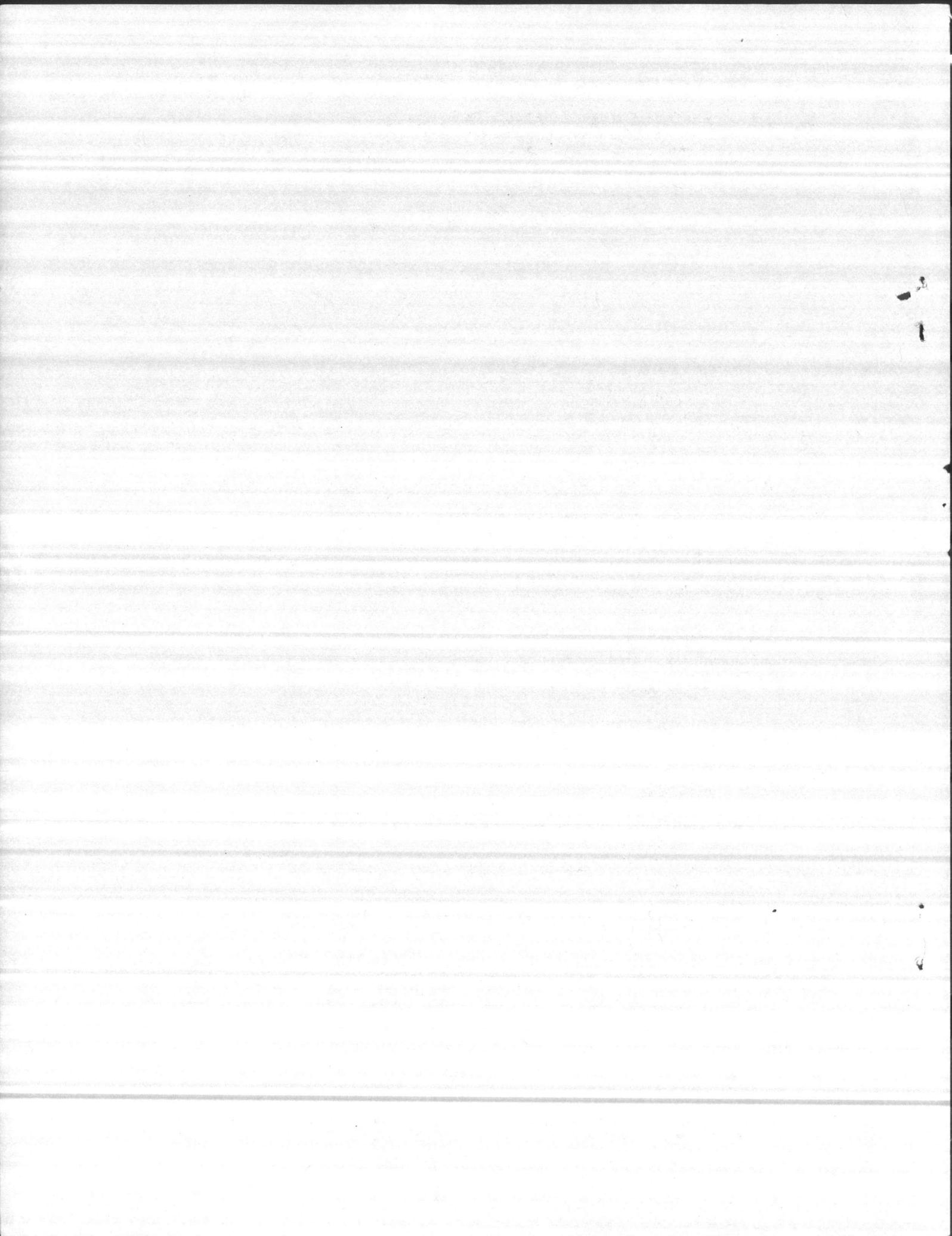


# ENVIRONMENTAL QUALITY 1984



**MARINE CORPS BASE  
CAMP LEJEUNE, NORTH CAROLINA**



ABOUT THE COVER . . . . Camp Lejeune is bisected by New River. Shown is a typical estuarine area found on its tributaries. The presence of extensive, relatively undisturbed habitat of this type aboard Camp Lejeune is an important factor in land use planning.

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## ACTIVITY DESCRIPTION

### MISSION

Marine Corps Base, Camp Lejeune, the world's most complete Amphibious Training Base, is situated on the southeast coast of North Carolina with a 14-mile ocean front extending from Bear Inlet to New River Inlet. Inside its 68-mile perimeter are some 110,000 acres, 432 miles of roads and over 5,000 buildings.

Established in 1941 and named in honor of Lieutenant General John A. Lejeune, Camp Lejeune is the home of II Marine Amphibious Force; 2d Marine Division, FMF; 2d Force Service Support Group (Rein), FMF; 6th Marine Amphibious Brigade, FMF; COMCABEAST, Marine Corps Air Station (H), New River; Naval Hospital; and Naval Dental Clinic.

The mission of Marine Corps Base, Camp Lejeune, is as follows:

- a. Provide housing, training facilities, logistic support and certain administrative support for Fleet Marine Force units and other units as assigned.
- b. Conduct specialized schools and other training as directed.
- c. Receive and process personnel, as assigned, and conduct individual combat training as directed.

The present population of Camp Lejeune is 39,865 military personnel, augmented by 4,353 civilian employees. Military dependents are in excess of 31,493 on and off base.

Climate - Located just below the 35th parallel of latitude, Camp Lejeune has a mild climate. Summers are from mild to hot and humid. Winters are fairly mild with the temperature frequently dropping below freezing. Snow is the exception rather than the rule. Average annual precipitation averages 52 inches, while the average temperature is 61 degrees. There is a long growing season, approximately 230 days.

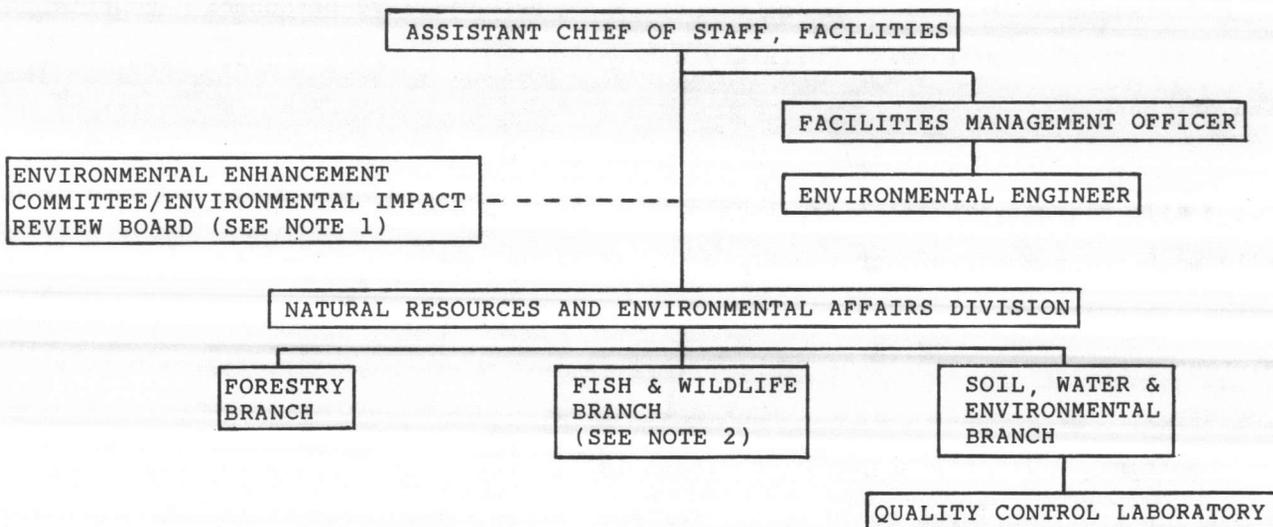
Topography - The topography of the base is typical coastal plain ranging in elevation from sea level to 70 feet. Surface relief ranges from flat, savannah-like to gentle rolling. Deep wooded forests characterize the better upland sites while most of the branches and watercourses are headed by inaccessible swamps and pocosins. The principle watershed drainage areas are New River and its tributaries.

Soils - There are 28 different soil types of varying structures ranging from sandy loam to fine sand to muck, the majority of the area being a sandy loam. Some of the soil is low in organic matter and fertility, but most of the land has good productivity for timber and wildlife habitat. In 1965, the Soil Conservation Service conducted a low-intensity soil suitability survey of woodlands on the reservation. This survey was updated in 1974 and 1984. Properly interpreted, the soils data provides an excellent tool for land management and protection.

Vegetation - Vegetation on the base is typical of the southeastern coastal plain. Extensive tracts of both pure pine and pine-hardwood mixtures dominate the landscape. Pines consist of loblolly and longleaf, while the hardwoods are represented by southern red oak, white oak, turkey oak, willow oak, red gum, tupelo gum, hickory, etc. The upland swamps, commonly referred to as pocosins, are overgrown with fetter bush, cyrilla, pond pine and greenbrier.

ORGANIZATION

The Assistant Chief of Staff, Facilities exercises staff cognizance over matters pertaining to environmental management including planning, programming and implementation. Current organizational structure is shown below:



NOTE 1: This committee consists of officers and staff specialists from base, base tenant commands, Marine Corps Air Station (H), New River and Naval Hospital, Camp Lejeune (See Appendix A).

NOTE 2: Base Game Wardens are assigned to Base Provost Marshal.

Primary responsibility for coordinating environmental planning and assessment is assigned to the Environmental Engineer (GS-12), located in the office of the Assistant Chief of Staff, Facilities. Implementation of the environmental management program is accomplished primarily through the Natural Resources and Environmental Affairs Division. However, other base organizations provide significant contributions. Responsibility for routine environmental monitoring is assigned to the Director, Natural Resources and Environmental Affairs Division (NREAD). The following environmental and natural resource specialists, technicians and administrative personnel are permanent members of the NREAD staff:

<u>FUNCTION</u>	<u>POSITION</u>
Administrative	Natural Resources Manager, GS-12 Secretary, GS-05
Environmental Branch	Supervisory Ecologist, GS-11 Environmental Protection Specialist, GS-09 Soil Conservation Technician, GS-06
Quality Control Laboratory	Supervisory Chemist, GS-10 Physical Science Technicians (4 billets) 1 GS-07; 2 GS-06s; 1 GS-05
Wildlife Branch	Supervisory Wildlife Technician (Biological), GS-11 Wildlife Biologist, GS-07 Wildlife Technician, GS-07 Military: 1 Sergeant; 1 Corporal
Forestry Branch	Base Forester, GS-11 Assistant Base Forester, GS-09 Timber Management Forester, GS-09 Forestry Technician, GS-07 Forestry Technician, GS-05 (2 billets) Forestry Technician, GS-04 (4 billets) Forestry Aide, GS-03

Related wildlife law enforcement responsibilities are assigned to the Game Warden Section, Base Provost Marshal. The game wardens also implement the base firewood collection program.

## SUMMARY OF ENVIRONMENT ACCOMPLISHMENTS

### GENERAL

Implementation of existing environmental protection programs was the major area of emphasis aboard Camp Lejeune during 1982-84. The Base Orders listed in Appendices (A) - (I) outline current policy and procedures for major areas of environmental management within the Camp Lejeune complex. The hazardous waste management program (outlined in Appendix (B)) and the maintenance program for oil pollution abatement facilities (outlined in Appendix (C)) required major manpower additions during the past two years.

Also during this period, base involvement with North Carolina regulatory agencies greatly increased, as the Environmental Protection Agency granted primacy to the state for major phases of both the Resource Conservation and Recovery Act (RCRA) and the Clean Water Act (CWA). The North Carolina Solid and Hazardous Waste Management Branch, Division of Health Services, has responsibility for administration of the National Pollutant Discharge Elimination System (NPDES) Permit program. Additionally, DEM regulations governing hazardous substance spills have increased base/state interaction.

### ACCOMPLISHMENTS 1982-83

The following summary outlines program activities contributing to the effectiveness of Camp Lejeune's environmental management and protection program:

1. Established and filled a professional billet in NREAD to monitor and provide technical assistance in the areas of hazardous material/waste management and oil pollution abatement.
2. Established and filled an environmental engineer billet on the staff of the Assistant Chief of Staff, Facilities to serve as staff advisor on environmental impact assessment, land use planning and environmental engineering.
3. Published Base Order 6240.5 (Appendix B) establishing the local program for implementation of the hazardous waste management requirements of the RCRA.
4. Published Base Order 11090.3 clarifying responsibilities for operation and maintenance of newly constructed pollution abatement facilities.
5. Completed construction of adequate long-term storage facilities required for hazardous materials and wastes awaiting disposal, in accordance with RCRA.
6. Obtained a state sanitary landfill operating permit and made minor operational changes required for compliance with the permit.

7. Completed construction of oil-water separators, sanitary sewer connections, new washracks, waste oil collection tanks, oil spill containment structures and other pollution abatement facilities at 114 locations.

8. The Defense Property Disposal Officer (DPDO), Camp Lejeune disposed a backlog of PCB transformers and improved procedures to ensure timely disposal of these transformers in the future.

9. Environmental and Fire Department staff members attended the following formal schools:

- two representatives attended Oil Spill Control Course, Texas A&M University.

- two representatives attended Hazardous Material Control Course, Texas A&M University

- six representatives attended the International Hazardous Materials Leak, Spill and Fire Control Course, St. Augustine Community College.

10. Installed concrete landing ramps to control erosion and sedimentation pollution at two major access points to New River.

11. Completed construction of adequate culverts, concrete ramps and erosion control measures for tank trails at two major stream crossings.

12. Completed installation of four water quality monitoring wells at the sanitary landfill.

13. Completed a cooperative forest inventory with the U. S. Forest Service. Information from this survey will be used in revision of the Long Range Natural Resources Management Plan.

14. Completed an equalization basin with aeration to improve control of sewage flow rates to the Courthouse Bay Sewage Treatment Plant.

15. Published Base Order 1710.20 to implement local, state and federal hunting and fishing regulations.

16. Installed a heating/cooling system at the Water Quality Control Laboratory to improve temperature control necessary for quality control.

#### ACCOMPLISHMENTS, 1984

1. Completed installation of 55 monitoring wells and initiated the first round of groundwater sampling as part of the confirmation study verification step of the Navy Assessment and Control of Installation Pollutants (NACIP) Program. This program is directed at determining environmental risks at potential toxic materials disposal sites. Additional sampling of groundwater, soil, sediments and fish tissues are being taken. 5

2. Began renovation at the Tarawa Terrace Sewage Treatment Plant for the purpose of improving waste treatment capability. The project will provide state-of-the-art digester heating facilities. Additionally, grit channels and a lift station will be provided.

3. Marine Corps Base staff prepared and submitted the application and was granted an RCRA Subpart B, Long Term Hazardous Waste Storage Facility Permit. This authorization allows storage of hazardous waste for over 90 days while awaiting disposal by DPDO at an approved disposal facility. The permit was issued by the State of North Carolina.

4. Prepared and published a report on 1983 Sea Turtle Nesting Activities. This report is required by the base Endangered Species Permit and concerns management activities for protection of sea turtles. Copies were provided to U. S. Fish and Wildlife Service and North Carolina Wildlife Resources Commission.

5. Controlled erosion on approximately 15 miles of dirt trails, using approximately 1,400 tons of gravel, seed and fertilizer. Work was accomplished through the forestry management program.

6. Purchased a gas chromatograph for installation in the base Water Quality Control Laboratory. When operational, the instrument will enable timely monitoring of potable water supply wells and treated water.

7. Initiated a project to replace underground fuel transmission lines at Marine Corps Air Station (H), New River to eliminate potential spill hazards associated with the Rapid Jet Refueling System.

8. Developed an automated Hazardous Materials Information System (HMIS) which provides hazardous characteristics and other data for storage and handling by merging data bases from the DOD HMIS with local supply data.

9. Initiated a wetlands study in cooperation with the U. S. Army Corps of Engineers and the U. S. Fish and Wildlife Service.

NATIONAL ENVIRONMENTAL POLICY ACT IMPLEMENTATION

Significant progress was made during the 1982-84 period in clarification of local responsibilities for implementation of the National Environmental Policy Act (NEPA). NEPA requires federal agencies to use all practicable means and measures to protect the environment as the agencies endeavor to carry out their assigned missions. The spirit of NEPA is to ensure that environmental impact is considered along with other factors in planning and decision making processes. When an action by a federal agency will significantly affect the environment, the responsible official must describe the impact in the form of a written statement.

Because of the extent and dispersion of protected wetlands, streams, endangered species habitat and barrier islands, there must be a constant awareness by base training and facility officials of the environmental impact of proposed actions. Procedures for review and assessment of environmental impact are outlined in base Order 11000.1B (Appendix D) and Base Order 11015.2G (Appendix A). The latter establishes the Committee for Environmental Enhancement/Environmental Impact Review Board which advises and assists the Commanding General in the implementation of NEPA and the conservation and management of natural resources. The board is made up of both voting members and nonvoting advisors. The membership of this panel is as follows:

MEMBER

Assistant Chief of Staff, Facilities -  
Chairman

Representatives from the following:

- Base Training Facilities
- 2d Marine Division
- 2d Marine Amphibious Brigade
- 2d Force Service Support Group
- Marine Corps Air Station (H), New River
- Base Maintenance Officer
- Public Works Officer

ADVISORS

- Director, Natural Resources and  
Environmental Affairs Division
- Supervisory Ecologist
- Base Wildlife Manager
- Base Safety Officer
- Base Game Warden
- Chief, Veterinary Medicine Service
- Naval Hospital
- Staff Judge Advocate - Representative
- Environmental Engineer
- DPDO

During 1982-84, 50 Preliminary Environmental Assessments (PEAs) and two Environmental Assessments (EAs) were reviewed by the Board. These documents covered a wide range of activities including Military Construction Projects, Solid Shield Exercises and Range and Training Facilities Improvements. The Board assessed the deployment of Assault Amphibious Bulk Fuel System during Solid Shield, which involved the pumping of 40,000 gallons of diesel fuel from offshore into the fuel farm on Onslow Beach. In addition, the EA for dredging access channels for LCM-8 operations across New River was completed with assistance of the U. S. Army Corps of Engineers, Wilmington District. Upon completion of review by the Headquarters Marine Corps Environmental Impact Statment Board, a finding of no significant impact was published in the local newspaper.



ACCOMMODATING MODERN WEAPONRY WITHIN THE PHYSICAL CONSTRAINTS OF CAMP LEJEUNE IS A MAJOR ENVIRONMENTAL AND LAND USE PLANNING OBJECTIVE OF THE CURRENT REVISION OF THE BASE MASTER PLAN



TRADITIONAL AMPHIBIOUS ASSAULTS AND MECHANIZED INFANTRY TRAINING CONTINUE AS A MAJOR LAND USE AND REQUIRE CONTINUOUS GROUNDS MAINTENANCE SUPPORT AND MANAGEMENT INPUT TO MEET ENVIRONMENTAL PROTECTION REQUIREMENTS

### AIR POLLUTION CONTROL

The southeastern region of North Carolina is a relatively rural area with no significant air pollution problems. Ambient air quality is generally good except when very adverse weather conditions occur concurrently with high levels of smoke from forest fires and land clearing operations. Within this setting, the base operates facilities having approximately 200 regulated air pollution sources. All known sources have been properly registered with the State Division of Environmental Management and related permits have been obtained. These sources range in size from relatively small fuel storage facilities to the coal-fired Central Heating Plant in the Hadnot Point Industrial Area. Utilities managers closely monitor all boiler operations and the quality of fuel burned through them relative to air quality. Open burning is strictly controlled and discouraged except where essential to the mission, such as firefighting training.



WHILE PRESCRIBED BURNING OF WOODLANDS IS NOT SPECIFICALLY REGULATED BY THE CLEAN AIR ACT, BASE NATURAL RESOURCES MANAGEMENT PERSONNEL CAREFULLY CONSIDER IMPACT OF SMOKE ON PEOPLE WITHIN AFFECTED AREA WHEN IMPLEMENTING FORESTRY AND WILDLIFE PRACTICES INVOLVING BURNING.

## WATER POLLUTION CONTROL

### BACKGROUND

With over 100 miles of streams, 3,000 acres of marsh and large areas of open tidal water areas, the control and prevention of all types of water pollution is probably the single most demanding environmental requirement for the Command. With a shallow groundwater table, aquifer and heavy reliance on groundwater for regional water supplies, protection of groundwater from pollution is an important dimension of the base program.

Camp Lejeune's environmental program traditionally focused on the following five sources or types of pollution: sewage treatment plant discharges; backwashes and blowdown from pools, water treatment plants, and heating plants; POLs and other pollutants discharged from equipment and vehicle maintenance shops and associated washracks; erosion and sedimentation from construction, dirt roads and other land disturbing activities; and oil and other hazardous material spills. A new concern is the potential for water pollution from areas aboard base which were used to dispose of toxic material or substances during the 1940-70 time periods. This issue will be discussed later under "Toxic and Hazardous Material Management" section.

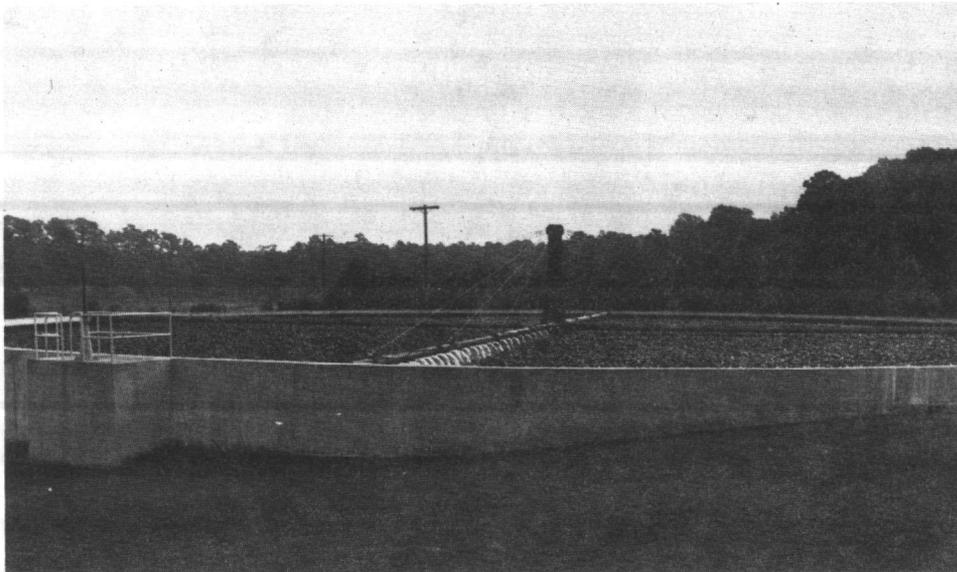


WITH HEAVY RECREATIONAL USE OF PUBLIC WATERS ADJACENT TO CAMP LEJEUNE, PROPER WASTE-WATER TREATMENT IS IMPORTANT TO THE LOCAL COMMUNITY

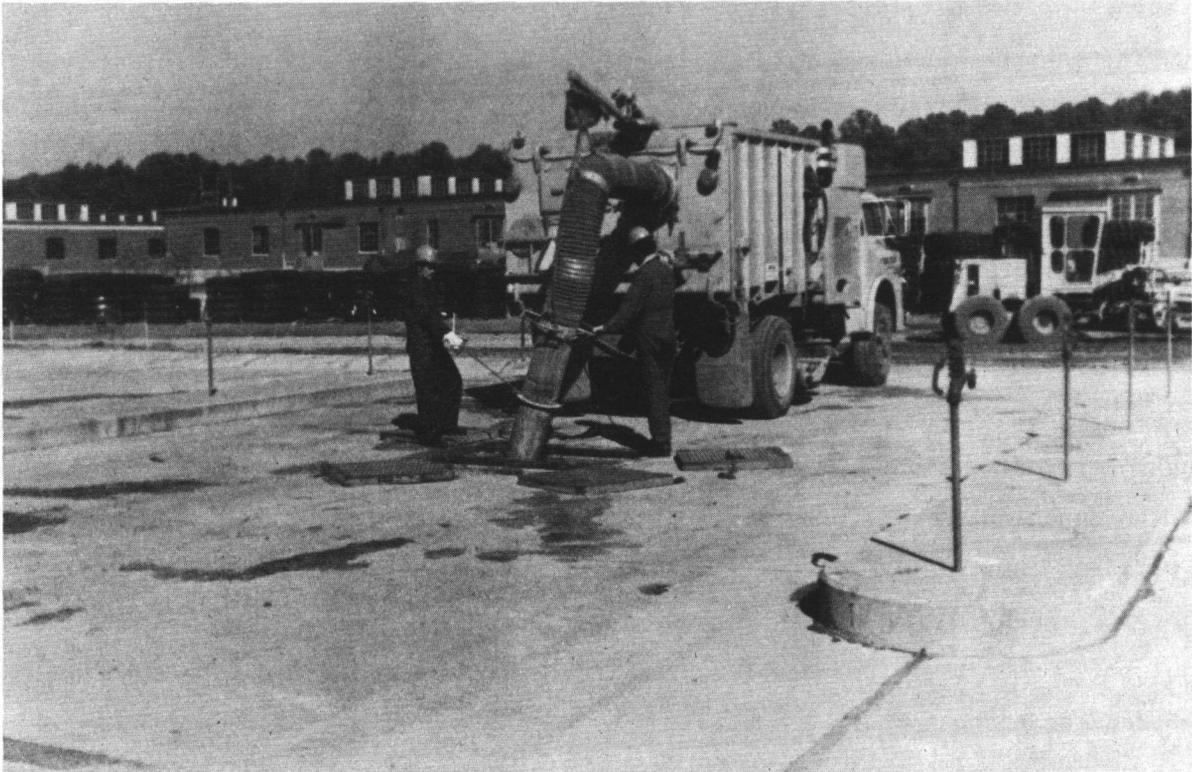
The discharge of seven to eight million gallons of wastewater daily from the sewage treatment system is accomplished without degradation of the water quality of New River. One reason for this accomplishment is the excellent performance of the sewage plant operators. Newly employed personnel must undergo a two-year on-the-job training program. After which they must pass the Wastewater Treatment Operator Examination (Grade II) administered by the State of North Carolina.

