DEPARTMENT OF THE ARMY
HEADQUARTERS, I CORPS AND FORT LEWIS
Fort Lewis, Washington 98433-9500

FL Regulation
No. 200-1

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Environmental Quality
ENVIRONMENTAL PROTECTION AND ENHANCEMENT

*This regulation supersedes FL Reg 200-1, 1 February 2002

CHAPTER 1

GENERAL

1-1. PURPOSE. This regulation prescribes policies and procedures for conservation, protection, and enhancement of the environment at Fort Lewis, its sub-installations and supported facilities.

1-2. APPLICABILITY.

a. This regulation applies to all Active Duty, Reserve and National Guard Component commands and units (including tenant organizations), civilian agencies, contractors, and individuals (military and civilian) living, visiting or working at Fort Lewis. Except where specifically stated, the term "Fort Lewis" includes the Fort Lewis military installation and its sub-installation Yakima Training Center.

b. Some requirements in this regulation prescribe coordination, reports, and/or procedures that are specific to agencies and organizations located on the Fort Lewis installation. Agencies and organizations located on the sub-installations will contact the sub-installation environmental office for the requirement(s) applicable on the sub-installation.

c. Supplement to the regulation.

(1) Commanders of Fort Lewis sub-installations and other commands may further supplement this regulation as appropriate to include policies and procedures that address specific sub-installation or command conditions/requirements.

(2) Madigan Army Medical Center (MAMC), where stated in the regulation, is exempt from some installation requirements where unique medical conditions preclude or make compliance impractical. MAMC will prepare a supplement to this regulation that includes internal compliance procedures applicable to the unique conditions. The supplement will be coordinated with the Environmental and Natural Resources Division (ENRD), Public Works (PW).

d. U.S. Army Reserve Centers and other installations for which Fort Lewis has AR 5-9 *(Intraservice Support Installation Coordination)* support responsibility will implement the environmental policies and procedures of their major command.

1-3. REFERENCES. See Appendix A.

1-4. EXPLANATION OF TERMS. See Appendix B, *Glossary.*

1-5. PRECEDENCE OF FEDERAL, STATE AND LOCAL ENVIRONMENTAL LAWS AND REGULATIONS. This regulation implements the requirements of federal, state, regional and local environmental laws and regulations. Where there is a conflict between a requirement of this regulation and a current requirement of an applicable federal, state, regional or local law or regulation, the latter will have precedence for compliance.

1-6. PUNITIVE ACTION. Violation of many of the requirements in this regulation is punishable under federal, state, or local law. Military personnel are also subject to punitive action under the Uniform Code of Military Justice, and civilian personnel to disciplinary action within civilian personnel policies.

1-7. FEDERAL FACILITY ENVIRONMENTAL COMPLIANCE.

a. Presidential Executive Order 12088*, Federal Compliance with Pollution Standards,* mandates federal agency compliance with federal, state, and local environmental requirements, including pollution control requirements. Violators can be held personally liable for cleanup costs and civil/criminal penalties; such persons include not only the actual individual who caused the violation, but also the supervisory (military and civilian) personnel who allowed the violation to occur and failed to take appropriate action to prevent or correct the violation.

b. The Federal Facility Compliance Act (FFCA) subjects Fort Lewis' environmental programs to greater scrutiny by regulators, legislators and possibly the general public. Specifically, the FFCA:

(1) Amends the solid and hazardous waste provisions of the Resource Conservation and Recovery Act (RCRA). It waives previous federal sovereign immunity under RCRA and allows state, county and local governments to impose substantive and procedural requirements; require payment of service charges, including fees; and impose fines and penalties on federal facilities for violations of their solid and hazardous waste laws.

(2) Requires the Environmental Protection Agency (EPA) to inspect all federal facilities annually. In addition, the states may conduct their own independent inspections. The cost for both inspections could be borne by the federal agency being inspected.

c. Presidential Executive Order 13101*, Greening the Government Through Waste Prevention, Recycling and Federal Acquisition (also known as Affirmative Procurement Program),* directs that Federal facilities comply with the buy-recycled program established under section 6002 of the Resource Conservation and Recovery Act (RCRA). RCRA inspections or multi-media regulatory compliance inspections where RCRA compliance is a component of the inspection will include, where appropriate, evaluation of facility compliance with section 6002 of RCRA and any implementing guidance.

d. Presidential Executive Order 13148*, Greening the Government Through Leadership in Environmental Management,* directs that federal agencies ensure all necessary actions are taken to integrate environmental accountability into day-to-day decision making and long-term planning processes, across agency missions, activities, and functions.

1-8. FORT LEWIS ENVIRONMENTAL MANAGEMENT SYSTEM.

a. Executive Order 13148 requires all federal agencies to implement an Environmental Management System (EMS).

b. A Secretary of the Army memo requires all installation to adopt the internationally recognized management system standard ISO 14001, as a goal.

c. The EMS is a formal, documented approach to organize, plan, implement and integrate installation sustainability, while emphasizing environmental stewardship, compliance, pollution prevention, and continual improvement.

d. All organizations (military, civilian, contractor, tenant) operating on Fort Lewis will adopt, as directed, the Fort Lewis Environmental Management System as implemented IAW the ISO 14001 Standard.

e. Actively supports and integrates the twelve goals of the Installation Sustainability Program into day-to-day business processes.

1-9. FORT LEWIS ENVIRONMENTAL POLICY. The following statements define the broad Fort Lewis policy and are applicable to users of this regulation:

a. Comply with all applicable environmental policy, laws and regulations.

b. Continually assess activities, products, and services to determine their effect on the environment. Identify the significant environmental impacts and ensure that they are considered when establishing objectives and targets in our environmental management programs.

c. Identify potential sources of pollution and meet or exceed Army goals for prevention of pollution.

d. Strive to fully integrate relevant environmental requirements into our standard work practices and procedures so environmental awareness and compliance are a routine part of the way we conduct business.

e. Actively pursue continual improvements in organizational environmental management systems. Establish measures of performance to assist in assessing system effectiveness.

1-10. INSTALLATION AND REGULATORY AGENCY RELATIONSHIPS.

a. The Public Works Environmental and Natural Resources Division (ENRD) is responsible for all coordination between Fort Lewis and regulatory agencies unless such coordination is handled by another organization through an established program approved by ENRD.

b. ENRD will coordinate inspections and site visits of agencies having proper authority to evaluate or monitor compliance with environmental permits or regulations. Visitors will be accompanied by a member of ENRD or the Fort Lewis staff agency point of contact.

1-11. PERMITS. Fort Lewis must obtain recurring and one-time permits to meet environmental compliance requirements established by federal, state, regional or local regulatory agencies. All permit applications for the Fort Lewis installation will be processed through ENRD. Sub-installations and Reserve Centers will be responsible for preparing applications for required permits at the sub-installation/reserve center. Assistance is available from ENRD in preparing and reviewing permit applications. Copies of all final permits will be furnished to ENRD for filling and monitoring.

1-12. EDUCATION AND TRAINING. Major subordinate commanders and staff directors must ensure that soldiers and civilians performing duties, which may affect environmental compliance or have the potential to cause environmental damage, have adequate knowledge and skills to perform their mission in an environmentally sound manner.

a. Pollution prevention training requirements and responsibilities are in appendix D of this regulation.

b. Training requirements for individuals performing functions associated with the management of hazardous material/hazardous waste (HM/HW) and responsibilities for conducting the training are stated in Appendix J of this regulation.

1-13. ENVIRONMENTAL AUDITS. Fort Lewis will undergo both external and internal multimedia environmental audits in accordance with DA and IMA policy and the Installation Environmental Management System (EMS) ISO 14001 International Environmental Standard. External audits are conducted under the Environmental Performance Assessment System (EPAS) program. Internal audits are conducted under the EPAS Program, Installation Status Report Part II (Environment), and the Installation EMS. Frequency of audits is determined by the appropriate governing directive. Public Works will also receive external audits by a third party registrar of its Environmental Management System, as required, to ensure continued certification in accordance with the Environmental International Standard ISO 14001.

CHAPTER 2

RESPONSIBILITIES

2-1. PURPOSE. This chapter delineates staff responsibilities for the management of the environmental and natural resources of Fort Lewis and Yakima Training Center. The Senior Mission Commander has overall responsibility for management of the environmental and natural resources, but specific staff responsibilities have been assigned as defined in the following paragraphs.

2-2. DIRECTORATE OF PUBLIC WORKS. Public Works (PW) is the staff directorate responsible for managing environmental compliance, conservation, protection, and other environmental programs.

a. The PW will:

(1) Provide fiscal and personnel assets necessary to accomplish environmental programs, and monitor management of those programs.

(2) Implement an Environmental Management System (EMS) conformant with the ISO 14001 Standard.

(3) Implement EMS procedures to ensure the review of all maintenance, repair, construction and other projects occur during project scoping, concept and design phases to identify and incorporate environmental requirements in project descriptions and/or contract specifications.

(4) Provide the Director as the deputy chairperson of the Fort Lewis Local Emergency Planning Committee (LEPC).

b. The ENRD, for the PW, is the installation environmental office and is responsible for environmental program development and management. The ENRD will:

(1) Serve as the point of contact for federal, Washington State, regional, local and other agencies with regard to environmental matters.

(2) Coordinate and manage installation actions for implementing the provisions of this regulation.

(3) Assess installation environmental compliance and achievement of environmental goals.

(4) Perform required budgeting actions in support of the environmental program.

(5) Assist installation program managers and military trainers in assessing potential environmental impacts of planned activities, and provide technical assistance for meeting environmental compliance requirements.

(6) Schedule and conduct the following environmental training.

(a) Environmental Compliance training as listed in Appendix J.

(b) Down Range Police Call training as listed in Appendix J.

(c) Asbestos training as listed in Appendix J.

(d) The ENRD portion of the Company Commander/First Sergeant Course scheduled and coordinated by the Directorate of Plans, Training and Mobilization (DPTM).

(e) Native American issues training for Garrison staff & Archaeological Resources Protection Act training for MP, CID, and SJA personnel.

(7) Obtain data from Fort Lewis facilities, compile EPCRA and all other required environmental reports, and submit in accordance with report procedures and suspense dates.

(8) Coordinate Fort Lewis hazardous substance spill contingency planning and response in accordance with (IAW) the Installation Contingency Plan (ICP).

(a) The ENRD, RCRA Program Manager is designated as the Installation On-Scene Coordinator (IOSC).

(b) In coordination with DPTMS, plan and conduct an annual installation spill response exercise to test and review ICP procedures.

(9) Coordinate the Fort Lewis Environmental Operating Certificate Program (EOCP).

2-3. ENVIRONMENTAL AND NATURAL RESOURCES DIVISION (ENRD), YAKIMA TRAINING CENTER (YTC). The ENRD-YTC will manage the YTC environmental program and maintain coordination with the ENRD at Fort Lewis. The ENRD-YTC will:

a. Serve as the YTC point of contact for federal, Washington State, regional, local and other agencies with regard to environmental matters.

b. Implement an Environmental Management System (EMS) conformant with the ISO 14001 Standard.

c. Coordinate and manage all aspects of YTC actions regarding the provisions of this regulation.

d. Assess and inform the ENRD at Fort Lewis of YTC environmental compliance and achievement of environmental goals.

e. Provide the ENRD at Fort Lewis with data to perform required budgeting actions in support of YTC environmental projects.

f. Assist military trainers and YTC program managers in assessing potential environmental impacts of planned activities, and provide technical assistance in meeting environmental compliance requirements.

g. Coordinate environmental education and training of YTC personnel.

h. Coordinate YTC hazardous substance spill contingency planning and response IAW the YTC ISCP. The Fire Chief, YTC Fire Department is designated as the YTC IOSC.

2-4. JOINT TRANSPORTATION DIRECTORATE.

a. Exercise staff proponency for compliance with U.S, Department of Transportation (DOT) requirement.

b. Implement an Environmental Management System (EMS) conformant with the ISO 14001 Standard.

2-5. DIRECTORATE OF LOGISTICS (DOL).

a. Operate the Hazardous Material Control Center (HMCC).

b. Implement an Environmental Management System (EMS) conformant with the ISO 14001 Standard.

c. Ensure DOL operations involving the use or handling of HM and HW comply with appropriate regulations and with procedures in this regulation.

2-6. DIRECTORATE OF PLANS, TRAINING, MOBILIZATION, AND SECURITY (DPTMS).

a. Provide the Director as the chairperson of the Fort Lewis Local Emergency Planning Committee (LEPC).

b. Implement an Environmental Management System (EMS) conformant with the ISO 14001 Standard.

c. Provide technical assistance to the ENRD in preparation of spill response plans and in the planning and conduct of spill response exercises.

2-7. PREVENTIVE MEDICINE SERVICES (PMS), MADIGAN ARMY MEDICAL CENTER (MAMC). The PMS will provide Industrial Hygiene (IH) and related technical support for environmental program management. In coordination with the ENRD, the PMS will:

a. Conduct investigations, consultations, special studies and routine environmental surveys.

b. Provide IH support during spill response action as requested by the Site Safety Officer, Fort Lewis installation response team.

c. Ensure the proper management of regulated medical wastes and mixed wastes generated by MAMC activities.

d. Assist in obtaining technical assistance from the U.S. Army Center for Health Promotion and Preventive Medicine (CHPPM).

