



UNITED STATES MARINE CORPS
MARINE CORPS INSTALLATIONS EAST-MARINE CORPS BASE
PSC BOX 20005
CAMP LEJEUNE NC 28542-0005

MCIEAST-MCB CAMLEJO 5090.10B
G-F/BEMD

MAR 08 2021

MARINE CORPS INSTALLATIONS EAST-MARINE CORPS BASE CAMP LEJEUNE ORDER
5090.10B

From: Commanding General
To: Distribution List

Subj: INSTALLATION RESTORATION PROGRAM/HAZARDOUS WASTE SITE
CLEANUP IMPLEMENTATION

Ref: (a) Department of the Navy Environmental Restoration Manual
2018
(b) 42 U.S.C. 103, Comprehensive Environmental Response,
Compensation, and Liability Act of 1980, and Superfund
Amendments and Reauthorization Act of 1986
(c) 42 U.S.C. 82 §6901 et seq., Resource Conservation and
Recovery Act
(d) North Carolina General Statutes 143B-279.10 Recordation of
Contaminated Sites
(e) OPNAVINST 8020.15A/MCO 8020.13A
(f) MCO 5090.2
(g) 40 CFR 300, National Oil and Hazardous Substances Pollution
Contingency Plan
(h) 40 CFR 264, Standards for Owners and Operators of
Hazardous Waste Treatment, Storage, and Disposal Facilities
(i) Marine Corps Base Camp Lejeune Installation Restoration
Program Restoration Advisory Board Charter, 14 Dec 2004
(j) Federal Facilities Agreement of 13 February 1991
(k) 105 STAT. 990 Appropriations Bill 102-154
(l) MCO 8020.10
(m) 29 CFR 1910, Occupational Safety and Health Standards

Encl: (1) Installation Restoration (IR) Program Site List
(2) Active IR Program Sites
(3) Munitions Response Program (MRP) Site List
(4) Active MRP Sites
(5) Solid Waste Management Unit (SWMU) Site List
(6) Active SWMU Sites

1. Situation

a. In the past, a lack of stringent legislation regulating the disposal of hazardous materials led to the nationwide use of expedient disposal methods that threatened human health and the overall quality of the environment. Past hazardous waste disposal practices included, in part, burial, burning, or dumping. Although acceptable at the time, these disposal methods have caused long-term problems through the release of hazardous pollutants into the soil and groundwater.

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Nationally, residential and municipal wells have been contaminated by hazardous wastes improperly dumped or buried many years ago. In some cases, residential and commercial developments have been built on old disposal sites, resulting in serious human health problems. These environmental and health problems have led to greatly increased national concerns regarding past disposal practices.

b. For many years, the Marine Corps has used hazardous materials and produced large quantities of hazardous waste during normal operations. Therefore, the Department of the Navy (DON) established the Navy/Marine Corps Installation Restoration (IR) Program, per the Department of Defense (DoD) concept plan, to identify, evaluate, control, and correct past deficient waste disposal sites and practices. Similar to other DON environmental programs, the IR Program is oriented towards compliance with Federal and state environmental laws and regulations. The IR Program consists of identifying the presence of hazardous wastes and evaluating effects on the environment, as well as identifying and programming any required corrective measures.

c. To properly prevent and address the various types of contamination and adhere to respective regulatory requirements, the Marine Corps Base Camp Lejeune (MCB CAMLEJ) IR Program is managed through three separate programs. However, to be consistent with program nomenclature as described in reference (a), all Environmental Restoration activities will continue to be referred to collectively as the IR Program. All Environmental Restoration activities aboard MCB CAMLEJ and Marine Corps Air Station New River (MCAS NR) are managed by MCB CAMLEJ.

(1) IR Program: The purpose of the IR Program is to reduce the risk to human health and the environment from legacy waste disposal operations and hazardous substance releases. The IR Program adheres to the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) regulatory framework contained in reference (b). Investigative and remedial activities are conducted in partnership with the U.S. Navy, the U.S. Environmental Protection Agency (EPA), and the North Carolina Department of Environmental Quality (NCDEQ).

(2) Munitions Response Program (MRP): The MRP addresses response actions at munitions response sites where munitions and explosives of concern (MEC) and munitions constituents (MC) are present or suspected to be present in the environment. The MRP also adheres to the CERCLA regulatory framework.

(3) Solid Waste Management Unit Program (SWMU): The SWMU addresses contaminated sites where the process that generated the contamination is still in operation, or the contamination is from a recent release. SWMU sites are regulated by the Resource Conservation and Recovery Act (RCRA), reference (c), corrective action guidelines as described in the Base Hazardous and Solid Waste Amendment (HSWA) permit. All IR Program sites are assigned SWMU numbers on the HSWA permit. Investigative and remedial activities are conducted under the guidance of NCDEQ.

d. Depending on site conditions, contaminants identified, and funding, sites may transfer between the IR and SWMU programs, as well as the Underground Storage Tank Program (petroleum releases regulated under RCRA), which is not discussed in this Order. Should a transfer occur, notification to the appropriate regulatory officials should be completed to document the transfer.

e. Management processes for the IR and MRP programs maintain the same framework for response actions under CERCLA as described in the processes below.

(1) Preliminary Assessment/Site Inspection (PA/SI). The PA/SI involves an extensive review and evaluation of existing records located on the Installations and elsewhere, an examination of the activity's waste disposal history, and identification of any potential or existing groundwater pollution problems on the Installations.

(a) Water and Air Research Incorporated completed the initial PA/SI of MCB CAMLEJ in April 1983, under the direction of the Naval Energy and Environmental Support Activity, Port Hueneme, California. Based on information from historical records, aerial photographs, field inspections, and personnel interviews, a total of 76 potentially contaminated sites were identified. Each site was evaluated with regard to contamination characteristics, migration pathways, and pollutant receptors. The study concluded that while none of the sites posed an immediate threat to human health or the environment, 22 sites warranted further investigation to assess potential long-term impacts. Additional sites have been assessed since this initial assessment as needed through the CERCLA process.