A computerized utility control system monitors sump high level and power failure at major sewage lift stations at Camp Lejeune. Lift stations and sewage plants are equipped with emergency power in case of commercial power outages. Continuous attention and control at these sewage plants by qualified personnel ensures that effluents meet the EPA and State of North Carolina requirements contained in the Base National Pollutant Discharge Elimination System (NPDES) Permit.

In an effort to reduce possible oil and grease contamination of New River, oil pollution abatement facilities have been installed throughout Camp Lejeune. Generally the effluents from these facilities have been connected to the sewage system. Gearing up to operate and maintain the pollution abatement facilities has been a major undertaking. Appendix I outlines the efforts which have been expended to protect the trickling filters and other biological sewage treatment processes from damage by excessive levels of oily wastes in wastewater.



37 OF 42 SEWAGE TREATMENT SECTION EMPLOYEES HAVE GRADE II, III OR IV STATE WASTEWATER OPERATOR CERTIFICATION



THE PURCHASE OF THIS SPECIALIZED HEAVY DUTY VACUUM TRUCK FOR CLEANING POLLUTION ABATEMENT FACILITIES ILLUSTRATES THE COMMITMENT OF CAMP LEJEUNE TO ENVIRONMENTAL PROTECTION

#### OIL AND HAZARDOUS MATERIAL SPILL CONTROL

The transportation and use of fuel oils, lubricants and other hazardous materials are an inherent part of military operations. While the risk of serious environmental consequences have been minimized by construction of strategically located spill containment facilities, spills will continue to occur. Appendix C outlines the base program to prevent spills and to respond to those that occur. As previously discussed, most storage facilities and fuel dispensing areas have been equipped with fuel spill containment structures. However, due to the nature of the mission, it is not possible to contain spills simply through the use of permanent facilities. The base has an outstanding spill response network for dealing with spills. The spill response team, as outlined in Appendix C, can quickly and effectively deal with all spills except large spills in open water, particularly on the ocean.

The assistance of other agencies is available, if required, to ensure that all spills are contained and cleaned up. Close working relationships with personnel

personnel of the United States Coast Guard and the North Carolina Department of Natural Resources and Community Development are maintained. Because of heavy reliance on private contractors for bulk fuel delivery, requiring contractors to pay the cost of spill cleanup has been very effective at Camp Lejeune in motivating contractors to prevent accidental spills.

#### WASTE OIL RECYCLING

During 1982 approximately \$50,000 in proceeds from the sale of 156,000 gallons of waste oil by the DPDO was returned to base for use on environmental protection projects. A portion of the funds were used to purchase a new waste oil collection truck. Approximately 90 waste oil collection tanks are located throughout Camp Lejeune and Marine Corps Air Station (H), New River. Waste oil collected in pollution abatement devices is skimmed off and collected for disposal. With major increases in the volume of these lower quality skimmings and impact of regulatory programs on potential markets for waste oil, significant effort has been required both locally and at higher DPDO headquarters to manage the waste oil disposal program. This issue is further discussed in the "Toxic and Hazardous Material Management" section of this project.

#### WORKSITE MONITORING AND PERSONNEL TRAINING

In 1982 a permanent GS-09 environmental billet was established for the purpose of promoting environmentally sound management and disposal of petroleum products and other hazardous materials. The primary functions of this billet are to provide technical assistance and conduct monitoring of shops routinely handling hazardous material. During 1984, approximately 93 shops were formally inspected at least once. On an average, two supervisory level personnel at each shop were involved along with appropriate working level personnel. The purpose of the on-site monitoring visits is to provide training, to review applicable base orders with supervisory personnel at worksites, and to identify actions required for compliance with environmental regulations. In addition to handling routine requests for information, the GS-09 Environmental Protection Specialist handled approximately 100 requests for technical assistance requiring 50 on-site visits during 1984.

In addition to on-site shop monitoring, over the past three years more than 70 storm drains have been routinely sampled and analyzed for oil and grease, as required by the NPDES permit.



GROUNDWATER MONITORING WELLS AT THE BASE LANDFILL ARE SECURED WITH STEEL CAPS TO PREVENT TAMPERING OR CONTAMINATION.



PROPER COLLECTION AND ANALYSIS OF WATER SAMPLES IS CRITICAL TO PROVIDING ACCURATE DATA FOR USE IN DECISION MAKING RELATIVE TO PROTECTION OF PUBLIC HEALTH AND THE ENVIRONMENT ABOARD CAMP LEJEUNE.

#### DRINKING WATER QUALITY

The drinking water monitoring program aboard the Camp Lejeune complex has been expanded beyond the Safe Drinking Water Act requirements. Groundwater samples are regularly pulled from wells and tested for pollutants. The drinking water is checked weekly for bacterial contamination. The monthly total of samples examined exceeds requirements of the state under the Safe Drinking Water Act.

#### SEDIMENT POLLUTION

Fortunately, the soil types, topography and vegetation at Camp Lejeune are favorable to reducing soil erosion potential. Problem areas are generally limited to wave action along shoreline, unpaved roads, and areas of major disturbance/removal of vegetation either by construction or concentrated tactical vehicle maneuvering in close proximity to water courses.

The forces of nature (wind, tide and wave action) cause erosion at Onslow Beach and most high bluffs along New River. Stone, concrete and masonry rubble from demolished buildings have been used to help control this bank erosion problem.

It is recognized that military training causes some damage to soils and vegetation, increasing the potential for soil erosion. The Soil Conservation Service, through a cooperative agreement between Marine Corps Base and the Onslow Soil and Water Conservation District, made a survey of all soil conservation problem areas during the summer of 1984. Corrective action for 230 different sites was identified and incorporated into the Long Range Multiple-Use Natural Resources Management Plan. Base Maintenance has completed a portion of this work; however, we have found that many of the original "one-time-fixes" do not permanently correct the problem. Annual maintenance and repair is frequently required. Consequently, the current revision to the Long Range Natural Resources Management Plan will incorporate significant changes to our soil erosion prevention procedures.



MAJOR PROGRESS WAS MADE IN REDUCING DISCHARGE OF SEDIMENT BY INSTALLING SPECIALLY ENGINEERED STRUCTURES ACROSS MAJOR STREAMS.

#### RADIATION POLLUTION CONTROL

Routine base operations involve two sources of potential radiation pollution, both of which are strictly controlled. The Naval Hospital and Dental Clinic are closely monitored by industrial hygienists to ensure that X-Ray technology is safely and properly employed.

The second source is weapons which use radiation emitting technology. A program has been established basewide to control the use and disposal of these weapons. A Base Radiation Safety Officer coordinates the program, assisted by Field Radiation Safety Officers at the tenant commands. The program focuses on awareness and training of the Marines who use the devices. Damaged or defective devices are carefully packaged and shipped to designated off-base maintenance facilities.

NOISE POLLUTION CONTROL



NOISE ASSOCIATED WITH LIVE-FIRING IS AN IMPORTANT CONSIDERATION IN LAND MANAGEMENT AT CAMP LEJEUNE

Managing or controlling the noise associated with gunfire, rockets, explosives, etc. is a continuing consideration during training. During the early 1970's a locally developed system referred to as "Blast Forecast" was developed to eliminate and reduce disturbance of excess shock waves and noise from these weapons and explosives. The forecast is computed by Marine Corps Air Station (H), New River, based on local weather, existing and predicted. The method predicts the atmosphere refraction conditions and explosive limit (in pounds) which should not exceed the annoyance level for the surrounding community. The information is provided to Base Range Control for use in advising air/ground units of the maximum size projectiles or bombs (or combination thereof) allowable for that period. Use of this system, while not perfect, is a positive effort to reduce an adverse impact of military training on the community.

### SOLID WASTE MANAGEMENT

Solid waste management is a rapidly changing technology nationwide. In 1977 a solid waste management study was conducted at Camp Lejeune which focused on the recovery of natural resources (both energy and raw materials) from solid waste. This study, a result of the Navy R<sup>4</sup> Program (Recovery and Reuse of Refuse Resources) generated a published Master Plan for Camp Lejeune. The plan focused on alternatives for resource recovery. In addition to developing approaches to resource recovery, the refuse collection and disposal aspects of solid waste management were evaluated. Recommendations for improved efficiency and the adequate protection of the environment were made.

Solid waste collection and disposal is a laborious and expensive operation, as approximately 750,000 cubic yards of garbage, trash and other waste must be disposed of at Camp Lejeune each year. Waste of all kinds, excluding that considered dangerous, hazardous or recyclable, are transported to the sanitary landfill for disposal. The sanitary landfill is located on a 100-acre site off Sneads Ferry Road. Storage, transportation, generation and disposal of solid waste in North Carolina is regulated by the Solid and Hazardous Waste Branch, Division of Health Services, North Carolina Department of Human Resources (DHR).



ROUTINELY INSPECTED BY THE STATE, THE BASE SANITARY LANDFILL MUST COMPLY WITH STRINGENT ENVIRONMENTAL REQUIREMENTS DIRECTED AT PROTECTION OF BOTH GROUND AND SURFACE WATERS.

Base Order 11350.2 (Appendix E) establishes the base refuse disposal program. The base program requires all solid waste, except that which can be recycled or reutilized, to be disposed of at the Base Sanitary Landfill. In 1982, an operational plan for the landfill was submitted to DHR for approval as required by DHR regulations. The plan was approved and is the current standard for operating the landfill. The plan requires establishing and operating four groundwater monitoring wells.

Compaction devices with a 10-to-1 compaction ratio have been installed in the base messhalls. Additional compaction devices with a 4-to-1 compaction ratio, and a 45-cubic yard container have been installed at selected points aboard the base to compress cardboard boxes. Each compactor holds approximately 5 1/2 tons of cardboard.

There are "pitch-in" containers installed along roadsides and areas of heavy pedestrian traffic aboard the base. These containers have helped keep Camp Lejeune's roads and walkways clean by providing a place to deposit litter generated by motorists and pedestrians. The volume of trash being removed from these containers indicates heavy utilization.

The Resource Recovery Program is set forth in Base Order 4100.8. This Order covers the recycling of cardboard, newspaper, computer paper and tab cards. The Onslow County Workshop of Coastal Opportunities, a local non-profit sheltered workshop located in Jacksonville for mentally and/or physically handicapped individuals, purchases the material under contract.

#### TOXIC AND HAZARDOUS MATERIAL MANAGEMENT

##### GENERAL

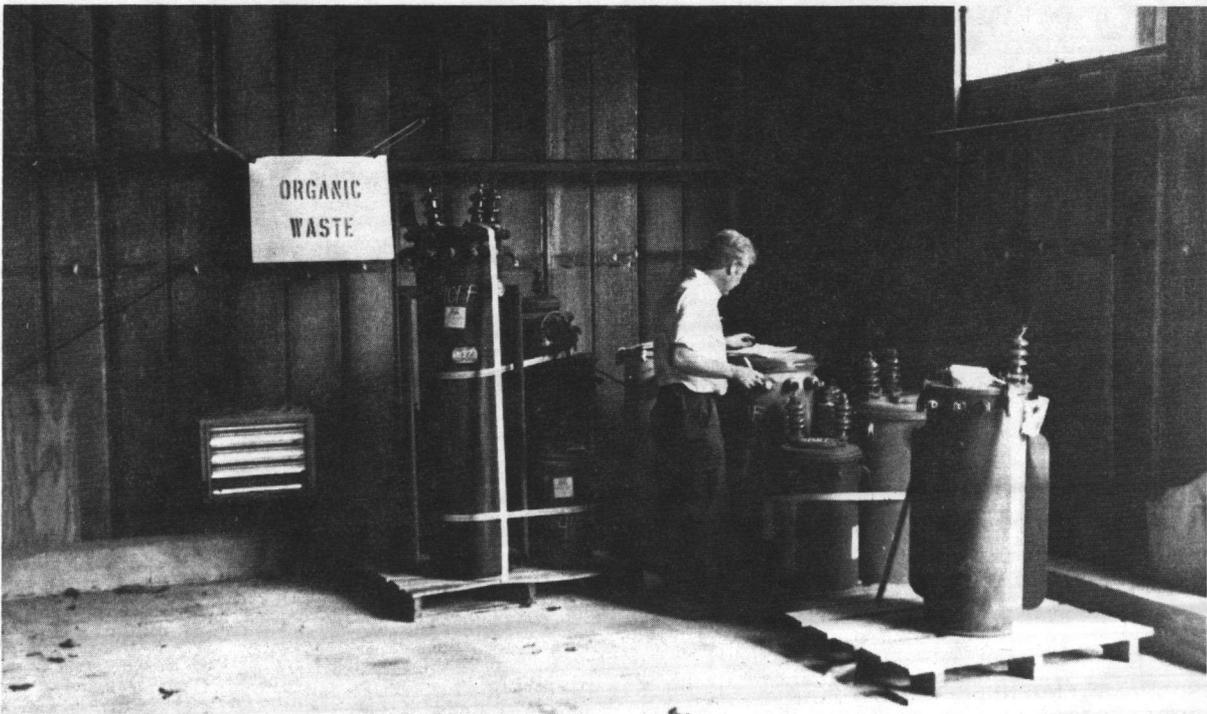
This section describes our specific programs to implement the Resource Conservation and Recovery Act (RCRA) and related state and federal regulations. Implementation of this act has proven most difficult because of its impact on all commands at all organizational levels. Highly technical aspects of this program are difficult to deal with at the shop level, especially with frequent changes in regulations and interpretations of regulations. Base Order 6240.5 (Appendix B) establishes mechanisms for implementing regulatory changes, dissemination of information and technical assistance for working level personnel.

### HAZARDOUS WASTE STORAGE

Responsibility for long term storage of hazardous materials and wastes awaiting disposal is assigned to the Defense Property Disposal Officer (DPDO). In September 1984, the final Part B Permit was granted by the North Carolina Solid and Hazardous Waste Management Branch, pursuant to RCRA. DPDO is the permitted operator and the Commanding General, Marine Corps Base is the permitted owner. This cooperative arrangement between two separate DOD agencies is an excellent example of our progress at Camp Lejeune in implementing this extremely complex program.

### HAZARDOUS WASTE GENERATION

Maintenance and industrial shops throughout base routinely generate used solvents, degreasers, batteries and other hazardous wastes. Commanders of these shops are responsible for the proper handling and storage of these materials and wastes until they are turned in to DPDO. They are assisted by a Hazardous Material Disposal Coordinator (HMDC) at each major command. A good job has been done to date. Upgrading storage and handling capabilities at the shop level will be one of the more important environmental issues to be addressed over the next few years.



SHOWN HERE ARE SEVERAL PCB TRANSFORMERS STORED AT DPDO RCRA WASTE LONG-TERM STORAGE FACILITY. HAZARDOUS WASTES OR MATERIALS ARE STORED AT THIS FACILITY AWAITING PROPER DISPOSAL.

ABANDONED TOXIC WASTE DISPOSAL SITES

The most significant new environmental initiative this period is a comprehensive program to identify and correct potential pollution hazards caused by abandoned toxic waste disposal sites aboard the Camp Lejeune complex. This program is the Navy Assessment and Control of Installation Pollutants (NACIP) program. The first phase of the program was a systematic assessment and evaluation of 76 suspected sites. Only 22 sites were determined to warrant physical monitoring based on the potential for discharge of pollutants. Soil samples, ground water, surface water, sediments and fish tissues will be tested. This testing phase is projected for completion in 1986. Based on the findings of the study, action to remove, contain, or control pollutants will be initiated. Sites include former open burn dumps; fire fighting training sites; authorized abandoned toxic material disposal sites; known sites of POL and other hazardous material spills; and underground leakage from fuel storage/distribution systems.



CONSULTANT ENGINEERS PERFORMED A GEOPHYSICAL EVALUATION OF SUSPECTED TOXIC MATERIAL DISPOSAL SITE

ENVIRONMENTAL ENHANCEMENTGENERAL

The overall quality of the environment goes beyond programs to comply with specific regulations. At Camp Lejeune, aggressive grounds maintenance, forestry, and wildlife programs play an important role in improving the quality of the human environment. With improved grounds being well landscaped and maintained, and with a well balanced land, forestry, wildlife and range maintenance program, Camp Lejeune is one of the most aesthetically pleasing areas of eastern North Carolina. With emphasis on aesthetics in each of these phases of land and natural resource management, thousands of people traveling local highways and waterways benefit from our efforts at Camp Lejeune. In addition to beauty, forestry and wildlife management contribute to the economic and recreational base of the region. The natural resources and environmental improvements made in these three areas enhance the total environment and mitigate the impact of mission related land disturbing activities.



THESE BARRACKS OVERLOOKING THE CONFLUENCE OF NEW RIVER AND FRENCH CREEK CLEARLY REFLECT THE IMPORTANCE OF SOUND GROUNDS MAINTENANCE AND BEAUTIFICATION TO THE ENVIRONMENT OF THE CAMP LEJEUNE AREA.

## FOREST MANANAGEMENT

Camp Lejeune has a forest resource base of 66,000 forested acres. 58,000 acres are considered to be commercial forestland, and the remaining 8,000 acres are classified as non-commercial. The Director of Natural Resources and Environmental Affairs Division is tasked with assuring that this land is managed as required by public law, DOD directives and Marine Corps Orders. The Forestry Branch implements these directives under the principles of multiple use and sustained yield, with an even flow of benefits being provided for military training, timber production, wildlife habitat, outdoor recreation and aesthetics.

The timber harvesting program at Camp Lejeune allows for annual harvest and sale of 1,483,207 cubic feet of pine, and 529,193 cubic feet of mixed hardwood. Proceeds derived through the sale of forest products are used to fund the annual budget of the forest management program. As required by law, 25% of the net proceeds are annually returned to the County Public School System, with the remaining proceeds being used to fund forest management programs aboard other Marine Corps and Navy installations. Any excess is deposited in the U. S. Treasury.

A multi-resource inventory conducted in 1983, as a joint effort between the U. S. Forest Service and Camp Lejeune Natural Resources staff, provides detailed information regarding the various resources aboard Camp Lejeune. The basis for determining required forest management work is set forth in the Natural Resources Management Plan for Camp Lejeune. These objectives address the changing land use requirements of military training. For record keeping purposes, Camp Lejeune is subdivided into 61 compartments with roughly 1,000 acres in each compartment. These are further subdivided into contiguous stands of similar timber type and age. Six of these compartments are entered annually and analyzed for needed treatments of harvests.

The annual work projects aimed at achieving forest management goals include:

1. Timber Sales - Timber sales are monitored to insure contractual compliance of timber stands for thinning and reforestation operations for future sales is of primary importance to the achievement of management goals.
2. Prescribed Burning - Wildfire hazard reduction, wildlife habitat improvement, and control of undesirable species are the primary benefits from prescribed burning. Camp Lejeune prescribe burns on a three to five year cycle, with only those stands in which fire is desirable, being burned. Ranges and impact areas are burned annually to maintain an open ground cover and reduce wildfire potential.



THE PROPER PLANNING AND IMPLEMENTATION OF BOTH THINNINGS AND REGENERATION CUTS IS AN IMPORTANT NATURAL RESOURCE MANAGEMENT FUNCTION



NATURAL REGENERATION OF LONGLEAF PINE BY EITHER THE SHELTERWOOD OR SEEDTREE HARVESTING METHODS HAS PROVED TO BE AN EFFECTIVE METHOD OF ACHIEVING A HEALTHY STAND OF YOUNG PINE. THE OVERSTORY SEED SOURCE WILL SOON BE REMOVED LEAVING THE SEEDLINGS TO FULLY OCCUPY THIS SITE.

3. Insect and Disease Control - Protection of the forest resource from insects and disease requires constant monitoring, since populations vary greatly from year to year. Early discovery and rapid control response is essential in limiting the losses of forest resources from the Southern Pine Beetle and other forest pests.

4. Timber Stand Improvement - Maintaining a healthy and productive forest, with the desired species composition, is of primary concern in designating areas for timber stand improvement. Removal of diseased or overstocked unmerchantable stems is accomplished with heavy equipment. When either impractical, or potential for damage to the site exists from the use of heavy equipment, the work is done by hand.

5. Reforestation - In order to maintain a sustained yield of forest products, it is essential to achieve a balanced age class distribution, with trees of all ages being represented. With a rotation age of 80 years for loblolly pine, 100 years for longleaf pine and 125 years for hardwoods, approximately 400 acres of pine and 160 acres of hardwood should be regenerated annually. Regeneration harvests, followed by the required site preparation for planting or natural regeneration, are used to accomplish this goal.

6. Wildfire Control - The incidence of wildfire aboard Camp Lejeune depends upon the severity of weather conditions and the intensity of military training. Monitoring weather conditions and fire danger, coupled with fire tower manning during periods of high fire danger, help to maintain the appropriate level of readiness for rapid response when wildfires do occur.

7. Forest Access Road Maintenance - Multiple-use management of the forest resource requires an adequately maintained road system. Secondary, or forest access roads, are kept clear of encroaching vegetation by grading and brushing backslopes. Soil stabilization is achieved through planting perennial grasses. This also provides food for wildlife and when properly done, is aesthetically pleasing.

### WILDLIFE MANAGEMENT

Camp Lejeune's wildlife management program is designed to provide optimum environmental conditions for all present wildlife species. The goal of the wildlife management program is to improve the quality of wildlife habitat on Marine Corps Base for game, non-game and endangered species. The program is designed for consistency with the primary land use of military training and compliance with applicable base, state and federal regulations. An effective relationship between wildlife, forest and environmental management is achieved through harmonious program planning which meets the long range objectives of the program.

The following are examples of wildlife management related activities during Fiscal Year 1984:

1. Conducted both aerial and ground-truthing survey for sea turtles at Onslow Beach during the nesting season June-July. There were 121 crawls, 63 nests protected, 7,788 eggs laid, and 4,484 eggs hatched. Twenty-six turtles were tagged and there were 30 tag returns from 1984 and previous years combined.



ANNUAL ROOST COUNTS OF THE RED-COCKADED WOODPECKER ARE ONE OF MANY BASE INITIATIVES TO MANAGE AND PROTECT ENDANGERED AND THREATENED SPECIES OF WILDLIFE



DURING THE REPORTING PERIOD, 40 WILD TURKEYS WERE LIVE-TRAPPED THROUGH A COOPERATIVE EFFORT WITH THE N. C. WILDLIFE RESOURCES COMMISSION. THE BIRDS WERE TRAPPED BY BASE/ STATE PERSONNEL. RELOCATION OF THE WILD TURKEY FROM CAMP LEJEUNE IS WELL KNOWN THROUGHOUT THE SOUTHEASTERN REGION.



HUNTING AND FISHING ARE IMPORTANT AND POPULAR TYPES OF OUTDOOR RECREATION IN THE CAMP LEJEUNE REGION



WETLANDS ON CAMP LEJEUNE ARE BEING MAPPED IN COOPERATION WITH THE U. S. ARMY CORPS OF ENGINEERS AND THE U. S. FISH AND WILDLIFE SERVICE.



MILITARY OFFICERS AND ENLISTED PERSONNEL ROUTINELY RECEIVE BRIEFINGS ON PROTECTION MEASURES FOR RED-COCKADED WOODPECKER HABITAT

2. Cleared woody debris from around endangered Red-Cockaded Woodpecker cavity trees and prescribed burn around cavity trees for protection of cavities from possible wildfires.

3. Spring plantings of forest openings were established to summer annuals for wild turkey, other game and non-game species. Each opening was seeded to chufas, millet and sorgham for fall and winter grazing by wildlife species. Approximately 140 acres were planted.

4. Spring plantings of forest openings were established to perennial annual seed mixtures for Bobwhite Quail and doves. Seed mixtures planted consisted of proso millet, wildlife game food sorgham and common lespedeza. Approximately 60 acres were planted.

5. Fall plantings of forest openings were established to rye and wheat. The plantings were designed to provide supplemental food during late winter and early spring for wildlife when native foods are scarce. Approximately 100 acres were established.

6. Disced out leave areas for nesting cover around each perennial planting in the Quail Management Area prior to prescribed burning the area. Planted 20,000 bicolor lespedeza seedlings for Bobwhite Quail.

7. Planted 3,000 autumn olive ornamental seedlings for wild turkey, black bear, other game and non-game species.

8. Applied 8,500 units of liquid nitrogen to forest openings planted to winter rye and wheat to increase plant production for utilization by wildlife.

9. Conducted annual spring gobbler counts along three established routes to determine annual trends in the wild turkey population. Two of the routes are 10 miles in length and one is 13 miles in length. Counts are made at half-mile intervals for three minutes at each stop. Each route is surveyed at least twice annually in late April - early May just prior to the spring hunting season for gobblers only.