2-8. PUBLIC AFFAIRS OFFICE (PAO).

a. Inform the public and the Fort Lewis military community of Fort Lewis environmental accomplishments.

b. Implement an Environmental Management System (EMS) conformant with the ISO 14001 Standard.

c. Advise the Commander during preparation for public hearings or public meetings regarding proposed Fort Lewis projects.

d. Include stimulating active support of the environmental program by individual soldiers and civilian employees as part of the Command Information (CI) plan.

2-9. COMMAND SAFETY OFFICE.

a. Provide the Site Safety Officer for spill response operations, as requested, and exercises, who will advise on safety and occupational health management issues.

b. Implement an Environmental Management System (EMS) conformant with the ISO 14001 Standard.

c. Provide expertise in complying with safety requirements related to federal, state, regional, or local environmental regulations.

d. Coordinate with the ENRD any environmental issues arising or discovered during safety inspections.

e. Provide life cycle management for all ionizing radiation sources brought onto or leaving the installation.

f. Establish policies and procedures for local implementation of the Hazard Communication Program.

g. Serve as the command point of contact with the US Department of Labor-OSHA (USDOL-OSHA), state OSHA organizations and other federal, state, regional or local safety agencies.

h. Establish and serve as the staff proponent for safety and occupational health programs derived from USDOL-OSHA and other Army and Army-adopted safety and occupational health standards, as outline in AR 385-10, as they apply to environmental matters.

2-10. STAFF JUDGE ADVOCATE (SJA).

a. Provide legal advice and assistance in the interpretation of environmental statutes and regulations and other issues affecting the management of the environmental program.

b. Interface with the Department of Justice, the United States Attorney, and state and local attorneys on all litigation or potential litigation concerning environmental issues.

c. Review environmental documentation required for Fort Lewis actions and other environmental documents and correspondence for legal sufficiency.

d. Implement an Environmental Management System (EMS) conformant with the ISO 14001 Standard.

2-11. DIRECTORATE OF CONTRACTING (DOC).

a. Support Affirmative Procurement (Presidential Executive Order 13101: *Greening the government through Waste Prevention, Recycling and Federal Acquisition).*

b. Direct those contractors and vendors who contact DOC, and use or sell any hazardous material, to first meet with and be assessed by the Environmental Services staff.

c. Ensure contracts contain requirements to prepare quarterly HM inventories for submission to PW ENRD Pollution Prevention, HM Section, as applicable.

d. Provide a contracting officer for inclusion in the Installation Spill Contingency Plan to provide emergency contract support.

e. Implement an Environmental Management System (EMS) conformant with the ISO 14001 Standard.

2-12. SUBORDINATE COMMANDS, OTHER STAFF DIRECTORATES, AND ACTIVITIES.

a. Integrate environmental protection, conservation and enhancement activities into the planning and execution of the military mission to the fullest extent feasible.

b. Implement the requirements of this regulation.

c. Implement an Environmental Management System (EMS) conformant with the ISO 14001 Standard.

d. Appoint in writing an Environmental Compliance Officer (ECO) and, where specified, a Hazardous Material Technician (HMT) and/or a Hazardous Waste Technician (HWT). The ECO will serve as the single point of contact in the unit for environmental matters. The ECO (assisted by the HMT and/or HWT) will coordinate unit/agency compliance with applicable environmental regulations.

(1) An ECO will be appointed in each military unit from brigade through Company/battery/troop level and civilian organization. An HMT and HWT will be appointed in each military unit through company/battery/troop level and civilian organization. The HMT and HWT may be the same person at the discretion of the commander/supervisor.

(a) The ECO will be appointed by position or rank as follows:

Brigade/Battalion	S-4 Officer, Support Operations Officer (SPO), as applicable to the organization, or equivalent Officer as designated by the commander.
Company/Battery/Troop	Staff Sergeant or above
Civilian Directorate or Equivalent Activity	Supervisory Position

(b) The ECO must attend the Environmental Operations Management Course (EOMC) and Environmental Compliance Inspection Course.

(2) The Brigade ECO will:

(a) Maintain communications with the Environmental Compliance and Inspection Team (ECIT) concerning subordinate units Environmental Compliance Inspection schedules.

(b) Establish a system to track all environmental inspections conducted at the battalion level and resolution of findings.

(c) Conduct Semi-Annual inspections of the subordinate battalions Environmental Management Program.

(3) The Battalion ECO will:

(a) Maintain communications with the Public Works Environmental Services Office and the Environmental Compliance and Inspection Team (ECIT). and communicate or cc the Brigade ECO on all environmental Compliance and Inspection issues.

(b) Establish a system to track all inspections conducted at the subordinate unit level and resolution of findings.

(c) Conduct a quarterly program management inspection (using HFL Form 949) of all subordinate units. Maintain Inspection files for 2 years.

(d) Assist the subordinate unit ECOs in their Environmental Program Management.

(e) Collect and submit subordinate units required quarterly HM Inventory Reports.

(4) The HMT will be appointed based on the HM-related tasks they perform and not on rank or grade. All persons performing the following HM-related tasks must be appointed on orders and certified by completing the Environmental Operations Management Course and Environmental Compliance Inspection Course as directed in Appendix J, of this regulation.

(a) Prepares HM Requests for Issue or Turn-in for the unit/organization.

(b) Prepares or reviews HFL Form 953, Hazardous Material Inventory.

(c) Conducts inventories and inspections of HM supplies and storage areas.

(d) Requests and prepares HFL Form 955 in submitting changes to unit's HM Authorized Use List (AUL) provided he/she is listed on the HMCC Delegation of Authority.

(5) The HWT will be a Specialist or above, appointed on orders and certified by completing the Environmental Operations Management Course and Environmental Compliance Inspection Course as directed in Appendix J, of this regulation.

(6) Each civilian directorate or equivalent activity will appoint an ECO (supervisory position), and HMT/HWT, as required, for the directorate/activity and they will follow the requirements as listed in paragraph (3) and (4) above.

(7) The commander/supervisor will ensure that each ECO, HMT and HWT attend Environmental Operations Management Course and Environmental Compliance Inspection Course as directed in Appendix J, of this regulation, within 60 days after being appointed. Training will be scheduled and conducted by the ENRD Environmental Services Office at telephone 967-4786.

(8) The ECO will develop, if needed, a unit-specific Standing Operating Procedure (SOP), which will supplement the pertinent requirements of this regulation. FL Reg 385-5, the Fort Lewis Hazardous Communications Program and the unit/activity Environmental Operating Certificate should be reviewed when developing the SOP. The SOP will be developed in accordance with the procedures contained in the Installation Environmental Management System document EMS-240. Assistance in developing the SOP is available from ENRD Environmental Services and the Installation EMS Technical Support individual.

(9) The ECO will also serve as the company/battery/troop level recycling coordinator. The recycling coordinator will develop a plan to ensure maximum participation by all personnel applicable to the unit organization. The recycling coordinator will contact the Fort Lewis Recycle POC, phone 966-6452, Building 1210, for Standing Operating Procedures (SOP) and for training.

(10) The ECO, HMT, and HWT will use the following checklists to assist them in verifying implementation of pertinent requirements of this regulation.

(a) HFL Form 949, *Program Management Checklist*.

(b) HFL Form 950, *Hazardous Waste (HW) Management Checklist*.

(c) HFL Form 951, *Hazardous Material (HM) Management Checklist*.

(d) HFL Form 952, *Operational Area Checklist*.

2-13. 304TH CMMC – INSTALLATION MUNITIONS OFFICE (IAMMO). The IAMMO will gather and report data on munitions expended in training on Fort Lewis and the Yakima Training Center. The data will be reported on a quarterly basis to the PW Pollution Prevention Program Manager at phone 966-6463.

CHAPTER 3

COMMITTEES

3-1. PURPOSE. This chapter establishes policy and procedures for installation-level committees that are instituted to assist the Fort Lewis Garrison Commander in meeting environmental and natural resources management responsibilities. The committees are listed in the following paragraphs.

3-2. FORT LEWIS LOCAL EMERGENCY PLANNING COMMITTEE (LEPC).

a. LEPC Authorization. The Washington State Emergency Planning Council authorized the establishment of a LEPC at Fort Lewis in 1997. The LEPC is established under the provisions of EPCRA and Chapter 118-40, Washington Administrative Code (WAC), *Hazardous Chemical Emergency Response Planning and Community Right-to-Know Reporting.*

b. The LEPC will:

(1) Prepare a hazardous materials emergency response plan, submit the plan for review by the State, and review the plan annually.

(2) Review required annual Fort Lewis EPCRA reports on hazardous chemical inventories and releases for submission to the State.

(3) Maintain continuing coordination with the State emergency management office and with the Thurston and Pierce County LEPCs.

(4) Act upon public requests for information concerning the inventory, storage, use, and/or releases of hazardous materials on Fort Lewis.

(5) Submit committee minutes of meetings and other significant reports to the Fort Lewis Garrison Commander (GC).

c. LEPC Officers.

(1) The DPTM will serve as the Chairperson of the LEPC and schedule meetings as needed.

(2) The Director of Public Works (DPW) will serve as the Deputy Chairperson of the LEPC, and chair the LEPC in the absence of the DPTM.

(3) The Chief, ENRD, for the DPW will:

(a) Serve as the Secretary of the LEPC and recommend when meetings should be scheduled.

(b) Prepare and distribute meeting agenda, minutes of LEPC meetings, and maintain a file of past minutes.

(c) Moderate LEPC meetings.

d. LEPC Members. The following are designated standing members of the LEPC. Other personnel may participate on an as-needed basis when determined by the Chairperson:

(1) Senior Mission Command.

(a) Director of Plans, Training, Mobilization and Security(Chairperson)

(b) Director of Public Works (Deputy Chairperson)

(c) Chief, ENRD (Secretary)

(d) I Corps DCSOPS/G3

(e) Commander, 42d Military Police Brigade

(f) Chief, Fort Lewis Fire and Emergency Services Division

(g) Director of Logistics

(h) Director of Resource Management

(i) Director of Community Activities

(j) Staff Judge Advocate

(k) Public Affairs Officer

(l) Command Safety Officer

(m) Battalion or Directorate Division level commanders/supervisors of facilities storing or using hazardous materials in quantities reportable under EPCRA

(2) Tenant Organizations.

(a) Commander, MAMC

(b) Commander, Western Region USA Cadet Command

(c) Chief, Preventive Medicine Services, MAMC

(d) Chief, Defense Reutilization and Marketing Office (DRMO)

(e) Battalion or Directorate Division level commanders/supervisors of facilities storing or using hazardous materials in quantities reportable under EPCRA

(3) Other.

(a) Environmental Officer, Washington Army National Guard

(b) Environmental Officer, 70th Regional Readiness Command USAR

(c) Elected Official (Individual designee will be coordinated through the office of the Garrison Commander)

3-3. INSTALLATION COMPATIBLE USE ZONE (ICUZ) COMMITTEE.

a. The ICUZ Committee will:

(1) Review recurring noise complaints, and investigate and recommend mitigative actions.

(2) Coordinate with the public as necessary on noise related matters.

(3) Assess installation activities for potential noise impacts.

(4) Monitor land development plans, programs, and projects in areas adjacent to the installation.

(5) Review proposed projects for on-post facilities.

b. ICUZ Committee officers.

(1) The Fort Lewis GC will serve as chairperson of the Committee.

(2) The DPW will serve as deputy chairperson and will chair the Committee in the absence of the GC.

(3) The Chief, ENRD will serve as secretary of the Committee and will:

(a) Schedule Committee meetings as needed.

(b) Moderate Committee meetings.

(c) Prepare and distribute Committee minutes of meetings.

c. ICUZ Committee members will include, as a minimum, representatives from the ENRD; Planning Division, Public Works; Public Affairs Office; Staff Judge Advocate; DPTM (Range Control and Gray Army Airfield Operations); I Corps DCSOPS/G3; and the Commander, YTC or his designated representative.

3-4. SOLID WASTE ADVISORY COMMITTEE (SWAC).

a. The SWAC will provide review and advisory input in the management of solid waste and recycling and will:

(1) Prepare the Fort Lewis Solid Waste Management Plan (SWMP).

(2) Review and monitor proposed solid waste programs, policies, and procedures for consistency with the SWMP.

(3) Review the quarterly submission of the Solid Waste Annual Report (SWAR).

(4) Review and monitor recycling activities, policies and procedures.

(5) Evaluate proposed recycling initiatives.

b. The PW-ENRD Division Chief will select the chairperson of the Committee, supported by the following members:

(1) Installation Recycling coordinator.

(2) DCA representative.

(3) DRMO representative.

(4) MAMC Environmental Service Officer.

(5) DOC representative.

(6) McChord Air Force Base representative.

(7) Representative from state and local regulatory agencies as appropriate, i.e., TPCHD.

3-5. LEAD HAZARDS MANAGEMENT COMMITTEE (LHMC).

a. The LHMC will:

(1) Develop and maintain the Installation Lead Hazard Management Plan.

(2) Develop guidelines and policy to ensure that lead hazards are properly addressed in all work and training conducted on the installation.

(3) Identify and review sources of lead hazard exposure.

(4) Develop general awareness and worker education programs to communicate the risks associated with exposure to lead hazards.

(5) Educate soldiers, families and workers on ways to prevent or control lead hazards exposure and corrective actions to prevent, manage and abate hazards.

(6) Meet at least quarterly.

b. The PW-ENRD Division Chief will serve as chairperson on the committee supported by the following members:

(1) PW Lead Program Manager.

(2) PW ECMD representative.

(3) PW Housing representative.

(4) PW Environmental Services representative.