(b) To identify all former and active ranges on MCB CAMLEJ and MCAS NR, an Archives Search Report (ASR), a Range Identification and a Preliminary Range Assessment were performed by the United States Army Corps of Engineers in February 2000. From these reports it was determined that 22 potentially contaminated former military ranges qualified for closure under the MRP. Since the ASR was completed, additional MRP sites have been identified through closure of former

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ranges or identification of munitions disposal areas. Although the PA phase of the PA/SI was completed through the ASR, SI phases at each site have been conducted or are currently being performed under the MRP.

(2) Remedial Investigation (RI)/Feasibility Study (FS). An RI/FS verifies problems identified by the PA/SI through physical and/or analytical testing and monitoring of suspected hazardous pollutants. RI/FS studies include, but are not limited to, soil, sediment, surface water, soil gas, indoor air, and groundwater sampling and analysis, pollutant characterization, detailed analysis of remedial alternatives, and human and environmental health effects potentially induced by a respective IR or MRP site. RI/FS studies for IR and MRP sites on MCB CAMLEJ and MCAS NR, as identified for further investigation, are/have been/or will be conducted by a private contractor through the Mid-Atlantic Division, Naval Facilities Engineering Command (NAVFACENGCOM). PA/SI studies and RI/FS studies for IR and MRP sites are funded from Environmental Restoration, Navy (ER, N) funds managed by NAVFACENGCOM.

(3) Remedial Design/Remedial Action (RD/RA). The RI/FS study may indicate the need for RA. First priority will be given to RA to control contamination migrating from Marine Corps property when such migration poses an immediate threat to human health on the Installation or within an adjacent community. RD/RA for IR and MRP sites are programmed utilizing ER, N funds, and may include Land Use Controls (LUCs) and long-term monitoring (LTM) of groundwater, soil gas, and/or indoor air.

(4) Response Complete (RC). Once RA objectives have been met the site is considered to be RC. This phase is documented in a RA Completion Report. LUCs, if any, will be administratively removed from the site at this time.

(5) Decision Documents. If an RI/FS has been completed, the selected remedy, even if there is no further action, is detailed in a Record of Decision (ROD) document. The ROD is signed by the Commanding General (CG), Marine Corps Installations East (MCIEAST)-MCB CAMLEJ, the State of North Carolina, and the EPA. If no further action (NFA) is determined prior to completion of an RI/FS, the selected remedy (NFA) is documented in a No Action Decision Document, which is signed only by the CG MCIEAST-MCB CAMLEJ.

f. Response actions under the RCRA framework follow a similar process as under CERCLA, but are permitted by NCDEQ under the Base HSWA permit. Depending on the type of RCRA corrective action and site history, funding for RCRA regulated sites may be procured either

through the MCB CAMLEJ portion of the USMC Operations and Maintenance account (Activity Funds) or through ER, N funds managed by NAVFACENGCOM. Funding eligibility determinations are made by both NAVFACENGCOM and Marine Corps Installations Command (MCICOM).

(1) RCRA Facility Assessment (RFA). In accordance with the HSWA of 1984, EPA and NCDEQ conducted an RFA site inspection on MCB CAMLEJ and MCAS NR from 9 to 13 January 1989. An RFA report was prepared to present the results of an extensive file survey and the RFA site inspection, as required under the RCRA Framework. The RFA report also integrated DON's future RCRA/HSWA responsibilities with ongoing CERCLA/Superfund Amendments and Reauthorization Act activities on MCB CAMLEJ and MCAS NR. An additional RFA was performed in July 1996 to include units such as landfills, surface impoundments, waste piles, tanks, container storage, septic tanks, drain fields, wastewater treatment plants and storm water conveyances.

(2) SWMU Assessment Report (SAR). For all newly discovered sites, a SAR is to be submitted upon direction of the State. The SAR may include sampling of the release area, or an evaluation of the site and recommendation for further investigation, interim remedial measures, or NFA. The Installation may elect to move directly to an Interim Measure (IM), a Confirmatory Sampling Investigation (CSI), or a RCRA Facility Investigation (RFI) in lieu of preparing a SAR.

(3) CSI. If there is reason to suspect a release has occurred, a CSI is warranted to evaluate if site contamination is present at concentrations that would require RA. CSIs traditionally include only soil sampling, with the assumption that if the soil samples are contaminated (exceed screening criteria) then the underlying groundwater may be contaminated. If soil contamination is encountered during the CSI, a Phase II CSI may be conducted to further delineate the soil contamination and to conduct groundwater sampling. Based on the findings, the Installation may elect to move directly to an IM or RFI in lieu of conducting a CSI.

(4) RFI. An RFI may be performed to characterize the site and to evaluate the risk associated with exposure to site contaminants. Fate and transport of the site contaminants are evaluated, and a baseline human health risk assessment and a screening level or baseline ecological risk assessment (if there are ecological receptors) would be performed in conjunction with the RFI. The RFI is intended to provide a basis for decision on future response actions or NFA.

(5) IM. An IM is an action necessary to minimize or prevent the further migration of contaminants and limit actual or potential human and environmental exposure to contaminants while long-term corrective action remedies are evaluated and implemented. IMs may be conducted at any point in the RCRA corrective action process, and are

typically implemented either upon discovery of a current threat to human health or the environment, or upon completion of delineation. For remedial measures that are simple and relatively low-cost, IMs are often conducted before the Corrective Measures Study (CMS), and may lead to removal of site contamination and NFA. IMs may address only elevated levels of contamination, resulting in the remaining portion of the site under LUCs or LTM.

(6) CMS. A CMS is used to identify and develop remedial alternatives, evaluate the alternatives, and justify corrective measures at a SWMU. Remedial Goal Objectives are often developed during the CMS to identify corrective action levels that would be within acceptable risk levels for the proposed receptors. As described in the HSWA Permit, the alternative technology types and process options are screened on the basis of the qualitative evaluation of four criteria: performance, reliability, implement ability, and safety. Relative cost is also used in the evaluation of technology options.