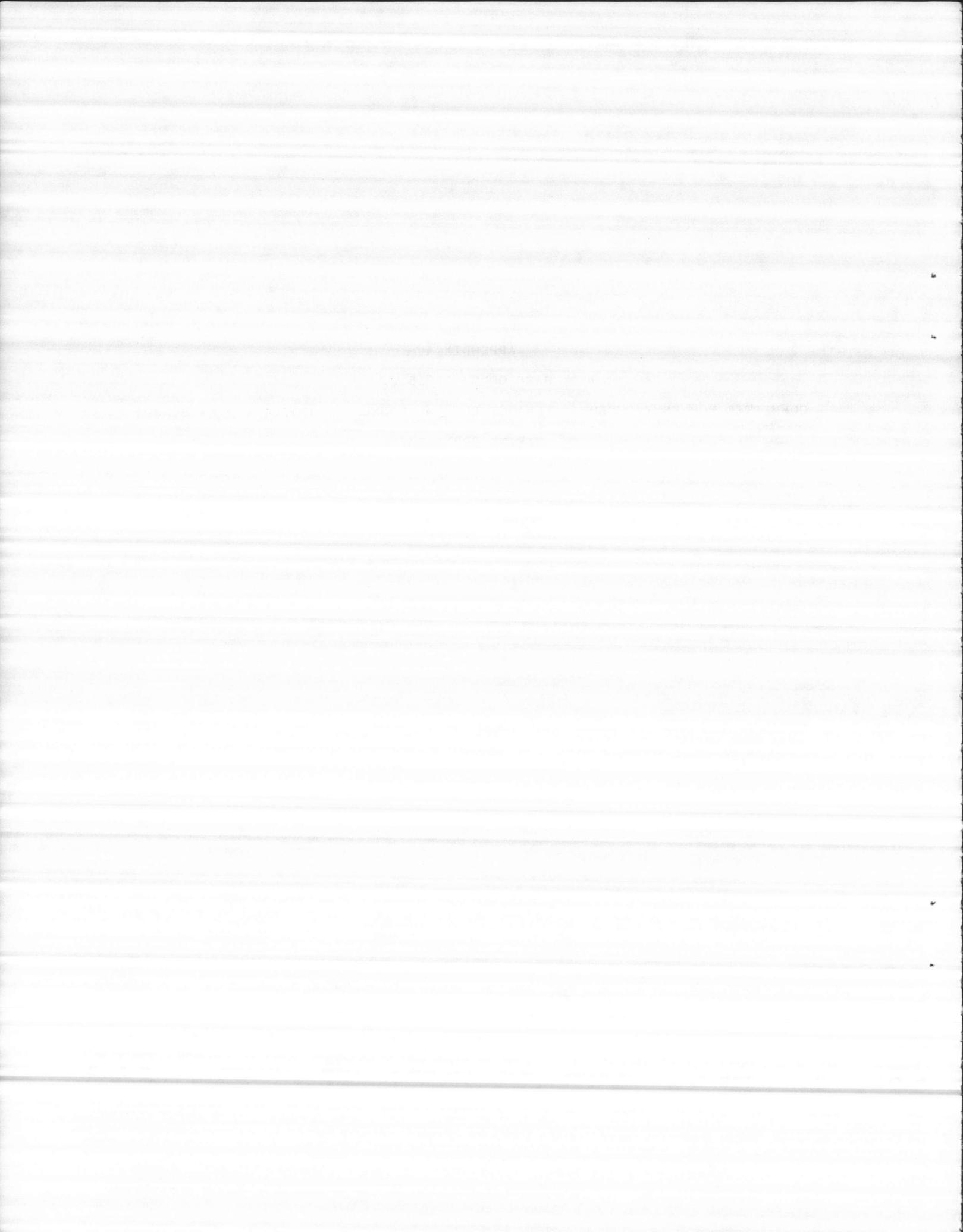
10. Maintenance of marked endangered Red-Cockaded Woodpecker habitat was conducted which consisted of replacing boundary signs and posts as required.

11. Monitored the alligator population through mid-summer surveys along the tributaries of the New River watershed.

APPENDIX A

BASE ORDER 11015.2G

COMMITTEE FOR ENVIRONMENTAL ENHANCEMENT/ENVIRONMENTAL IMPACT REVIEW BOARD,  
MARINE CORPS BASE





UNITED STATES MARINE CORPS  
Marine Corps Base  
Camp Lejeune, North Carolina 28542

BO 11015.2G  
MAIN/DDS/th  
09 JUN 1981

BASE ORDER 11015.2G

From: Commanding General  
To: Distribution List

Subj: Committee for Environmental Enhancement/Environmental Impact Review Board, Marine Corps Base, Camp Lejeune, North Carolina

Ref: (a) MCO P11000.8A (NOTAL)

1. Purpose. To establish a Committee for Environmental Enhancement/Environmental Impact Review Board to advise and assist the Commanding General in the implementation of the provisions of reference (a) with respect to conservation and management of natural resources and the processing of environmental assessments/statements.

2. Cancellation. BO 11015.2F.

3. Policy. It is the continuing policy of the Commanding General to restore, improve and preserve the natural resources and the environmental quality of the land and waters of this base to the maximum extent possible in the public, as well as the military interest; to encourage and give incentive to natural resource activities of the base; and to provide, within manageable quotas, for controlled public access to the fish and wildlife resources of the base on a first-come, first-served basis, when such can be accomplished without impairment of the military mission. For the purpose of this Order, the term "base" includes Marine Corps Air Station (Helicopter), New River.

4. Membership. The Committee for Environmental Enhancement/Environmental Impact Review Board shall be composed of the following:

a. Members

Chairman (As appointed by the Commanding General, MCB)  
Base Training Facilities Officer  
Representative, 2d Marine Division, FMF  
Representative, 2d Force Service Support Group (Rein), FMFLANT  
Representative, Marine Corps Air Station (H), New River  
Base Maintenance Officer  
Public Works Officer

b. Advisors

Director, Natural Resources and Environmental Affairs Division  
Supervisory Ecologist  
Base Wildlife Manager  
Base Forester  
Base Safety Officer  
Base Game Protector  
Chief, Veterinary Medicine Service, Naval Regional Medical Center  
Chief, Occupational and Preventive Medicine Service, Naval Regional Medical Center  
Representative, Staff Judge Advocate  
Defense Property Disposal Officer

5. Organization and Meetings

a. The Committee/Board will meet as desired by the Chairman.

b. Only the seven members of the Committee/Board need attend regular meetings; however, advisors to the Committee/Board may be requested by the Chairman to attend specific meetings when the agenda indicates a requirement for their expertise on a particular subject.

c. Advisors are invited and urged to attend any meetings whether or not specifically invited.

d. Sub-committees may be established by the Chairman utilizing members and/or advisors, as required.

6. Responsibilities

a. The Committee in General

(1) Assumes responsibility for planning and the balanced application of the natural resources program.

(2) Promotes and fosters the Presidential objectives for environmental enhancement on base and in cooperation with local communities.

(3) Informs the Commanding General of the broad environmental guidance and responsibilities prescribed by the National Environmental Policy Act.

(4) Receives and reviews environmental assessments and determines if the potential for environmental damage or controversy exists. If adverse environmental impact or controversy exists, makes appropriate recommendation for additional action to the Commanding General, Marine Corps Base.

b. Chairman

(1) Recommends policies and programs pertaining to natural resources and environmental quality to the Commanding General.

(2) Ensures the integration of the philosophies, principles and policies of reference (a).

(3) Ensures that the base natural resources conservation and environmental programs are conducted in such a manner that they compete on an equal basis with other similar military installations for the Secretary of Defense Conservation Award and Environmental Quality Award.

(4) Provides command liaison with and establishes procedures for scheduling and conducting frequent meetings between representatives of federal, state and county fish and wildlife agencies and officially chartered conservation organizations. Takes the initiative to seek assistance from and work effectively and in harmony with state and federal agencies and/or organizations.

(5) Ensures, when feasible, that local sportsmen groups are invited to sit in meetings of the Committee for Environmental Enhancement as guests. The importance of establishing, maintaining and improving base-community relations cannot be overemphasized.

(6) Continues to monitor the current Marine Corps Base, North Carolina State and Federal Cooperative Plan in accordance with paragraph 2006.2b of reference (a).

(7) Reviews recommendations regarding organized deer hunts and makes appropriate recommendations to the Commanding General.

(8) Reviews minutes of both Camp Lejeune and the New River Rod and Gun Clubs.

(9) Ensures the records, minutes, files and other pertinent documents of the Committee/Board are properly maintained.

(10) Provides a recording secretary at Committee meetings, prepares minutes, and maintains an office of records for Committee correspondence.

c. Director, Natural Resources and Environmental Affairs Division, Base Maintenance Department

(1) Advises and assists the Chairman of the Committee for Environmental Enhancement/Environmental Impact Review Board in the administration of the Committee.

(2) Assists the Chairman in the coordination, monitoring and supervision of the overall conservation effort.

d. Command Representatives. Represent their parent organization in the Committee's deliberations and programs.

e. Presidents, Rod and Gun Clubs

(1) Coordinates Rod and Gun Club activities with interested members of the Committee/Board.

(2) Provides the Chairman with a copy of the minutes of all meetings held by the Rod and Gun Club.

f. All Members and Advisors. All members and advisors on the Committee/Board will coordinate and provide assistance to the Chairman and the Committee/Board as appropriate on matters in their specific areas of interest, to include but not necessarily limited to:

(1) Attendance at meetings upon call of the Chairman.

(2) Assemble and submit materials (news media articles, pictures, documentation, etc.) and provide other assistance as required in preparation of the Annual Conservation Nomination Award and Environmental Quality Award.

(3) Development of conservation programs, procedures and policy to improve the overall environmental enhancement effort at Camp Lejeune.

(4) Other duties on request of the Chairman.

7. Reports. A report (minutes) of all Committee meetings will be submitted to the Commanding General.

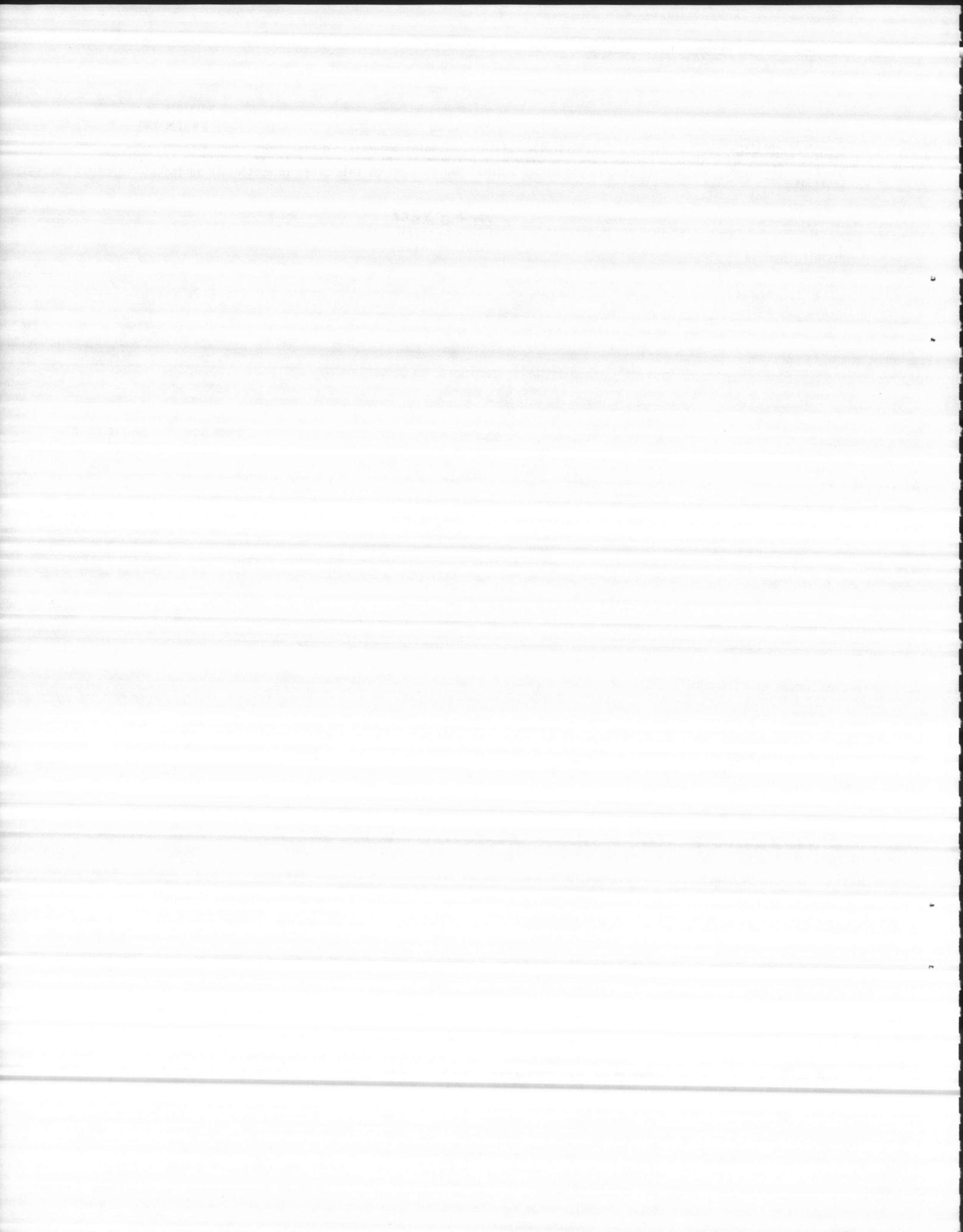
BO 11015.2G

09 JUN 1981

8. Applicability. Having received the concurrence of the Commanding Generals, 2d Marine Division, FMF; 2d Force Service Support Group (Rein), FMFLANT; and the Commanding Officers of the Marine Corps Air Station (Helicopter), New River; Naval Regional Dental Center; and Naval Regional Medical Center, this Order is applicable to those Commands.

*J. R. Fridell*  
J. R. FRIDELL  
Chief of Staff

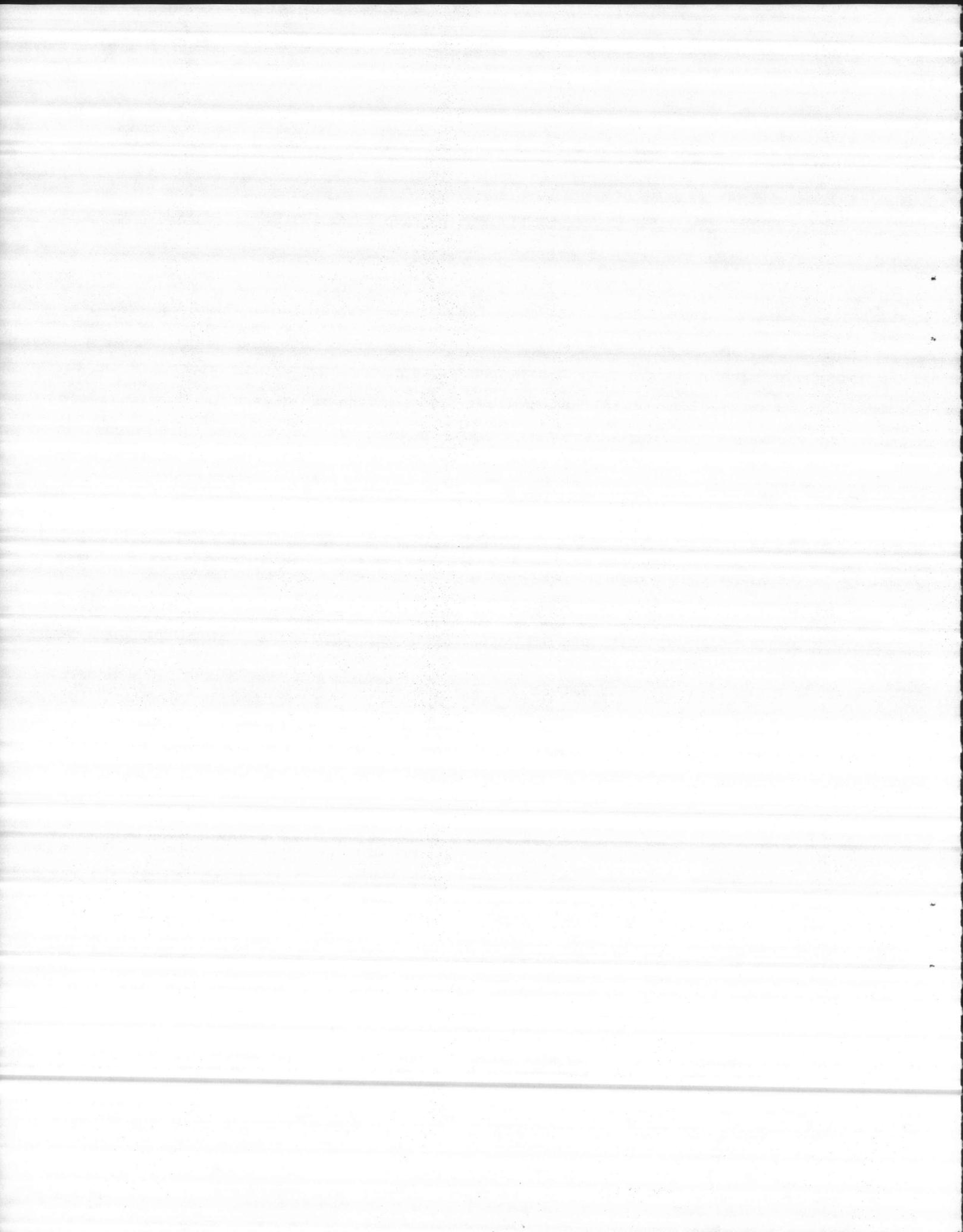
DISTRIBUTION: A



APPENDIX B

BASE ORDER 6240.5

HAZARDOUS MATERIAL DISPOSAL PROGRAM





7

UNITED STATES MARINE CORPS  
MARINE CORPS BASE  
CAMP LEJEUNE, NORTH CAROLINA 28542

BO 6240.5  
MAIN/DDS/th  
22 Jun 1982

BASE ORDER 6240.5

From: Commanding General  
To: Distribution List

Subj: Hazardous Material Disposal Program

Ref: (a) Resource Conservation and Recovery Act (Pub No. 94-580) (42 USC 6901-6987) (NOTAL)  
(b) Environmental Protection Agency Regulations contained in Code of Federal Regulations, Title: 40 Parts 260-265 (NOTAL)  
(c) Dept of Transportation Regulations contained in Code of Federal Regulations, Title: 49 Parts 100-179 (NOTAL)  
(d) MCO 4570.24A (NOTAL)  
(e) MCO P11000.RA  
(f) BO 11090.1B  
(g) BO 11350.2  
(h) MCO 5100.25  
(i) BO 11320.1G  
(j) AS(H)O 6280.1 (NOTAL)

Encl: (1) Hazardous Waste Labeling Instructions  
(2) Hazardous Material Disposal Procedures

1. Purpose. To publish responsibilities for disposal of hazardous material and hazardous waste regulated by references (a), (b) and (c) and to establish uniform disposal procedures as outlined in enclosures (1) and (2).

2. Policy. It is the policy of the Commanding General that compliance with hazardous material and hazardous waste disposal regulations will be accomplished through a centralized program committed to maximizing re-utilization and recycling so as to minimize impact on the environment. Final disposal (i.e., burial, incineration, etc.) and long term storage (i.e. for over 90 days) of hazardous waste are prohibited aboard Camp Lejeune and Marine Corps Air Station (Helicopter), New River, except with the specific written permission of the Commanding General, Marine Corps Base.

3. Background

a. On 19 November 1980, comprehensive federal legislation (reference (a)), which was implemented by reference (b), placed stringent legal requirements on the management of hazardous material and hazardous waste. Civilian and military personnel failing to follow established procedures may be subject to both civil and criminal penalties. Violations of these procedures may consist of acts of commission, such as mishandling hazardous material as well as acts of omission, such as failing to report to proper authorities observed mishandling of hazardous material or other violations of reference (a). Strict adherence to the procedures contained in this Order is necessary to avoid imposition of civil and/or criminal penalties.

b. Subpart D of Part 261 of reference (b) lists specific items which generally must be disposed of as hazardous waste. Enclosure (1) identifies types of waste commonly generated aboard military installations which are listed in Subpart D of reference (b).

c. Department of Defense (DOD) and Marine Corps policy related to the subject program is outlined in references (d) and (e). Reference (f) provides installation policy and guidelines for hazardous substance spill prevention, containment, reporting and cleanup. Reference (g) identifies the types of solid waste which can be disposed of in the base refuse collection and disposal system. Reference (h) outlines DOD and Marine Corps policy on the collection and dissemination of health and safety information related to the procurement, receipt, storage, handling, issue, transportation, use and disposal of hazardous materials. Reference (i) provides information relative to local fire prevention and protection requirements applicable to hazardous material storage and handling. Reference (j) established procedures for hazardous waste management applicable to Commands located at Marine Corps Air Station (Helicopter) (MCAS(H)), New River.

4. Responsibilities

a. Organizational Commanders will:

(1) Implement procedures and guidelines established by this Order for hazardous material and waste disposal and related handling, labeling, packaging, storage and transportation.

(2) Maintain copies of this Order and reference (f) at work sites where hazardous material and waste are routinely handled, stored or generated and ensure that personnel are familiar with the contents thereof.

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(3) Inform newly assigned personnel of the characteristics and special handling requirements of hazardous material and waste used or generated at the work site.

(4) Report all hazardous material and hazardous waste spills to the Base Fire Department at telephone 451-3333. Commands at MCAS(H), New River will additionally report all spills at Station S-4 Office, telephone 455-6506/6068. Reference (f) pertains.

(5) Provide weekly inspections of all areas used to store hazardous waste and take action required to prevent and correct leaks, spills and other discrepancies. Maintain a log of these inspections showing the following:

- (a) Date and time of the inspection
- (b) Name(s) of the inspector(s)
- (c) Notation of discrepancies observed
- (d) Date and nature of corrective action taken.

Note: Reference (b) requires inspection records to be retained for three years.

b. Officer in Charge of Preservation, Packaging and Packing (PP&P) will:

(1) Upon request from Hazardous Material Disposal Coordinators inspect hazardous material and/or waste requiring disposal and provide such technical assistance and material support as required to package material and waste for disposal.

(2) Make appropriate transportation certifications as required by the Department of Transportation and the Environmental Protection Agency.

c. Defense Property Disposal Officer (DPDO), Camp Lejeune will:

(1) Accomplish disposal and related long-term storage of hazardous material and waste in accordance with reference (b) and applicable DOD regulations.

(2) Determine which items generated aboard this installation will be disposed of as hazardous waste (either on a case-by-case basis or by publishing listings of specific items).

(3) Publish DPDO procedural and administrative requirements for turn-in of hazardous material and hazardous waste.

(4) Notify cognizant officers of changes in DPDO policy which would affect implementation of the subject program.

(5) Maintain records of DPDO hazardous material and waste disposal activity in accordance with reference (b).

(6) Inspect hazardous material and waste for which DPDO has accepted accountability and take action required to correct deficiencies as required for compliance with reference (b).

d. Assistant Chief of Staff, Manpower will: Develop and implement a program to provide training and related recordkeeping required by reference (b).

e. Base Safety Officer will:

(1) Provide technical assistance on matters dealing with personnel safety related to hazardous material and waste management.

(2) Include hazardous material and waste disposal considerations in routine safety inspection programs.

f. Assistant Chief of Staff, Logistics will:

(1) Develop and implement a hazardous waste manifesting system and related recordkeeping system required by references (b) and (c).

(2) Prepare the following reports for Marine Corps Base, Camp Lejeune, for submission to the appropriate regulatory agency(ies)

(a) Hazardous Waste Generator's Annual Report and Exception Report as required by Section 262.4 of reference (b).

(b) Facility Annual Report and Unmanifested Waste Reports required by Section 264.7 of reference (b).

(3) Serve as point of contact between Marine Corps Base and DPDO on matters dealing with hazardous material and waste disposal and related storage and handling.

(4) Negotiate necessary agreements between Marine Corps Base and DPDO on matters dealing with hazardous material and waste disposal and related storage and handling.

(5) Provide properly equipped vehicles and trained operators for transportation of hazardous waste (when private contractor is utilized, ensure that the transporter is properly registered with the Environmental Protection Agency).

(6) Assume overall responsibility for operating long-term hazardous waste storage facility at Building TP-451 in accordance with standards contained in Part 265 of reference (b) until such time as the DPDO assumes this responsibility.

(7) Provide a hazardous material disposal coordinator to perform duties outlined in paragraph 4K of this Order with respect to disposal of hazardous material/waste by Marine Corps Base organizations.

g. Assistant Chief of Staff, Facilities will:

(1) Inform cognizant officers of federal, state and military environmental regulations and policies applicable to the subject program.

(2) Provide environmental monitoring and related followup of existing and past hazardous waste storage or disposal sites as required by reference (b).

(3) Initiate projects to provide required hazardous material spill prevention, control and countermeasures facilities.

h. Public Works Officer will:

(1) Provide engineering support and related technical assistance pertaining to hazardous material and hazardous waste storage and handling facilities.

(2) Include hazardous material and waste disposal and related management considerations in contracts as required to effect compliance with references (a) through (d).

(3) Enter pollution abatement deficiencies into the Naval Environmental Protection Support Service (NEPSS) information system and develop appropriate pollution abatement projects in accordance with reference (e).

i. Base Fire Chief will:

(1) Provide routine inspection of hazardous material and waste storage areas as required to identify spill and fire hazards.

(2) Provide initial response to hazardous material spills in accordance with reference (f).

j. Base Maintenance Officer will:

(1) Monitor ongoing activities as required to identify, evaluate and provide up-channel reporting of environmental deficiencies related to the subject program.

(2) Provide laboratory support required for identification of hazardous material and waste.

(3) Provide point of contact with federal and state regulatory agencies on environmental matters pertaining to the subject program.

(4) Upon request, provide on-site technical assistance as required to enable Organizational Commanders to evaluate compliance with this Order and applicable environmental regulations.

k. Hazardous Material Disposal Coordinator (HMDC) will:

(1) Ensure Command compliance with the procedures in enclosure (2).

(2) Inform organizations within the HMDC's cognizance of changes in hazardous material/waste storage handling and disposal procedures.