(5) DOL representative.

(6) DCA representative.

(7) DPTMS representative.

(8) I Corps representative.

(9) Safety Office representative.

(10) SJA representative.

(11) Public Affairs representative.

(12) MAMC Preventative Medicine representative.

(13) Worker union representatives.

(14) USACE representative.

3-6. FORT LEWIS WATER COUNCIL (FLWC).

a. The FLWC will meet at least quarterly to review and formulate actions to ensure adherence to water quality standards and compliance with applicable permits. All sources of water will be reviewed: drinking water, groundwater, storm water, surface water, and wastewater.

b. Membership on the FLWC will be comprised of the following:

(1) PW Water Team Lead (Chairperson).

(2) PW Utilities Division Chief.

(3) PW Wastewater Treatment Plant Manager.

(4) PW Water Treatment Plant Manager.

(5) PW Fish and Wildlife Representative.

(6) PW Storm Water Technician.

(7) PW Pollution Prevention Representative.

(8) PW Residential Communities Office Representative.

(9) Madigan Army Medical Center, Preventive Medicine Representative.

(10) Other members as designated by the FLWC.

3-7. INSTALLATION SUSTAINABILITY BOARD (ISB).

a. The purpose of the ISB is to establish an institutional relationship between training and operational requirements, plans, budgeting, facility and real property requirements, and environmental concerns, issues and requirements. The board will accomplish this by:

(1) Reviewing and making recommendations regarding environmental programs.

(2) Integrating operational and training needs with environmental policy, programs, and objectives.

(3) Advising the command on environmental priorities, policies, strategies and programs.

(4) Assisting the command in managing and developing installation facilities and infrastructure.

(5) Identifying facilities and real property required to support current and future known missions.

(6) Assisting with prioritizing the sustainment and improvement of real property.

b. The ISB will meet three times a year (Feb, June, Oct).

c. The Deputy Senior Mission Commander will preside as Chairperson of the ISB.

d. The Garrison Commander will serve as Deputy Chairperson of the ISB.

e. The Director of Public Works will serve as and Secretary of the ISB.

f. The following are designated members of the ISB:

(1) DCG, C/S, Fort Lewis (Chairperson).

(2) Garrison Commander (Deputy Chairperson).

(3) Director of Public Works (Secretary).

(4) One MSC Commanders (Rotated every two years).

(5) Commander, Yakima Training Center.

(6) Director of Plans, Training, Mobilization and Security.

(7) Director of Logistics.

(8) Director of Resource Management.

(9) Director of Community Activities.

(10) Senior Mission Command, Training Officer.

(11) Chief, Environmental Health/Industrial Hygiene – MAMC.

g. ISB Member Responsibilities. Attendance at Board meetings by the designated members is mandatory unless excused by the Chairperson.

(1) Participate in ISB reviews, discussions and decisions on environmental, facility planning, and sustainability issues affecting Fort Lewis.

(2) Stimulate an awareness throughout their command/organization that environmental considerations and development of installation facilities are an integral part of mission accomplishment.

(3) Implement programs and policies resulting from ISB meetings within their command/organization.

CHAPTER 4

ENVIRONMENTAL EXCELLENCE AWARDS

4-1. PURPOSE. This chapter lists awards that have been established to recognize excellence in environmental compliance and management.

4-2. FORT LEWIS AWARDS.

a. Hazardous Waste Compliance Award. All units and activities, which generate hazardous waste on Fort Lewis and its sub-installations are considered for this award. Judging for this award is conducted by an Environmental Services ad hoc committee and is based on the unit/activity performance record for the previous calendar year (CY). Award criteria are the following:

(1) Results of hazardous waste compliance inspections and management improvements made between inspections.

(2) The quantity and significance of new pollution prevention initiatives implemented by the unit/activity to reduce hazardous waste.

(3) Training requirements for units/activities identified in Appendix J have been met.

b. Annual Pollution Prevention Award. All units and agencies assigned, attached, or detailed for duty at Fort Lewis are eligible for this award. The award recognizes outstanding pollution prevention performance during the previous CY. A total of five awards are given in three categories. In the military category, awards are given at the company or equivalent level and at the battalion or group level. In the civilian category, awards are given at the activity and directorate level. The installation award is given to the best organization overall, either military or civilian. Judging is conducted by an Environmental Services ad hoc committee and is based on the following criteria:

(1) Total number and significance of documented pollution prevention initiatives implemented at unit level.

(2) New pollution prevention initiatives implemented during the previous CY.

(3) Results of the most recent environmental compliance inspection.

(4) Timeliness and quality of reports submitted to meet requirements of EPCRA.

c. Individual Environmental Excellence Award. This award recognizes outstanding individual achievement. Any individual may be recommended at any time by his/her supervisory chain for a noteworthy accomplishment such as a pollution prevention initiative, a significant program improvement, or any other environmentally related accomplishment deserving of positive recognition. Recommendations will be forwarded to Public Works, ATTN: AFZH-PWE, MS17, Box 339500, Fort Lewis, WA 98433-9500 for action.

4-3. SECRETARY OF THE ARMY ENVIRONMENTAL QUALITY AWARD. The Senior Mission Commander may nominate Fort Lewis or a sub-installation as a candidate for the Secretary of the Army Environmental Quality Award. The ENRD will prepare an installation narrative describing the overall environmental program, specific accomplishments, problem areas and planned new initiatives in accordance with AR 200-1. Award nominations will be submitted to IMA, NW Region in accordance with the most current guidance from the Department of the Army (DA).

4-4. SECRETARY OF THE ARMY NATURAL RESOURCE CONSERVATION AWARD. The Senior Mission Commander may nominate Fort Lewis or a sub-installation as a candidate for the Secretary of the Army Natural Resource Conservation Award. The ENRD will prepare the installation narrative describing the overall natural resources program, specific accomplishments, and planned new initiatives. Award nominations will be submitted to IMA, NW Region in accordance with the most current guidance from DA.

4-5. SECRETARY OF THE ARMY POLLUTION PREVENTION AWARD. The Senior Mission Commander may nominate Fort Lewis or a sub-installation as a candidate for the Secretary of the Army Pollution Prevention Award. The ENRD will prepare an installation narrative describing the overall efforts to prevent pollution at the source, including practices that reduce or eliminate the creation of pollutants through increased efficiency in the use of raw materials, energy, water, or other resources. Award nominations will be submitted to IMA, NW Region in accordance with the most current guidance from the DA.

4-6. SECRETARY OF THE ARMY RECYCLING AWARD. The Senior Mission Commander may nominate Fort Lewis or a sub-installation as a candidate for the Secretary of the Army Recycling Award. The ENRD will prepare an installation narrative describing the overall efforts to prevent pollution by reducing the creation of pollutants through efforts to divert materials from a waste stream by recycling. Submission will be made to IMA, NW Region in accordance with the most current guidance from DA.

4-7. ANNUAL SECRETARY OF THE ARMY ENERGY CONSERVATION AWARD. The Senior Mission Commander may nominate Fort Lewis for the Annual Secretary of the Army Energy Conservation Award. Public Works will prepare the installation narrative in accordance with AR 11-27. Submission will be made to IMA, NW Region in accordance with the most current guidance from DA.

4-8. ANNUAL FEDERAL ENERGY EFFICIENCY AWARD. The Senior Mission Commander may nominate Fort Lewis or a sub-installation, a unit or agency, or an individual as a candidate for the Federal Energy Efficiency Award. Public Works will prepare the installation narrative in accordance with AR 11-27. Submission will be made to IMA, NW Region in accordance with the most current guidance from DA.

4-9. SECRETARY OF THE ARMY HISTORIC PRESERVATION AWARD. The Senior Mission Commander may nominate Fort Lewis or a sub-installation, a unit or agency, or an individual as a candidate for the Secretary of the Army Award for Historic Preservation. Nominations in the categories of 'Historic Districts', 'Historic Buildings', 'Innovations', and 'Partnerships' are prepared by Public Works in accordance with guidance from the Secretary of the Army. Submission will be made to IMA, NW Region.

(AFZH-PWE, 967-5337)

JAMES M. COLLINS, JR.
Major General, USA
Deputy Commanding General/
Chief of Staff

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APPENDIX A

REFERENCES

Required Publications.

AR 385-55 (Prevention of Motor Pool Accidents), 12 March 1987

AR 600-55 (The Army Driver and Operator Standardization Program (Selection, Training, Testing, and Licensing)), 31 December 1993

AR 710-2 (Inventory Management Supply Policy Below the Wholesale Level), 25 February 2004

FL Reg 55-2 (I Corps and Fort Lewis Transportation Services), 21 October 2002

FL Reg 210-10 (Police of the Fort Lewis Military Reservation), 7 February 1996

FL Reg 215-1 (Hunting, Fishing), 9 June 1995

FL Reg 350-1 (Training for Fort Lewis), 11 August 2003

FL Reg 350-30 (Fort Lewis Range Regulations), 29 March 2000

FL Reg 350-31 (Yakima Training Center Range Regulation), 5 January 2004

FL Reg 385-5 (Fort Lewis Hazard Communication Program), 12 June 1990

FL Reg 420-5 (Procedures for the Protection of State and Federally Listed Threatened, Endangered and Candidate Species, Species of Concern, and Designated Critical Habitat), 9 August 2004

FL Reg 700-20 (Ammunition), 2 June 1995

Fort Lewis Installation Spill Contingency Plan (ISCP)

Yakima Training Center Installation Spill Contingency Plan (ISCP)

HFL Form 949 (Program Management Checklist), 1 November 2003

HFL Form 950 (Hazardous Waste (HW) Management Checklist), 1 November 2003

HFL Form 951 (Hazardous Material (HM) Management Checklist), 1 November 2003

HFL Form 952 (Operational Area Checklist), 1 November 2003

HFL Form 953 (Hazardous Material Inventory), 7 July 2000

HFL Form 954 (Waste Shipment Record), 1 November 1996

HFL Form 955 (Request for Additions/Changes to Unit Hazardous Inventory), 7 July 2000

Related Publications.

AR 200-1 (Environmental Protection and Enhancement), 21 February 1997

AR 200-2 (Environmental Effects of Army Actions) See 32 CFR, 651, 23 December 1998

AR 200-3 (Natural Resources -- Land, Forest and Wildlife Management), 28 February 1995

AR 200-4 (Culture Resources Management), 1 October 1998

AR 200-5 (Pest Management), 29 October 1999

AR 215-1 (Administration of Morale, Welfare and Recreation (MWR) Activities and Non-appropriated Funds Instrumentality's (NAFIs)), 28 July 2004

DA PAM 200-1 (Environmental Protection and Enhancement), 17 January 2002

Defense Reutilization and Marketing Office Lewis (DRMO-Lewis) (Hazardous Property Management Procedures)

DoD Directive 4710.1 (Archaeological and Historic Resources Management)

DoD Directive 6050.9 (Chlorofluorocarbons (CFCs) and Halons)

Executive Order 12873 (Federal Acquisition, Recycling and Waste Prevention)

Executive Order 13101 (Greening the Government Through Waste Prevention, Recycling and Federal Acquisition)

Executive Order 13148 (Greening the Government Through Leadership in Environmental Management)

ISO 14001 (International Organization for Standardization, Environmental Management System)

Federal Environmental Laws:

American Indian Religious Freedom Act (AIRFA)

Antiquities Act

Archeological and Historic Preservation Act (AHPA)

Archeological Resources Protection Act (ARPA)

Clean Air Act (CAA) Amendments of 1990

Clean Water Act (CWA), as amended

Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) of 1980, amended by the Superfund Amendments and Reauthorization Act (SARA) of 1986

Emergency Planning and Community Right-to-Know Act (EPCRA)

Endangered Species Act (ESA), as amended

Federal Facility Compliance Act (FFCA)

Federal Insecticide, Fungicide, Rodenticide Act (FIFRA), as amended

National Environmental Policy Act (NEPA), as amended

National Historic Preservation Act (NHPA), as amended

Native American Graves Protection and Repatriation Act (NAGPRA)

Pollution Prevention Act

Residential Lead-Based Paint Hazard Reduction Act

Resource Conservation and Recovery Act (RCRA), as amended

Safe Drinking Water Act (SDWA), as amended

Sikes Act

Toxic Substances Control Act (TSCA), as amended

FM 10-68 (Aircraft Refueling), 29 May 1987

FM 10-69 (Petroleum Supply Point Equipment and Operations), 22 October 1986

FM 10-71 (Petroleum Tank Vehicle Operations), 12 May 1978

FM 21-10 (Field Hygiene and Sanitation), 21 June 2000

TM 38-410 (Storage and Handling of Hazardous Material), 13 January 1999

Letter 200-94-1, Headquarters, Department of the Army 19 Jan 94 (Army Pollution Prevention Program)

Memorandum, Deputy Under Secretary of Defense for Environmental Security, 8 Aug 94 (Implementation of Ecosystem Management in the DoD)

Memorandum, Deputy Assistant Secretary of the Army for Installations and Housing, 18 Aug 89 (Policy Regarding Endangered Species Management Requirements on Army Installations)

Puget Sound Clean Air Agency (PSCAA) Regulations I, II, and III

Southwest Air Pollution Control Authority (SWAPCA) 400 (General Regulations for Air Pollution Sources)

Tacoma-Pierce County Health Department (TCPHD) Title 5 Regulations (Health and Welfare)

WAC 118-40 (Hazardous Chemical Emergency Response Planning and Community Right-to-Know Reporting) 25 March 2004