(7) Corrective Measures Implementation. After the specific remedial technology is selected and approved, the corrective measures are implemented. The implementation includes preparing a Corrective Measures Design and conducting the RA. It may also include preparing a community involvement plan (CIP), LUC Implementation Plan, LTM plan, and the routine reports associated with RA operation.

g. LUCs. Part of the corrective measures for IR, MRP, and SWMU sites may include LUCs. LUCs are documented in the Base Master Plan and Geographic Information System to ensure they are adhered to. In addition, if LUCs are mandated by the State and EPA, a Notice of Contaminated Site is filed in Onslow County real property records in accordance with North Carolina General Statute's reference (d). Common LUCs used aboard MCB CAMLEJ and MCAS NR are defined below:

(1) Intrusive Activities Control (soil and groundwater). Restrict intrusive activities within the extent of soil and/or groundwater contamination remaining in-place above concentrations that allow for unlimited use/unrestricted exposure (UU/UE).

(2) Intrusive Activities Control MEC. Restrict intrusive activities within the munitions response area with potential explosive safety hazards. Require unexploded ordnance (UXO) technical support for any intrusive activities and munitions safety awareness training for Base personnel and subcontractors working or living within the site. Because of the potential acute hazard caused by MEC at suspected munitions sites, this restriction may apply to MRP sites still under investigation, even if LUCs have not been officially mandated by the state and EPA. At a minimum, "3R" UXO Safety Awareness Training may be required.

(3) Non-Industrial Use Control (soil and groundwater).

Prohibit non-industrial land use (i.e., residential use) within the extent of soil and/or groundwater contamination remaining in-place above concentrations that allow for non-industrial use.

(4) Industrial/Non-Industrial Use Control (vapor intrusion).

Prior to construction or building renovations, evaluate existing and future buildings and land use for potential vapor intrusion pathways within the extent of groundwater contamination remaining in-place above concentrations that allow for UU/UE. This LUC boundary typically encompasses the area within 100 feet of surficial and Castle Hayne groundwater chemicals of concern exceeding cleanup levels.

(5) Industrial/Non-Industrial Use Control (MEC).

Prohibit and/or evaluate future buildings and land use where MEC may remain in-place.

(6) Aquifer Use Control.

Prohibit the withdrawal and use of groundwater (i.e., potable use), except for environmental monitoring, where groundwater contamination remains in-place above concentrations that allow for UU/UE.

(7) Access Control.

Physical barriers to protect personnel from contact with site hazards.

(8) "3R" UXO Safety Awareness Training.

UXO safety awareness training to be provided to all Base personnel and contractors working or living within the site. Even if an MRP site receives NFA status, this LUC may still be required, as there is rarely a 100 percent guarantee that all MEC has been removed from a site. This LUC generally applies to active MRP sites still under assessment, as well, because of the potential acute hazard caused by munitions.

2. Cancellation. MCIEAST-MCB CAMLEJO 5090.10A.

3. Mission

a. MCB CAMLEJ will develop policy, prescribe procedures, and assign responsibilities for the implementation of the IR Program for the cleanup of past and newly discovered hazardous waste sites located aboard MCB CAMLEJ and MCAS NR.

b. Summary of Revision. This Order has been revised in its entirety and should be thoroughly reviewed.

4. Execution

a. Commander's Intent and Concept of Operations

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(1) Commander's Intent. The Marine Corps' policy, under references (e) and (f), is to comply with Federal, state and local regulations concerning investigation and remediation of hazardous waste sites. This Order implements the IR Program to determine where hazardous wastes have been deposited in the past, assess the present and future environmental and health effects of the waste, and provide control measures and remediation.

(2) Concept of Operations. This policy and guidance applies to all contractors, DoD agencies, military organizations, other authorized activities including all known and discovered hazardous waste sites located on MCB CAMLEJ and MCAS NR Installations. This Order formally establishes the IR Program for MCB CAMLEJ and MCAS NR per references (a) through (m). Reference (g) establishes significant requirements for Federal facilities concerning CERCLA regulated sites. It defines the process for the identification, evaluation, and remediation of past hazardous waste sites under reference (b). Reference (h) defines the process for the identification, evaluation and remediation of past hazardous waste sites under reference (c).

b. Tasks

(1) Director, Environmental Management Division (EMD) shall be assigned responsibility for implementation of the IR Program on MCB CAMLEJ and MCAS NR.

(2) IR Program Manager, Environmental Quality Branch (EQB), EMD shall be designated the Installation point of contact to establish, direct, maintain, and coordinate the MCB CAMLEJ and MCAS NR IR Program. The IR Program Manager will coordinate accomplishment of specific tasks with the Environmental Compliance Branch (ECB), the Environmental Conservation Branch (ECON), Environmental Affairs Department-MCAS NR, Office of the Staff Judge Advocate, Communication Strategy and Operations Office (COMMSTRAT), Eastern Area Counsel Office (EACO), Assistant Chief of Staff, G-3/5, G-4, G-F, Resident Officer-in-Charge of Construction (ROICC), and Regional Installation Geospatial Information and Services Office. The IR Program Manager is responsible for long-term planning and management to accomplish the goals and objectives of the MCB CAMLEJ and MCAS NR IR Program. Responsibilities include:

(a) Documentation of IR, MRP, and SWMU program studies and actions to include the maintenance of the administrative record. Details on the specific phases of each program can be found in references (a) and (f) and in Section 1, paragraphs e through g of this Order.

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(b) Establishment, implementation, and co-chairing of a Restoration Advisory Board to review and comment on MCB CAMLEJ actions and proposed actions with respect to releases or threatened releases of hazardous substances from IR and MRP sites (SWMU program sites are RCRA permitted and information is distributed through the permit process). Membership shall include EPA, DoD, appropriate state and local authorities, Natural Resource Trustees, and representatives of the affected community. Details of the Restoration Advisory Board can be found in reference (i).

(c) Development and implementation of a concise action plan in accordance with the IR Program's short and long-term objectives incorporating references (j) and (k).

(d) Compliance with Federal and state regulations under references (b) through (l) and others as appropriate.

(e) Identification of program requirements, projects and forwarding of funding requirement information to Commandant of the Marine Corps, Headquarters, U.S. Marine Corps and MCICOM, GF-5.

(f) Coordination with the EPA, appropriate state and local authorities, IR Program Restoration Advisory Board, Natural Resource Trustees, environmental groups, DoD, Navy and Marine Corps representatives, and the local community.

(g) Negotiation of all agreements related to the IR Program.