(3) Identify training requirements for personnel within the HMDC's cognizance routinely handling hazardous material or waste.

5. Action

a. Major Commands (i.e., MCAS(H), New River; 2d Marine Division, Naval Regional Medical Center, Naval Regional Dental Center and 2d Force Service Support Group) will:

(1) Designate a Hazardous Material Disposal Coordinator to serve as point of contact on matters related to implementation of this Order.

(2) Monitor all aspects of this disposal program internal to their Command to ensure compliance with this Order.

b. Battalion/Aircraft Group/Separate Company Commanders 2d Marine Division, 2d Force Service Support Group and Marine Corps Air Station (H). New River will:

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(1) Ensure that organizations within their cognizance comply with requirements of paragraph 4a(1)-(5) of this Order.

(2) Implement inspection and recordkeeping requirements of paragraph 4a(5) of this Order for organizations within their cognizance.

c. Commanders procuring hazardous material outside the Federal Supply System will: require the manufacturer/distributor to provide the information shown on enclosure (2) of reference (h) and will furnish a copy of the information to the Base Safety Officer and Air Station Safety Manager.

6. Applicability. Having received the concurrence of the Commanding Generals, 2d Marine Division, FMF; 2d Force Service Support Group, (Rein), FMFLANT; 2d Marine Aircraft Wing, FMF, Atlantic and the Commanding Officers of the Marine Corps Air Station (Helicopter), New River and tenant units; Naval Regional Medical Center and Naval Regional Dental Center, this Order is applicable to those Commands.

  
J. R. FRIDELL  
Chief of Staff

DISTRIBUTION: A  
BMAINO (100)

HAZARDOUS WASTE LABELING INSTRUCTIONS

(See Note #1)

<b>HAZARDOUS WASTE</b>	
FEDERAL LAW PROHIBITS IMPROPER DISPOSAL	
IF FOUND, CONTACT THE BASE FIRE DEPARTMENT AT 451-3333. OR THE NEAREST POLICE, OR PUBLIC SAFETY AUTHORITY, OR THE US ENVIRONMENTAL PROTECTION AGENCY	
PROPER D.O.T. SHIPPING NAME <u>See Note #2</u>	UN OR NA# _____
GENERATOR INFORMATION: NAME: MARINE CORPS BASE, CAMP LEJEUNE, NORTH CAROLINA 28542. EPA ID NO. NC6170022580	
NAME OF SUBUNIT GENERATING WASTE: _____	
ACCUMULATION START DATE <u>See Note #3</u>	EPA WASTE NO. (Leave Blank) MANIFEST DOCUMENT NO. (Leave Blank)
<b>HANDLE WITH CARE!</b> CONTAINS HAZARDOUS OR TOXIC WASTES	

Note #1: The depicted label shall be put on all hazardous waste storage containers used on board Marine Corps Base. Organizations on board MCAS(H), New River will use labels provided by Air Station S-4 Office. See next page for examples of hazardous wastes.

Note #2: If known, insert name and UN or NA# listed in 49CFR Part 172, otherwise enter NSN and common/trade name used locally to identify item.

Note #3: Insert the date that filling of container begins. This date must be entered prior to use of container.

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List of Pre-Determined Hazardous Waste (See Notes #1 and #3)

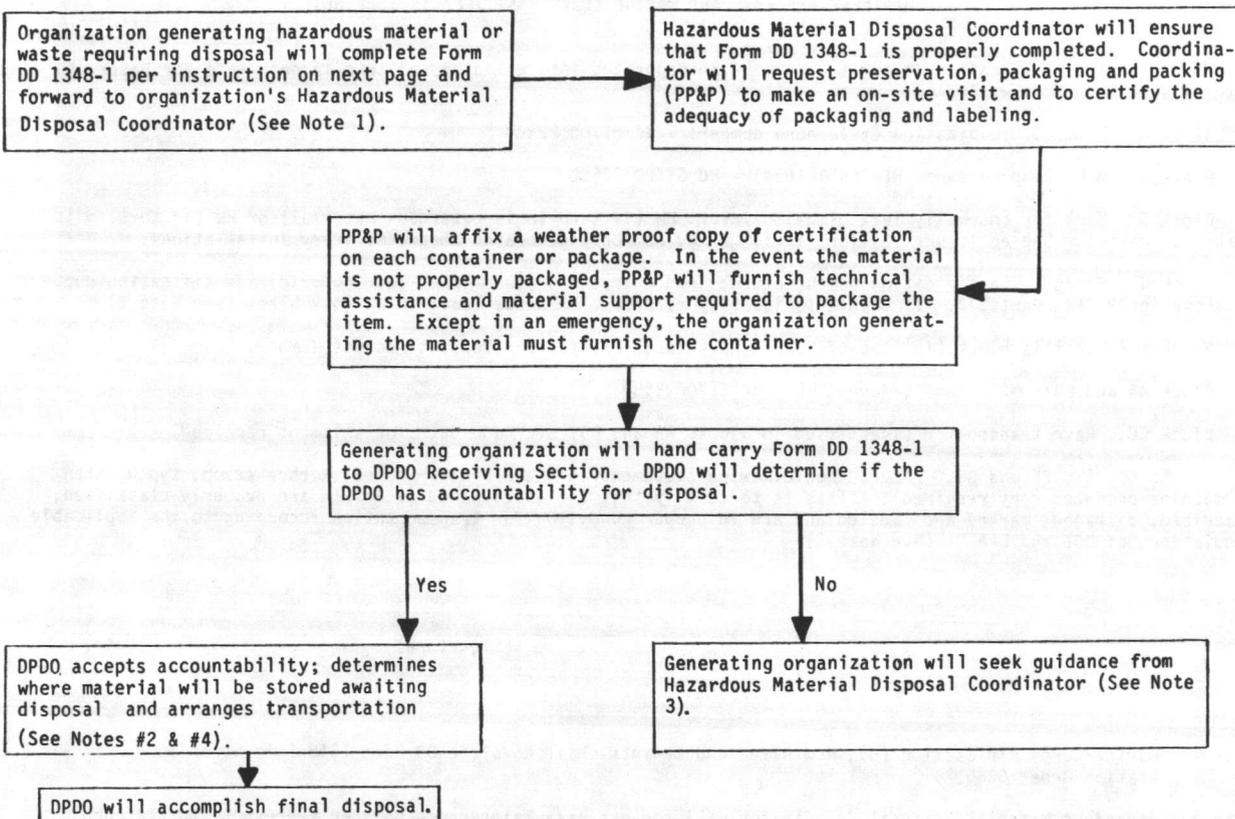
1. The following spent halogenated solvents used in degreasing: tetrachloroethylene, trichloroethylene, methylene chloride, 1, 1, 1-trichloroethane, carbon tetrachloride and chlorinated fluorocarbons.
2. The following spent halogenated solvents: tetrachloroethylene, methylene chloride, trichloroethylene, 1,1, 1-trichloroethane, chlorobenzene, 1, 1, 2-trichloro-1, 2, 2-trifluoroethane, ortho-dichlorobenzene and trichlorofluoromethane.
3. The following spent non-halogenated solvents: xylene, acetone, ethyl acetate, ethyl benzene, ethyl ether, methyl isobutyl ketone, n-butyl alcohol, cyclohexanone and methanol.
4. The following spent non-halogenated solvents: cresols and cresylic acid and nitrobenzene.
5. The following spent non-halogenated solvents: toluene, methyl ethyl ketone, carbon disulfide, isobutanol and pyridine.
6. Spent cyanide plating bath solutions from electroplating operations (except for precious metals electroplating spent cyanide plating bath solutions. See Note #2).
7. Spent stripping and cleaning bath solutions from electroplating operations where cyanides are used in the process (except for precious metals electroplating spent stripping and cleaning bath solutions. See Note #2).
8. Spent cyanide bath solutions from mineral metals recovery operations.

Note #1: This is a partial listing and is subject to change. Discarding these items into waste oil collection tanks is prohibited.

Note #2: These solutions and sludges are turned in for processing under the Precious Metals Recovery Program and should be turned in as HM.

Note #3: Waste contained in this listing is limited to those items specifically identified in subpart D of part 261 of reference (b). The local Defense Property Disposal Officer is responsible for identifying items which although not specifically identified by reference (b), must be disposed of as hazardous waste.

HAZARDOUS MATERIAL DISPOSAL PROCEDURES



- Note 1: Organization having physical custody of material awaiting disposal will conduct weekly inspections in accordance with paragraph 4(a)(5) of this Order, if the item is hazardous waste.
- Note 2: If an item to be transported is a hazardous waste subject to RCRA, the Traffic Management Officer will transport. A North Carolina Hazardous Waste Shipping Manifest prepared prior to transporting, will be attached to DD-1348-1 and will be carried by driver of vehicle used to transport waste.
- Note 3: These items will be disposed of on a case by case basis utilizing procedures developed in accordance with applicable regulations. Assistant Chief of Staff, Facilities, Marine Corps Base, will coordinate development of appropriate procedures.
- Note 4: The material will not be moved without prior concurrence of DPDO unless required by an emergency, in which case, DPDO will be informed as soon as possible.

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INSTRUCTIONS FOR COMPLETING DD FORM 1348-1 BY  
MARINE CORPS BASE AND MARINE CORPS BASE TENANTS (SEE NOTE 1)

The following modifications/changes are to be incorporated into all disposal turn-in documents for hazardous materials or hazardous waste.

Block A - Name of Organization (telephone number) - NC 61700 22580

Block B - MCB, Camp Lejeune, NC (451-1634) - NC 61700 22580

Block C - Mark for (normally left blank): Insert HM (if turn-in is hazardous material) or HW (if turn-in is hazardous waste). See enclosure (1) for listing of HW commonly generated aboard military installations.

Block U - Freight Classification nomenclature: Add characters (two alpha, four numeric) identification number as shown in 49 CFR, Part 172. If unable to identify material or waste leave this block blank (See Note 2).

Block Y - Use this block (in lieu of Blocks AA through EE) for the Deposit Account Number.

Block AA and BB: MCB, Camp Lejeune, NC - NC 6170022580

Block CC: Have transporter (identified in Blocks AA and BB) sign and date for shipment received)

Blocks DD, EE, FF and GG: Insert the following statement in these blocks (Note: Rubber stamp, typewritten or machine produced copy required): "This is to certify that the above named materials are properly classified, described, packaged, marked and labeled and are in proper condition for transportation according to the applicable regulations of DOT and EPA." (See Note 3).

\_\_\_\_\_  
(Signature)

\_\_\_\_\_  
(Date)

Note 1: Marine Corps Air Station (H), New River and tenants shall complete DD Form 1348-1 in accordance with Air Station Order 6280.1.

Note 2: Hazardous Material Disposal Coordinator will request Base Maintenance Officer representative (telephone 5977) to accomplish sampling and analysis of item(s), as required, to complete Block U.

Note 3: Certification will be signed by authorized representative of generating organization. It is recommended that person signing have first hand knowledge of or supervisory responsibility for items being disposed of.



UNITED STATES MARINE CORPS  
Marine Corps Base  
Camp Lejeune, North Carolina 28542

BO 11090.1B  
MAIN/DDS/th  
28 May 1981

BASE ORDER 11090.1B

From: Commanding General  
To: Distribution List

Subj: Oil Pollution Prevention and Abatement and Oil and Other Hazardous Substances Spill Contingency Plan

Ref: (a) MCO P11000.8A  
(b) Resource Conservation and Recovery Act (RCRA) of 1976 (NOTAL)  
(c) Clean Water Act (NOTAL)  
(d) Oil Spill Prevention Control and Countermeasure Plan of 10 June 1978, Camp Lejeune, NC (NOTAL)

Encl: (1) Oil and Hazardous Material Spill Prevention, Containment, Cleanup and Disposal Guidelines  
(2) Oil and Other Hazardous Material Spill Contingency Plan

1. Purpose. To revise existing oil and other hazardous material related pollution abatement and prevention procedures for Marine Corps Base, Camp Lejeune and Marine Corps Air Station (Helicopter) (MCAS(H)), New River and to assist the Commanding General in the implementation of reference (a) with respect to pollution abatement.

2. Cancellation. BO 11090.1A.

3. Policy. It is the continuing policy of the Commanding General to actively participate in environmental pollution abatement, to take positive planning and programming action to abate and correct oil and other hazardous materials, related pollution problems and to incorporate appropriate pollution control and prevention facilities in all new construction aboard this installation. The intent of this policy is to carry out the applicable measures of references (a), (b), (c) and (d) and to prohibit the discharge of oil, oily mixtures and other hazardous substances except in designated areas by authorized personnel.

4. Responsibilities

a. Base Maintenance Officer has overall responsibility for:

(1) Maintenance of water pollution abatement facilities and the central storage and related collection and transportation of waste petroleum products.

(2) Providing personnel required for routine monitoring, surveillance, upchannel reporting and enforcement of unauthorized discharges of oil and other hazardous materials and related significant environmental problems of an ongoing nature involving the handling and disposal of petroleum products and other hazardous materials regulated by references (a), (b) and (c).

b. Commanding Officers/Area Commanders are charged with the responsibility of preventing spillage and other unauthorized discharge of oil and other hazardous materials within their own areas and will develop and implement plans and procedures which are consistent with applicable regulations and enclosures (1) and (2) for preventing, reporting, containing and cleaning up such spillage or unauthorized discharge.

c. Director, Natural Resources and Environmental Affairs Division, Base Maintenance Department or his representative will assume responsibility of On-Scene Coordinator (OSC) upon arrival at the scene of an oil or other hazardous material spill in accordance with procedures outlined in references (a) and (b) and enclosure (2).

d. Base Fire Chief or his senior representative will provide initial response and other assistance with any spill of oil or other hazardous material as outlined in enclosure (2), until a verification is made that the reported spill has occurred in an aircraft operating area aboard MCAS(H), New River. If the latter situation exists, the Base Fire Chief will provide a standby crew to assist, if the crash crew MCAS(H), New River is unable to contain the spill within the aircraft operating area.

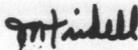
e. Crash Crew, MCAS(H), New River will develop and implement a written procedure for the initial response to and containment and cleanup of oil and other hazardous materials spills in aircraft operating areas aboard MCAS(H), New River. Procedures will be consistent with applicable regulations and enclosure (2).

5. Action. Discharge of oils or other hazardous materials on or into the grounds and streams of this installation is prohibited. Cognizant officers will take necessary action to assure compliance. Commanding Officers/Area Commanders shall conform to the standards and criteria set forth in enclosures (1) and (2).

BO 11090.1B

28 MAY 1981

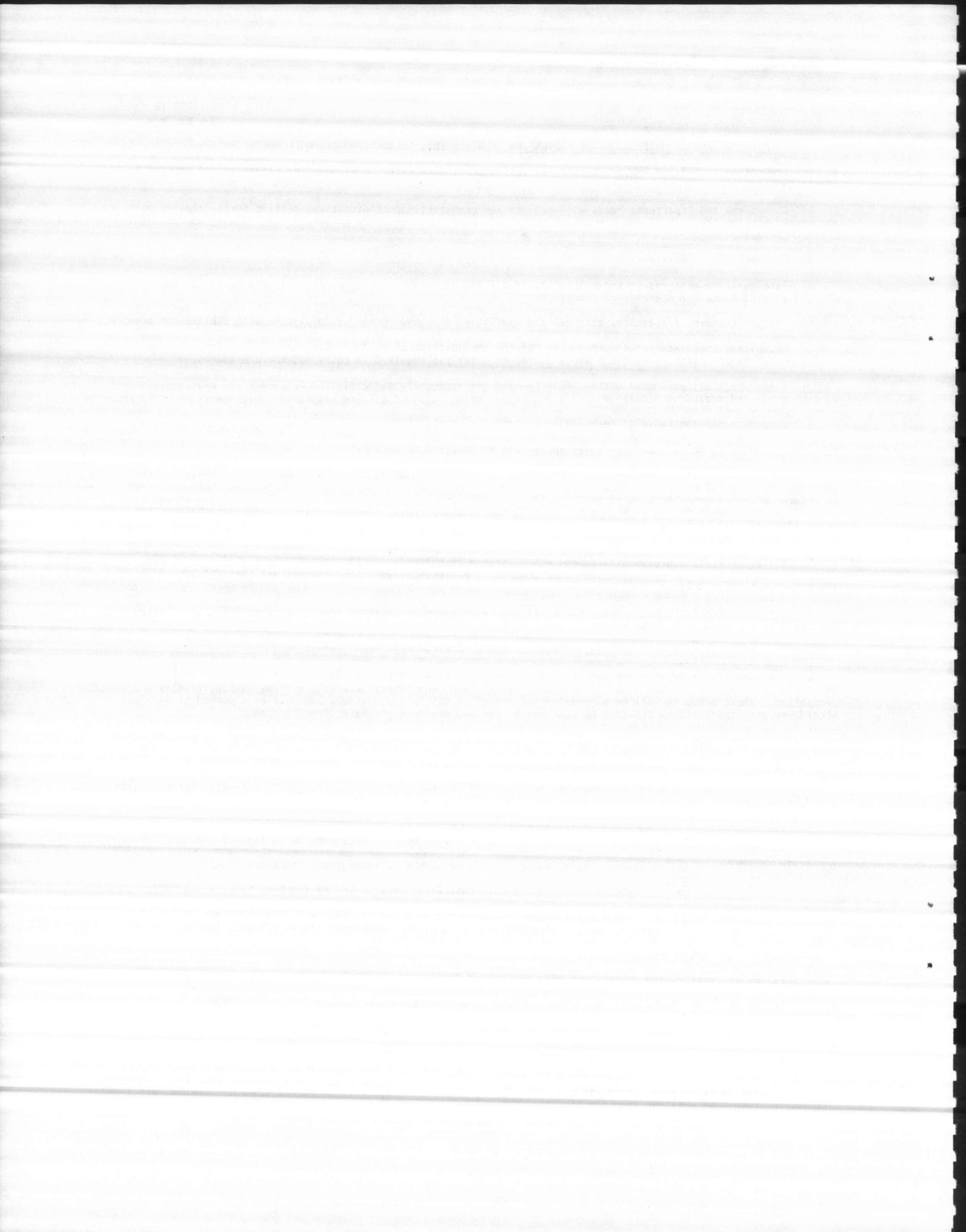
6. Applicability. Having received the concurrence of the Commanding Generals, 2d Marine Division, FMF; 2d Force Service Support Group, (Rein), FMFLANT; and the Commanding Officers of the Marine Corps Air Station (Helicopter), New River and tenant units; Naval Regional Medical Center; and Naval Regional Dental Center, this Order is applicable to those Commands.

  
J. R. FRIDELL  
Chief of Staff

DISTRIBUTION: A  
BMAINO (100)

OIL AND HAZARDOUS MATERIAL SPILL PREVENTION, CONTAINMENT, CLEANUP, AND DISPOSAL GUIDELINES

1. The prevention of oil and hazardous-material spills and the resultant environmental damage is the responsibility of all Commanders.
2. All Commanders and Department Heads will publish and prominently post directives setting forth detailed policies and procedures for the control and prevention of oil and hazardous-substance pollution specifically applicable to their organization.
3. All Commanders and Department Heads will take the following actions:
  - a. Take positive measures to prevent spills of oil and hazardous substances to include a review of the Command's maintenance and operational procedures.
  - b. Conduct frequent inspections of areas and facilities assigned to ensure compliance with published procedures.
  - c. Establish immediate action procedures for the amelioration of pollution which may result from oil and hazardous-substance spills, to include the stocking of materials required to carry out the procedures.
  - d. Ensure that all personnel within their Command are thoroughly indoctrinated regarding the environmental impact of oil and hazardous substance spills and proper disposition of oil and hazardous substances.
  - e. Encourage maximum reuse of technically contaminated fuels by multifuel-engine powered tactical vehicles.
4. The following guidelines are generally applicable to garrison operations:
  - a. Contaminated fuels which cannot be burned in tactical vehicles and other used petroleum products, except gasoline, will be collected in a tank of at least 250-gallon capacity equipped with a funnel, strainer and cover to prevent entrance into the tank of trash, water and other foreign matter. When the container requires emptying, the Officer in Charge (OIC) will notify the Base Maintenance Department (Telephone 5909). The Base Maintenance Department will dispatch a vehicle to remove the waste oil. In the event of an emergency 55-gallon drums may be used as a temporary expedient storage container for waste oil.
  - b. Waste lubrication grease will be collected, stored in suitable containers and disposed of in accordance with instructions provided by Base Maintenance Department representative. Send request via Chain of Command to the Base Maintenance Officer.
  - c. Oil-saturated soil in the vicinity of oil and petroleum storage areas should be removed to the sanitary landfill and replaced with fresh earth.
  - d. To dispose of contaminated gasoline contact the Base Fire Department (Telephone 3004).
  - e. Disposal of hazardous waste and other hazardous substances such as acids, poisons and solvents through any drainage system to include sinks, wash racks, storm drains and natural drainage systems is specifically prohibited. These products will be segregated and stored in suitable containers and will be disposed of in accordance with instructions provided by Commanding General, Marine Corps Base, Camp Lejeune.
  - f. Petroleum products containers will be disposed of at the sanitary landfill, or recycled, if appropriate, with the exception of 55-gallon drums and durable metal containers which will be disposed of through the Defense Property Disposal Officer, Building 906.
  - g. Personnel changing private owned vehicle (POV) oil on Base will use established Base Special Service facilities and deposit waste oil in one of the authorized collection tanks on Base and the Air Station.
  - h. Oil and gasoline storage containers larger than 550-gallon capacity will be diked to include a drainage line and valve which will be locked. The latter will be operated only by personnel authorized by the Unit Commander.
5. Field operations will comply with the guidance enumerated in the following subparagraphs:
  - a. All tactical refueling systems installed on Base must first be approved by the Base Maintenance Officer.
  - b. Fuel stored in tactical refueling systems will be properly diked, as required by current regulations. As a general rule, the dike must be capable of containing at least the volume of the container stored within it.
  - c. When using fuel tanker vehicles:
    - (1) Hoses, nozzles and connections will be checked frequently for serviceability to avoid leakage of fuel.
    - (2) Refueler operators will stay with the vehicle during refueling operations.
    - (3) Tanker vehicles containing fuel will be parked in such a manner as to avoid the possibility of spilled fuel entering natural or man-made drainage systems.
    - (4) During recirculation operations, nozzles will be secured to the vehicle.
    - (5) All waste petroleum products generated during field exercises will be stored (55-gallon drums, etc.) and disposal instructions obtained from the Director, Natural Resources Division, Base Maintenance Department (451-5003).



BO 11090.1B

88 MAY 1981

OIL AND OTHER HAZARDOUS MATERIAL SPILL CONTINGENCY PLAN

FOR

MARINE CORPS BASE, CAMP LEJEUNE, NORTH CAROLINA  
MARINE CORPS AIR STATION (HELICOPTER), NEW RIVER, JACKSONVILLE, NORTH CAROLINA  
MARINE CORPS HELICOPTER OUTLYING FIELD, OAK GROVE, JONES COUNTY, NORTH CAROLINA

PREPARED

OCTOBER 1980

ENCLOSURE (2)

88 MAY 1981

1. Reporting Spills of Oil and Other Hazardous Substances

a. Materials Classification - The following products are examples of oil compounds or hazardous substances which must be reported if spilled on the ground or water in any amount:

Lube Oils	JP-4 & JP-5 Fuels	Paint Thinner	No. 6 Fuel Oil
Gasoline	Hydraulic Fluid	Organic Solvents	
Kerosene	Acids	Cleaning Solutions	
Lube Grease	No. 2 Fuel Oil	Poisonous Chemicals	

b. Reporting Procedures - All spills of oil or hazardous materials shall be reported immediately to the Base Fire Department Phone 3333 (on base) or 451-3333 (off base). The report shall include location (Building Number) of spill, substance spilled and the approximate amount. All spills occurring at Marine Corps Air Station (Helicopter), New River will also be reported to the Station S-4 (455-6068 - 455-6518) during normal working hours and to the Station Officer of the Day after normal working hours (455-6111).

c. Posting of Oil Spill Procedure - Signs shall be posted in every building, tank location and field service location where oil or hazardous materials are used. The sign shall have a yellow background with black lettering indicating the following information:

IN CASE OF AN OIL OR HAZARDOUS MATERIAL SPILL  
CALL BASE FIRE DEPARTMENT  
ON BASE 3333/OFF BASE 451-3333  
NOTIFY YOUR COMMANDER/SUPERVISOR IMMEDIATELY

d. Initial Containment Procedure - Remain in area - - Do Not Wash Down With Water - - Keep Personnel Out of the Area - - Block Runoff with Earth Materials to Prevent Spreading, when possible.

2. Response to Spill

a. Fire Department - Fire Department shall dispatch a regular fire fighting unit to the scene of a reported spill. The Base Fire Chief or his senior representative shall report to the scene as soon as possible. Dispatcher will immediately notify the Base Fire Chief or his senior representative who will perform the following duties:

- (1) Assume the role of On-Scene Coordinator (OSC).
- (2) Take all necessary immediate steps to contain the spill, eliminate any fire hazards and protect all personnel from exposure and request the assistance of the Base Safety Officer, if required (See page 4, Enclosure (2)).
- (3) Notify the Natural Resources and Environmental Affairs Director (Telephone 5003) of the spill location and the nature and quantity of spilled materials.
- (4) Evaluate the spill situation and request necessary logistical support from the Base Maintenance Officer to contain the spill and facilitate the cleanup and recovery of the spilled materials.
- (5) OSC duties shall transfer to the Director, Natural Resources and Environmental Affairs upon his arrival at the scene. (See page 4, Enclosure (2) for Personnel and Public Safety Coordination).

## b. Base Maintenance Officer

- (1) Base Maintenance Officer shall maintain the inventory of materials and equipment as established in Appendix A of enclosure (2).
- (2) Base Maintenance personnel shall respond immediately to the request of the OSC with men and equipment requested.

