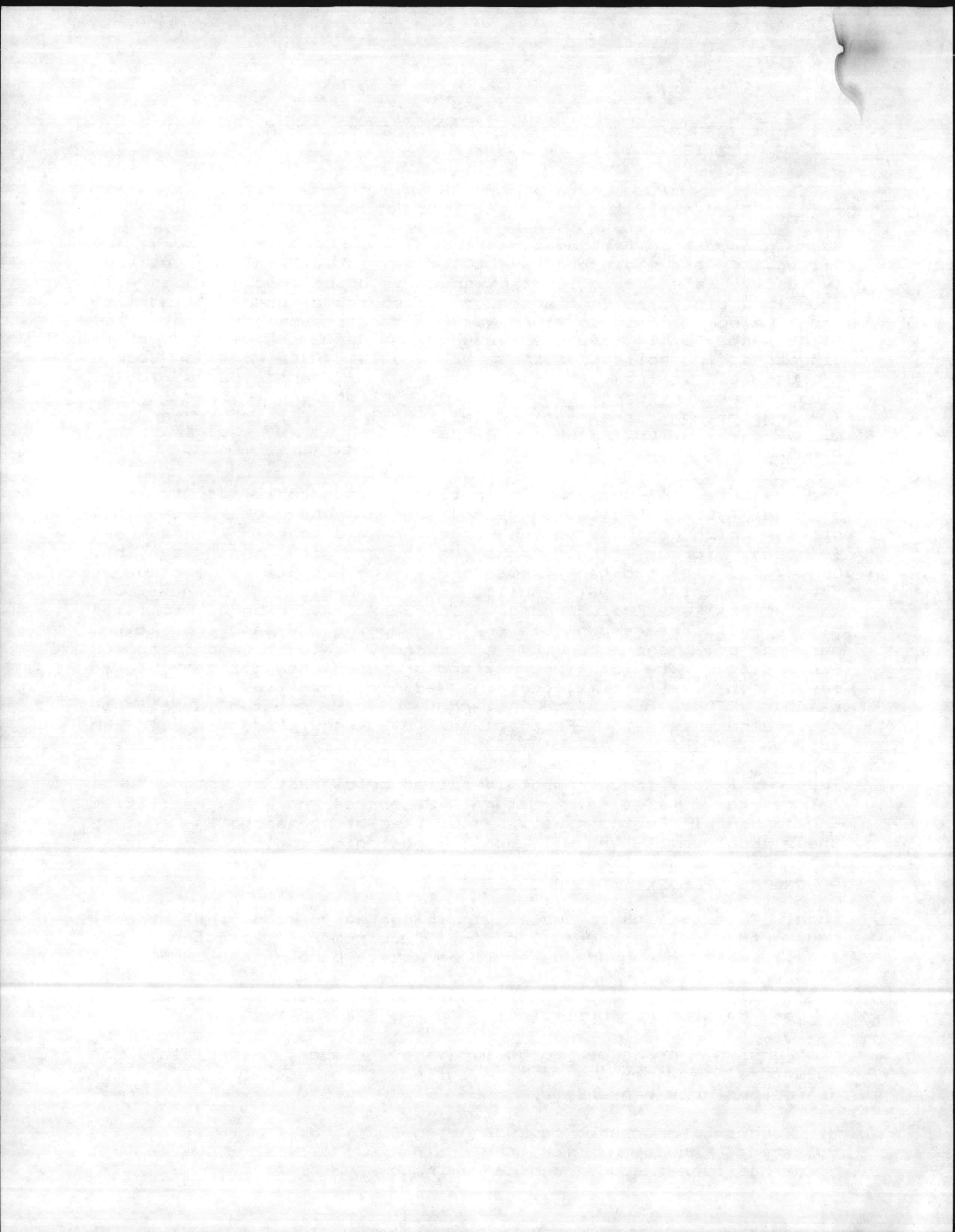
The regulatory requirements detailed below must be met by Base Maintenance Utilities. Natural Resources and the Facilities Environmental Engineer will assist Base Maintenance in meeting these requirements and will perform periodic compliance audits.