WAC 173-180A (Facility Oil Handling Operations and Design Standards), 4 May 1994

WAC 173-200 (Water Quality Standards for Ground Waters of the State of Washington), 31 October 1990

WAC 173-201a (Water Quality Standards for Surface Waters of the State of Washington), 1 July 2003

WAC 173-303 (Dangerous Waste Regulations), 13 March 2003

WAC 173-304 (Minimum Functional Standards for Solid Waste Handling), 4 October 1988

WAC 173-307 (Plans), 11 July 2000

WAC 173-351 (Criteria for Municipal Solid Waste Landfills), 26 October 1993

WAC 173-360 (Underground Storage Tank Regulations), 14 July 1998

WAC 173-400 (General Regulations for Air Pollution Sources), 11 July 2002

WAC 173-401 (Operating Permit Regulation), 16 September 2002

WAC 173-422 (Motor Vehicle Emission Inspection), 3 June 2002

WAC 246-290 (Public Water Supplies), 1 June 2004

WAC 296-24-33005 (Tank Storage), 31 August 2004

Washington Clean Air Act, RCW 70.94

Yakima Regional Clean Air Authority (YRCAA) Regulation I

29 CFR 1910 (Occupational Safety and Health Standards), 1 July 2003

29 CFR 1926 (Safety and Health Regulations for Construction), 1 July 2003

32 CFR 651 (Environmental Analysis of Army Actions), 1 July 2002

36 CFR 60 (National Register of Historic Places), 1 July 2004

36 CFR 61 (Procedures for Approved State and Local Government Historic Preservation Programs), 1 July 2004

36 CFR 78 (Waiver of Federal Agency Responsibilities Under Section 110 of the National Historic Preservation Act), 1 July 2004

36 CFR 800 (Protection of Historic Properties), 1 July 2003

40 CFR 110 (Discharge of Oil), 1 July 2003

40 CFR 112 (Oil Pollution Prevention), 1 July 2003

40 CFR 261 (Identification and Listing of Hazardous Wastes), 1 July 2004

40 CFR 262 (Standards Applicable to Generators of Hazardous Waste), 1 July 2004

40 CFR 355 (Emergency Planning and Notification), 1 July 2004

40 CFR 370 (Hazardous Chemical Reporting: Community Right-To-Know), 1 July 2004

40 CFR 372 (Toxic Chemical Release Reporting: Community Right-To- Know), 1 July 2004

40 CFR 761 (Polychlorinated Biphenyl's (PCBs) Manufacturing, Processing, Distribution in Commerce, and Use Prohibitions), 1 July 2003

40 CFR 763 (Asbestos), 1 July 2003

43 CFR 7 (Protection of Archaeological Resources), 1 July 2003

49 CFR 171-180 (HW Transportation), 1 July 2003

APPENDIX B

GLOSSARY

1. ACRONYMS AND ABBREVIATIONS.

AAFES	Army and Air Force Exchange Service
ACM	Asbestos Containing Material
ADWR	Annual Dangerous Waste Record
AHPA	Archeological and Historic Preservation Act
AIRFA	American Indian Religious Freedom Act
AQCP	Air Quality Compliance Procedures
AR	Army Regulation
ARCOM	Army Command
ARNG	Army National Guard
ASP	Ammunition Supply Point
AST	Aboveground Storage Tank
ATR	Authorized Technical Representative
AUL	Authorized Use List
BACT	Best Available Control Technology
BL	Ban List
CAA	Clean Air Act
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
CEM	Continuous Emission Monitors
CFR	Code of Federal Regulations
CHPPM	Center for Health Promotion and Preventive Medicine
CI	Command Information
CMMC	Corps Material Management Center
COR	Contracting Officer's Representative
CTR	Commute Trip Reduction
CWA	Clean Water Act
CX	Categorical Exclusion
CY	Calendar Year
DA	Department of the Army
dB	decibel
DCG	Deputy Commanding General
DECA	Defense Commissary Agency
DMR	Discharge Monitoring Reports
DNL	Day-Night Sound Level
DOC	Directorate of Contracting

DoD	Department of Defense
DOL	Directorate of Logistics
DOT	Department of Transportation
DCA	Directorate of Community Activities
DPTMS	Directorate of Plans, Training and Mobilization and Security
DPW	Director of Public Works
DRMO	Defense Reutilization and Marketing Office
dscf	dry standard cubic foot (feet)
dscm	dry standard cubic meter(s)
EA	Environmental Assessment
EBS	Environmental Baseline Survey
ECO	Environmental Compliance Officer
EIS	Environmental Impact Statement
EMS	Environmental Management System
ENMP	Environmental Noise Management Plan
ENRD	Environmental and Natural Resources Division
EOC	Environmental Operating Certificate
EOCP	Environmental Operating Certificate Program
EOD	Explosive Ordnance Disposal
EPA	Environmental Protection Agency
EPAS	Environmental Performance Assessment System
EPCRA	Emergency Planning and Community Right-to-Know Act
EPS	Environmental Protection Specialist
ES	Environmental Services
ESA	Endangered Species Act
ETC	Employee Transportation Coordinator
FFCA	Federal Facility Compliance Agreement
FIFRA	Federal Insecticide, Fungicide and Rodenticide Act
FL Reg	Fort Lewis Regulation
FLWC	Fort Lewis Water Council
FM	Field Manual
FNSI	Finding of No Significant Impact
FORSCOM	Forces Command
GC	Garrison Commander
GSA	General Services Administration
gr	grain(s)
HEPA	High Efficiency Particulate Air
HFL	Headquarters, Fort Lewis
HM	Hazardous Material
HMCC	Hazardous Material Control Center
HMIRS	Hazardous Material Information Resource System

HMT	Hazardous Material Technician
HQ	Headquarters
HQDA	Headquarters, Department of the Army
HSDF	High Sulfur Diesel Fuel
HSMS	Hazardous Substance Management System
HVLP	High Volume, Low Pressure
HW	Hazardous Waste
HWMS	Hazardous Waste Management Section
HWT	Hazardous Waste Technician
IAW	In Accordance With
IC	Incident Commander
ICP	Integrated Contingency Plan
ICUZ	Installation Compatible Use Zone
IH	Industrial Hygiene
IOSC	Installation On-Scene Coordinator
IPM	Integrated Pest Management
IMA	Installation Management Agency
INRMP	Integrated Natural Resources Management Plan
ISR	Installation Status Report
ISSD	Installation Supply and Services Division
kPa	kilopascal(s)
LBP	Lead Based Paint
LEL	Lower Explosive Limit
LEPC	Local Emergency Planning Committee
LSDF	Low Sulfur Diesel Fuel
MAMC	Madigan Army Medical Center
MCA	Military Construction Army
MEDCOM	Medical Command
METL	Mission Essential Task List
METT-T	Mission, Enemy, Terrain, Troops, Time Available
ml	milliliter(s)
MMBTU	Million British Thermal Units
MP	Military Police
MSDS	Material Safety Data Sheet
MTOE	Modified Table of Organization and Equipment
NAAQS	National Ambient Air Quality Standard
NAGPRA	Native American Graves Protection and Repatriation Act
NEPA	National Environmental Policy Act
NFPA	National Fire Protection Association
NG	National Guard
ng	nanogram(s)

NHPA	National Historic Preservation Act
NLT	Not Later Than
NOI	Notice of Intent
NPDES	National Pollutant Discharge Elimination System
NRC	Nuclear Regulatory Commission
O&M	Operations and Maintenance
OB/OD	Open Burning/Open Detonation
ODC	Ozone Depleting Chemical
ODS	Ozone Depleting Substance
OMA	Operations and Maintenance Army
OSHA	Occupational Safety and Health Administration
P2	Pollution Prevention
PAO	Public Affairs Office
PCB	Polychlorinated Biphenyl
pCi/l	picocurie(s) per liter
PM	Particulate Matter
PMS	Preventive Medicine Service
POC	Point Of Contact
POL	Petroleum, Oil, Lubricant
POV	Privately Owned Vehicle
PPE	Personal Protective Equipment
ppm	part(s) per million
ppmv	part(s) per million volume
PSCAA	Puget Sound Clean Air Agency
psi	pound(s) per square inch
psia	pound(s) per square inch absolute
PW	Public Works
QASAS	Quality Assurance Surveillance Ammunition Specialist
QRP	Qualified Recycling Program
RACT	Reasonably Available Control Technology
RCRA	Resource Conservation and Recovery Act
RCW	Revised Code of Washington
REC	Record of Environmental Consideration
RFMSS	Range Facility Management Support System
RM	Reference Method (EPA)
RNA	Research Natural Area
ROTC	Reserve Officers' Training Corps
RPO	Radiation Protection Officer

SAO	Senior Approving Official
SARA	Superfund Amendment and Reauthorization Act
SDWA	Safe Drinking Water Act
SERC	State Emergency Response Commission
SHPO	State Historic Preservation Office
SJA	Staff Judge Advocate
SM	Staff Memorandum
SOP	Standing Operating Procedure
SOV	Single Occupant Vehicle(s)
SPCCP	Spill Prevention Control and Countermeasure Plan
SSA	Supply Support Activity
SWAC	Solid Waste Advisory Committee
SWCAA	Southwest Clean Air Agency
SWMP	Solid Waste Management Plan
TC	Training Circular
TPCHD	Tacoma-Pierce County Health Department
TM	Technical Manual
TSCA	Toxic Substances Control Act
UMTU	Unserviceable Munitions Treatment Unit
USAR	U.S. Army Reserve
USFWS	U.S. Fish and Wildlife Service
UST	Underground Storage Tank
VOC	Volatile Organic Compound
WAC	Washington Administrative Code
YRCAA	Yakima Regional Clean Air Authority
YTC	Yakima Training Center

2. EXPLANATION OF TERMS.

Aboveground storage tank (AST): A storage tank that is not a UST.

Accumulation: Definition for hazardous waste management: The temporary collection of HW into an approved container by a generating activity for a limited period of time pending transfer of the HW to an authorized storage site for eventual disposal.

Accumulation point: Definition for hazardous waste management: A location in or near the workplace, under control of the generating activity, where HW accumulation occurs.

Air Contaminant: Dust, fumes, mist, smoke, other particulate matter, vapor, gas, odorous substance, or any combination thereof.

Air Pollution: The presence in the outdoor atmosphere of one or more air contaminants in sufficient quantities and of such characteristics and duration as to be potentially injurious to human health, plant or animal life, or property.

Air Pollution Episode: A period when a forecast, alert, warning, or emergency air pollution stage is declared by the Washington State Department of Ecology.

Ambient air: That portion of the atmosphere, external to buildings, to which the general public has access.

Ambient air quality standards: An established concentration, exposure time, and frequency of occurrence of an air contaminant in the ambient air, which shall not be exceeded.

Ambient noise: The all-encompassing noise associated with a given environment, usually a composite of sounds from many sources.

Anadromous streams: Streams capable of supporting sea-run fish, e.g., salmon and sea-run trout.

Archeological resource: Any buried or surface deposits of the material remains of human life or activities.

Artifact: A discrete and portable object whose characteristics result wholly or in part from human activity.

Best Available Control Technology (BACT): Definition for air pollution abatement: Technology that will result in an emission standard (including a visible emission standard) based on the maximum degree of reduction which PSAPCA (on a case-by-case basis, taking into account energy, environmental, and economic impacts, and other costs) determines is achievable for such a source through application of production processes, available methods, systems, and techniques. In no event shall application of

the BACT result in emissions of any air contaminant that would exceed the emissions allowed by any applicable standard under 40 Code of Federal Regulations (CFR) Parts 60 and 61.

Biological diversity: The variety of life and its processes. It includes the variety of living organisms, the genetic differences among them, and the communities and ecosystems in which they occur.

Categorical Exclusion (CX): A type of action, which does not ordinarily have a significant effect on the environment. If an action falls into one of the categories listed in 32 CFR 651 (AR 200-2) and no extraordinary circumstances exist which would result in the action having an impact on the environment, an *Environmental Assessment (EA)* or *Environmental Impact Statement (EIS)* is not required.

Chromic acid anodizing: An electrolytic process by which a metal surface is converted to an oxide surface coating in a solution containing chromic acid.

Chromic acid plating: An electrolytic process by which chromium is deposited on a base metal surface.

Container: Definition for hazardous waste management: Any portable device in which a material is accumulated, stored, transported, treated, disposed of, or otherwise handled. (See also *empty container*).

Contaminant: Definition for air recycling purposes: Any material that interferes with collecting, handling, and storing, or lowers the resale value of recyclables.

Control Equipment: Definition for air pollution abatement: Any device which prevents or controls the emission of any air contaminant.

Cultural resource: Any real or personal property, record, or lifeway associated with any prehistoric or historic site, district, building, structure or object.

Curation: The practice of safe and secure storage, preservation, and retrieval for subsequent study of cultural resources.

Decibel (dB): Unit of measure indicating the sound pressure level of a measured sound.

Demolition landfill: Disposal site of construction debris and other non-decaying bulk solid wastes appropriate for disposal at an unlined landfill.

Ecofact: The non-artificial remains found in archeological sites, such as seeds, bone, and plant pollen.

Ecosystem: An ecological system, a natural unit of living and nonliving components which interact to form a stable system in which a cyclic interchange of materials takes place between living and nonliving units, as in a balanced aquarium or in a large lake or forest.

Emission: Definition for air pollution abatement: A direct or indirect release of any air contaminant into the ambient air.