(h) Notification of any IR, MRP, or SWMU Program site requiring NFA and/or being deleted from reference (j) and enclosures (1) through (6) to all interested parties.

(i) Development and implementation of a formal CIP for the IR Program. Guidelines are detailed in references (a), (f), and (j).

(j) Coordination, direction, and evaluation of IR Program work, assurance of compliance with the National Oil and Hazardous Substances Pollution Contingency Plan (reference (g)), and recommend action for decisions. Based on reference (a), the IR Program Manager's period of responsibility begins prior to initiation of the RI/FS (for CERCLA regulated sites), and continues through design, RA, No Further Response Action Planned phase, or deletion of the site from the National Priorities List.

(k) Coordination with staff experts in the ECB, ECON and EQB to ensure mitigation of environmental impacts of RA's on the affected resources and review proposed actions through the National Environmental Policy Act (NEPA) process for impact to the IR, MRP, or SWMU Programs.

(1) Coordinate with EACO for the provision of legal advice and recommendations to ensure compliance with Federal and state regulations, draft interagency agreements, and address any litigation or other legal matters that may arise.

(3) Director, COMMSTRAT shall:

(a) Develop COMMSTRAT guidance concerning IR program activities.

(b) Serve as the initial point of contact for inquiries from environmental groups, private citizens, and the media.

(4) ROICC shall:

(a) Manage construction associated with RA.

(b) Ensure that the work is accomplished in accordance with plans and specifications, and in a fashion that protects human health and the environment.

(c) Oversee procedures to ensure compliance with reference (m), as well as review the contractor's Health and Safety Plans, ensuring that any comments are addressed and necessary revisions are made by the contractor.

(d) Ensure that the approved Quality Assurance/Quality Control plan is followed, both for implementing the selected alternative and for accomplishing field sampling to verify that cleanup levels are attained.

(e) Contract administration and management between MCB CAMLEJ and RA contractors engaged in remedial designs/actions.

(f) Coordinate with the IR Program Manager prior to making contract modifications or field changes; as the RA has been agreed to in consultation with regulatory agencies. In addition, the IR Program Manager will not give direction to contractors managed through the ROICC.

(g) Ensure before the completion of the contract/delivery order, representatives from EQB and the ROICC office must jointly inspect the constructed remedial system.

(h) Verify existing LUCs are adhered to for military construction projects not associated with RA. Notify the IR Program Manager should the ROICC determine that existing LUCs were not incorporated into a military construction project prior to start.

(5) All commands and organizations charged with planning or implementing construction projects (including underground utility installation), field activities, and troop training exercises shall coordinate and ensure that those activities do not affect and are not affected by the IR, MRP or SWMU sites identified in enclosures (1) through (6). This includes the adverse human health effects, which may arise from exposure of personnel, as well as site disturbance, which may exacerbate contamination and/or complicate the remediation process. All such activities in the proximity of identified IR, MRP, and SWMU sites should be coordinated with the Director, EMD, via the NEPA process, to ensure protection of human health and to maintain the remedial process. Enclosures (2), (4), and (6) are maps identifying the general location, it is recommended that the IR Program Manager be contacted for updated maps as appropriate. Site-specific figures can also be provided upon request through the IR Program Manager.

c. Coordinating Instructions. Any planned activity that potentially impacts IR, MRP, or SWMU sites, or is to occur within 500 feet of the outer perimeter, must be coordinated through the IR Program Manager before commencing. Intrusive activities into LUCs require a 60 day notice to the EPA and NCDEQ prior to commencement. Intrusive activities on an active or actively managed (i.e., LUCs) MRP site may require the contractor to prepare an Explosive Safety Submission in accordance with reference (1) prior to commencement. Coordination may be done via the NEPA process. Any individual/organization discovering either a previously unidentified hazardous substance, any buried or abandoned material deemed as suspicious or odd in appearance should contact EMD at (910) 451-5003 immediately to notify the IR Program Manager, and secure the site to the best extent possible to avoid disturbance of any contaminated material. Intrusive Activity training is provided annually by the IR Program section of the EMD to include the distribution of updated IR Program site maps as appropriate.

5. Administration and Logistics. Not applicable.

6. Command and Signal

a. Command. This Order is applicable to MCB CAMLEJ and MCAS NR, subordinate commands, and all tenant organizations.

b. Signal. This Order is effective the date signed.


N. E. DAVIS
Chief of Staff

DISTRIBUTION: A/C (plus H&S Bn, WTBn, and MCAS NR)



UNITED STATES MARINE CORPS
MARINE CORPS INSTALLATIONS EAST-MARINE CORPS BASE
PSC BOX 20005
CAMP LEJEUNE NC 28542-0005

MCIEAST-MCB CAMLEJO 5090.10B Ch 1
ADJ
JUL 13 2022

MARINE CORPS INSTALLATIONS EAST-MARINE CORPS BASE CAMP LEJEUNE ORDER
5090.10B Ch 1

From: Commanding General
To: Distribution List

Subj: INSTALLATION RESTORATION PROGRAM/HAZARDOUS WASTE SITE
CLEANUP IMPLEMENTATION

Encl: (1) New page inserts to MCIEAST-MCB CAMLEJO 5090.10B

1. Situation. To transmit new page inserts to the basic Order.


2. Mission

a. To transmit new page inserts and issue a change transmittal to the basic Order.

b. Summary of Change. Replace enclosures 1 through 6 to update changes to the site lists.

3. Execution. Remove enclosures 1 through 6 of the basic Order and replace it with the corresponding pages contained in the enclosure.