6.2 Used Oil Ancillary Operations

Note: This section is subject to change based upon final Federal and North Carolina used oil rules. Requirements expressed in the final permit or amendments shall be met as part of the UOMP.

The following operation conditions and requirements will be met by Base Maintenance Utilities:

1. Furnish, or cause to be furnished, labor, materials, and collateral equipment for the collection of used oil from the generating work centers;
2. Furnish, or cause to be furnished, labor, materials, and collateral equipment for the collection of storm water oil skimmings, spent acids, and contaminated fuels;



3. Weekly inspections of the collateral ancillary equipment and oil water separator devices will be collected and documented;
4. A record of personnel training for employees working with collateral and ancillary equipment will be maintained;
5. Where contract services can be used effectively, Base Maintenance Utilities will initiate and administer such contracts in accordance with the above provisions.

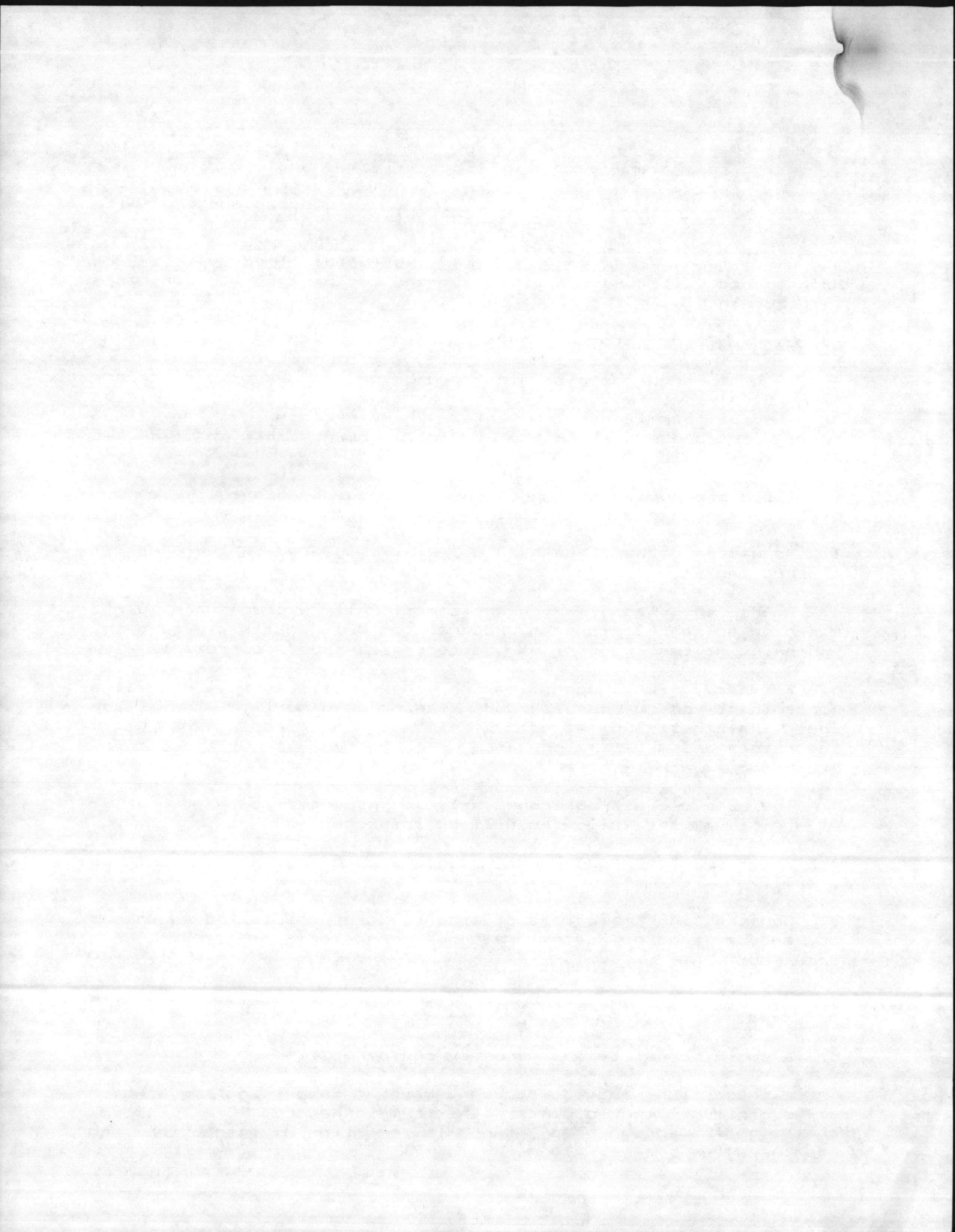
6.3 Used Oil Bulk Storage Tanks

Note: The requirements discussed below are subject to change based upon final Federal or North Carolina rules and upon receipt of a final permit for the tanks. Requirements of the final permit or amendments for the used oil storage tanks shall be met as part of the UOMP.

The following operating conditions and requirements shall be met by Base Maintenance Utilities:

1. No wastes other than used oil will be placed in the used oil storage tanks;
 - a. Among the wastes which are specifically excluded are parts cleaning solvents, either hydrocarbon or halogenated types, paint and paint wastes, pesticides, battery acids and antifreeze;
 - b. Further, for specification used oil fuel tanks (low contaminant grade nonhazardous waste used oil), low flash fuels, synthetic based oils, oil skimmings from storm water separators and metal/halogenated contaminated used oils are to be excluded.
2. The used oil storage tanks will be inspected at least weekly. At a minimum, the following will be inspected;
 - a. Level control equipment to ensure that the tank can not be overfilled;
 - b. Construction materials of the tank and associated equipment to ensure that no deterioration, corrosion, or erosion has occurred;
 - c. The area around each tank to determine if leaks have occurred;
 - d. Associated safety and security equipment.

These inspections must be documented on an inspection log, which at a minimum, should contain the item inspected, the problems that might be encountered, the date, the time of inspection, and the inspector's name.