Emission standards: Definition for air pollution abatement: Limits on the quantity, rate, or concentration of emissions of air contaminants on a continuous basis.

Empty container: Definition for hazardous waste management: A container in which all HW has been taken out that can be removed, such that less than one inch of HW remains at the bottom of the container or the volume of the remaining waste is equal to or less than one percent of the container's total capacity; or if the container's total capacity is greater than 110 gallons, the volume of waste remaining in the container or inner liner is no more than 0.3 percent of the container's total capacity. A container, which contained compressed gas is empty when the pressure inside the container equals or nearly equals atmospheric pressure. In addition, if the container or inner liner held acutely dangerous waste as defined in WAC 173-303-040, or pesticides bearing the danger or warning label, the container or inner liner must have been rinsed at least three times with an appropriate cleaner or solvent to be considered empty.

Endangered species: Any species listed pursuant to the Endangered Species Act, which is in danger of extinction throughout all or a significant portion of its range.

Endemic species: Naturally occurring or native plants and animals in a geographic region.

Environmental Assessment (EA): A document presenting the environmental impacts of a proposed action and used to determine the need for an EIS. If an action has a significant environmental effect or is environmentally controversial, an EIS is required.

Environmental Baseline Survey (EBS): Conducted to determine if hazardous substances (as defined in AR 200-1) were stored, released into the environment or structure, or disposed of on a site.

Environmental Impact Statement (EIS): A detailed, objective analysis of the environmental consequences of a proposed action. An EIS is required for any major action which significantly affects the quality of the environment or which is environmentally controversial.

Environmental noise: The outdoor noise environment consisting of the noise, including ambient noise, from all sources that extends beyond the workplace. The noise environment of the workplace is not considered environmental noise.

Environmentally controversial: This relates to cases in which substantive disagreement, real or purported, exists as to the extent, nature or effect of the action on the environment.

Equipment: Definition for air pollution abatement: Any stationary or portable device or any part thereof that emits or may emit any air contaminant into the atmosphere.

Excavation: The act or process of digging and removing earth.

Facility: Definition for air pollution abatement: The sum total of all pollutant emitting activities that belong to the same industrial grouping, are located on one or more contiguous or adjacent properties, and are owned or operated by the same person or persons under common control.

Feature: Definition for cultural resources management: A non-potable artifact, not recoverable from its matrix without destroying its integrity.

Finding of No Significant Impact (FNSI): A document that accompanies the EA for projects where the EA determines that an EIS is not required. The FNSI briefly states why an action will not have a significant effect on the environment, and thus will not require an EIS. It is made available for public comment prior to initiation of the action.

Flexographic printing: The application of words, designs and pictures to a substrate by means of a roll printing technique in which the pattern to be applied is raised above the printing roll and the image carrier is made of rubber or other elastomeric materials.

Fugitive dust: Particulate matter or any visible air contaminant other than uncombined water that is not collected by a capture system and emitted from a stack, but is released to the atmosphere at the point of generation.

Fugitive emission: Definition for air pollution abatement: An emission that does not pass and that could not reasonably pass through a stack, chimney, or other functionally equivalent opening.

Gabions: Erosion control structure made of wire baskets filled with rocks to retain sediment and improve water quality.

Gasoline: Definition for air pollution abatement: A volatile organic compound having a true vapor pressure greater than 10.5 kilopascals (kPa) [1.5 pounds per square inch absolute (psia)] at 20°C temperature, that is a liquid at standard conditions of 102.9 kPa (14.7 psi) and 20°C, and is used as a fuel for internal combustion engines.

Gasoline stations: Any site dispensing gasoline into fuel tanks of motor vehicles, marine vessels, or aircraft from stationary storage tanks.

*Generating activity (*also *generator):* Definition for hazardous waste management: The unit or organization whose act or process produces the HW.

Groundwater: Water that is located beneath the surface of the earth. It also flows naturally to the earth's surface via seeps or springs.

Hazardous material (HM): A useful product that requires special management because it has hazardous characteristics (ignitability, corrosivity, reactivity, or toxicity) that could pose dangers to human health or the environment. A HM becomes a HW when it can no longer be used for its intended purpose.

Hazardous waste(HW): A solid waste (discarded material) with properties that could pose dangers to human health or the environment. A HW either exhibits a hazardous characteristic (ignitability, corrosivity, reactivity, or toxicity) or is specifically designated and regulated as a HW by the EPA under 40 CFR Part 261, or by the State under WAC 173-303.

Hazardous waste disposal facility: An authorized facility where HW is intentionally interred, deposited, or otherwise discarded as a final action. It is the final destination ("grave") for the HW.

Hazardous waste storage facility: An authorized facility where HW is held for a temporary period, at the end of which the HW is treated, disposed of, or stored elsewhere.

Hazardous waste treatment facility: An authorized facility where HW undergoes any method, technique or process designed to change the physical, chemical, or biological character of the HW. The treatment may neutralize the waste; recover energy or material resources from the waste; render the waste non- or less hazardous, and safer to transport, store, or dispose of; or reduce the volume of the waste.

Historic: Any cultural resource associated with activities from a time for which there is also a written record.

Historic building: Any standing building, structure, or architectural ruin that is historically important (usually, but not always, more than 50 years old).

Historic landscape: Any designed or humanly modified natural landscape that is historically important (usually, but not always, more than 50 years old).

Historic property: Any cultural resource that is on or eligible for listing on the National Register of Historic Places.

Impulsive noise: Noise with abrupt onset, high intensity and short duration, also referred to as impulse or impact noise.

Inert landfill: A landfill, which contains noncombustible, non-dangerous solid wastes that are likely to retain their physical and chemical structure under expected conditions of disposal, including resistance to biological attack and chemical attack from acidic rainwater.

Installation Compatible Use Zone (ICUZ): A land use planning procedure employed by the Army to evaluate and manage environmental noise levels at its installations.

Installation: Definition for air pollution abatement: The placement, assemblage, or construction of equipment or control equipment at the premises where the equipment or control equipment will be used, and includes all preparatory work at such premises.
Listed species: Any species of fish, wildlife, or plant, which has been determined to be endangered or threatened under Section 4 of the Endangered Species Act. Listed species are found in 50 CFR 17.11 - 17.12.

Major modification: Definition for air pollution abatement: A modification to a major source that would increase the actual emissions of any air contaminant for which the area is designated non-attainment by more than the following tons per year: Carbon monoxide, 100; Volatile Organic Compounds, 40; Nitrogen Oxides, 40; PM10, 15; Sulfur Dioxide, 40; or Lead, 0.6.

Major source: Definition for air pollution abatement: A facility that emits or has the potential to emit 100 tons per year or more of any air contaminant subject to regulation under the federal Clean Air Act.

Material Safety Data Sheet (MSDS): A document containing information that manufacturers are required by law to provide on all products they manufacture and sell. The MSDS is useful in evaluating the product to determine if it has hazardous constituents.

Mobile sources: Definition for air pollution abatement: Vehicles and aircraft using internal combustion engines.

Modification: Definition for air pollution abatement: Any physical change in, or change in the method of operation of, a source which increases the amount of any air contaminant emitted or which results in the emission of any air contaminant not previously emitted. Exceptions are an increase in the hours of operation or production rates (not otherwise prohibited), or the use of an alternative fuel or raw material that the source is approved to use under an Order of Approval or operating permit.

National Pollutant Discharge Elimination System (NPDES) Permit: A permit issued by the EPA, state, or designated representative to discharge from a point source such as a wastewater treatment plant into a receiving stream.

Natural resources: The viable and/or renewable products of nature and their environment of soil, air, and water. Included are the plants and animals occurring on grasslands, rangelands, croplands, forests, lakes, and streams.

Navigable waters: All waters of the U.S. and their tributaries. In essence, the definition includes intermittent stream and drainage systems that ultimately discharge into the streams and rivers of the United States.

Non-attainment area: A geographic region designated by the U.S. EPA, which violates a primary or secondary national ambient air quality standard.

Non-point source: Stormwater pollution not associated with a fixed discharge point. It normally is associated with substantial drainage areas such as roads or parking lots, paved or unpaved. Generally, it contains common petroleum products and sediments from erosion, but can exhibit any contaminants associated with normal human activity.

Opacity: The fraction of a beam of light, expressed in percent, which fails to penetrate a plume of smoke.

Outdoor Fire: The combustion of material in the open or in a container with no provision for control of such combustion or control of the emissions of such combustions.

Overburden Material: Earth, rock, soil, and topsoil that lie above mineral deposits.

Owner or operator: Definition for air pollution abatement: The person who owns, leases, supervises, or operates the equipment or control equipment.

Particulate matter: Any material, except water in an uncombined form, that is, has been, or is likely to become airborne and exists as a liquid or a solid at standard conditions.

PM10: Particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers as measured by a reference method based on Appendix J of 40 CFR Part 50 and designated in accordance with 40 CFR Part 53 or by an equivalent method designated in accordance with 40 CFR Part 53.

Point source: Any discernible, confined and discrete conveyance including but not limited to any pipe, ditch, channel, tunnel, conduit, well or container from which pollutants are or may be discharged.

Pollution: Prevention is the use of materials, processes, or practices that reduce or eliminate the creation of pollutants, wastes, or adverse ecological impacts. Pollution prevention is a proactive environmental management approach addressing all types of waste as well as natural resource conservation.

Prehistoric: Any cultural resource associated with activities from a time for which there is no contemporary written record.

Process: A recurring action or series of actions normally performed as part of mission accomplishment in which HM is used and HW is generated as a result.

Proponent: The lowest level decision-maker responsible for a proposed action. The proponent is responsible for preparation of the required environmental documentation prior to initiation of the action.

Puget Sound Clean Air Agency (PSCAA): The multi-county air pollution control agency comprised of the activated or inactivated air pollution control authorities of King, Pierce, Snohomish, and Kitsap Counties, and such other counties whose air pollution control authorities may now or later merge with this multi-county authority.

Reasonably Available Control Technology (RACT): Definition for air pollution abatement: The lowest emission standard that a particular source or source category is capable of meeting by the application of control technology that is reasonably available considering technological and economic feasibility. RACT is determined on a case-by-case basis for an individual source or source category taking into account the impact of the source upon air quality, the availability of additional controls, the emission reduction to be achieved by additional controls, the impact of additional controls on air quality, and the capital and operating costs of the additional controls.

Record of Environmental Consideration (REC): Briefly describes a proposed action and its anticipated timeframe. It also identifies the proponent of the action and explains why further environmental documentation is not required.

Record of Decision (ROD): A document that is part of the environmental documentation presented for the final decision in an EIS process.

Recyclable: A material for which secondary uses exist.

Recycling program: An operation whereby materials are separated and collected for the purpose of recovery and reuse.

Recycling: The process by which recovered materials are transformed into usable products.

Resource recovery: The process of obtaining materials or energy from solid waste.

Riparian zone or area: The area immediately adjacent to streams, rivers, and lakes. It is identified by the presence of vegetation that requires large amounts of free or unbound water.

Rotogravure printing: The application of ink to a substrate by means of a roll printing technique that involves an intaglio or recessed image areas in the form of cells.

Sanitary landfill: A lined disposal site for solid waste, except sewage sludge and hazardous or toxic waste.

Screening: The act of mechanically sifting waste earth, rock, soil and topsoil.

Seibert stake (A.K.A. Siber Stake): A marker placed at the edge of an historic property or other significant resource. Seibert stakes are used to mark areas that are off limits to vehicle traffic, bivouac and digging.

Site datum: A permanent point, set either on or adjacent to an archeological resource to assist in management. It is either a pre-existing permanent point, or a piece of half-inch rebar set in concrete. It is protected by a metal fence post, placed no further than one meter away.

Sludge: The solid or semi-solid waste material produced by settling and/or digestion treatment processes of wastewater. It can be used for beneficial processes or disposed of as a solid waste.

Solid waste: Garbage, refuse, sludge of sewage disposal plants, and other discarded solid materials including solid waste materials resulting from industrial, commercial, and community activities, but does not include agricultural wastes.

Source separation: The separation of solid waste at the points of generation by the generator. Source separation is for the purpose of consolidating recyclables and separating solid wastes for disposal in appropriate landfill areas.

Stage of Impaired Air Quality: A condition declared by PSAPCA for elevated levels of PM10 or carbon monoxide. A *first stage* is declared when PM10 are at a level of 75 micrograms per cubic meter measured on a 24-hour average or when carbon monoxide is at an ambient level of 8 parts per million (ppm) of air by volume measured on an 8-hour average. A *second stage* is declared when PM10 are at an ambient level of 105 micrograms per cubic meter measured on a 24-hour average.

Stationary source: Definition for air pollution abatement: A building, structure, equipment, control equipment, or facility that emits or may emit any air contaminant into the atmosphere.

Stockpiling: The temporary storage of earth, rock, soil and topsoil for a future intended use.

Storm water management: The system to control volume, flow rates, and contamination of storm water.

Surface water: Natural or manmade water flows, reservoirs, lakes, or ponds.

Tactical Vehicle: A motor vehicle designed to military specification or a commercial design motor vehicle modified to military specification to meet direct transportation support of combat, combat support, tactical, or relief operations, or for training of personnel for such operations.

Toxic air contaminant: An air contaminant listed in Appendix A of PSAPCA Regulation III.

Traditional cultural resource: A place of importance to a group of people for the practice of their lifeway or as reminder of past lifeways.

True vapor pressure: The equilibrium partial pressure of an organic liquid.