4. Administration and Logistics. File this change transmittal immediately behind the signature page of the basic Order.


T. W. FERRY
Deputy Commander

Installation Restoration (IR) Program Site List

I. List of Active Installation Restoration Program Sites

IR # SITE DESCRIPTION

IR-3	Old Creosote Plant
IR-6	Storage Lots 201 and 203
IR-35	Camp Geiger Fuel Farm
IR-36	Camp Geiger Dump Area Near Sewage Treatment Plant
IR-49	MCAS NR Suspected Minor Dump
IR-69	Rifle Range Chemical Dump
IR-73	Courthouse Bay Liquid Disposal Area
IR-78	Hadnot Point Industrial Area
IR-82	Piney Green Road VOC Area
IR-86	Tank Area AS419-AS421 at MCAS NR
IR-88	Building 25 Base Dry Cleaners
IR-89	STC-868 Former DRMO
IR-93	Building TC-942 Tanks
IR-96	Building 1817 UST
IR-111	Camp Davis FARP Activities South

**II. List of Installation Restoration Program Sites Where
Remedy in Place is to Maintain Land Use Controls**

IR # SITE DESCRIPTION

IR-2	Former Nursery/Day Care Center
IR-10	Original Base Dump
IR-15	Montford Point Burn Landfill Area
IR-16	Former Montford Point Burn Dump
IR-21	Transformer Storage Lot 140
IR-28	Hadnot Point Burn Dump
IR-41	Camp Geiger Dump Near Former Trailer Park
IR-43	Agan Street Dump
IR-44	Jones Street Dump
IR-54	Crash Crew Fire Training Burn Pit
IR-63	Verona Loop Dump
IR-65	Engineer Area Dump
IR-68	Rifle Range Dump
IR-74	Mess Hall Grease Dump Area
IR-80	Paradise Point Golf Course Maintenance Area
IR-84	Building 45

III. List of Installation Restoration Program Sites that
Require No Further Action

<u>IR #</u>	<u>SITE DESCRIPTION</u>
PA Site	HPIA Buildings 1120 (Auto Hobby Shop), 1409 (Carpenter/Boat Repair), and 1512 (Auto Repair Shop)
PA Site	MCAS NR Buildings SAS113 (Auto Hobby Shop), AS116 (Vehicle Maintenance Shop), and AS119 (Vehicle Maintenance Shop)
PA Site	Montford Point Buildings M119 (Weapons/Auto Maintenance) and M315 (Laundry Pickup Facility)
IR-1	French Creek Liquids Disposal Area
IR-4	Sawmill Road Construction Debris Dump
IR-5	Piney Green Road
IR-7	Tarawa Terrace Dump
IR-8	Flammable Storage Warehouse Building TP-451 and TP-452
IR-9	Firefighting Training Pit at Piney Green Road
IR-12	EOD-1 Range (Formerly EOD (G-4A))
IR-13	Golf Course Construction Dump Site
IR-14	Knox Area Riprap
IR-17	Montford Point Area Riprap
IR-18	Watkins Village (E) Site
IR-19	Naval Research Lab Dump
IR-20	Naval Research Lab Incinerator
IR-23	Roads and Grounds Building 1105
IR-24	Industrial area Fly Ash Dump
IR-25	Base Incinerator
IR-27	Naval Hospital Area Riprap
IR-30	Sneads Ferry Road Fuel Tank Sludge Area
IR-31	Engineer Stockade - G4 Range Road
IR-32	French's Creek
IR-33	Onslow Beach Road
IR-34	Ocean Drive
IR-37	Camp Geiger Area Surface Dump
IR-38	Camp Geiger Construction Dump
IR-39	Camp Geiger Construction Slab Dump
IR-40	Camp Geiger Area Borrow Pit
IR-42	Building 705 BOQ Dump

<u>IR #</u>	<u>SITE DESCRIPTION</u>
IR-46	MCAS NR Main Gate Dump
IR-47	MCAS NR Riprap Near Stick Creek
IR-48	MCAS NR Mercury Dump
IR-50	MCAS NR Small Craft Berthing Riprap
IR-51	MCAS NR Football Field
IR-52	MCAS NR Direct Refuel Depot
IR-53	MCAS NR Warehouse Building 3525 Area
IR-55	Air Station East Perimeter Dump
IR-56	MCAS NR Oiled Roads to Marina
IR-57	Runway 36 Dump
IR-58	MCAS NR Tank Training Area
IR-59	MCAS NR Infantry Training Area
IR-60	EOD K-326 Range
IR-61	Rhodes Point Road Dump
IR-62	Race Course Area Dump
IR-64	Marines Road - Sneads Ferry Road MOGAS Spill
IR-66	AMTRAK Landing Site and Storage Area
IR-67	Engineers TNT Burn Site
IR-70	Oak Grove Field - Surface Dump
IR-71	Oak Grove Buried Dump
IR-72	Oak Grove Coal Pile
IR-75	MCAS NR Basketball Court Site
IR-76	MCAS NR Curtis Road Site
IR-85	Camp Johnson Battery Dump
IR-87	MCAS NR Officers' Housing Area (Formerly Site A)
IR-90	Building BB-9 Tanks
IR-91	Building BB-51 Tanks
IR-92	Building BB-246 Tanks
IR-94	PCX Service Station (Building 1613)
IR-95	Animal Dipping Vat Sites
IR-110	Demolished Water Towers with Soils Containing Lead-Based Paints

Legend

IR Program
Sites*

Installation Area

Water

*Includes Active sites and No Further Action sites with Land Use Controls



SCALE 1:1,000,000

TRANSFORMED GADGETIC REFERENCE SYSTEM gadget
 TRANSLATION TRANSLATIVE MECHANISM
 TRANSDUCER NORTH AMERICAN DUTYMAN
 TRANSDUCED BY UNCLE NATIONAL GADGETIC SURVEY POINTS

[illegible]

professionally on the subject, pointing to numerous US studies which show that the average life expectancy of smokers is 10 years less than that of non-smokers. He also pointed out that the average life expectancy of smokers is 10 years less than that of non-smokers. He also pointed out that the average life expectancy of smokers is 10 years less than that of non-smokers.