(a) Direct supervision shall be from the OSC.

(b) Maintenance personnel shall remain at the spill scene until authorized to depart by the OSC.

## c. Natural Resources and Environmental Affairs Division

(1) The Director or his authorized representative shall proceed to the scene and assume the duties of the OSC. The duties shall include the following categories:

(a) Direct all containment and cleanup activities.

(b) Report oil spills that discharge into the inland waters or coastal waters to the following: Base Maintenance Officer; Assistant Chief of Staff, Facilities, Marine Corps Base; Marine Safety Officer, U. S. Coast Guard, Wilmington, North Carolina and the Environmental Regulatory Agencies, as required.

(c) Request U. S. Coast Guard assistance for spills into waters that cannot be contained promptly by joint efforts of the Fire Department and Base Maintenance crews.

APPENDIX C

BASE ORDER 11090.1B

OIL POLLUTION PREVENTION AND ABATEMENT AND OIL AND OTHER HAZARDOUS SUBSTANCES

SPILL CONTINGENCY PLAN



APPENDIX D

BASE ORDER 11000.1B

ENVIRONMENTAL CONSIDERATIONS IN MARINE CORPS ACTIONS, CAMP LEJEUNE





UNITED STATES MARINE CORPS  
Marine Corps Base  
Camp Lejeune, North Carolina 28542

BO 11000.1B  
FAC/DDS/el  
1 May 1984

BASE ORDER 11000.1B

From: Commanding General  
To: Distribution List

Subj: Environmental Considerations in Marine Corps Actions; Camp Lejeune

Ref: (a) MCO P11000.8B  
(b) MCO 6280.5  
(c) BO 11015.2G  
(d) BO P11102.1J

Encl: (1) Request for Environmental Impact Review; format and procedures for submission of

1. Purpose. To revise procedures and responsibilities for environmental planning and environmental impact assessment, as required to implement references (a) and (b).

2. Cancellation. BO 11000.1A.

3. Policy. It is the continuing policy of the Commanding General that locally sponsored and/or approved actions shall be planned, programmed and implemented with adequate consideration of the action's impact on the natural environment and shall provide appropriate means and measures to avoid or minimize adverse effects upon the quality of the environment.

4. Background

a. The National Environmental Policy Act (NEPA) requires Federal agencies to use all practicable means and measures to conduct their respective missions in concert with the environment. Reference (a) outlines the Marine Corps' natural resources and environmental management and protection program. Reference (b) provides specific guidance for implementation of NEPA regulations.

b. Reference (a) assigned responsibility for providing environmental and natural resource management staff to Marine Corps Base. Reference (c) established procedures for coordination of environmental and natural resource enhancement and protection activities by commands aboard the Camp Lejeune complex.

c. Previous procedures used aboard the installation for review of projects/actions for environmental impact in accordance with NEPA requirements have required local commanders to evaluate their proposed actions against numerous environmental requirements. The revised procedures contained in this Order will reduce the work required by commanders through the use of the environmental, engineering and other technical personnel on the base staff. However, commanders unless otherwise provided herein, have responsibility for initiating the environmental review procedures contained in the enclosure prior to implementing any action subject to this Order.

5. Definitions. Reference (b) defines commonly used terms relative to NEPA required environmental impact assessment. The following terms are applicable to the requirements placed on commanders by this Order:

a. Action. An action includes, but is not limited to, the following:

(1) Major military training exercises with potential for environmental impacts.

(2) Maintenance and construction projects, programs and continuing actions, including the use and/or modification of real property for which environmental permits are required.

(3) Policies, regulations, instructions manuals or major policy statements.

(4) Recommendations or reports relating to legislation including those for appropriation.

An action does not include routine, recurrent training activities approved by Assistant Chief of Staff, Training in accordance with reference (d).

b. Action Sponsor. That individual or organization proposing an action.

c. Preliminary Environmental Assessment (PEA). The initial, internal Department of the Navy recorded process which identifies and evaluates any impact on the environment by a proposed action. The PEA document will consist of the enclosure plus a concise summary of comments and findings resulting from the review of the action in accordance with the review process described in attachment (a) of the enclosure. Each PEA document will contain a statement (determination) regarding whether or not further environmental review is required by reference (b).

## 6. Responsibilities

a. Action Sponsors will:

(1) Prepare and submit the enclosure for all actions under their cognizance subject to this Order.

(2) Implement environmental protection measures identified during the review of their actions in accordance with this Order.

b. Assistant Chief of Staff, Training will:

(1) Ensure that requirements of this Order for submission of the enclosure have been satisfied for all military training actions aboard the Camp Lejeune Complex.

(2) Act as action sponsor for any action subject to this Order related to the development, modification and maintenance of military training facilities within the Camp Lejeune Complex.

(3) Monitor the implementation of environmental protection measures during training exercises and initiate action to correct discrepancies related thereto.

(4) Revise and update reference (d) and other Base training regulations, as required, to implement environmental protection measures.

c. Assistant Chief of Staff, Facilities will:

(1) Serve as Chairman of the Base Environmental Impact Review Board established in accordance with reference (c).

(2) Unless otherwise specified, provide a Command representative to attend routine meetings of local, state and Federal land use and environmental regulatory boards, commissions, advisory groups and agencies.

(3) Coordinate the review and processing of environmental impact assessments of actions subject to this Order and reference (b) and prepare and maintain official files of PEA documentation.

(4) Coordinate the preparation and submission of Environmental Assessments and other higher level environmental impact assessment to HQMC in accordance with reference (b).

(5) Except as provided in 6b(2) above, serve as action sponsor for military construction projects and maintenance projects requiring HQMC approval.

(6) Monitor and provide technical assistance on environmental matters related to the preparation and updating of Base Master Plan.

(7) Monitor implementation of actions as required to ensure environmental protection measures and considerations identified during implementation of this Order are properly carried out.

(2) The Natural Resources and Environmental Affairs Division Director or his representative shall remain at the scene of the spill until all contaminant is properly contained and the danger of oil contamination of waterways is eliminated.

(3) At the conclusion of all cleanup operations, the official report submitted to the Environmental Protection Agency (EPA), Region IV, shall be prepared in accordance with requirements of Federal Water Pollution Control Act and EPA regulations in effect at the time. The report shall be transmitted to EPA through the directives of the Commanding General.

### 3. Spill Containment and Cleanup

#### a. Small Spills (less than one gallon)

(1) Cause: Gasoline or fuel oil spills at fueling locations occur by overfilling or blow back from the tank receiving the fuel.

(2) Reporting: This type of spill requires reporting to the Office of Natural Resources and Environmental Affairs (Phone 1-919-451-5003). The fuel spill must be promptly cleaned up by the person at the scene.

#### (3) Containment Procedures:

(a) DO NOT FLUSH INTO STORM SEWER OR DRAINAGE DITCH.

(b) Cover entire spill with sand or absorbent material from storage bin or container. Add material as liquid appears in the surface of the sand or absorbent material.

(c) Cleanup contaminated sand or absorbent material with broom and shovel placing it in a container (metal) for disposal or possible reuse. The container shall be labeled "Waste Oil Refuse".

(d) If storage bin of sand or absorbent material is less than one-half full after using, call Base Maintenance Department (3001) to inform them of the location needing additional material.

(e) Reapply a second coat of sand or absorbent material in a very light layer to assure all gasoline or fuel oils have been blotted up. Brush material back and forth over the area and then sweep up completely. This material can be replaced in the fresh storage bin rather than depositing it in the "Waste Oil Refuse" container.

#### b. Spills on Concrete Aprons (more than one gallon)

(1) Reporting: Call Base Fire Department

#### (2) Containment Procedures:

(a) DO NOT FLUSH INTO STORM SEWER OR DRAINAGE DITCH.

(b) The person on-site shall erect a two-to-three inch high sand or earth dam on the concrete or at the edge of the concrete below (downstream) the direction that the spill is flowing. This is the first step in containment.

(c) Apply sand or absorbent materials that are available around the perimeter of the spill until the Fire Department arrives. Keep other personnel away from the area.

(d) Fire Department shall continue abatement methods using equipment available until the Director of Natural Resources and Environmental Affairs Division or his representative arrives to determine further containment and cleanup requirements.

(e) Base Maintenance personnel shall install dams, straw barriers, pumping equipment and other abatement or cleanup equipment as directed by the OSC.

#### c. Spills on Ground (more than one gallon)

(1) Reporting: Call Base Fire Department

#### (2) Containment Procedures:

(a) DO NOT FLUSH INTO STORM SEWER OR DRAINAGE DITCH.

(b) The person on-site shall erect a minimum three-inch high sand or earth dam below (downstream) the direction that the spill is flowing. The dam should be made higher if the liquid pool behind the temporary dam rises to within two inches of the top. A trench or sump may be used in lieu of a dam. This is the first step in containment that must be taken promptly to prevent spreading into surface waters.

(c) Apply sand or absorbent materials that are available around the perimeter of the spill until the Fire Department arrives. Keep other personnel away from the area.

(d) Fire Department shall continue abatement methods using equipment available until the Director of Natural Resources and Environmental Affairs Division or his representative arrives to determine further containment and cleanup requirements.

28 MAY 1981

(e) Base Maintenance personnel shall install dams, straw barriers, absorbents, pumping equipment and other abatement or cleanup equipment as directed by the OSC.

d. Spills Entering Storm Drainage System

(1) Reporting: Call Base Fire Department and emphasize that the liquid has entered a catch basin, manhole, drainage ditch, or any structure (pit) below ground.

(2) Containment Procedures:

(a) DO NOT ADD WATER TO FLUSH OUT STORM SEWER OR STRUCTURE.

(b) The person on-site shall attempt to erect a sand or earth dam around or cover with polyethylene or other plastic materials the manhole or catch basin to prevent further entrance of liquid into the structure. This is the first step in containment that must be taken promptly to minimize the quantity of liquid that will be discharged into surface waters.

(c) The person on-site shall apply sand or absorbent materials that may be available around the perimeter of the spill and at the manhole or catch basin until the Fire Department arrives.

(d) Base Maintenance personnel shall place oil booms across storm drains to prevent further discharge. Public Works Department will develop maps of drainage systems required for siting booms. After spill is contained, cleanup will be initiated. Action may include the following:

1 Inspect downstream manholes for evidence of oil progression toward discharge. If storm system has a very low flow, install straw barrier or absorption dam inside manhole.

2 Where practical, install plug in upstream side of manhole, to contain in the pipe system.

3 If the drainage system has an open ditch, install straw bale dams or absorption dam to collect spilled materials.

4 Isolate streets with contaminated manhole to prevent fires or explosions.

(e) The Director, Natural Resources and Environmental Affairs Division, or his representative shall determine further containment and cleanup requirements after arriving on the scene.

(f) Base Maintenance personnel shall install dams, straw barriers, absorbents, pumping equipment and other abatement and cleanup equipment as directed by the OSC.

e. Spills Entering Surface Waters

(1) Reporting: Call Base Fire Department and emphasize that the liquid was discharged directly into the surface waters.

(2) Containment Procedure:

(a) Person at the site should check the source of discharge to be assured that no further discharge can occur. Close valves, remove hose, or isolate the source from causing any further release of materials.

(b) Do not allow boats or equipment to enter the surface waters where the spill has occurred. If surface type oil absorbents are available, begin spreading this material wherever an oil skim is observed. Do not enter the water to apply this material until the Fire Department arrives.

(c) Fire Department shall continue abatement methods using equipment available until the Director of Natural Resources and Environmental Affairs Division, or his representative arrives to determine further containment and cleanup requirements.

(d) Base Maintenance personnel shall install booms, skimmers, pumps and other abatement or cleanup equipment as directed by the OSC.

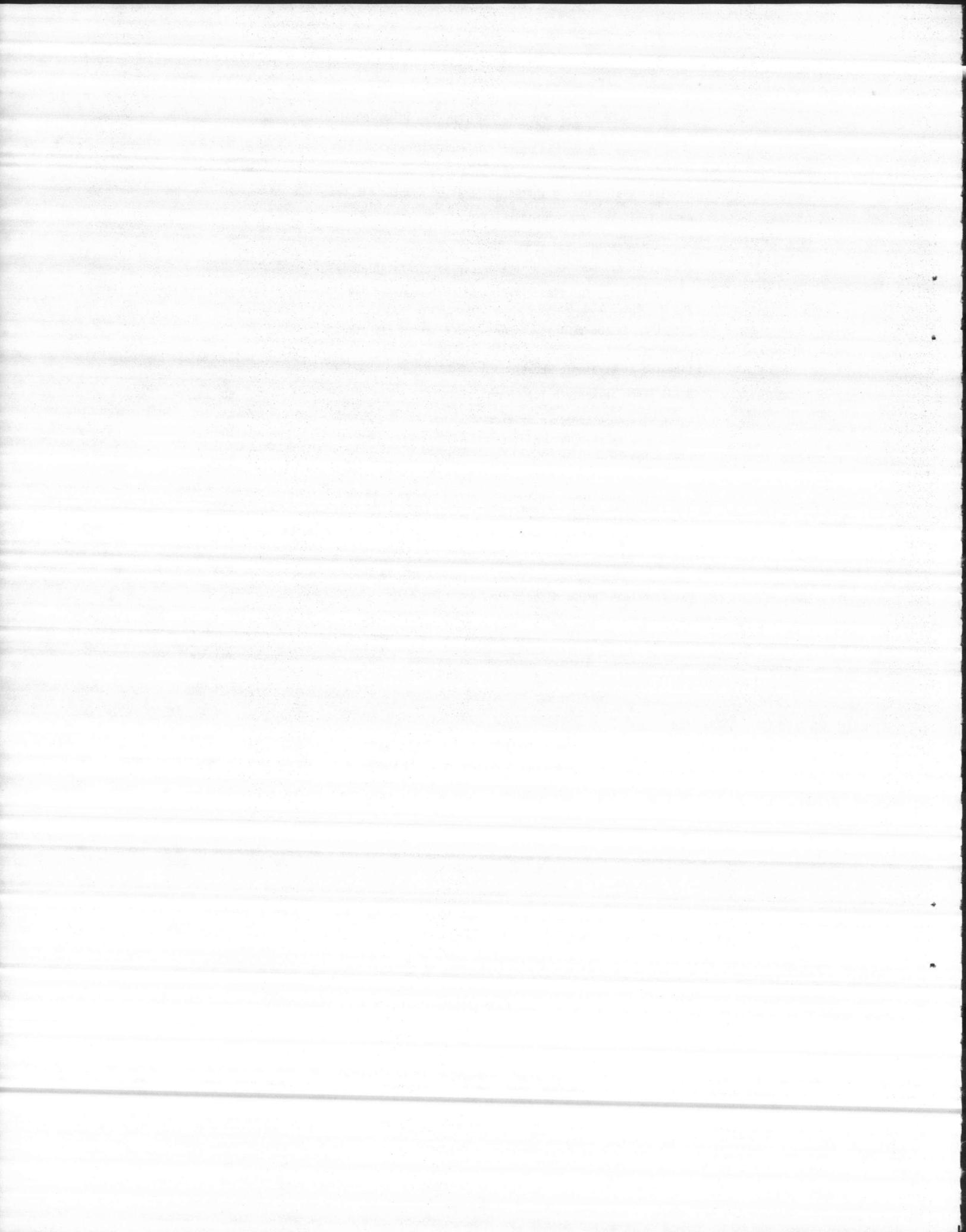
4. Responsibilities for Ensuring Personnel and Public Safety

a. Overall responsibility for ensuring the safety of personnel involved in the containment and cleanup of hazardous material spill is assigned to the Base Fire Chief or his senior representative. The Base Fire Chief representative shall continue to monitor the situation and will provide required standby personnel and equipment. The Base Fire Chief representative will request the assistance of the Base Safety Officer as needed. The Base Fire Chief representative shall keep the OSC informed of any safety considerations affecting the containment and cleanup of the spill. In the event of imminent hazard to personnel involved in the spill cleanup or to the public, Base Fire Chief representative shall take appropriate action. The OSC shall assist the Base Fire Chief representative implement safety procedures required.

b. Base Safety shall dispatch a safety representative to the spill scene upon request from the Base Fire Chief representative. The Base Safety representative will remain at the scene until advised by the Base Fire Chief representative that assistance is no longer required. Base Safety representative will monitor all activity at or near the spill and make appropriate recommendations to the Base Fire Chief representative.

MATERIALS AND EQUIPMENT FOR OIL SPILL  
CONTAINMENT AND COUNTERMEASURE

<u>Item No.</u>	<u>Description</u>	<u>Quantity</u>
1.	Gasoline engine driven (portable) trailer mounted diaphragm pump with sectional suction and discharge hose - minimum capacity 25 gallons per minute.	2
2.	Sectional aluminum oil boom	
3.	Inflatable oil barrier, Whittaker Expandi self-inflating	300 L. F.
4.	Collapsible bag for field filling of collected oil-250 gallon capacity	2
5.	Oil skimmer (portable) type for water floating oil pick-up	1
6.	Baled hay or straw with wire or nylon baling (located at strategic areas)	200 Bales
7.	Steel fence stakes (6 feet long)	50 each
8.	Woven wire mesh (chicken wire) 3ft. width 4ft. width	200 L.F. 100 L.F.
9.	Sledge hammer - 10 lb. 5 lb. 2½ lb.	3 5 5
10.	Shovels - Long handle round point Long handle flat blade Short handle round point Short handle flat point	5 5 5 5
11.	Oil Absorbent Compound - for water spill clean up	2000 lbs.
12.	Oil Absorbent Compound for ground spill clean up - Randustrial P-218 Oil Absorbent (55-gallon drum)	25 drums
13.	Nylon rope - ½" diameter ½" diameter ¾" diameter	200 L.F. 400 L.F. 400 L.F.
14.	Oil Sorbent Material - 3M, Conwed or Grefco	500 lb.



(8) Assemble available information and conduct studies and surveys required to provide action sponsors with data on soils, air quality, water quality, land use planning, noise pollution, forestry management, wildlife management, cultural and archaeological resources and other matters related to environmental regulations.

7. Action. Commanders/Officers-in-Charge and other officials authorized to carry out actions subject to this Order will:

a. Ensure that the review process outlined in the enclosure has been completed prior to implementation of any non-emergency action which could affect the quality of the environment of the United States.

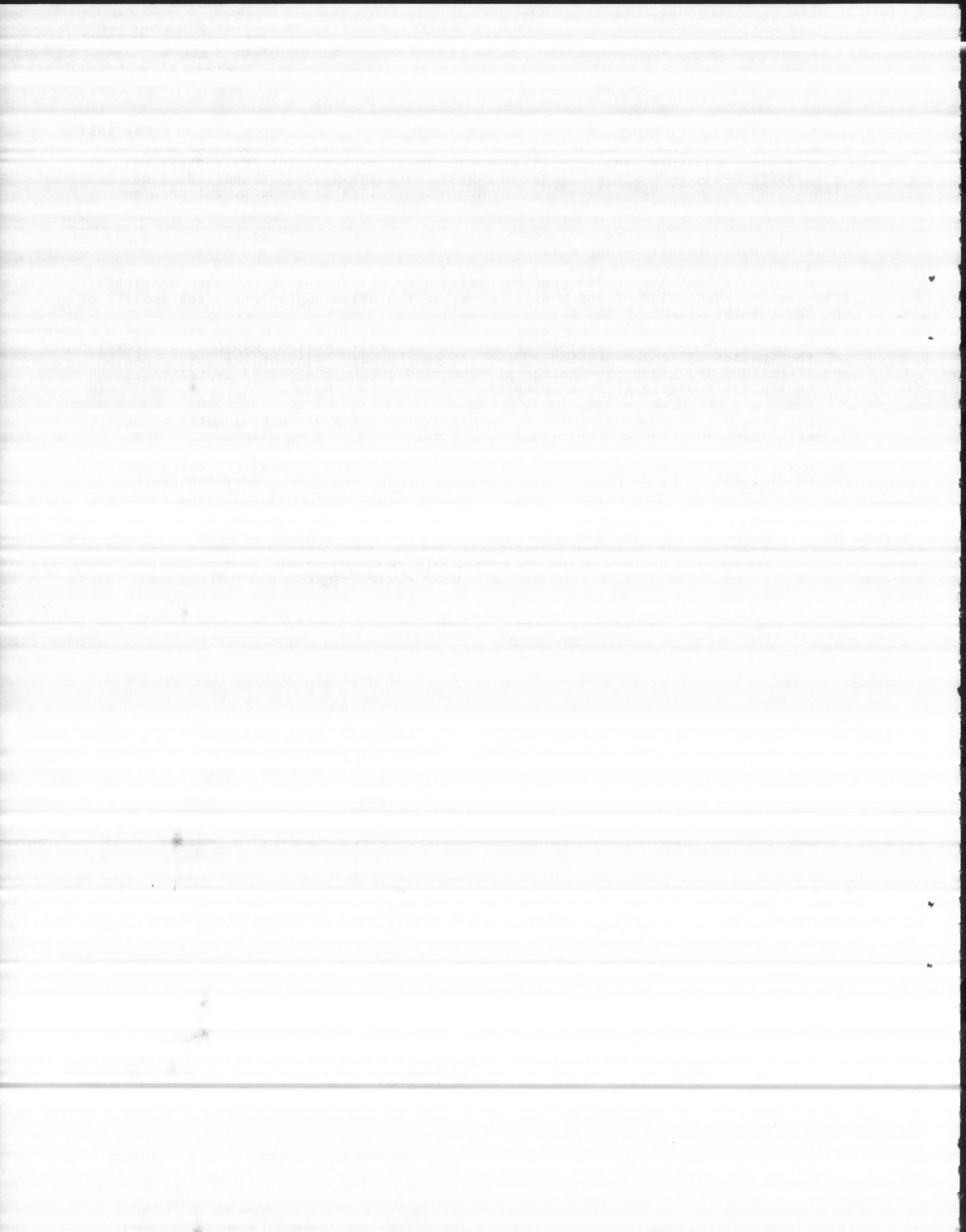
b. Ensure that officials involved in the approval, funding, design, construction or other phases of implementation of the action are made aware of the environmental considerations and protection measures identified during the environmental impact review process provided by this Order.

c. Notify this Command of any emergency action taken which could affect the quality of the environment of the United States.

8. Applicability. Having received the concurrence of the Commanding Generals, 2d Marine Division, FMF; 2d Force Service Support Group (Rein), FMFLant; 6th Marine Amphibious Brigade, FMFLant; and the Commanding Officers, Marine Corps Air Station (Helicopter), New River; the Naval Hospital; and the Naval Dental Clinic, this Order is applicable to those commands.

  
T. M. STOKES, JR.  
Chief of Staff

DISTRIBUTION: A



REQUEST FOR ENVIRONMENTAL IMPACT REVIEW; FORMAT AND PROCEDURES FOR SUBMISSION OF

1. Action Sponsor: \_\_\_\_\_
2. Name, Address, Phone Number of Point of Contact: \_\_\_\_\_  
\_\_\_\_\_
3. Title and Brief Description of Proposed Action (state purpose, when proposed action is to occur, and any proposed environmental protection measure):

1 May 1984

4. Location: Attach a Camp Lejeune Special Map (or equivalent quality map) showing location of proposed action/project site(s).