Ullage: The amount by which the contents fall short of filling a container.

Underground storage tank (UST): Any one or combination of tanks (including underground pipes connected thereto) that is used to contain an accumulation of petroleum or hazardous materials (no UST is to be used for hazardous wastes), and the volume of which (including the volume of underground pipes connected thereto) is 10 percent or more beneath the surface of the ground. NOTE: USTs at Fort Lewis and its subinstallations are used for petroleum storage only.

UST system or tank system: An underground storage tank, connected underground piping, underground ancillary equipment, and containment system, if any.

Vapor degreaser: A degreasing tank in which the solvent is heated at or above the boiling point.

Vapor recovery systems: A process that prevents emission to the atmosphere of volatile organic compounds released by the operation of any transfer, storage, or process equipment.

Visible air contaminant: An air contaminant with a 20% or greater opacity.

Volatile Organic Compound (VOC): An organic compound that participates in atmospheric photochemical reactions. This excludes all compounds determined to have negligible photochemical reactivity by the U.S. EPA and listed in 40 CFR 51.100(s).

Waste stream: A term describing the total flow of waste generated by a process or procedure during operations of an organization or activity.

Wastewater: Includes sanitary sewer, storm-water, and industrial wastewater.

Water pollutant:: Solid waste, sewage, garbage, sewage sludge, chemical wastes, petroleum products, heat, refuse, rock, sand, dirt, and industrial, municipal, and agricultural waste or any substance which degrades the natural quality when discharged into water.

Wellhead protection area: The recharge zone around drinking water wells and springs.

Wetland: An area inundated or saturated by surface or groundwater sufficient to support vegetation adapted to saturated soil conditions, i.e., swamps, marshes, bogs, creeks, wet meadows, shorelines, etc.

APPENDIX C

ENVIRONMENTAL DOCUMENTATION REQUIREMENTS FOR PROPOSED ACTIONS

1. PURPOSE. This appendix provides guidance for integrating environmental considerations into installation-wide planning and decision-making. It establishes policy and responsibilities for ensuring that required environmental documentation is prepared for proposed Fort Lewis actions.

2. KEY APPLICABLE REGULATIONS.

a. The National Environmental Policy Act (NEPA) establishes policies and goals for the protection of the environment. NEPA requires the systematic examination of possible and probable environmental consequences of implementing a proposed action.

b. 32 CFR 651, *Environmental Effects of Army Actions,* establishes policy, responsibilities and procedures for implementing the requirements of NEPA into Army planning and decision making.

3. POLICY. It is the policy of Fort Lewis to:

a. Avoid or minimize adverse environmental consequences while performing all mission activities.

b. Ensure that the environmental consequences are considered in the decision process for implementing any Fort Lewis action, operation or project.

c. Prepare required environmental documentation and obtain the necessary federal, state, regional, and local authorization before executing any action requiring such documentation and authorization.

4. ACTIONS REQUIRING ENVIRONMENTAL ANALYSIS. The general types of proposed actions requiring environmental impact analysis under NEPA, unless categorically excluded or otherwise included in existing NEPA documentation, include:

a. Policies, regulations, and procedures (for example, Army and installation regulations).

b. New management and operational concepts and programs, including logistics; RDT&E; procurement; personnel assignment; real property and facility management (such as master plans); and environmental programs such as Integrated Natural Resource Management Plan (INRMP), Integrated Cultural Resources Management Plan (ICRMP), and Integrated Pest Management Plan. NEPA requirements may be incorporated into other Army plans in accordance with 40 CFR 1506.4.

c. Projects involving facilities construction.

d. Operations and activities including individual and unit training, flight operations, overall operation of installations, or facility test and evaluation programs.

e. Actions that require licenses for operations or special material use, including a Nuclear Regulatory Commission (NRC) license, an Army radiation authorization, or Federal Aviation Administration air space request (new, renewal, or amendment), in accordance with AR 95-50.

f. Materiel development, operation and support, disposal, and/or modification as required by DOD 5000.2-R.

g. Transfer of significant equipment or property to the ARNG or Army Reserve.

h. Research and development including areas such as genetic engineering, laser testing, and electromagnetic pulse generation.

i. Leases, easements, permits, licenses, or other entitlement for use, to include donation, exchange, barter, or Memorandum of Understanding (MOU). Examples include grazing leases, grants of easement for highway right-of-way, and requests by the public to use land for special events such as air shows or carnivals.

j. Federal contracts, grants, subsidies, loans, or other forms of funding such as Government-Owned, Contractor-Operated (GOCO) industrial plants or housing and construction via third party contracting.

k. Request for approval to use or store materials, radiation sources, hazardous and toxic material, or wastes on Army land. If the requester is non-Army, the responsibility to prepare proper environmental documentation may rest with the non-Army requester, who will provide needed information for Army review. The Army must review and adopt all NEPA documentation before approving such requests.

l. Projects involving chemical weapons/munitions.

5. RESPONSIBILITIES.

a. Proponents at all levels will:

(1) Identify the proposed action, the purpose and need, and reasonable alternatives for accomplishing the action.

(2) Fund and prepare NEPA analyses and documentation for their proposed actions. This responsibility will include negotiation for matrix support and services outside the chain of command when additional expertise is needed to prepare, review, or otherwise support the development and approval of NEPA analyses and documentation. These NEPA costs may be borne by successful contract offers.

(3) Ensure accuracy and adequacy of NEPA analyses, regardless of the author. This work includes incorporation of comments from appropriate servicing Army environmental and legal staffs.

(4) Ensure adequate opportunities for public review and comment on proposed NEPA actions, in accordance with applicable laws and EOs as discussed in Sec. 651.14 (e). This step includes the incorporation of public and agency input into the decision-making process.

(5) Ensure that NEPA analysis is prepared and staffed sufficiently to comply with the intent and requirements of federal laws and Army policy. These documents will provide enough information to ensure that Army decision makers (at all levels) are informed in the performance of their duties (40 CFR 1501.2, 1505.1). This result requires coordination and resolution of important issues developed during the environmental analysis process, especially when the proposed action may involve significant environmental impacts, and includes the incorporation of comments from an affected installation's environmental office in recommendations made to decision makers.

(6) Adequately fund and implement the decision including all mitigation actions and effectiveness monitoring.

(7) Prepare and maintain the official record copy of all NEPA analyses and documentation for which they are the proponent. This step will include the provision of electronic copies of all EAs, final EISs, and Records of Decision (RODs), through their chain of command, to AEC, and forwarding of those same documents to the Defense Technical Information Center (DTIC) as part of their public distribution procedures. In addition, copies of all EAs and FNSIs (in electronic copy) will be provided to ODEP. A copy of the documentation should be maintained for six years after signature of the FNSI/ROD.

(8) Maintain the administrative record for the environmental analysis performed. The administrative record shall be retained by the proponent for a period of six years after completion of the action, unless the action is controversial or of a nature that warrants keeping it longer. The administrative record includes all documents and information used to make the decision. This administrative record should contain, but is not limited to, the following types of records:

(a) Technical information used to develop the description of the proposed action, purpose and need, and the range of alternatives.

(b) Studies and inventories of affected environmental baselines.

(c) Correspondence with regulatory agencies.

(d) Correspondence with, and comments from, private citizens, Native American tribes, Alaskan Natives, local governments, and other individuals and agencies contacted during public involvement.

(e) Maps used in baseline studies.

(f) Maps and graphics prepared for use in the analysis.

(g) Affidavits of publications and transcripts of any public participation.

(h) Other written records that document the preparation of the NEPA analysis.

(i) An index or table of contents for the administrative record.

(9) Identify other requirements that can be integrated and coordinated within the NEPA process. After doing so, the proponent should establish a strategy for concurrent, not sequential, compliance; sharing similar data, studies, and analyses; and consolidating opportunities for public participation. Examples of relevant statutory and regulatory processes are given in Sec. 651.14 (e).

(10) Identify and coordinate with public agencies, private organizations, and individuals that may have an interest in or jurisdiction over a resource that might be impacted. Coordination should be accomplished in cooperation with the Installation Environmental Offices in order to maintain contact and continuity with the regulatory and environmental communities. Applicable agencies include, but are not limited to:

(a) State Historic Preservation Officer.

(b) Tribal Historic Preservation Officer.

(c) U.S. Fish and Wildlife Service.

(d) Regional offices of the EPA.

(e) State agencies charged with protection of the environment, natural resources, and fish and wildlife.

(f) USACE Civil Works regulatory functions, including Clean Water Act, Section 404, permitting and wetland protection.

(g) National Marine Fisheries Service.

(h) Local agencies and/or governing bodies.

(i) Environmental interest groups.

(j) Minority, low-income, and disabled populations.

(k) Tribal governments.

(l) Existing advisory groups (for example, Restoration Advisory Boards, Citizens Advisory Commissions, etc.).

(11) Identify and coordinate, in concert with environmental offices, proposed actions and supporting environmental analyses with local and/or regional ecosystem management initiatives such as the Mojave Desert Ecosystem Management Initiative or the Chesapeake Bay Initiative.

(12) Review Army policies, including AR 200-1 (Environmental Protection and Enhancement), AR 200-3 (Natural Resources--Land, Forest, and Wildlife Management), and AR 200-4 (Cultural Resources Management) to ensure that the proposed action is coordinated with appropriate resource managers, operators, and planners, and is consistent with existing Army plans and their supporting NEPA analyses.

(13) Identify potential impacts to (and consult with as appropriate) American Indian, Alaskan Native, or Native Hawaiian lands, resources, or cultures (for example, sacred sites, traditional cultural properties, treaty rights, subsistence hunting or fishing rights, or cultural items subject to the Native American Graves Protection and Repatriation Act (NAGPRA)). All consultation shall be conducted on a Government-to-Government basis in accordance with the Presidential Memorandum on Government-to-Government Relations with Tribal Governments (April 29, 1994) (3 CFR, 1994 Comp, p. 1007) and AR 200-4 (Cultural Resources Management). Proponents shall consider, as appropriate, executing Memoranda of Agreements (MOAs) with interested Native American groups and tribes to facilitate timely and effective participation in the NEPA process. These agreements should be accomplished in cooperation with Installation Environmental Offices in order to maintain contact and continuity with the regulatory and environmental communities.

(14) Review NEPA documentation that relies upon mitigations that were not accomplished to determine if the NEPA analysis needs to be rewritten or updated. Such an update is required if the unaccomplished mitigation was used to support a FNSI. Additional public notice/involvement must accompany any rewrites.

b. Installation Commanders will:

(1) Establish an installation (command organization) NEPA program and evaluate its performance through the Environmental Quality Control Committee (EQCC) or its equivalent, as required by AR 200-1, Environmental Protection and Enhancement.

(2) Designate a NEPA POC to coordinate and manage the installation's (command organization's) NEPA program, integrating it into all activities and programs at the installation. The installation commander will notify the MACOM of the designation.

(3) Establish a process that ensures coordination with the MACOM, other installation staff elements (to include PAOs and tenants) and others to incorporate NEPA requirements early in the planning of projects and activities.

(4) Ensure that actions subject to NEPA are coordinated with appropriate installation organizations responsible for such activities as master planning, natural and cultural resources management, or other installation activities and programs.

(5) Ensure that funding for environmental analysis is prioritized and planned, or otherwise arranged by the proponent, and that preparation of NEPA analyses, including the involvement of the public, is consistent with the requirements of this part.

(6) Approve NEPA analyses for actions under their purview. The Adjutant General will review and endorse documents and forward to the NGB for final approval.

(7) Ensure the proponent initiates the NEPA analysis of environmental consequences and assesses the environmental consequences of proposed programs and projects early in the planning process.

(8) Assist in the review of NEPA analyses affecting the installation or activity, and those prepared by DOD and other Army or federal agencies, as requested.

(9) Provide information through the chain of command on proposed actions of national interest to higher headquarters prior to initiation of NEPA documentation.

(10) Maintain official record copies of all NEPA documentation for which they are the proponent and forward electronic copies of those final EISs and EAs through the MACOM to AEC.

(11) Ensure that the installation proponents initiate required environmental analyses early in the planning process and plan the preparation of necessary NEPA documentation.

(12) Ensure NEPA awareness and/or training is provided for professional staff, installation-level proponents, and document reviewers (for example, master planning, range control, etc.).

(13) Solicit support from MACOMs, CBTDEVs, and MATDEVs, as appropriate, in preparing site-specific environmental analysis.

(14) Ensure that local citizens are aware of and, where appropriate, involved in NEPA analyses, and that public comments are obtained and considered in decisions regarding proposals.

(15) Use environmental impact analyses to determine the best alternatives from an environmental perspective, and to ensure that these determinations are part of the Army decision process.

c. Environmental officers (at the Installation, MACOM, and Army activity level) shall, under the authority of the Installation Commander:

(1) Represent the Installation, MACOM, or activity Commander on NEPA matters.

(2) Advise the proponent on the selection, preparation, and completion of NEPA analyses and documentation. This approach will include oversight on behalf of the proponent to ensure adequacy and support for the proposed action, including mitigation monitoring.

(3) Develop and publish local guidance and procedures for use by NEPA proponents to ensure that NEPA documentation is procedurally and technically correct. (This includes approval of Records of Environmental Consideration (RECs).)

(4) Identify any additional environmental information needed to support informed Army decision-making.

(5) Budget for resources to maintain oversight with NEPA and this part.

(6) Assist proponents, as necessary, to identify issues, impacts, and possible alternatives and/or mitigations relevant to specific proposed actions.