21-APR-12

Munitions Response Program (MRP) Site List

I. List of Active Munitions Response Program Sites ("3R" UXO Awareness Training may be Required)

<u>MR #</u>	<u>SITE DESCRIPTION</u>
UXO-22	IR Sites 6 & 82 (OU 2)
UXO-28	Wallace Creek Munitions Response Site
UXO-29	New River Runway Expansion Area (ASR #2.1, 2.167, 2.29)
UXO-30	B-12 Baffled Pistol Range (ASR #2.134) UXO-31 Off-Base SDZ

II. List of Munitions Response Program Sites Where Remedy in Place is to Maintain Land Use Controls

<u>MR #</u>	<u>SITE DESCRIPTION</u>
UXO-06	D-27, Fortified Beach Assault Area (Archive Search Report [ASR] #2.65)
UXO-19	M-4 Rifle Grenade Range (ASR #2.104) K-22 Practice Hand Grenade Course (ASR #2.111) M115 Hand Grenade Course (ASR #2.168)

III. List of Munitions Response Program Sites that Require No Further Action but Require "3R" UXO Awareness Training for Future Construction Activities

<u>MR #</u>	<u>SITE DESCRIPTION</u>
UXO-01	Former Live Hand Grenade Course (ASR #2.23) UXO-02 Unnamed Explosive Range (ASR #2.201)
UXO-03	D-3 Practice Hand Grenade Course (ASR #2.78a and 2.78b)
UXO-07	D-6 Practice Hand Grenade Course (ASR #2.77a and 2.77b)
UXO-10	D-11A, Flame Tank and Flame Thrower Range (ASR #2.136)
UXO-11	B-5, Practice Hand Grenade Course (ASR #2.81) UXO-16 Gun Positions 41A & 41B (ASR #2.212)
UXO-17	Firing Position #2 (ASR #2.212)
UXO-21	Gas Chamber (2D MAR DIV) (ASR #2.204)
UXO-24	Camp Geiger Area
UXO-27	Gun Position Owl (ASR #2.212)

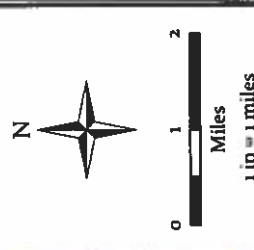
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IV. List of Munitions Response Program Sites that Require No Further Action

<u>MR #</u>	<u>SITE DESCRIPTION</u>
UXO-01	D-6 50-Foot Indoor Rifle and Pistol Range (ASR #2.64)
UXO-04	Knox Trailer Park Grenade (Area A)
UXO-05	Miniature Anti-Tank Range (Tank Battalion Tent Camp, ASR #2.7a, 2.7b and 2.7c)
UXO-08	2.36" Bazooka Range, Base CS Chamber and NBC Training Trail Lejeune Cantonment (ASR #2.182), and D-7 Gas Chamber (ASR #2.80)
UXO-09	F-9 Triangulation Range (ASR #2.83) UXO-12
	1000-Inch Range (ASR #2.5)
UXO-13	Naval Regional Medical Center
UXO-14	Indoor Pistol Range (ASR #2.199) and Gas Chamber (ASR #2.200)
UXO-15	1000-Inch Range (ASR #2.19)
UXO-18	B-6 50-Foot Small Arms Range (ASR #2.44) UXO-20
	1000-Inch Range Montford Point (ASR #2.32)
	A-1 50-Foot .22 Caliber Range (ASR #2.87) UXO-23
	D-9 Skeet Range (ASR #2.82)
UXO-25	Verona Loop (ASR #2.211 and 2.120)
UXO-26	B-3, Gas Chamber (ASR #2.79a and 2.79c)

- Legend**
- MRP Program Sites*
 - MRP Program Sites with 3R Training
 - Installation Required Area
 - Water

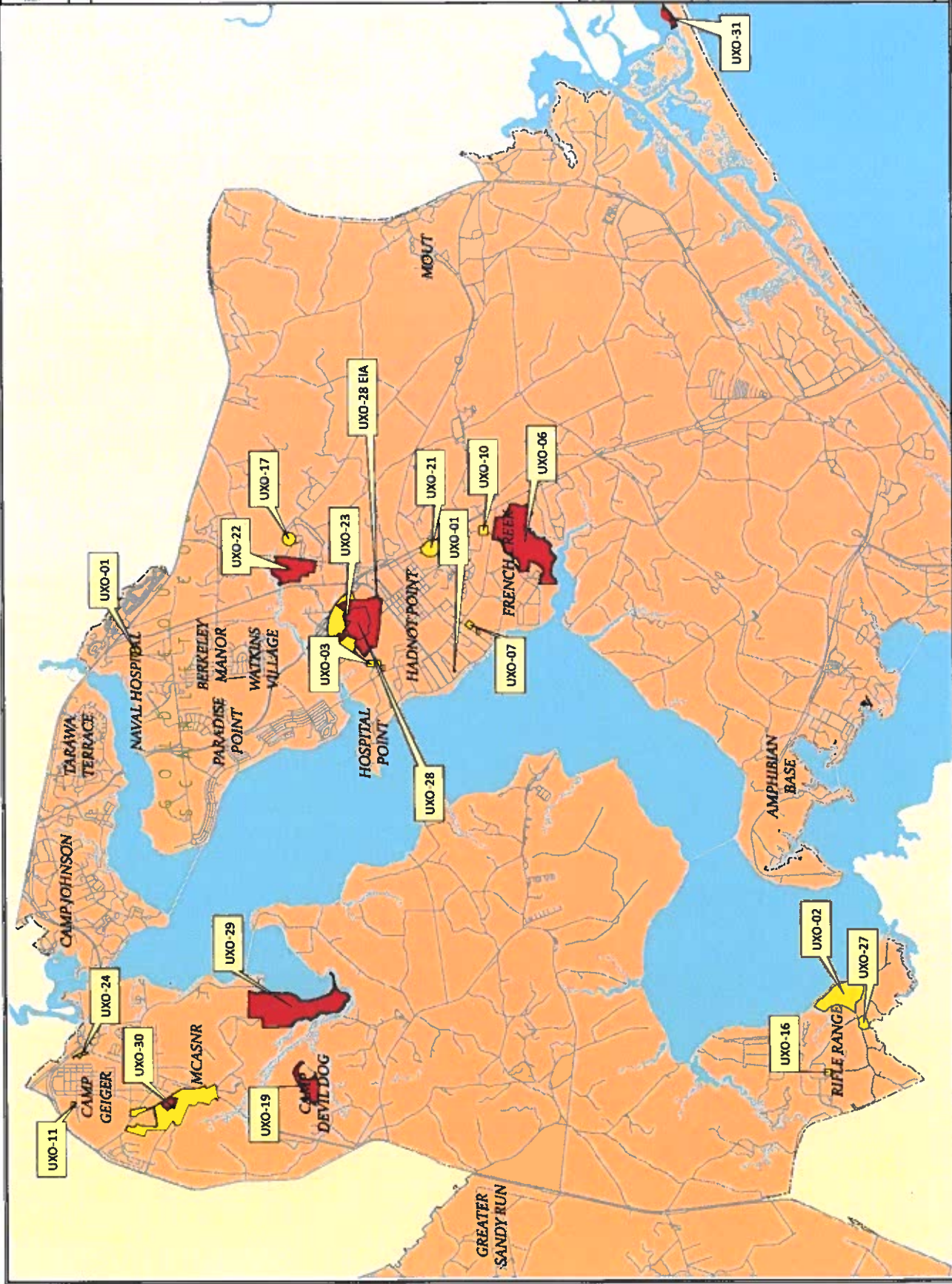
*Includes Active sites and No Further Action sites with Land Use Controls