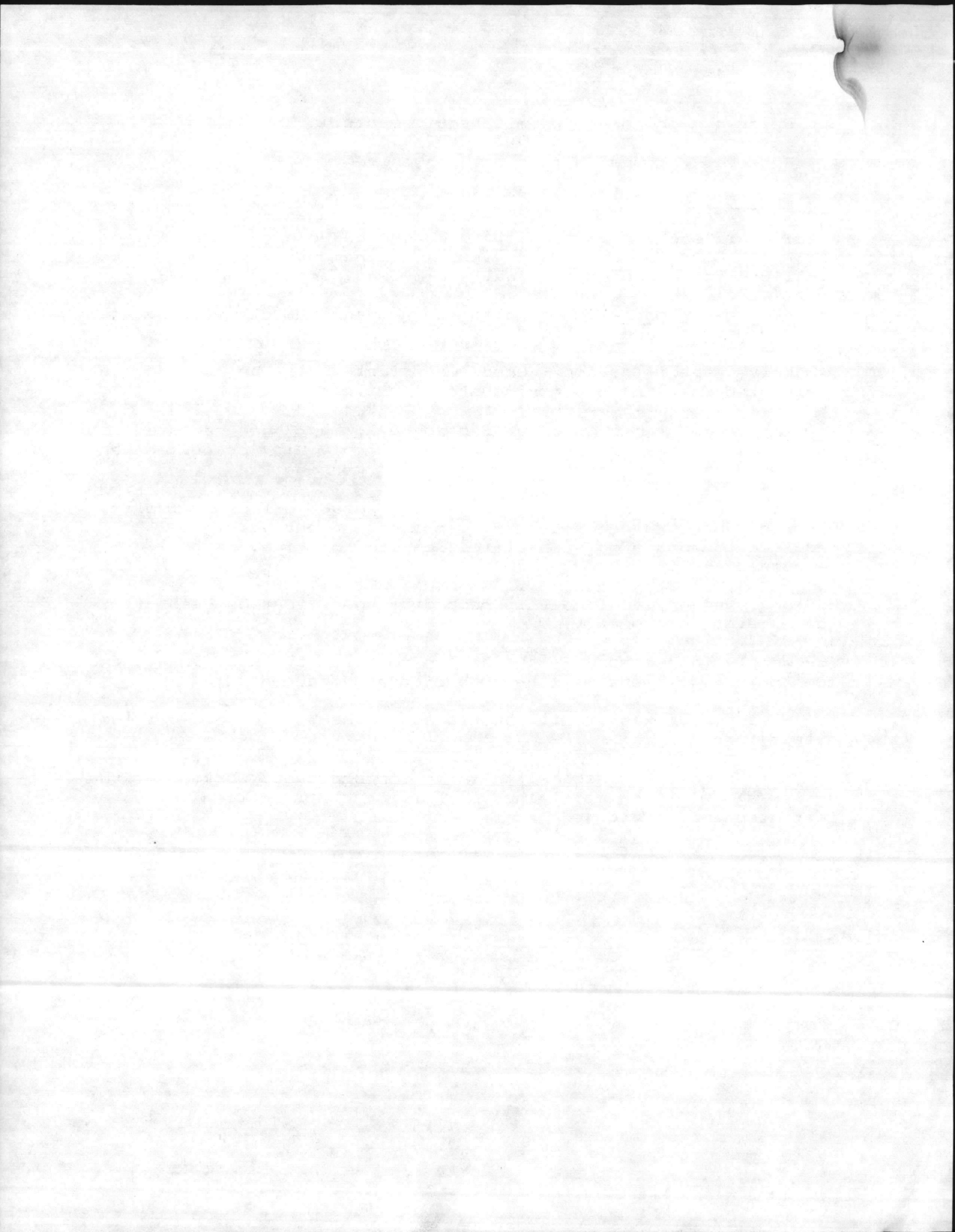
3. Reserved for Part B permit requirements.
4. Reserved for Used Oil permit requirements.

6.4 Used Oil Burning

Note: This section is subject to change based upon final Federal and North Carolina used oil rules. Requirements expressed in the final permit or amendments shall be met as part of the UOMP.

The following operating conditions and requirements will be met by Base Maintenance Utilities:

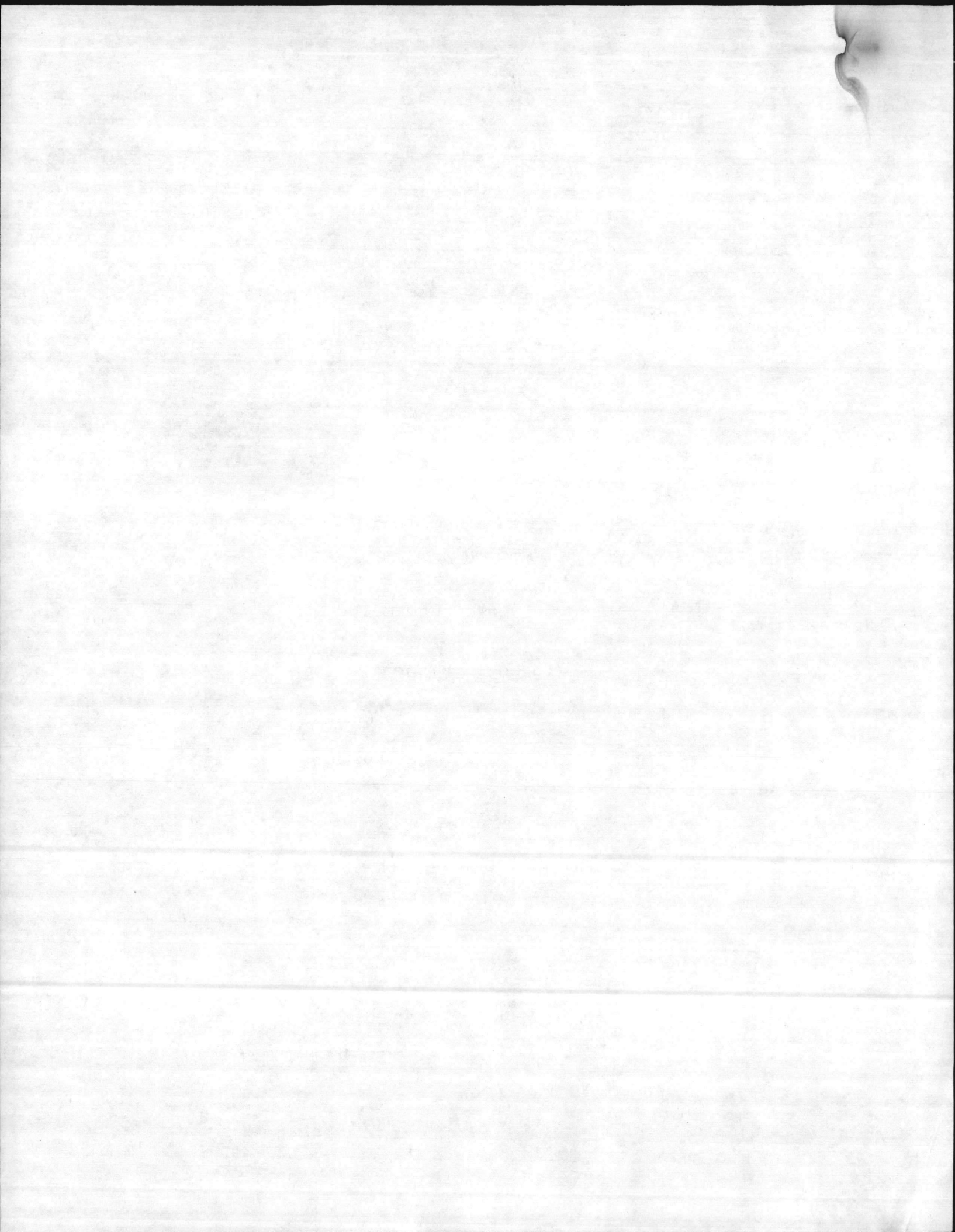
1. Only specification used oil fuel will be burned at designated Camp Lejeune nonindustrial boilers;
 - a. The tank farms above (Section 6.2) must be operated to ensure a specification used oil fuel only is processed and delivered to designated Base boilers for burning;
 - b. At the boiler tankage receiving used oil for fuel blending and burning, redundant sampling and analysis are required to ensure only specification used oil fuel is to be burned.
2. An inventory and analysis record of specification used oil is to be maintained weekly;
3. Weekly inspection of the boiler(s), safety equipment, and monitoring equipment will be conducted and documented;
4. No drummed wastes will be stored at the boiler used oil fuel site(s);
5. A record of personnel training for employees working at the boiler(s) will be maintained. Boiler certification will be initiated and maintained.