5. Potential Environmental Impact/Considerations: (See Note 1)

a. Air Quality: Will there be any open burning associated with the project/action? \_\_\_\_\_ Will there be any new boilers, incinerators or fuel storage tanks (larger than 1,000 gallons) provided? \_\_\_\_\_ Will there be any paint booths, solvent vats, degreasers or other vapor-producing industrial processes involved? \_\_\_\_\_ Will the project involve the use or disposal of asbestos? \_\_\_\_\_ Will project cause dust problems? \_\_\_\_\_

b. Land Quality: Will the action require use of significant amount of earthen fill material? \_\_\_\_\_ Will there be an increase in level of soil disturbance/damage to vegetation? \_\_\_\_\_ Will there be one acre or more of land cleared/disturbed? \_\_\_\_\_

c. Groundwater Quality: Does the project involve use of herbicides, insecticides or other pesticides in significant amounts? \_\_\_\_\_ Does the project involve installation/use of septic tanks, or any other on-site disposal of sanitary waste? \_\_\_\_\_ Will there be any wells dug or any excavations deeper than twenty feet? \_\_\_\_\_ Will any toxic or hazardous material/waste requiring disposal be used or generated by the project? \_\_\_\_\_ Will there be a net increase of solid waste caused by implementing the project/action? \_\_\_\_\_ Will the project or action be carried out within 200 feet of a drinking water supply well? \_\_\_\_\_

d. Surface Water Quality: Is the project located on or in a water body or adjacent 100-year flood plain? \_\_\_\_\_ Will the project involve construction of drainage ditches/underground drains for purposes of lowering water table? \_\_\_\_\_ Will all wastewater be connected to sanitary sewer? \_\_\_\_\_ Will there be an increase in erosion/siltation from soil disturbing activity? \_\_\_\_\_ Will petroleum oil and lubricants be routinely stored or used at the site? \_\_\_\_\_ Will the project increase rates of surface/storm water run-off? \_\_\_\_\_

e. Natural Resources: Will there be a loss of forest land? \_\_\_\_\_ Will public access for hunting, boating, fishing, etc., be restricted? \_\_\_\_\_ Is there a change in land use from what is presently shown in Base Master Plan? \_\_\_\_\_ Will removal of existing vegetation be required? \_\_\_\_\_ Are there any known effects on any endangered species? \_\_\_\_\_ Does the project involve the purchase or sale of any real estate? \_\_\_\_\_

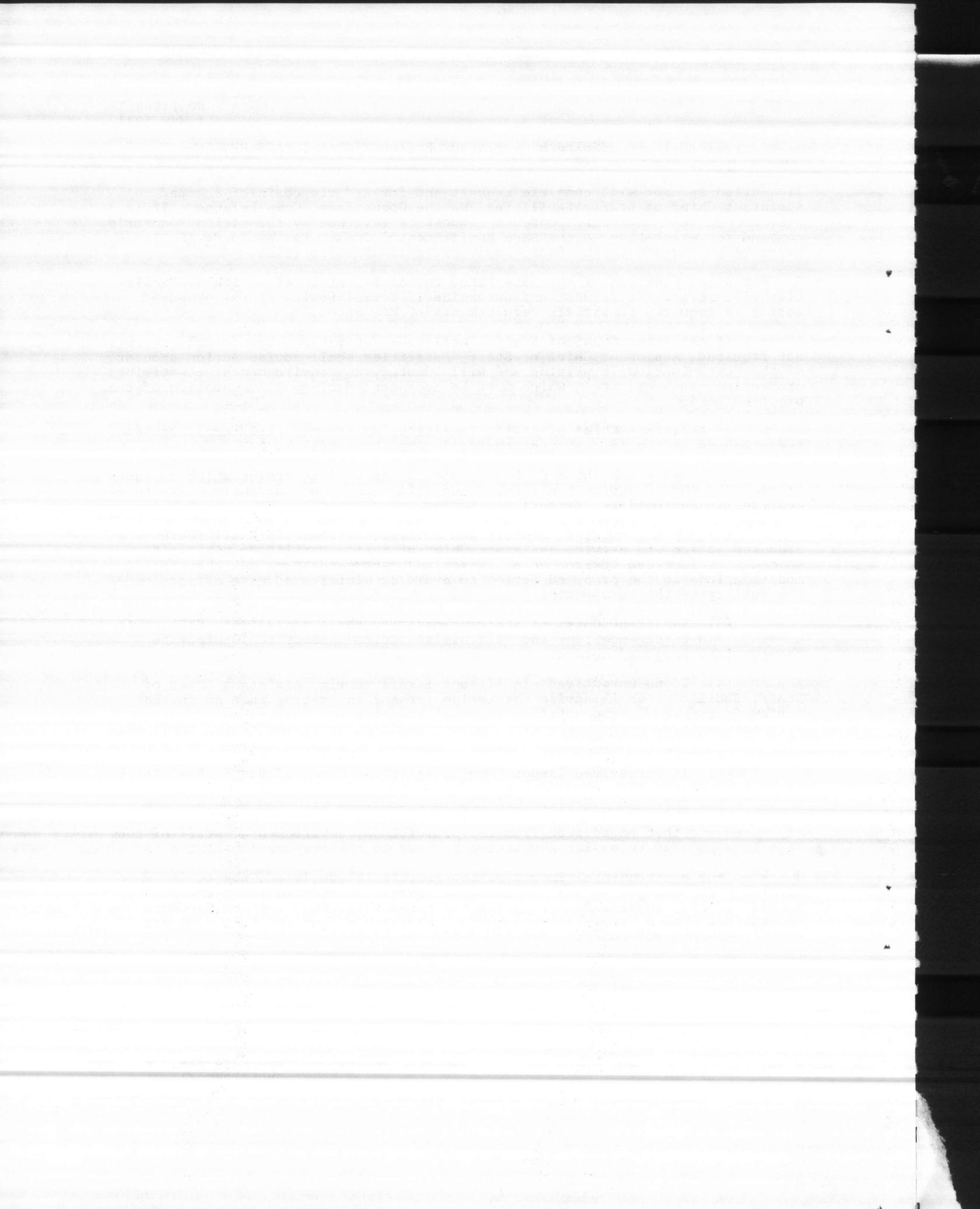
f. Socio-Economic Considerations: Will the project cause an increase/decrease in on or off-base military population? \_\_\_\_\_ Will there be any increased demand on a local or state government to provide services? \_\_\_\_\_ Will there be any changes to traffic flow and patterns on or off-base? \_\_\_\_\_ Will any noise, traffic, dust, etc., be generated which may affect off-base persons or property? \_\_\_\_\_ Is there any known controversy associated with the type of project or action proposed? \_\_\_\_\_ Are there any historical or archaeological sites affected by project/action? \_\_\_\_\_

NOTE 1. Answer either "yes", "no" or "unknown". Answers should be based on information available to the action sponsor at time of submission to the Base Environmental Impact Review Board. Do not delay the submission of this request awaiting additional information. Many environmental considerations need to be addressed in early planning stages. If additional information becomes available after submission, it should be forwarded to the EIRB.

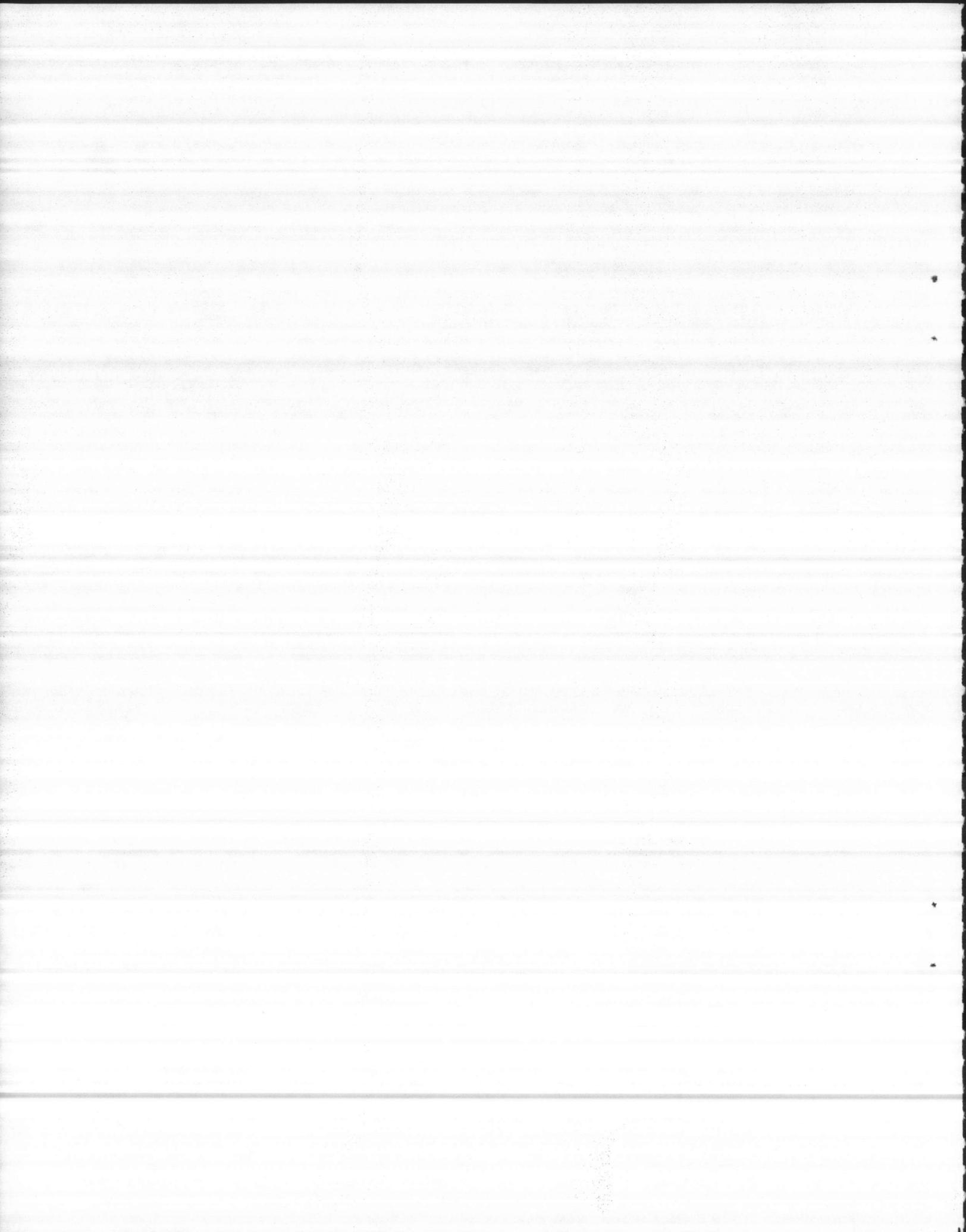
STEPS IN PROCESSING REQUESTS FOR ENVIRONMENTAL IMPACT REVIEW

1. Action sponsor will complete request and forward via chain-of-command to Assistant Chief of Staff, Facilities, Marine Corps Base, Camp Lejeune. It is recommended that the correspondence request be reviewed by the action sponsor's command representative to the Base Environmental Impact Review Board (EIPB) prior to submission to the EIRB. Base Order 11015.2C pertains.
2. Acting as Chairman of the Base EIRB, the Assistant Chief of Staff, Facilities will review the request and determine if formal review of the proposed action is required to satisfy requirements of MCO 6280.5.
  - a. If Assistant Chief of Staff, Facilities determines that formal review is not required, Assistant Chief of Staff, Facilities shall advise action sponsor of the determination in writing and will identify any environmental constraints, protection measures, etc., which must be addressed during implementation of the proposed action.
  - b. If Assistant Chief of Staff, Facilities determines that formal review of the proposed action is required, the following steps will be taken:
    - (1) Assistant Chief of Staff, Facilities will determine which advisors of the EIRB should review the action, and will send a copy of the request to all members and appropriate advisors for review and comment.
    - (2) When requested, members and advisors of the EIRB shall review the proposed action and provide Assistant Chief of Staff, Facilities with written comments on foreseen environmental impact and recommendations for changes/modifications to the proposed action to avoid or minimize adverse effects on the quality of the environment.
    - (3) Assistant Chief of Staff, Facilities shall consolidate EIRB review comments and recommendations and will assist action sponsor to incorporate changes into proposed action.
    - (4) If no unresolved significant issues remain, Assistant Chief of Staff, Facilities shall advise the action sponsor in writing that no further review is required. The notification will identify any environmental constraints, protection measures, etc., which should be addressed during implementation of the proposed action.
    - (5) If unresolved issues remain, Assistant Chief of Staff, Facilities shall convene the EIPB in order to determine if an Environmental Assessment shall be prepared and submitted to HQMC in accordance with MCO 6280.5. The responsibility for drafting the EA resides with the action sponsor. The EIRB may recommend that an advisor from the professional environmental staff of the base be appointed to assist the action sponsor in the preparation of the EA.
3. When the environmental impact review process is completed, the action sponsor will incorporate any requirements identified therein, into the plans, specifications, guidelines, etc., for the proposed action. Action Sponsors are advised that a favorable recommendation/response from the EIPB does not constitute approval to carry out the action.

Appendix A to  
ENCLOSURE (1)



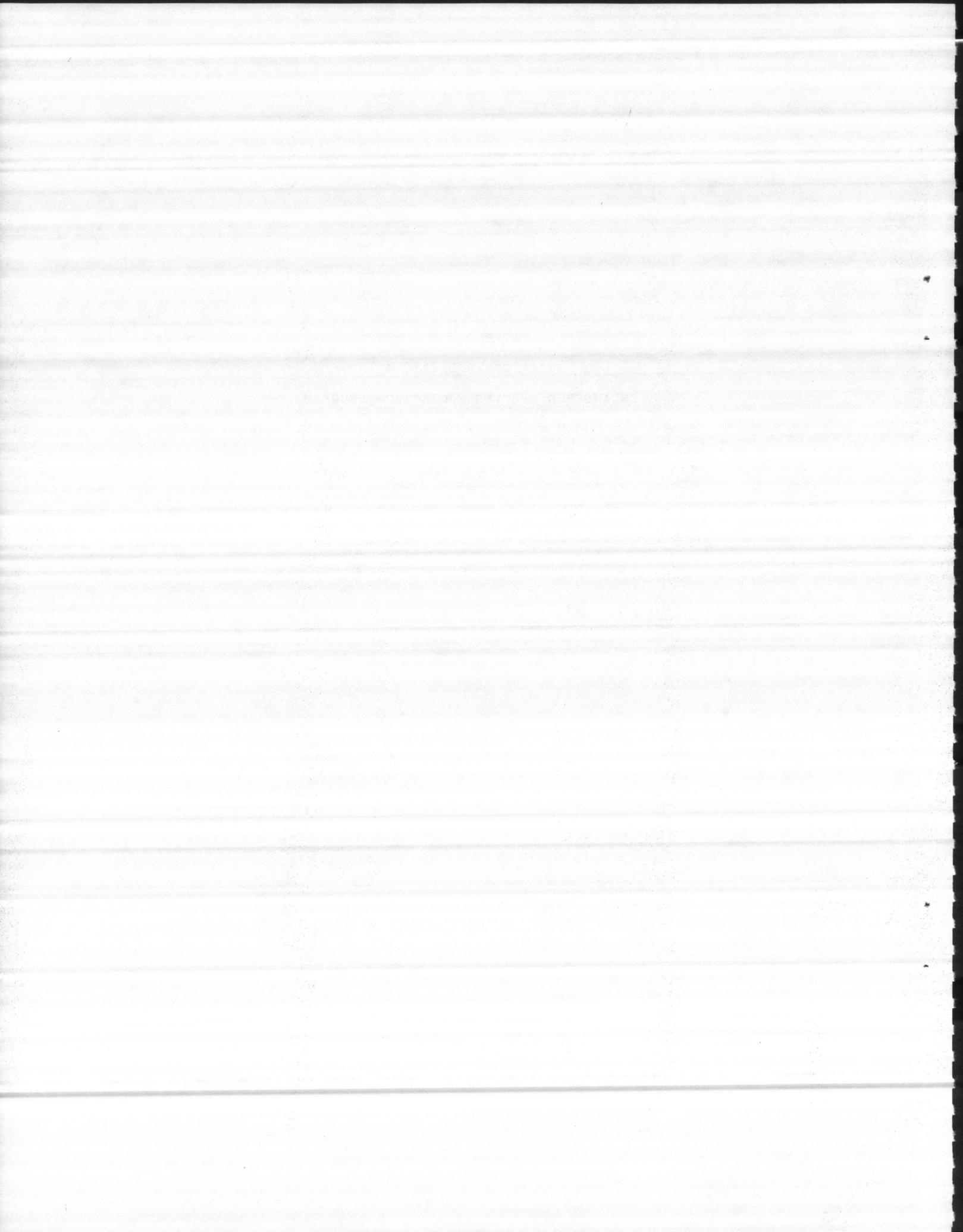
APPENDIX E  
BASE ORDER 11350.2  
REFUSE DISPOSAL PROCEDURES



APPENDIX F

BASE ORDER 11015.3A

ENDANGERED SPECIES PROTECTION PROGRAM





UNITED STATES MARINE CORPS  
Marine Corps Base  
Camp Lejeune, North Carolina 28542

BO 11015.3A  
MAIN/CDP/mp  
10 FEB 1981

BASE ORDER 11015.3A

From: Commanding General  
To: Distribution List

Subj: Endangered Species Protection Program

Ref: (a) MCO 11015.4B  
(b) Pub Law 93-205E Endangered Species Act of 1973 as amended in 1978  
(c) MCO P11000.8A  
(d) Natural Resources Management Plan, Camp Lejeune, North Carolina  
(e) BO 11015.6  
(f) BO 11015.7  
(g) BO 11000.1

Encl: (1) List of Endangered and Threatened Species Present at Camp Lejeune

1. Purpose. To set forth regulations that will ensure the protection of endangered and threatened species hereafter referred to as listed species in accordance with applicable local, state and federal laws.
2. Cancellation. BO 11015.3.
3. Background
  - a. Marine Corps Base, because of the protective and security nature of its lands, has provided vital sanctuaries for listed species in the past. Enactment of new legislation in the National interest is the basis for affirmative programs that ensure protection of listed species and their habitats.
  - b. Reference (a) promulgates Marine Corps policy for the protection of listed species in compliance with reference (b). Long range planning for the management of listed species is contained in references (c) and (d). Specific guidelines for training use of the habitats of several listed species are contained in references (e) and (f). Reference (g) contains guidelines for assessing environmental considerations and factors involving listed species.
  - c. Enclosure (1) contains identified listed species presently occurring on these lands pursuant to reference (b).
4. Policy. It is the continuing policy of this Command to actively participate in planning and programming actions which will ensure the protection of listed species on Marine Corps Base lands.
5. Responsibility. The overall responsibilities for carrying out environmental monitoring of listed species and their habitat is charged to the Base Maintenance Officer. Natural Resources and Environmental Affairs Branch Director is responsible to the Base Maintenance Officer for staff reporting of events which may have favorable or unfavorable impact on endangered species and their habitat.
6. Program Guidelines. Marine Corps Base will actively carry out a program to protect and enhance all current listed species. Cognizant personnel in this command shall:
  - a. Identify to the extent feasible, areas of habitat controlled by the activity which may be regarded as critical, as defined in enclosure (4), page 874, paragraph 402.02 of reference (b).
  - b. Delineate the boundaries of the habitat areas on maps to be included in the activity master plan and natural resources management plan, and provide one copy of each to the Commandant of the Marine Corps (Code LFF).
  - c. Make every effort to provide the information obtained on the identified habitat areas to the Fish and Wildlife Service and National Marine Fisheries Service within the timeframe cited in enclosure (3) of reference (b), for their use in determining whether or not the areas should be classified as critical pursuant to reference (b). Extension of the timeframe, if needed, shall be coordinated with the Regional Director, Fish and Wildlife Service.
  - d. Provide the Commandant of the Marine Corps (Code LFF) with two copies of the information submitted to the Fish and Wildlife Service, as required by paragraph 6c, preceding.
  - e. Protect the habitat areas identified in accordance with paragraphs 6a and 6b, preceding, and consult with the representatives of the Fish and Wildlife Service and National Marine Fisheries Service prior to modifying these areas.

BO 11015.3A  
10 FEB 1981

f. Develop a positive program for the protection and enhancement of activity areas designated by the Fish and Wildlife Service and National Marine Fisheries Service as critical habitat, and determine authorized and unauthorized use of such habitat.

g. Initiate consultation with the Fish and Wildlife Service and National Marine Fisheries Service in accordance with the procedures outlined in enclosure (4) of reference (a) when a planned activity or program has been identified that may affect (favorably or unfavorably) listed species or their habitat. (See definition of "Activities or programs", in enclosure (4), paragraph 402.02 of reference (a)).

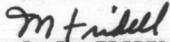
h. Environmental assessments shall be in accordance with reference (g) for any action which may affect listed species or their habitats and shall be prepared by the action sponsor. The documents shall contain the final biological opinion of the Fish and Wildlife Service and/or the National Marine Fisheries Service obtained through the consultation process.

i. The Director, Natural Resources and Environmental Affairs Branch, is designated as command representative to maintain liaison with the Naval Facilities Engineering Command, natural resource managers, federal, state and local government agencies and organizations having interest in listed species. Initial contacts shall include the Regional Office of the Fish and Wildlife Service and the North Carolina Wildlife Resources Commission. Liaison will also include contact with listed species recovery teams, private organizations and individuals, as applicable, to assist with identification of listed species and their critical habitats.

j. Should it be determined that training is being degraded to the extent that it is affecting combat readiness, documentation to support this assessment should be forwarded to this headquarters (Attention: Assistant Chief of Staff, Training). An examination of assimilated data will then be conducted to determine if a request for a National Security Exemption to the Endangered Species Act is warranted.

7. **Action.** Unit Commanders and Officers-in-Charge will ensure that personnel under their command make every effort to prevent adverse impact to listed species and their habitats. Personnel throughout the command are expected to fully cooperate in the program at all levels. With the enactment of this subject legislation, a basis now exists for court action, which enables courts to slow, stop or cancel projects, if further action could destroy the critical habitat of a listed species as established by reference (b).

8. **Applicability.** Having received the concurrence of the Commanding Generals, 2d Marine Division, FMF, and 2d Force Service Support Group (Rein), FMF, Atlantic, and the Commanding Officers of the Marine Corps Air Station (Helicopter), New River, Naval Regional Dental Center and the Naval Regional Medical Center, this Order is applicable to those Commands.

  
J. R. FRIDELL  
Chief of Staff

DISTRIBUTION: A



UNITED STATES MARINE CORPS  
Marine Corps Base  
Camp Lejeune, North Carolina 28542

BO 11350.2  
MAIN/LDS/ece  
21 JUL 1980

BASE ORDER 11350.2

From: Commanding General  
To: Distribution List

Subj: Refuse Disposal Procedures

Ref: (a) BO P11101.32F  
(b) BO 4570.1C  
(c) BO 4100.8  
(d) BO P10110.10A  
(e) BO 11014.8A

1. Purpose. To publish instructions relative to separation, collection and disposal of garbage and trash, and the care and cleaning of receptacles other than family housing areas, which are covered in reference (a).

2. Definitions

a. Dempster Dumpsters - A waste storage container which is removed, emptied and returned by Dumpster trucks.

b. Dumpmaster Containers - Containers vary in size from three to eight cubic yards capacity and are emptied at their location into Dumpmaster trucks. (Containers are not taken from the area except for necessary repair/replacement.)

c. Trash Receptacles - Containers such as G.I. cans and 55 gallon trash drums with or without special lids. Responsible subordinates in whose areas receptacles are placed will ensure area commanders/commanding officers empty and maintain as required. All trash receptacles are to be emptied into Dempster Dumpsters or Dumpmaster containers by the using units.

d. Dining Facility G.I. Cans - Food garbage, classified as edible waste and bones from dining facilities and butcher shops, will be placed in G.I. cans and collected by a private contractor.

e. Recyclable Materials - Wastes such as aluminum cans and other scrap metals; unusable scrap lumber (defined in reference (b)); cardboard and newspapers (defined in reference (c)); and other materials for which a system for recovery has been established throughout the Base.

f. Sanitary Landfill - Refers to the Base Sanitary Landfill which is located two miles south of Holcomb Boulevard on Sneads Ferry Road.

g. Hazardous Wastes - Materials which have been prohibited by the Environmental Protection Agency, the State of North Carolina, DOD, Navy or Marine Corps from being placed into the type of Sanitary Landfill operated at Camp Lejeune, because of potential danger or harm to public health or environment.

3. Receptacle Locations

a. Collection stations for trash are designated by the Base Maintenance Officer. Additional stations will be established as justifications arise, upon written request from using units.

b. Collection stations for edible waste, grease and bones are established by a contract administered by the Defense Property Disposal Office, Building 906, Hadnot Point, extension 5613.

4. Responsibilities

a. All area commanders and commanding officers designated to operate enlisted dining facilities, in accordance with reference (d), and officers in charge of food preparation activities, which include service clubs, cafeterias, snack bars, and similar operations are responsible for the following:

(1) Proper separation of trash, inedible and edible waste.

(2) Proper cleaning of all containers and G.I. cans (excluding Dempster Dumpsters and Dumpmaster Containers) after they are emptied. Washing or scrubbing down of these containers will be done only at locations which have proper drains for the disposal of water and food particles. Galvanized G.I. cans will not be painted.

(3) Maintaining cleanliness of all types of Dumpster refuse containers will be the responsibility of Base Maintenance Sanitation Section and the using units. Do not place wet refuse or waste in containers unless it is first put into waterproof bags which have been sealed at the top. Plastic bags for the consolidated mess system and other activities may be purchased from the Self-Service Center, Building 1606. The use of these waterproof bags will greatly reduce the amount of cleaning required by the Sanitation Section. The Base Maintenance Sanitation Section (extension 2636) will provide a steam cleaning service as required to maintain a satisfactory sanitary condition on site. In cases of fire or vandalism, immediate steps shall be taken to restore these containers to their original condition by notifying the Base Maintenance Sanitation Section. Care shall be taken to restore the Plant Account Number assigned each container for property control purposes.

(4) Ensure proper utilization of compactors located in dining facilities.

b. All area commanders, commanding officers, and supervisory personnel shall prevent the placing of hazardous wastes into any trash receptacle container or the Base Sanitary Landfill without express written approval of the Base Maintenance Officer.

c. Organizational commanders and supervisory personnel at all levels are responsible for the proper segregation and conservation of recyclable materials, which are readily identifiable. Questions concerning the proper disposition of such material should be directed to the Defense Property Disposal Office. Recyclable material will be segregated at the point of origin, e.g., heavy iron, light sheetmetal, aluminum, cast iron, batteries, etc., and free of trash and debris to expedite turn-in. Special containers have been located in designated locations around the Base and can be identified by their color-coding as follows:

(1) Green with yellow marking - corrugated cardboard.

(2) Red, white and blue - newspapers.

(3) Orange with black marking - aluminum

(4) Silver with black marking (also identifiable by its compact size) - scrap iron.

6. Area Police. Responsibility for policing areas around collection stations rests entirely with the users.

6. Schedules. Collections are made daily at dining facilities. Other collections are made two or three times per week. Justifiable irregular collections may be made by calling extension 2636. Irregular collections of edible waste, grease and bones may be arranged by calling extension 5613, Defense Property Disposal Office.

7. General:

a. Crush and flatten all cardboard boxes before placing them in any container.

b. Do not over-fill containers.

c. Do not place grass, leaves, pine straw, lumber, metal, pallets, dirt, or other weighty materials in the containers. These materials will be removed by the using units. Wooden boxes and scrap wood will be disposed of in accordance with reference (b). All other trash will be taken to the Sanitary Landfill.

d. Do not place any type of explosives or ammunition in the containers.

e. Do not place fire, matches, or hot ashes in these containers.

f. Do not park in front of the containers.

g. Do not run water into containers in an attempt to pack down the trash.

h. Do not place wet garbage, such as waste meats and food stuffs, in the containers unless it is first securely wrapped or placed in plastic bags.