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ENCLOSURE 4
ACTIVE MINION RESPONSE PROGRAM (MRP) SITES
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ACTIVE MINION RESPONSE PROGRAM (MRP) SITES

This document is a map of the MRP sites at Camp Lejeune, NC. It is a product of the MRP program and is not to be used for anything other than navigation. It is not a legal document and does not constitute a warranty of any kind. It is the property of the MRP program and is not to be reproduced or distributed without the express written permission of the MRP program.



Solid Waste Management Unit (SWMU) Site List

I. List of Active Solid Waste Management Unit Program Sites

<u>SWMU #</u>	<u>SITE DESCRIPTION</u>
97	Existing RCRA 90-day Storage Facility (Building S-962)
177	UST-333-C 2d Marine Logistics Group (MLG) Inspector's Office
269	816 O/W 8th Engineer 2d MLG
299	AS114-Used Oil AST MCAS Auto Hobby Shop
323	Existing Landfill (Permit # 67-08)
343	Former RCRA OB/OD Facility (G-10)
350	UST-STT61-66 Used oil storage tanks
789	Existing RCRA 90-day Storage Facility (Building AS-3525)

II. List of Solid Waste Management Unit Program Sites that Require No Further Action but Maintain Land Use Controls

<u>SWMU #</u>	<u>SITE DESCRIPTION</u>
322	IR-29 Base Sanitary Landfill (Permit # 67-03)
423	Building 970 Area-Michael Street Construction Site

III. List of Solid Waste Management Unit Program Sites that Require No Further Action

<u>SWMU #</u>	<u>SITE DESCRIPTION</u>
1	1014 - Container Storage
2	1700 Pond A Base Maintenance
3	236 Backwash MCB CAMLEJ Swimming Pool
4	540 Backwash MCB CAMLEJ Area 5 Training Pool
5	575-Rack 2d Light Armored Reconnaissance Bn, 2d MarDiv Wash Rack
6	A1-Rack 2d Amphibious Assault Bn, 2d MarDiv
10	AS-Curtis Ditch Skimmer MCAS NR 11

<u>SWMU #</u>	<u>SITE DESCRIPTION</u>
11	AS-Longstaff-Ditch Skimmer MCAS NR
12	AS-Primington-Ditch Skimmer
13	AS199-Rack Base Motor Transport
14	AS226 Solvent Reclamation Still
15	AS3003 Ditch Skimmer MCAS NR
16	AS4151 Basin Base Maintenance Oil/Water Separator/Spill Containment Basin
17	AS5020 MCAS NR Drainage Ditch Skimmer
20	Backwash Pond for Building 670 WTP
21	Backwash pond for Onslow Beach WTP
22	Backwash Basins for Hadnot Point WTP
23	Backwash Ponds for MCAS NR WTP
24	BB-190 Backwash Basin
25	BB9-Basin MCB CAMLEJ (Spill Containment Basin)
26	Industrial Dumpsters, Basewide (169)
27	Non-Industrial Dumpsters, Basewide (2885)
30	FC19 Rack H&S Bn, 2d MLG Wash Rack
31	Grease Traps Basewide (33)
32	H36 Rack HQ Svc Co Eng II MEF Wash Rack
33	Less than 90-Day HW Sites, Basewide (81)
35	M105 Rack
36	Oil/Water Separators Basewide (97)
37	PCB Warehouse TP-464
38	PT33-Pile MCB CAMLEJ
39	S1001 Basin Marine Corps Base
40	Sanitary Sewer Basewide
41	SAS137 Basin Bldg SAS137
42	Silver Recovery Units, Basewide (32)
43	IR-11 Pest Control Shop
53	IR-26 Coal Storage Area
89	SCLH785-Basin Base Maintenance
90	SM264 Rack
91	ST32-Construction Debris Soil Pile - Tarawa Terrace
92	STC872-Pile Defense Logistics Agency
93	Stormwater Collection System
94	TC364 Basin
95	TP45-Rack Truck Driving School
96	Used Oil Tanks Basewide (190)
124	Former RCRA 90-day Storage Facility (Building AS-4225)
130	UST-AS-4159-2 Refueling Bay

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<u>SWMU #</u>	<u>SITE DESCRIPTION</u>
196	45-Pond MCB CAMLEJ
207	DRMO Yard Near Building TC-861
209	Former SA22-Pile Near Building SA 21
253	1205-AST H&S Co HQ Svc Co II MEF Used Oil
254	1408 Base Motor Transport Dumpster
255	1502-O/W-1 MCB CAMLEJ Logistics Vehicle Maintenance Oil/Water Separator and Grit Chamber
256	1700-OW-1 Base Maintenance
257	1700-OW-2 Base Maintenance
258	S1745-O/W Truck Company Operations, HQ Battery, 2d MarDiv
259	1775 Dumpster
260	1780-O/W-1 Truck Company Maintenance, HQ Bn 2d MarDiv
261	1780-UST-1 Truck Company, Maintenance, HQ Bn, 2d MarDiv
262	1780-UST-2 Truck Company, Maintenance, HQ Bn, 2d MarDiv
263	1808 Dumpster
264	2611-Container Gun Club
265	2615-O/W Officers' Club
266	2616 Officers' Club BOQ Dumpster
267	511 2d MarDiv - Recon Bn Dumpster
268	522 2d MarDiv Dumpster
270	902 2d MLG Dumpster
271	AS410 MWR Gas Station Dumpster
272	AS137-Basin MCAS NR
273	BA128/BA 105 Dumpster
274	BB245 Exchange Dumpster
275	BB48 Construction Shop Dumpster
276	BB49 Base Maintenance Dumpster
277	FC120 O/W 2d MLG, Combat Engineer Bn
278	FC190 2d MLG Dumpster
279	FC200 O/W 8th Engineering 2d MLG
280	FC285 AST Maintenance Bn, 2d MLG
281	H100 2d MarDiv, 8th Marines Dumpster
282	LCH 4034 MWR Gas Station/7 Day Store Dumpster
283	FC279 Release 8th Motor Transport 2d MLG
284	S947-Container Environmental Management Dumpster