(7) Assist, as required, in monitoring to ensure that specified mitigation measures in NEPA analyses are accomplished. This monitoring includes assessing the effectiveness of the mitigations.

(8) Ensure completion of agency and community coordination.

d. The SJA will:

(1) Provide legal opinion to proponents concerning the applicability of exemption by law to environmental documentation for proposed actions.

(2) Provide other legal assistance concerning required environmental documentation for proposed actions.

(3) Review all EAs and EISs for legal sufficiency.

e. The PAO will assist the Commander in preparing for public hearings or public meetings regarding proposed Fort Lewis actions.

f. The YTC Installation Commander will review EAs, FNSIs, EISs, and RODs for YTC proposed actions.

g. The ENRD-YTC will coordinate environmental documentation for proposed YTC actions and will:

(1) Provide technical guidance and assistance to proponents.

(2) Conduct all coordination with federal, state, regional and local authorities concerning required environmental documentation, in coordination with the Fort Lewis ENRD and the SJA .

(3) Review and approve RECs and EBSs for YTC proposed actions.

(4) Prepare and/or review EAs and FNSIs, and forward through the Fort Lewis ENRD for approval by the Fort Lewis Garrison Commander.

(5) Assist ENRD in the preparation of EISs.

6. SUMMARY.

a. The broad spectrum of proposed actions range from minor to major. These actions may or may not be environmentally controversial or have a significant impact on the environment. Regardless of the action, the environmental impact must be evaluated and considered in the planning and decision-making process using the procedures established in this regulation.

b. Failure to prepare and provide necessary environmental documentation may result in unnecessary delays or disapproval of project implementation and possible legal action.

c. Consideration of environmental consequences of a proposed project is not only a requirement of the law; the environmental analysis and consequent actions to eliminate or minimize adverse environmental impacts of the project will help ensure continued future sustainable mission accomplishment at Fort Lewis and its sub-installations.

APPENDIX D

POLLUTION PREVENTION

1. PURPOSE. This appendix outlines policy, establishes responsibilities, and provides operating guidance to meet federal, state, and Army requirements for pollution prevention.

2. GENERAL.

a. Pollution Prevention.

(1) Is any reasonable mechanism to successfully avoid, prevent, or reduce pollutant discharges or emissions other than by the traditional method of treating pollution at the discharge end of a pipe or stack.

(2) Focuses primarily on methods that do not depend on treating or controlling existing waste/release streams to eliminate or reduce impacts to the environment (including impacts to the air, surface waters, ground waters, and soils).

(3) Is a proactive environmental management approach addressing the elimination and/or reduction of all types of waste as well as natural resource conservation, and can be implemented at any stage of the pollution management hierarchy.

(4) Is the *Army's preferred approach to environmental management and maintaining compliance* with environmental laws and regulations.

(5) Is one of the four critical elements of the Army environmental program (the other elements are compliance, restoration, and conservation).

b. Federal Pollution Prevention Policy Documents.

(1) The Pollution Prevention Act of 1990 establishes a national policy that "pollution should be prevented or reduced at the source whenever feasible." The Pollution Prevention Act establishes the waste management hierarchy of source reduction, recycling, treatment, and then disposal.

(a) Source reduction has the highest priority in the hierarchy.

(b) When source reduction cannot be achieved, recycling and reuse are preferred over treatment.

(c) When treatment is not possible, <u>environmentally sound</u> disposal is used as the last option, after all other options have been exhausted.

(2) Other federal laws promote pollution prevention by establishing stringent requirements for the management of hazardous materials (HM), solid waste (SW) and hazardous waste (HW). These requirements strongly support the implementation of pollution prevention initiatives to minimize the amounts of material or waste managed and thereby reduce the burdens imposed by the laws. These laws and their pollution prevention aspects include:

(a) Clean Water Act (CWA): Reduce and eventually eliminate the discharge of pollutants into waterways.

(b) Clean Air Act (CAA): The amendments of 1990 added pollution prevention as a primary goal of the Act.

(c) Resource Conservation and Recovery Act (RCRA): The hazardous and solid waste amendments of RCRA established as national policy the reduction or elimination of HW generated whenever possible.

(d) Comprehensive Environmental Response, Compensation and Liability Act (CERCLA): Indirectly supports pollution prevention through its liability provision. Any mismanagement of HM can result in liability and consequent enforcement action by a regulating agency.

(e) Emergency Planning and Community Right-to-Know Act (EPCRA): Minimization of hazardous substance usage is an EPCRA goal. The Act promotes pollution prevention by requiring facilities meeting reporting criteria to report on the physical and chemical hazards, amounts, locations, and methods of storage for hazardous chemicals stored, and to report annually on toxic releases to the environment.

(3) Executive Order 13101, 14 September 1998, *Greening the Government Through Waste Prevention, Recycling and Federal Acquisition*, directs federal agencies to improve waste prevention, recycling and the purchase and use of recycled content and environmentally preferable products and services.

(4) Executive Order 13148, 21 April 2000, *Greening the Government Through Leadership in Environmental Management,* directs Federal agencies to ensure all necessary actions are taken to integrate environmental accountability into agency day-to-day decision making and long-term planning processes, across agency missions, activities, and functions. A summary of the goals of this Executive Order is:

(a) Environmental Management: Through development and implementation of environmental management systems, each agency shall ensure that strategies are established to support environmental leadership programs, policies, and procedures.

(b) Environmental Compliance: Each agency shall comply with environmental regulations by establishing and implementing environmental compliance audit

programs and policies that emphasize pollution prevention as a means to both achieve and maintain environmental compliance.

(c) Right-to-Know and Pollution Prevention: Through timely planning and reporting under EPCRA, Federal facilities shall inform the public and their workers of possible sources of pollution resulting from facility operations. Whenever feasible and cost effective pollution shall be reduced at the source. Pollution Prevention shall be emphasized as a means to address environmental compliance.

(d) Release Reduction: Toxic Chemicals: Toxic Release Inventory (TRI) releases and off-site transfers of toxic chemicals for treatment and disposal shall be reduced by 10 percent annually, or by 40 percent overall by December 31, 2006.

(e) Use Reduction: Toxic Chemicals and Hazardous Substances and Other Pollutants: Each agency shall reduce its use of selected toxic chemicals, hazardous substances, and pollutants, or its generation of hazardous and radioactive waste types at its facilities by 50% by December 31, 2006.

(f) Reduction in Ozone-Depleting Substances: A plan shall be developed to phase out the procurement of Class I Ozone-depleting substances for all nonexcepted used by December 31, 2010.

(g) Environmentally and Economically Beneficial Landscaping: Promote the sustainable management of installation lands through the implementation of cost effective, environmentally sound landscaping practices and programs to reduce adverse impacts to the natural environment.

c. The Washington State Hazardous Waste Reduction Act of 1990 mandates the same waste management hierarchy as the federal Pollution Prevention Act. This State law requires each hazardous waste generator and hazardous substance user to prepare and maintain a pollution prevention plan for voluntarily reducing hazardous substance use and hazardous waste generation, and to provide annual progress reports. The Act is implemented by Chapter 173-307 of the Washington Administrative Code (WAC 173-307).

d. The Army pollution prevention program is outlined in HQDA LTR 200-94-1, *Army Pollution Prevention Program,* 19 January 1994. The letter establishes Army policy and goals, and assigns responsibilities for management of the Army pollution prevention program, so as to reduce the reliance on products or processes that generate environmentally degrading impacts to as near zero as possible. The following policy provisions of the document affect Fort Lewis:

(1) Reduce total Army releases of toxic pollutants to the environment (and off-site transfers for treatment and disposal) by no less than 50 percent by 31 December 1999, from a baseline established not later than December 1994.

(2) Conduct multi-media pollution prevention assessments and establish pollution prevention plans at all Army installations. Establish multi-media programs to implement the pollution prevention plans.

(3) Emphasize the procurement of non-hazardous rather than hazardous materials whenever practical.

(4) For all Army requirements, favor the use of recycled materials in accordance with Executive Order 13101.

(5) Place continued emphasis on increasing the percent/amount of recyclable material diverted from the municipal waste stream.

(6) Accomplish pollution prevention reporting in accordance with Executive Order 13148.

(7) Incorporate pollution prevention principles into Army activities, including the following, to the greatest extent possible:

(a) Operations and training.

(b) All phases of contingency operations: mobilization, deployment, operations, redeployment, and demobilization.

(c) Logistical activities (supply, maintenance, transportation, facilities, and services).

(d) Planning, construction, renovation, and demolition throughout the infrastructure life cycle.

(e) Base operations and installation support activities.

(f) Health and medical activities.

(g) Energy plans and programs. For further information contact the Installation Energy Coordinator at 967-2837.

(8) Include Pollution prevention in the installation Mission Essential Task List (METL).

e. The Fort Lewis Pollution Prevention Plan was prepared in accordance with Executive Order 13148 and WAC 173-307. Oversight for Plan implementation is provided by the installation Pollution Prevention Subcommittee. The Plan is maintained by the Environmental and Natural Resources Division (ENRD), Public Works (PW) and updated as required.

3. POLLUTION PREVENTION POLICY AND POLLUTION REDUCTION GOALS.

a. It is Fort Lewis policy to:

(1) Foster pollution prevention awareness and seek pollution prevention opportunities throughout Fort Lewis and its sub-installations in all mission areas.

(2) Minimize the quantities of hazardous or environmentally unacceptable materials requisitioned, stored, and used.

(3) Systematically reduce or eliminate use of HM, operations and processes that produce HW and environmentally harmful emissions.

(4) Comply with the applicable provisions of the Pollution Prevention Act, EPCRA, Executive Orders 13101 and 13148 and other applicable federal guidance; WAC 173-307; and the Army Pollution Prevention Program.

b. Pollution Prevention Reduction Goals.

(1) DOD has established a new Measure of Merit that requires Fort Lewis to set a pollution reduction goal for non-hazardous solid waste that will ensure a greater than 40% diversion rate by the end of FY 2005. This goal will be attained while ensuring integrated non-hazardous solid waste management programs provide an economic benefit when compared with disposal using landfill and incineration alone

(2) Numeric performance goals are established for major Fort Lewis processes in the Fort Lewis Pollution Prevention Plan. Goals are disseminated and updated as appropriate.

4. RESPONSIBILITIES.

a. The Senior Mission Commander will function as the Senior Approving Official (SAO) for requisitions and contracts requiring the procurement and/or use of

Class I ozone-depleting chemicals (ODCs). The ODC management program is discussed in Appendix H of this regulation.

b. The Fort Lewis Garrison Commander (GC) will incorporate pollution prevention into the installation Mission Essential Task List (METL).

c. The sub-installation Commander, YTC will appoint an Authorized Technical Representative (ATR) to validate requirements in contracts or requisitions for Class I ozone-depleting chemicals (ODCs) as discussed in Appendix H of this regulation.

d. The PW will:

(1) Have staff proponency for the installation pollution prevention program, and will execute the program through the Environmental and Natural Resources Division (ENRD).

(2) Ensure HM that is identified in the Fort Lewis Restricted Use List is specified in contracts, which require the procurement or use of HM.

(3) Ensure that PW credit card holders do not procure HM without proper authorization from the Pollution Prevention Program Manager.

(4) Foster pollution prevention awareness and actions in PW operations, with emphasis on construction, renovation and demolition activities.

(5) Establish baselines, performance goals and assess annual progress toward goal attainment for the following:

(a) Solid waste reduction.

(b) Energy consumption.

(c) Reduction in HM storage and use.

(d) Reduction in HW generation.

(e) Pesticide use.

(f) Air emissions.

(g) Water consumption.

(h) Recycling.

(i) Off-site treatment and disposal.

(6) Appoint Authorized Technical Representatives (ATRs) to validate requirements in contracts or requisitions for Class I ozone-depleting chemicals (ODCs) as discussed in Appendix H of this regulation.

(7) Approve and track all types of pollution prevention equipment, to include, but not limited to parts washers and HM recycling equipment.

e. The ENRD will:

(1) Provide the Installation Pollution Prevention Program Manager.

(2) Maintain the Fort Lewis Pollution Prevention Plan and coordinate execution of the Plan.

(3) Develop and conduct a pollution prevention training program IAW guidelines provided in paragraph 6.

(4) Maintain the individual established AULs and the Restricted Use List (RUL).

(5) Ensure that all Fort Lewis and sub-installation processes which use HM and generate HW are identified with an Annual Dangerous Waste Record Number (ADWR#). (For purposes of this requirement a *process* is a recurring action or series of actions normally performed as part of mission accomplishment in which HM is used and HW is generated as a result).

(6) Maintain the current ADWR# file.

(7) Develop a system for formal review and permitting that specifies and authorizes HM to be used in each installation and sub-installation process, and the HW waste stream(s) generated in the process.

(8) IAW the Pollution Prevention Plan:

(a) Review annual inventories of HM storage and use, HW reduction, and changes in processes.

(b) Collect quarterly data on HM storage and/or use from installation units/agencies.

(c) Conduct an annual evaluation and prepare a progress report on pollution prevention goal attainment.

(9) Prepare Toxic Release Inventory (TRI) and Tier I/II reports required under EPCRA, and other reports required by Army, state, and federal regulations.

(10) Submit Material Safety Data Sheet (MSDS) copies and updates to the State Emergency Response Commission (SERC), Local Emergency Planning Committees (LEPCs) and the Fort Lewis Fire Department as required under EPCRA.

f. The DOL will:

(1) Ensure that only HM which is on individual established AULs is requisitioned for supply and distribution to Fort Lewis users.