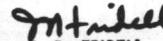
21 JUL 1980

- i. Do not break glass bottles, jars, etc., when placing them in containers.
- j. Do not wash inside of containers with excessive amounts of water; this creates rusting and erosion problems.
- k. Do not leave top or side doors open.
- l. Anticipated heavy refuse-producing situations (such as the moving out of a unit) should be reported, as far in advance as possible, to the Base Sanitation Section, extension 2636.
- m. Vehicles used to transport refuse to the landfill must comply with reference (e). Violators will be subject to the penalties listed therein.
- n. Loose paper/cards will be containerized prior to being placed in containers to prevent scattering.
- o. Disposing of refuse of any type on roads, road shoulders, in wooded areas, or any other place except the Sanitary Landfill is prohibited.

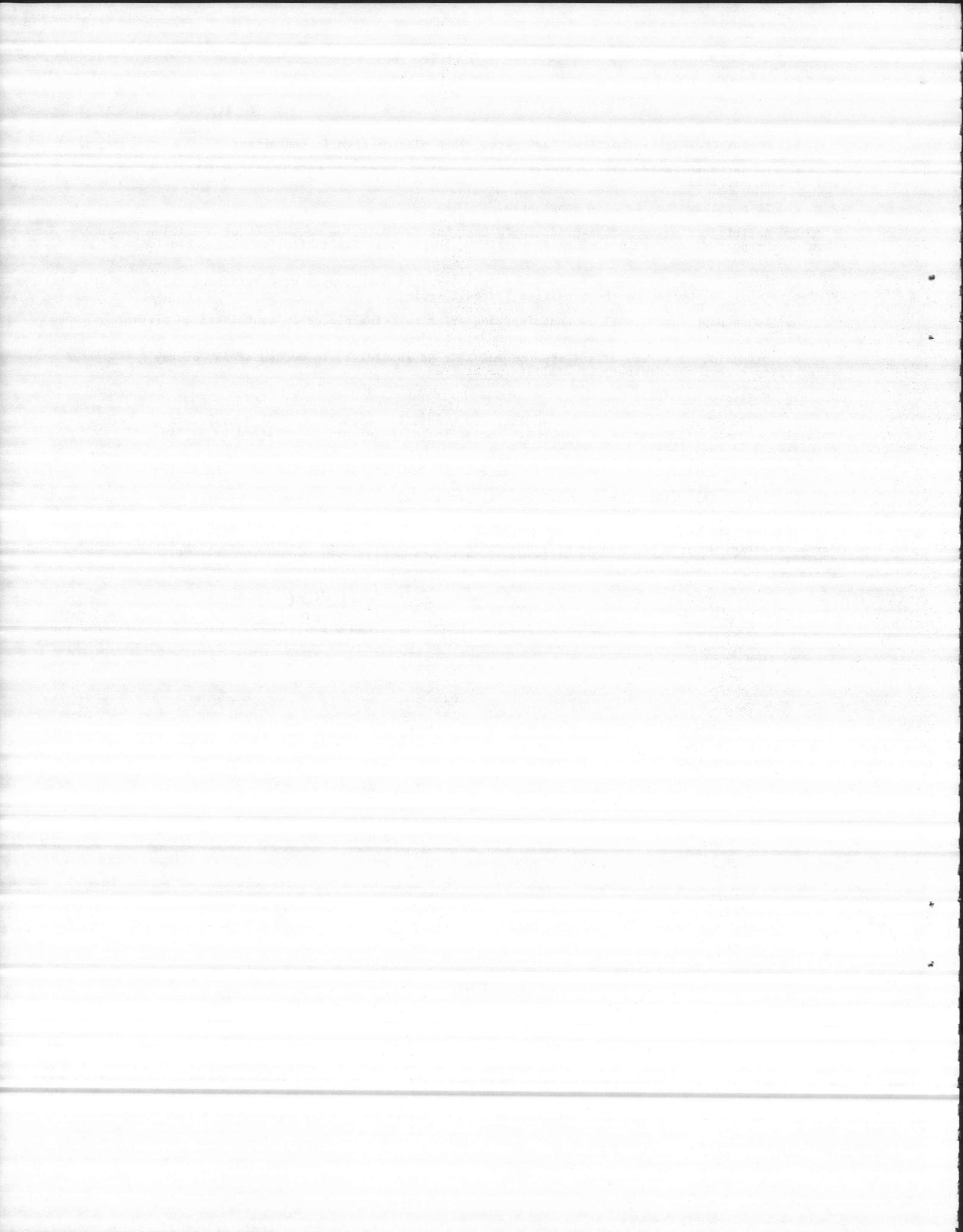
#### 8. Base Sanitary Landfill

- a. Hours of operation for the Base Sanitary Landfill are 0800 to 1600, Monday through Friday. In cases of emergency on weekends, access for disposal can be obtained by calling extension 3001 in building 1202.
- b. Personnel delivering refuse will contact the landfill operator prior to unloading.
- c. Scavenging within the landfill area is prohibited.

10. Applicability. Having received the concurrence of the Commanding Generals of 2d Marine Division, Fleet Marine Force and 2d Force Service Support Group (Reinforced), Fleet Marine Force Atlantic, and the Commanding Officer, Marine Corps Air Station (Helicopter), New River, Naval Regional Medical Center, and Naval Regional Dental Center, this order is applicable to those commands.

  
J. R. FRIDELL  
Chief of Staff

DISTRIBUTION: A

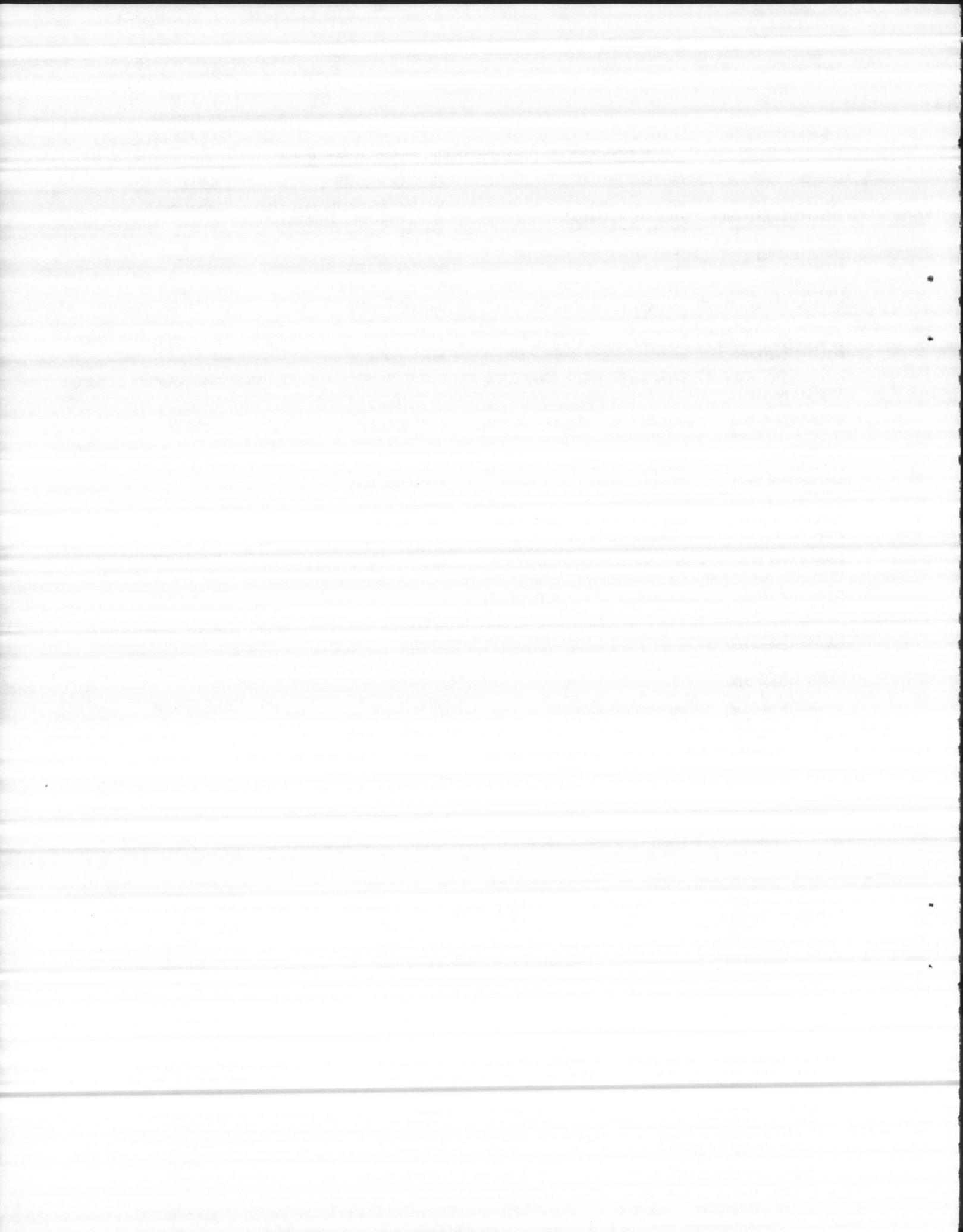


BO 11015.3A  
10 FEB 1981LIST OF ENDANGERED AND THREATENED SPECIES PRESENT AT CAMP LEJEUNE

<u>SPECIES</u>	<u>PREFERRED HABITAT</u>	<u>PROJECTS INVOLVED</u>	<u>STATUS</u>
Caretta caretta Atlantic Loggerhead	Warm ocean water. Frequent nesting along Onslow Beach.	Marking, protecting nest sites from predation. Inventory and tagging.	Threatened
Chelonia mydas Atlantic Green Turtle	Shoal waters with submarine vegetation.	Nesting in 1980	Threatened
Lepidochelys kempi Atlantic Ridley	Shallow coastal waters, observed in Intracoastal Waterway.	Tagged juvenile	Endangered
Demochelys coriacea Atlantic Leatherback	Open sea waters along the coast.	Awaiting nesting activity on beach.	Endangered
Eretmochelys imbricata Atlantic Hawksbill	Reefs and shallow coastal waters		Endangered
Alligator mississippiensis - American Alligator	Salt marshes, tidal streams and estuaries	Inventory, protection of marsh- lands.	Endangered
Dendrocopos borealis Red-Cockaded Wood- pecker	Primary in longleaf timber types	Inventory and marking nest sites. Prescribed burning.	Endangered
Pelecanus occidentalis Brown Pelican	Coastal fringe along beach and inlets. Summer migrant.	Photography	Endangered
Dionaea muscipula Venus' Fly Trap	Wet margins of open savannahs		Threatened*
Sarracenia flava Yellow Pitcher Plant	Wet bogs, ditches and savannahs		Threatened*
Sarracenia rubra Sweet Pitcher Plant	Shrub bogs and savannahs		Threatened*
Sarracenia minor Hooded Pitcher Plant	Wet bogs, ditches and savannahs		Threatened*
Sarracenia purpurea Pitcher Plant; Fly- trap	Wet bogs and savannahs		Threatened*

\*Species on the North Carolina List of Endangered Plants (Chapter 41 NC General Statutes)

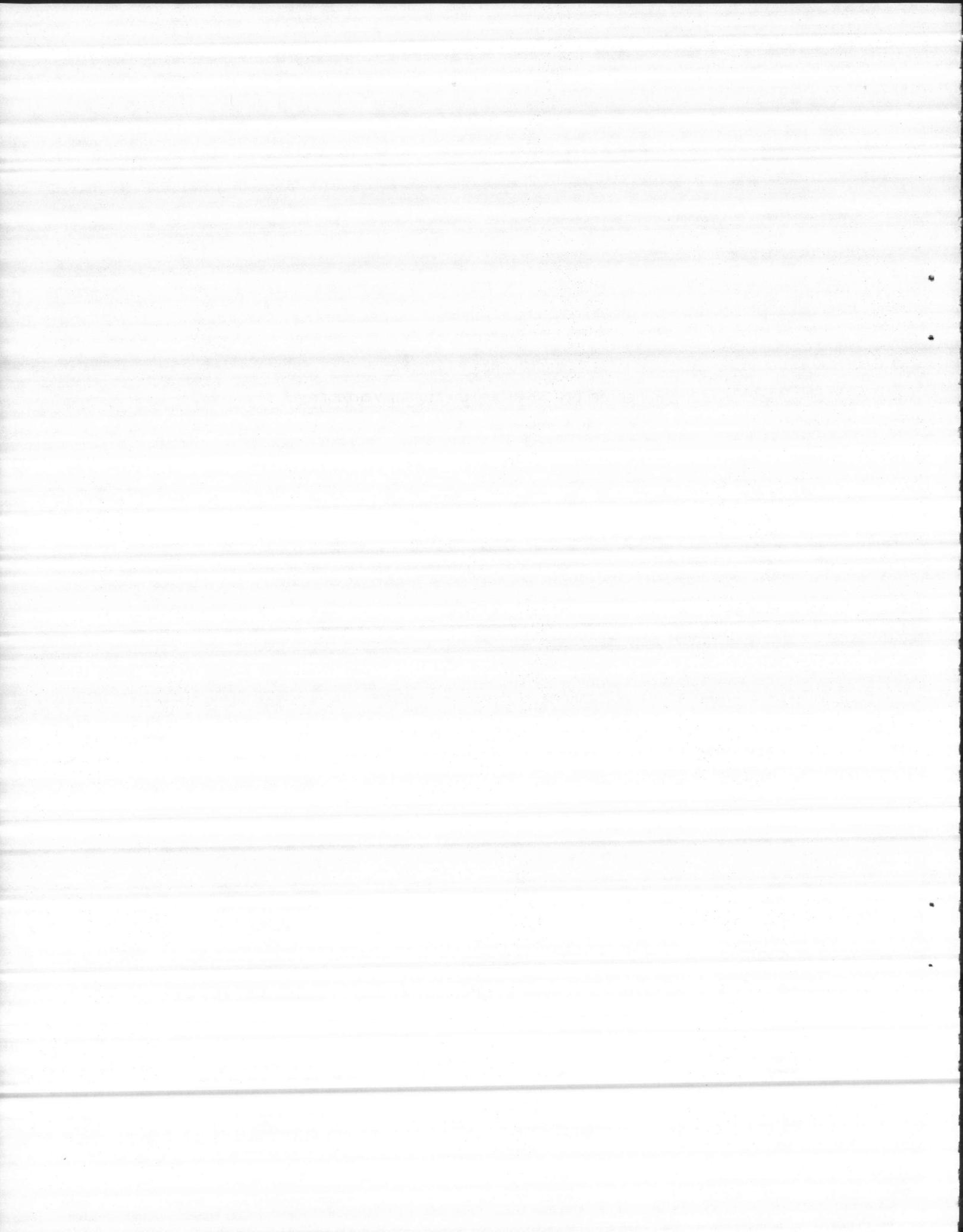
ENCLOSURE (1)



APPENDIX G

BASE ORDER 11017.1A

USE OF OFF-ROAD RECREATIONAL VEHICLES





UNITED STATES MARINE CORPS  
Marine Corps Base  
Camp Lejeune, North Carolina 28542

BO 11017.1A  
MAIN/JIW/th  
06 MAY 1981

BASE ORDER 11017.1A

From: Commanding General  
To: Distribution List

Subj: Use of Off-Road Recreational Vehicles (ORRV's)

Ref: (a) MCO 11017.3B

Encl: (1) Off-Road Recreational Vehicle Use Map

1. Purpose. To establish policy, procedures and criteria for controlling ORRV's and to prescribe operating conditions on Marine Corps Base, Camp Lejeune, North Carolina.

2. Cancellation. BO 11017.1.

3. Background. The demand for use of ORRV's on public lands is increasing. Marine Corps Base is subjected to this increasing demand for access and use of ORRV's. This particular form of recreational land use may conflict with military land use requirements, wise resource management, environmental values and/or other recreational activities. This Order implements reference (a) which establishes the Marine Corps' official policy with regard to ORRV use.

4. Definitions. For the purpose of this Order, the following definitions apply.

a. Off-Road Recreational Vehicle (ORRV) - Any motorized vehicle in a non-paved area of the base for the purpose of recreation except that such term excludes:

- (1) Any registered motorboat.
- (2) Any military, fire, ambulance or law enforcement vehicle when used for emergency purposes and any combat support vehicle when used for national defense purposes.
- (3) Any vehicle authorized by the Commanding General for official use under permit, lease, license or contract.

b. Official Use - Use by an employee, agent or designated representative of the Marine Corps or one of its contractors in the course of his/her employment.

c. ORRV Site - Any land area designated and authorized by the Commanding General for recreational use by ORRV's.

5. Policy. It is the policy of this Command to provide for such land recreational use to the maximum extent feasible and practicable consistent with National goals and Marine Corps policy. The recreational use of ORRV's frequently conflict with military land use requirements, wise land use and resource management practices, environmental values and other recreational activities. It must be understood this policy is both in the National interest and interest of individuals. Accordingly, the ORRV program is limited to existing ORRV areas only as authorized in enclosure (1).

6. Registration and Operator Licensing Requirements. All ORRV's not intended for on-road use and that do not meet registration criteria or do not have base registration, must be transported by an authorized carrier on a vehicle to and from established ORRV operating areas. ORRV's intended for on and off-road use must meet all base and state registration requirements.

7. Safety Requirements. All on-off road type ORRV's must meet the safety requirements outlined in BO P5560.2H. When operating in ORRV areas and on immediate access roads into such areas, operating criteria is as follows:

a. ORRV's shall not be operated:

- (1) In a reckless, careless, or negligent manner.
- (2) In excess of established speed limits for unpaved roads which is 25 miles per hour.
- (3) While the operator is under the influence of alcohol or drugs.
- (4) In a manner likely to cause excessive damage or disturbance of the land, wildlife, or vegetative resources.

b. All ORRV's must conform to applicable state laws, including those with respect to pollutant emissions and registration requirements.

06 MAY 1981

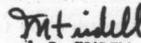
8. Authorized Use Areas (ORRV Sites) and Criteria Governing Use. All non-paved areas of the base are hereby closed with the following exceptions:

- a. Unregistered motorcycles only may be used on established motorcycle courses.
- b. Fishermen are authorized to use ORRV's to reach streams, ponds and the Intracoastal Waterway for recreational fishing.
- c. Saltwater fishermen may use ORRV's on the beach strand from the water's edge to the seaward side of the sand dunes from Riseley Pier to New River Inlet except during sea turtle nesting season. Onslow Beach is closed to ORRV travel from sunset to sunrise for protection of sea turtles from June through October. The main access road from the North Tower to the South Tower is open for use by fishermen during the nesting season and throughout the year. Riseley Pier and South Tower are the only two egress routes used to gain access to the beach strand. ORRV's are not permitted at any time to be on any portion of Onslow Beach north of Riseley Pier.
- d. Hunters are permitted to travel by ORRV to authorized hunting areas assigned by the Base Game Warden.
- e. Personnel authorized to gather firewood are also authorized to travel access roads to designated firewood areas by ORRV.

9. Action

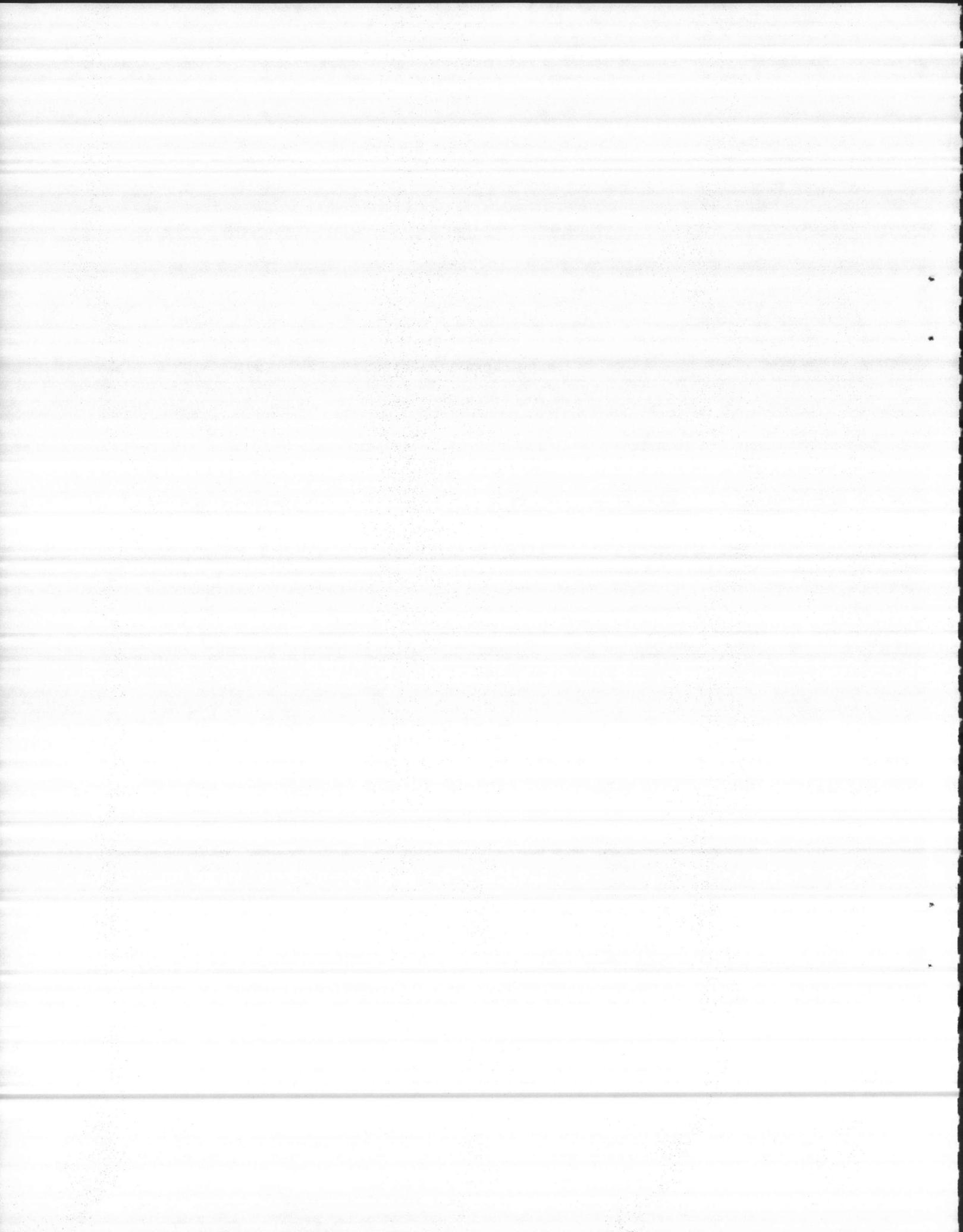
- a. The Base Training Facilities Officer will provide daily range assignments and maneuver areas to the Base Game Warden.
- b. The Base Maintenance Officer through the Base Game Warden will administer and enforce aspects of this Order pertaining to restriction of ORRV travel on secondary roads and trails.
- c. The Provost Marshal will enforce requirements of this Order in and immediately adjacent to Quarters and Housing and on primary roads.
- d. The Provost Marshal will enforce other requirements of this Order pertaining to licensing, operation, registration and safety.
- e. The Base Inspector will process violations of this Order in an appropriate manner.

10. Applicability. Having received the concurrence of the Commanding Generals, 2d Marine Division, FMF, and 2d Force Service Support Group (Rein), FMF, Atlantic and the Commanding Officers of the Naval Regional Dental Center and the Naval Regional Medical Center, this Order is applicable to those Commands. ORRV regulations at Marine Corps Air Station (Helicopter), New River are subject to Air Station regulations.