<u>SWMU #</u>	<u>SITE DESCRIPTION</u>
285	S947-O/W Environmental Management
286	S947-Pile Environmental Management Waste Pile
287	Site 45 Base Maintenance Dumpster
289	TT2453 MWR Hobby Shop Dumpster
290	TT2478 MWR Gas Station Dumpster
291	034 Ditch 5 th Bn, 10 th Marines, 2d MarDiv
292	1106/1107-Used Oil AST Motor T Auto Hobby Shop MWR
293	1106/1107-O/W Motor T Auto Hobby Shop
294	1203-O/W Base Maintenance
295	1601-Used Oil AST 2d MLG
296	1700-Basin-B Base Maintenance Coal Pile Runoff Collection Basin
297	1780-O/W-2 Truck Company Maintenance, HQ Battery, 2d MarDiv
298	1780-OW-3 Near Building 1780
300	AS118-Used Oil AST Logistic Motor Transportation
301	AS4115-AST HMLA 167, MAG 26, 2D MAW
302	AS563 AST, HMH 362 (AS 566)
304	BA103-O/W Motor Transport, 2d Recon Bn, 2d MarDiv
305	BB224-Pile MCB CAMLEJ
306	FC230-O/W-1 8th Communications BN, II MEF
307	G649-Rack Base Maintenance Wash Rack
308	GP19-O/W 8th Engineers 2d MLG
309	NH118 UST
310	PT33-Pond-O/W MCB Kitchen Grease Dewatering Unit
311	S1619-O/W 8th Communications Bn, II MEF
312	S1735-O/W Base Maintenance
313	S1753-O/W and AST Small Craft Co, HQ Bn 2d MarDiv
314	SM187-O/W Marine Corps Combat Service Support Schools
315	SM269-O/W Basin near Building M 200 Containment Basin
316	TC733-O/W School of Infantry-East
317	TT2453-Release near Building TT 2453
319	Camp Geiger Wastewater Treatment Plant
320	Camp Johnson Wastewater Treatment Plant
321	Courthouse Bay Wastewater Treatment Plant
324	Hadnot Point Wastewater Treatment Plant

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<u>SWMU #</u>	<u>SITE DESCRIPTION</u>
325	Permitted Hazardous Waste Container Storage Facility (Buildings TP-451 and TP-463)
326	Incinerator NH-100
327	Onslow Beach Wastewater Treatment Plant
328	Stormwater Ponds Basewide (12)
329	Rifle Range Wastewater Treatment Plant
330	Tarawa Terrace Wastewater Treatment Plant
331	FC-286-6 2d MLG, Vat 1
332	FC-286 2d MLG, Vat 2
333	FC-280 2d MLG, Vat 3
334	FC-280 2d MLG, Vat 4
335	FC-280 2d MLG, Vat 5
336	Paint Stripper Tank Building AS4106, MALS 29
337	Paint Stripper Tank, Building AS518, MALS 26
338	FSC-282 2d MLG Storage
339	Sandblaster, Building AS4146, MALS 26
342	RCRA Interim Status K-2 OB/OD Facility
347	UST-S889/S891 Aboveground Storage Tanks (2)
358	Sneads Ferry Road Battery Dump (Borrow Pit)
362	Dog 11 Area
363	M-21 Arresting Gear
420	Former Hazardous Waste Container Storage Facility (Building 490)
468	UN234 - Septic Tank, AS512
469	UN1184 - Septic Tank, AS3534
470	Courthouse Bay BB28 POL Contaminated Site
471	GSRA Asbestos Shingle Dump Site
473	Building HP-237 Hydraulic Lifts
474	Courthouse Bay BB52 Maintenance Facility Dump Site
475	MCAS NR White Street Storm Water Pond
476	Old Landfill Septic Leachfield
477	Dogwood Road Mixed Waste Dump Site
482	GSRA Reserve Center Dump Site
483	Camp Johnson Battery Dump Site
484	GSRA Carbon Fiber Soil Contamination
485	RCRS Used Oil Containment Release
501	BB-50 Trench
502	BB-177 Floor Drain
503	MCAS NR Steam Plant Stockpiled Soils
506	Asbestos Shingle Pile
575	Building AS-1000
576	Parachute Tower Road Drums

<u>SWMU #</u>	<u>SITE DESCRIPTION</u>
614	Parachute Tower Road Construction - White Powder
670	Demo Range Road Drum Site
689	Wash racks at AS-4101
690	Midway Park Former LCH-1353 - Midway Park Housing

IV. List of Solid Waste Management Unit Program Sites Transferred

<u>SWMU #</u>	<u>SITE DESCRIPTION</u>
46	Montford Point Dump Site (IR-15)
118	UST-728-2 Gottschalk Marina (Petroleum Remediation Program)
303	AS515-AST-E HMM 266 HMM 261 (IR-86)
318	AS515-O/W Near Building AS 515 (IR-86)
359	Lot 201 Battery Dump (IR-6)
360	UST-1817 Warehouse and Supply (IR-96)
421	Goat Dipping Vat-Marine Road (IR-95)
422	Cow Dipping Vat-Verona Loop (IR-95)
486	FC-100 Buried Oil Filters/POL Site (Petroleum Remediation Program)
504	Sneads Ferry Landfill Debris Site (Solid Waste Management Permit 67-03, SWMU 322)
574	Hazmart Site (IR Program, Operable Unit 1)
615	Building 133 (IR-88)