APPENDIX A

Used Oil Reference Guide

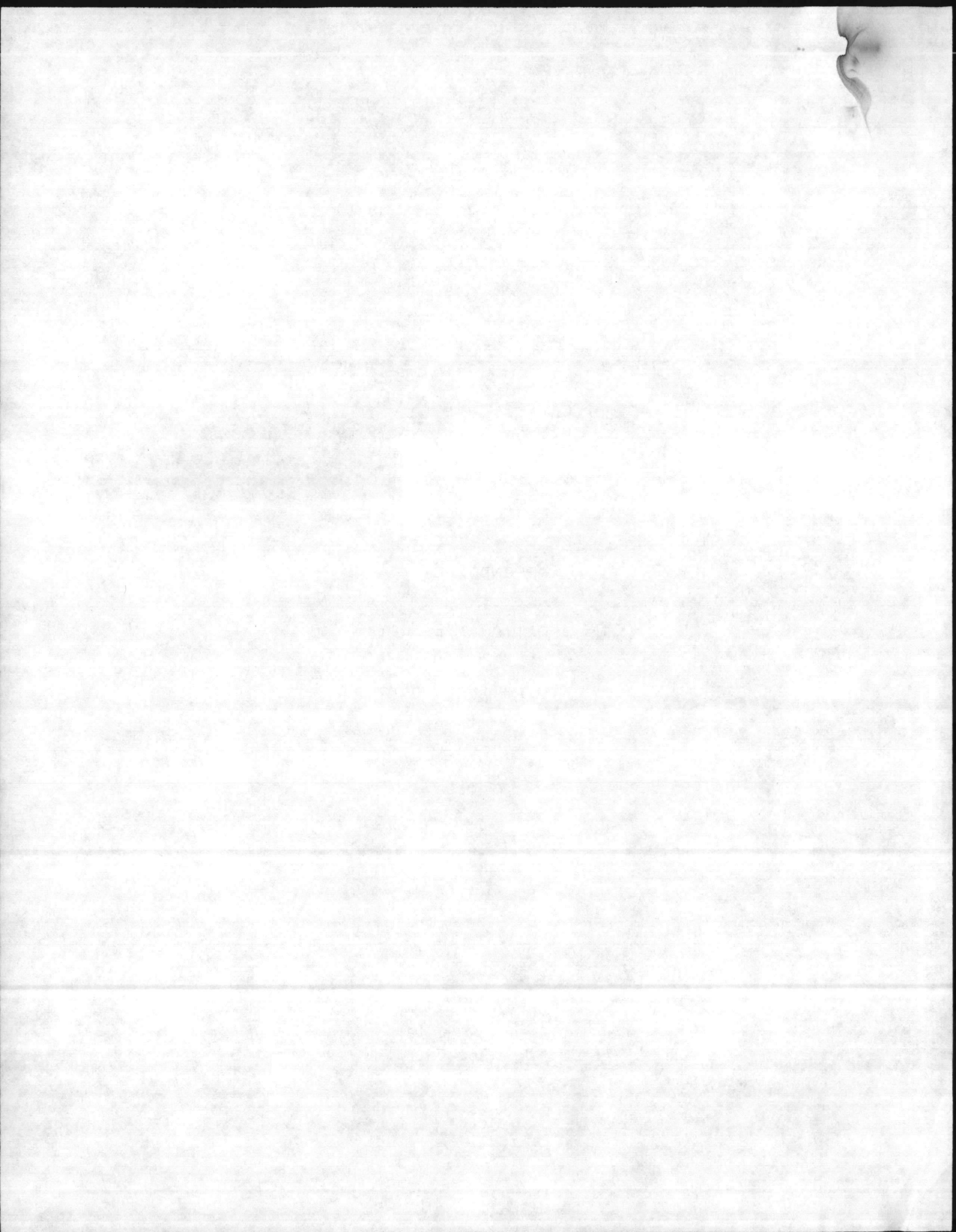
(to be furnished)



APPENDIX B

Used Oil Analysis Plan

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APPENDIX C

Record Keeping and Reporting

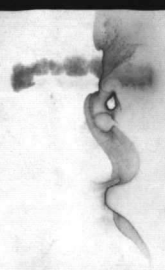
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APPENDIX D

Personal Training Program

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APPENDIX E

Shipping and Transportation

(to be furnished)