  
J. R. FRIDELL  
Chief of Staff

DISTRIBUTION: A

APPENDIX H  
BASE ORDER 11090.2B  
AIR POLLUTION EMERGENCIES





UNITED STATES MARINE CORPS  
MARINE CORPS BASE  
CAMP LEJEUNE, NORTH CAROLINA 28542

IN REPLY REFER TO:  
BO 11090.2B  
MAIN/JIW/th  
5 JAN 1979

BASE ORDER 11090.2B

From: Commanding General  
To: Distribution List

Subj: Air Pollution Emergencies

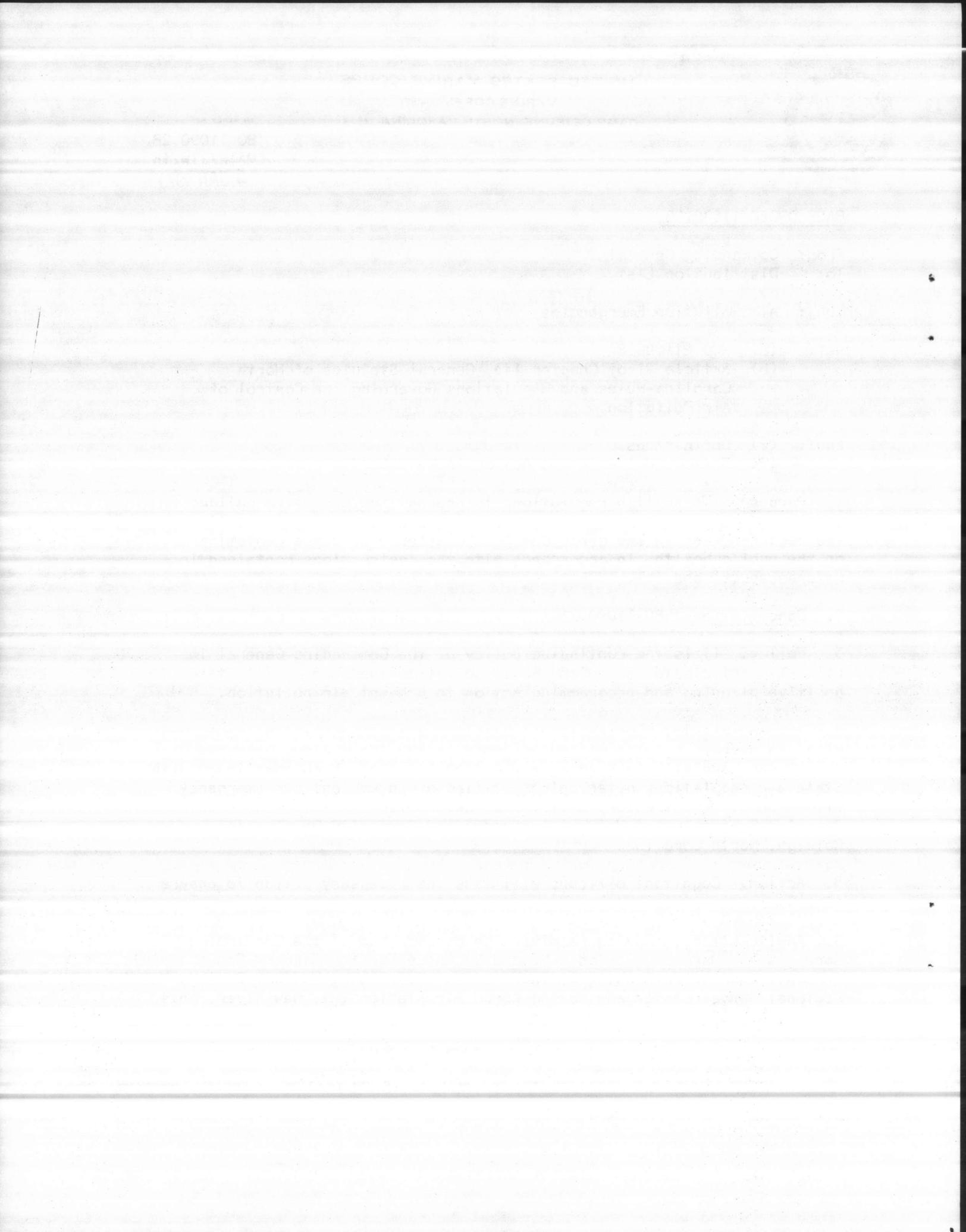
Ref: (a) MCO P11000.8A  
(b) Article 21 of Chapter 143, General Statutes of North Carolina-Rules and Regulations Governing the Control of Air Pollution

Encl: (1) Definitions  
(2) Episode Criteria and Action to be Taken

1. Purpose. To publish regulations to prevent the excessive buildup of air contaminants during air pollution episodes, thereby preventing the occurrence of an emergency due to the effects of these contaminants on the public health, in accordance with the instructions contained in references (a) and (b).
2. Cancellation. BO 11090.2A.
3. Policy. It is the continuing policy of the Commanding General to actively participate in environmental pollution abatement and to take positive planning and programming action to prevent air pollution.
4. Responsibility. The Assistant Chief of Staff, Facilities is charged with the overall responsibility of coordinating the various measures of this Order, and will take necessary action to ensure Base compliance with State air regulations after being notified of an ambient air emergency situation by the Director, Division of Environmental Management, North Carolina Department of Natural Resources and Community Development, Raleigh, North Carolina.
5. Action. Cognizant officers will take the necessary action to ensure compliance with this Order.
6. Applicability. Having received the concurrence of the Commanding Generals, 2d Marine Division, FMF and 2d Force Service Support Group (Rein), FMFLant, and the Commanding Officers of Naval Regional Medical Center, Naval Regional Dental Center and Marine Corps Air Station (H), New River, this Order is applicable to those Commands.

*J. R. Fridell*  
J. R. FRIDELL  
Chief of Staff  
Acting

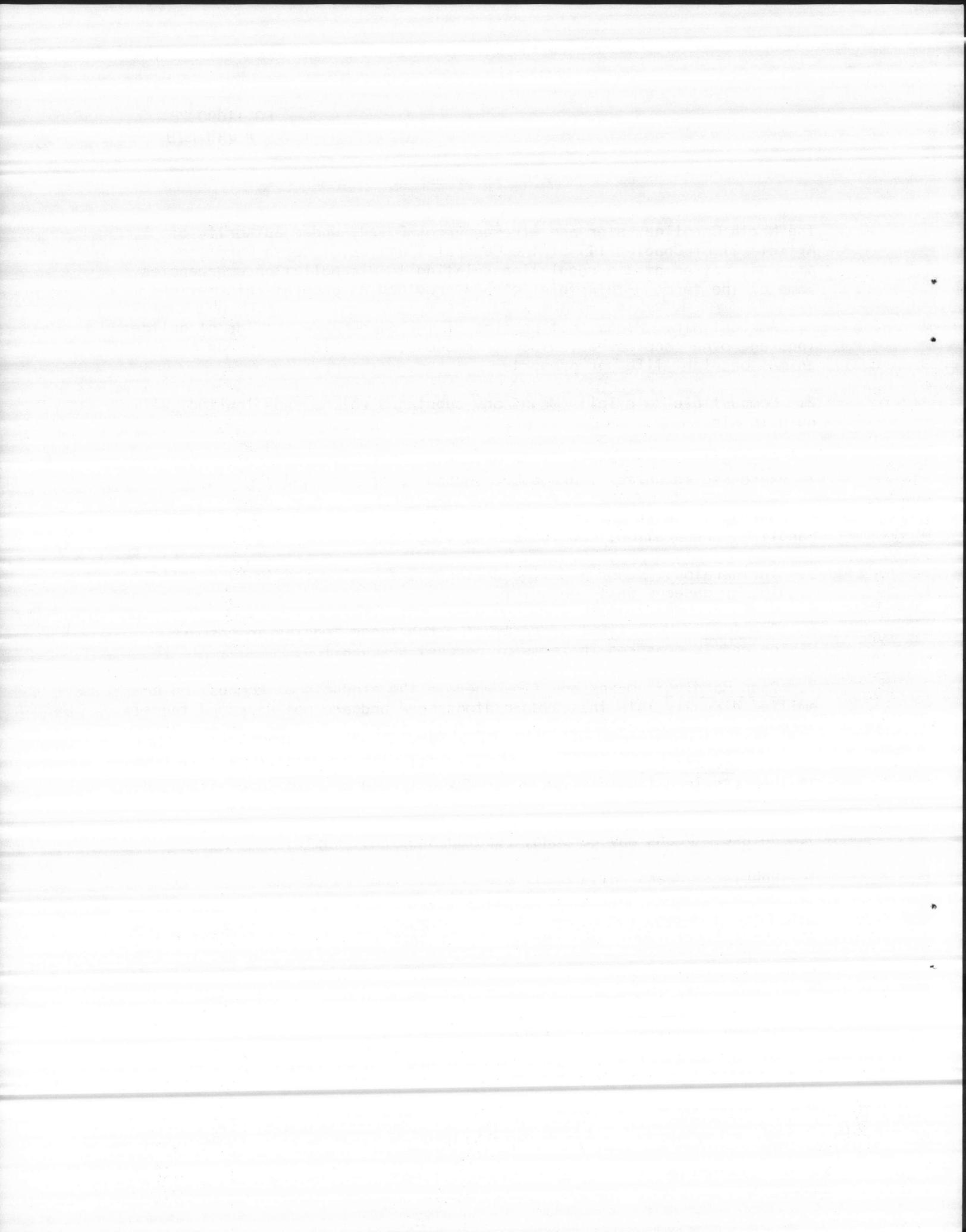
DISTRIBUTION: A



DEFINITIONS

The North Carolina Water and Air Resources Board, under authority of Article 21 of Chapter 143 of the General Statutes of North Carolina, as amended, has adopted a regulation relating to air pollution emergencies. Some of the terms within this Act are provided as general information:

1. Ambient Air: Means that portion of the atmosphere outside of buildings and other enclosures, stacks, or ducts, and which surrounds human, animal or plant life, or property.
2. Combustible Material: Means any substance which, when ignited, will burn in air.
3. Dustfall: Means particulate matter which settles out of the air and is expressed in units of grams per square meter per 30-day period.
4. Garbage: Means any animal and vegetable waste resulting from the handling, preparation, cooking and serving of food.
5. Incinerator: Means a device designed and engineered to burn solid, liquid, or gaseous waste material.
6. Opacity: Means that property of a substance tending to obscure vision and is measured in terms of percent obscuration.
7. Open Burning: Means any fire wherein the products of combustion are emitted directly into the outdoor atmosphere and are not directed thereto through a stack or chimney, approved incinerator, or other similar device.
8. Particulate Matter: Means any material, except uncombined water, that exists in a finely divided form as a liquid or a solid at standard conditions.
9. Refuse: Means any garbage, rubbish and trade waste.
10. Rubbish: Means solid or liquid wastes from residences and dwellings, commercial establishments and institutions.
11. Rural Area: Means any area which is primarily devoted to, but not necessarily limited to, the following uses: agriculture, recreation, wild-life management, state park, or any area of natural cover.
12. Smoke: Means small gas-borne particles resulting from incomplete combustion, consisting predominantly of carbon, ash and other burned or unburned residue of combustible materials that form a visible plume.



EPISODE CRITERIA AND ACTION TO BE TAKEN

1. Conditions justifying the proclamation of an air pollution alert, air pollution warning, or air pollution emergency shall be deemed to exist whenever the accumulation of air contaminants in any place is attaining, or has attained, levels which could, if such levels are sustained or exceeded, lead to a threat to the health of the public. "The Director, Division of Environmental Management, North Carolina Department of Natural Resources and Community Development will inform the base as to such episodes." "Normally, ASA conditions will occur during the summer and fall, if at all, in this area."

2. The four levels of an episode are:

a. Air Stagnation Advisory - This is a statement issued by the National Weather Service indicating that meteorological conditions are conducive to the build-up of air pollution. The state will then continuously monitor the air to determine if pollutant levels warrant the issuance of an alert, warning or emergency statement.

b. Air Pollution Alert - Pollutant levels have reached a point where specific actions are required to reduce man-made pollution emissions.

c. Air Pollution Warning - Pollutant levels are continuing to degrade to such a point that stronger pollution control measures are required.

d. Air Pollution Emergency - A severe health hazard now exists requiring the strongest control measures possible.

3. At such time as an atmospheric stagnation advisory is announced, the cognizant officers shall take such action as follows:

a. Atmospheric Stagnation Advisory (ASA)

(1) Announce to base personnel to reduce motor vehicle use where possible.

(2) Curtail open burning where possible.

b. Air Pollution Alert. The alert level is that concentration of pollutant at which first stage control actions are to be taken.

(1) There shall be no open burning of waste, vegetation, refuse or debris in any form.

(2) The use of incinerators for the disposal of any form of solid waste shall be limited to the hours between 1200 and 1600.

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(3) All unnecessary operations of motor vehicles shall be curtailed.

(4) Coal or oil-fired process steam generating facilities shall:

(a) Make maximum use of mid-day (1200-1600) atmospheric turbulence for boiler lancing and soot blowing.

(b) Substantially reduce steam load demands consistent with continuing plant operations.

c. Air Pollution Warning. The warning level indicates that air quality is continuing to degrade and that additional abatement actions are necessary. If announced first, carry out the instructions under Air Pollution Alert, and then the following:

(1) Persons operating motor vehicles shall minimize such use through car pools.

(2) All diesel burning vehicles shall cease to be operated; i.e., only nontactical vehicles burning gasoline will be operated.

(3) All firing of weapons shall cease, to include the Rifle Range operations, and such field firing exercises that may be in progress.

(4) Base Maintenance will prepare to close all steam valves except those providing steam to dining facilities; i.e., reducing steam plant operations to minimum requirements.

d. Air Pollution Emergency. The emergency level indicates that air quality is continuing to degrade to a level that should never be reached and that the most stringent control actions are necessary. If announced first, carry out those provisions of Air Pollution Alert/Warning, in addition to the following:

(1) The use of motor vehicles is prohibited, except in emergencies with the approval of the Commanding General, Marine Corps Base; the Commanding General, 2d Marine Division, FMF; the Commanding General, 2d Force Service Support Group (Rein), FMFLant; the Commanding Officer, Marine Corps Air Station (H), New River; and the Commanding Officers, Naval Regional Medical Center and Naval Regional Dental Center.

(2) Coal or oil-fired process steam generation facilities will be reduced to absolute necessities consistent with preventing equipment damage, maintaining steam to dining facilities only.

(3) All construction work involving grading or other operations which generate dust shall cease.

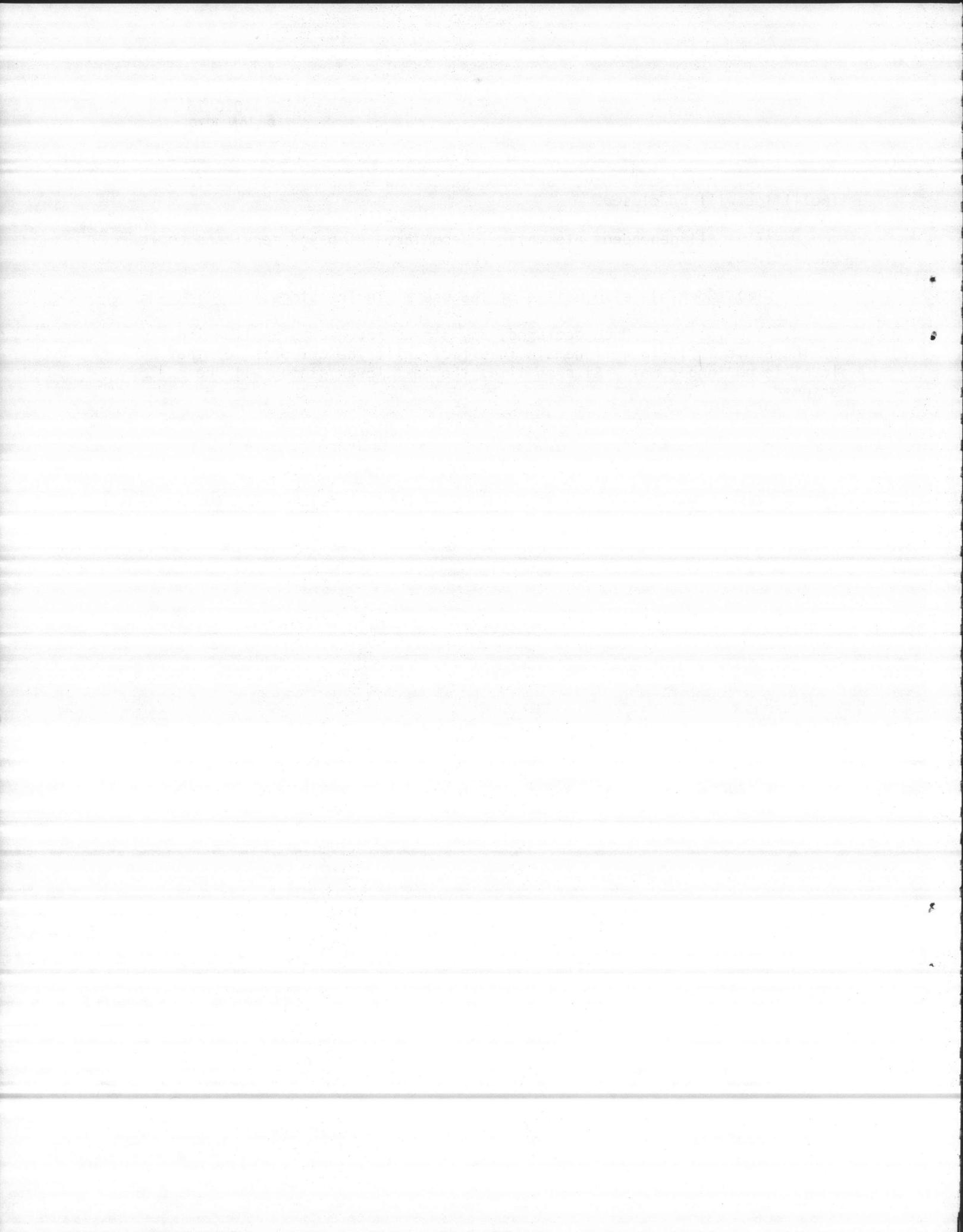
ENCLOSURE (2)

(4) All Commissary, Marine Corps Exchange and Special Services facilities will be closed.

(5) All dependent elementary, secondary, high and service schools shall close.

(6) Complete elimination of the use of incinerators.

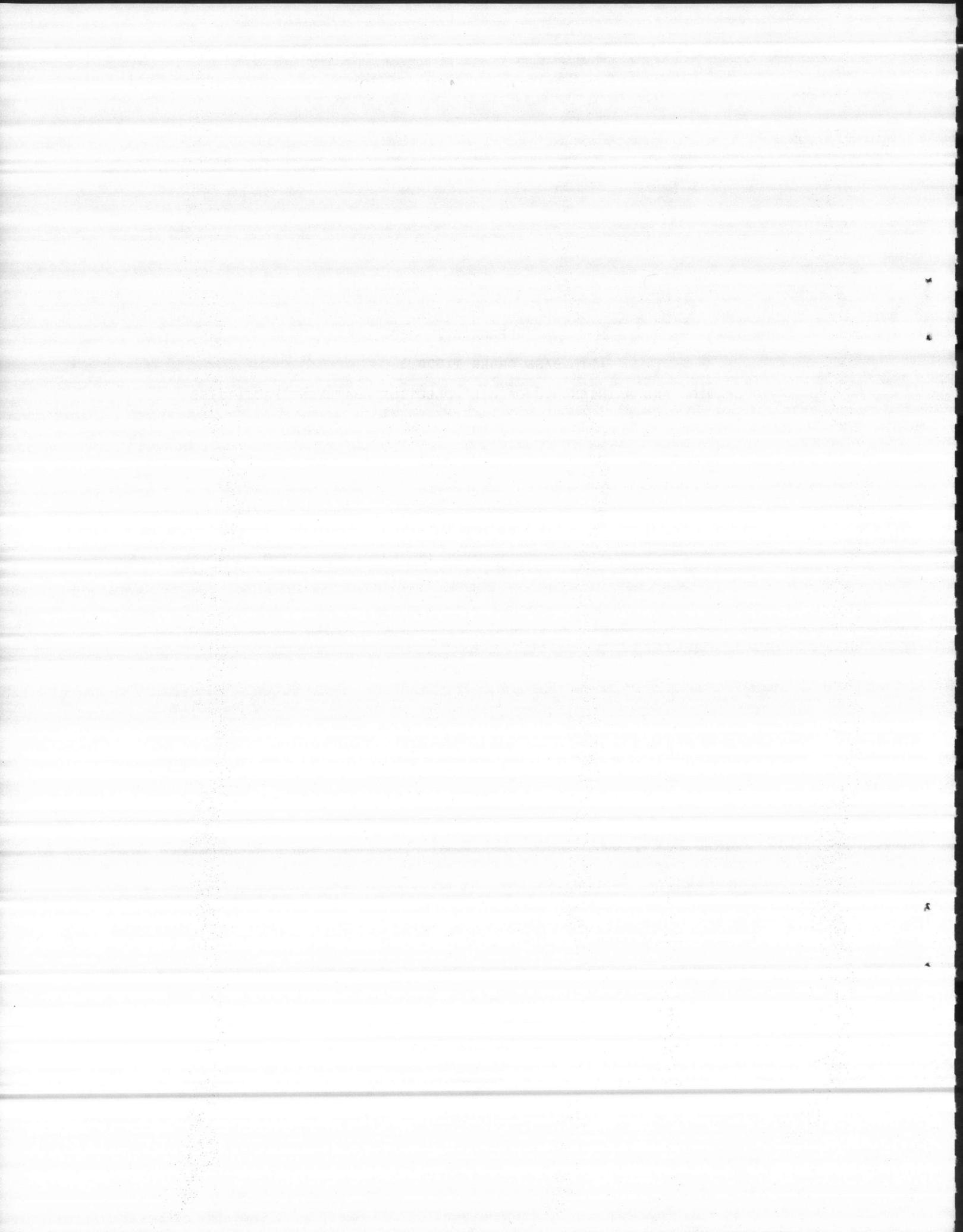
d. Termination. Once declared, any status reached by application of the above criteria will remain in effect until the criteria for that level is no longer met. At such time, the next lower status will be assumed.



APPENDIX I

BASE ORDER 11090.3

OPERATION AND MAINTENANCE OF OIL POLLUTION ABATEMENT FACILITIES





UNITED STATES MARINE CORPS  
MARINE CORPS BASE  
CAMP LEJEUNE, NORTH CAROLINA 28542

BO 11090.3  
MAIN/DDS/th  
18 May 1982

BASE ORDER 11090.3

From: Commanding General  
To: Distribution List

Subj: Operation and Maintenance of Oil Pollution Abatement Facilities

Ref: (a) NPDES Permit No. NCO003239, Marine Corps Base, Camp Lejeune (NOTAL)  
(b) Clean Water Act (NOTAL)  
(c) BO 11090.1B

1. Purpose. To publish responsibilities for the operation and maintenance of pollution abatement facilities required to be in compliance with federal and state water quality standards established under references (a) and (b).

2. Background

a. Reference (c) established policy and procedures regarding the prevention and abatement of pollution resulting from accidental spills or unauthorized discharge of petroleum oil and lubricants (POLs) (e.g., diesel fuel, kerosene, lube oil, etc.) and other hazardous material or waste (e.g., mogas, paint, solvents, acid, etc.). Addressees should be aware that a major part of the oil related pollutants being discharged into storm drains and streams comes from washrack runoff and from maintenance shops where leaks and spills of POLs during routine maintenance operations are not adequately controlled and cleaned up.

b. Facilities are being constructed at Camp Lejeune and Marine Corps Air Station (Helicopter), New River to provide compliance with references (a) and (b). These facilities connect oil contaminated wastewater drainage lines to the sanitary sewer. Oil/water separators, grit chambers, storm-water storage tanks and related devices are provided to reduce the amount of POLs in the wastewater and to prevent relatively small oil spills from entering and damaging the sanitary sewer and sewage treatment plants. Maintenance shops and other facilities constructed in the future must be equipped with pollution abatement devices in order to comply with reference (a).

c. Explosions, gases, fumes, etc. resulting from discharge of gasoline and other flammable or hazardous material into the sanitary sewer present a serious threat to personnel safety and may result in severe damage to facilities and equipment. Further, excessive quantity of POLs entering the sanitary sewer will have a significant impact on effective sewage treatment thus causing a violation of environmental standards. Such discharges (spills) are regulated by reference (c) and must be reported to the Base Fire Department (451-3333), immediately.

d. Washracks and related pollution abatement structures for tactical and tracked vehicles present ongoing maintenance problems due to the amount of soil washed from vehicles. Drainlines on all devices are relatively small in order to control rate of storm-water entering sewer. Keeping these drains open and flowing will require proper operation and routine maintenance.

3. Responsibilities. Operation, maintenance and repair of pollution abatement facilities:

a. Using organization will:

- (1) Train personnel to operate pollution abatement facilities located at the work site.
- (2) Ensure that cans, oil filters, rags, brushes, litter or other foreign objects are not discarded on washracks or into oil/water separators, grit chambers, storm-water bypass chambers, storm-water storage tanks, etc.
- (3) Ensure that used oil is disposed of into properly marked waste oil containers and not on the ground or into oil/water separators, grit chambers, storm-water bypass chambers, etc.
- (4) Ensure that neither gasoline nor hazardous waste (e.g., solvents, degreasers, paint, etc.) are disposed of into waste oil tanks/collection systems.
- (5) Clean up oil contaminated soil at the work site (contact Base Maintenance Division 451-2083/1690 for disposal instructions).
- (6) Notify Base Maintenance Division (451-3001) of required maintenance and repair. Marine Corps Air Station (Helicopter), New River commands will notify the Station S-4 Officer of any required maintenance and repair.
- (7) Notify Base Maintenance Division (451-5909) of waste oil containers that require emptying.

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b. Base Maintenance Officer will:

(1) Provide periodic inspection of maintenance and operation of pollution abatement facilities and initiate action to correct maintenance discrepancies. Report operational deficiencies to the using organizational commanding officer. Close the facility when it is apparent that continued operation will immediately jeopardize the capability of the sewage treatment facility.

(2) Service used (waste) oil collection facilities to include pumping out oil storage tanks at regular intervals and initiating action required to maintain and repair tanks and related signs, funnels, gauges and drainlines.

(3) Service oil/water separators, grit chambers, storm-water bypass chambers and storm-water storage tanks to include removing oily waste and solids, unclogging drainlines and initiating action to make needed repairs.

(4) Operate, maintain and repair wastewater lift stations and related mechanical equipment.

(5) Operate, maintain and repair pollution abatement facilities associated with swimming pools, heating plants and water treatment plants.

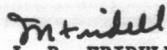
c. Public Works Officer will:

(1) Incorporate appropriate pollution abatement devices and structures in facilities constructed aboard Camp Lejeune, as required to provide compliance with the requirements of references (a), (b) and (c).

(2) Review planned pollution abatement devices and structures with appropriate representatives of the Base Maintenance Officer in order to ensure compatibility with existing sewage collection and treatment facilities and maintenance programs.

4. Action. Commanding Officers/area commanders will take action required to assure that organizations and personnel assigned to shops and other facilities equipped with washracks, waste oil collection systems, oil/water separators and related pollution abatement structures are aware of the requirements of this Order. Commanding officers will investigate cases of unauthorized discharge (spills) of POLs or other hazardous material/waste by individuals or organizations within their cognizance and take action required to avoid recurrence of the discharge.

5. Applicability. Having received the concurrence of the Commanding Generals, 2d Marine Division, FMF; 2d Force Service Support Group, (Rein), FMFLANT; and the Commanding Officers of the Marine Corps Air Station (Helicopter), New River and tenant units; Naval Regional Medical Center; and Naval Regional Dental Center, this Order is applicable to those Commands.

  
J. R. FRIDELL  
Chief of Staff

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