(2) Ensure that DOL credit card holders do not procure HM without proper authorization from the Pollution Prevention Program Manager.

(3) Foster pollution prevention awareness and actions in DOL operations, with emphasis on installation maintenance activities.

(4) Appoint Authorized Technical Representatives (ATRs) to validate requirements in contracts or requisitions for Class I ozone-depleting chemicals (ODCs) as discussed in Appendix H of this regulation.

g. The DOC will:

(1) Ensure that contracts and requisitions processed through the DOC for approval, if requiring the use of HM, specify only HM that is not included on the Fort Lewis Restricted Use List (RUL).

(2) Emphasize the procurement of material containing the maximum post-consumer recycled content practicable as required by the Affirmative Procurement Program (Executive Order 13101).

h. The Command Safety Office will: Make recommended additions to the Fort Lewis Restricted Use List (RUL).

i. The Commander, MAMC will:

(1) Foster pollution prevention awareness and actions in health and medical activities.

(2) Develop pollution prevention performance goals for medical activities and coordinate the goals with the ENRD.

(3) Appoint an Authorized Technical Representative (ATR) to validate requirements in contracts or requisitions for Class I ozone-depleting chemicals (ODCs) as discussed in Appendix H of this regulation.

j. Preventive Medicine Services, MAMC will: Make recommended additions to the Fort Lewis Restricted Use List (RUL).

k. The Senior Mission Command G-4 will:

(1) Foster pollution prevention awareness and actions in logistical operations of military units, with emphasis on maintenance activities.

(2) Ensure that military supply units, e.g., 304th Support Center (CMMC) requisitions only HM which is on established unit AULs.

l. Commanders/directors of assigned and tenant organizations that store and/or use HM or generate HW in the course of performing their operational mission will:

(1) Foster pollution prevention awareness and action through:

(a) Compliance with the requirements in paragraph 5 below, and periodic assessment of processes for opportunities to modify or replace the process so as to reduce the use of HM and/or the generation of HW.

(b) The requisition and use of only HM which is on their individual unit/activity AUL.

(2) Submit the Hazardous Material Quarterly Inventory and Usage Report, HFL Form 953, using the procedures in Appendix E, Tab 4, *Hazardous Material Management,* this regulation.

(a) Units/activities that have been issued an Environmental Operating Certificate and order HM exclusively through the HMCC are not required to submit the Hazardous Material Quarterly Inventory and Usage Report, HFL Form 953. This requirement may be reinstated if units/organizations do not adhere to the procurement provisions of their Environmental Operating Certificate.

(b) Current HM inventories must be maintained at the unit/activity in accordance with FL Reg 385-5, Appendix B, 2(a).

5. POLLUTION PREVENTION ACTIONS. The actions described below are major aspects of the Fort Lewis Pollution Prevention Plan. Compliance with applicable requirements is mandatory for all organizations and personnel on Fort Lewis and its sub-installations. Additional details are available from the installation Pollution Prevention Program Manager (966-6463).

a. AULs. The AUL is a listing of HM approved for use in processes at Fort Lewis and its sub-installations. Only HM on the AUL will be used and requisitioned. Each unit/activity will have an AUL established for use in their specific processes.

(1) The AUL is subject to frequent modifications and will have HM added and deleted as approved by the Pollution Prevention Office. The most current unit listing is maintained by the Installation Pollution Prevention Program Manager (966-6463).

(2) HM that is unique to and required for MAMC operations will be included in an internal AUL that is listed in the MAMC supplement to FL Reg 200-1.

b. Fort Lewis RUL. The RUL is a listing of HM that is restricted for use at Fort Lewis and its sub-installations. See Appendix U, *Hazardous Materials Substitution Program,* this regulation.

(1) The RUL is subject to frequent modifications and will have HM added and deleted as approved by the Pollution Prevention Office. The most current listing is maintained by the Installation Pollution Prevention Program Manager (966-6463).

(2) HM that is unique to and is restricted from use in MAMC operations will be included in an internal RUL that is listed in the MAMC supplement to FL Reg 200-1.

c. Procurement of HM through the credit card system. Units/activities will not procure HM by credit card (except MAMC) without proper authorization from the Pollution Prevention Program Manager. MAMC will develop and document internal HM credit card tracking procedures in the MAMC supplement to FL Reg 200-1.

(1) Units/activities that have received permission to purchase HM with a Credit Card will submit a quarterly HM inventory, listing item(s) description and quantity.

(2) The MSDSs for new HM items procured by credit card will be submitted with the HM Quarterly Inventory and Usage Report, IAW procedures in Appendix E of this regulation.

d. HM procurement. Each procurement agency (DOC, DOL, 304th CMMC, PW, DCA, MAMC) will:

(1) Purchase HM through the HMCC or HMCC buyer, unless otherwise authorized by the Pollution Prevention Program Manager in writing. Authorization must be available for on-site inspections.

(2) Maintain records of HM purchased during the calendar year (CY).

(3) If the HMCC was not used for procurement of the HM, provide a report to the Pollution Prevention Program Manager at ENRD, to arrive NLT 1 February and covering the previous CY. The report will detail HM procured during the CY (including local purchase), to include item description, quantity, and cost.

e. Pollution Prevention Equipment.

(1) All installation units/organizations will coordinate procurement of pollution prevention equipment, to include, but not limited to, parts washers and recycling units, with the PW-ENRD, Pollution Prevention Office. Proper coordination ensures that equipment and/or processes are authorized and environmentally compliant.

(2) All pollution prevention equipment is hand receipted and signed for on a DA Form 2062 and maintained IAW DA Pam 710-2-1.

f. Annual reporting of battery recycling. Each battery recycling activity (DOL, PW, DCA) will:

(1) Maintain records of batteries recycled during the CY.

(2) Provide a report to the Pollution Prevention Program Manager at ENRD, to arrive NLT 1 February and covering the previous CY. The report will detail battery recycling during the CY, to include battery types recycled, quantities, and weights.

6. POLLUTION PREVENTION TRAINING.

a. ENRD will incorporate pollution prevention awareness and principles in the following scheduled training courses.

(1) Environmental Operations Management and Environmental Compliance Inspection training as described in Appendix J, this regulation.

(2) The ENRD portion of the Company Commander/First Sergeant Course.

b. Commanders/directors of assigned and tenant organizations that store and/or use HM or generate HW in the course of performing their operational mission will conduct recurring awareness training to promote and encourage pollution prevention. Briefing materials and other technical assistance are available from the Pollution Prevention Program Manager or Environmental Services (967-4786).

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APPENDIX E

HAZARDOUS MATERIAL MANAGEMENT

1. PURPOSE.

a. Establishes policy, responsibilities and procedures for managing hazardous materials (HM) that are required in the performance of Fort Lewis daily mission activities.

b. Implements the AR 200-1 requirement for a Hazardous Material Management Program.

c. Establishes responsibilities and procedures for complying with Department of Defense (DoD), Department of Army (DA), and IMA as well as federal, state and local requirements for managing HM.

2. GENERAL.

a. As used in this regulation, the term "hazardous material" (HM) is a useful product, which requires special management because in a particular form or quantity it has hazardous characteristics (ignitability, corrosivity, reactivity, or toxicity) that may pose an unreasonable risk to human health or the environment. A HM is not a hazardous waste (HW), and the regulatory requirements for the management of each are not the same. A HM becomes a HW when it can no longer be used for its intended purpose and must be discarded for disposal. It is then managed as HW. See Appendix F, *Hazardous Waste Management,* this regulation, for management of HW.

b. HM is used in many processes that are essential for daily mission activities at Fort Lewis. These HM will be managed in accordance with (IAW) the requirements provided or referenced in this appendix.

c. The management of HM is an integral part of the Fort Lewis Pollution Prevention Program. The requirements of this chapter are consistent with and support the pollution prevention actions described in Appendix D, *Pollution Prevention,* this regulation.

3. KEY APPLICABLE REGULATIONS.

a. AR 200-1, Environmental Protection and Enhancement, and AR 710-2, Supply Policy Below the Wholesale Level, both require the establishment of a Hazardous Material Management Program.

b. DA Pam 200-1, *Environmental Protection and Enhancement*, provides technical and procedural information, and further defines policy and responsibilities as directed by AR 200-1.

c. Executive Order 13148, *Greening the Government through Leadership in Environmental Management,* directs Federal agencies to ensure all necessary actions are taken to integrate environmental accountability into agency day-to-day decision making and long-term planning processes, across agency missions, activities, and functions.

d. Defense Reutilization and Marketing Office Lewis (DRMO-Lewis), *Hazardous Property Management Procedures* outlines procedures for excess or unserviceable hazardous materials.

e. Fort Lewis Regulation (FL Reg) 385-5, Fort Lewis Hazard Communication Program is the commands written program implementing USDOL-OSHA, Department of Defense (DoD) and Army requirements for hazard communication.

f. Technical Manual 38-410, Storage and Handling Hazardous Material, guidance for daily operations.

g. Executive Order 13101 Greening the Government through Waste management, Recycling, and Federal Acquisition.

4. POLICY.

a. Comply with all DoD, DA, federal, state and local regulations concerning the procurement, storage, transportation, handling, use, tracking and disposal of HM.

b. Pursue all reasonable actions to avoid or reduce the use of HM.

c. Require units/organizations to obtain all hazardous material through the HMCC. No credit card purchases of hazardous material is allowed, except as authorized by the Pollution Prevention Program Manager on a case-by-case basis.

d. Employ “best management practices” throughout the HM life cycle to minimize risk to public health or damage to the environment.

e. Prevent or minimize pollution from releases of HM to the environment.

f. Provide training appropriate to the job requirement for each individual involved in HM management.

g. Maintain a “spill response kit” in a readily accessible location at or near the HM storage facility

h. Establish and maintain a hazard communication program for informing personnel of hazards associated with HM that they handle.

i. Prohibit the use, storage or disposal of non-DoD HM unless specifically authorized through command channels from Headquarters, Department of the Army (HQDA).

j. When training at YTC, MRE heaters will be handled as specified by YTC Commander's Policy Statement #02-04 and the Using Units SOP. Documentation may be found on the YTC PW website at https://yakima-pw.lewis.army.mil.

5. RESPONSIBILITIES.

a. Public Works (PW) will exercise overall staff proponency of the HM management program through the Environmental and Natural Resources Division (ENRD). The ENRD will:

(1) Provide guidance on policy and procedures pertaining to the procurement, storage, handling, use, tracking, and disposal of HM.

(2) Maintain each organization's HM Authorized Use List (AUL).

(3) Develop and maintain the Fort Lewis HM Restricted Use List (RUL).

(4) Conduct Site-Specific Process review for formal review and permitting of installation and sub-installation processes that specifies and authorizes HM to be used, and the hazardous waste stream(s) generated in the process.

(5) Accomplish the following IAW the Fort Lewis Pollution Prevention Plan:

(a) Review HM inventories of storage and use.

(b) Review changes in processes.

(c) Collect quarterly inventory data on HM storage and/or usage from installation units/agencies who have not been issued an Environmental Operating Certificate (EOC) or are otherwise specifically exempt.

(d) Collect data from Fort Lewis procurement agencies on HM procured periodically.

(e) Conduct an annual evaluation and prepare a progress report on pollution prevention goal attainment attributable to elimination or reduction of HM use.

(6) Coordinate with federal, state or local agencies on HM issues, and submit reports as required by regulations.

(7) Provide HM training and technical assistance to units and activities.

(8) Conduct HM compliance inspections of units and activities.

(9) Manage the Fort Lewis Environmental Operating Certificate Program.

(10) Monitor contractor operations performed for PW which involve the handling of HM (e.g., contractor removal and disposal of asbestos) to ensure compliance with appropriate regulations.

(11) For Hazardous Material Product Reviews (HMPR), serve as the installation's single Point-of-Contact (POC) for all vendors, distributors, and sales representatives who wish to market their products with hazardous constituents, for commercial application, to the Fort Lewis Community.

(12) Conduct HMPR's and serve as the final approving authority for commercial-use products with hazardous constituents.

b. The Maintenance and Repair (M&R) Division, PW, will ensure that in-house projects involving the following HM operations comply with appropriate regulations and with the HM procedures in this regulation:

(1) Activities in buildings or facilities containing LBP/asbestos.

(2) Operation, servicing, and removal from service of PCB items.

(3) Water and wastewater treatment plant operations.

(4) Vehicle and equipment maintenance. See Appendix M, *Environmental Compliance for Operations at Motor Pools.*

(5) Painting operations.

(6) Other Public Works in-house operations involving the handling of HM.

c. The Directorate of Contracting (DOC) will:

(1) Support Affirmative Procurement (Presidential Executive Order 13101: "Greening the Government Through Waste Prevention, Recycling and Federal Acquisition")

(2) Direct those contractors and vendors who contact DOC, and who use or sell any hazardous material, to first meet with and be assessed by Environmental Services staff

(3) HM Inventories: Ensure applicable contracts contain the requirement to prepare an initial HM inventory for submission to PW ENRD Pollution Prevention and then submit updates on a quarterly basis.

d. The Joint Transportation Directorate will:

(1) Exercise staff proponency for compliance with U.S Department of Transportation (DOT) requirements associated with HM.

(2) Provide information when needed/requested to units and activities on proper container marking/labeling, and vehicle placarding when transporting HM over public highways.

e. The Directorate of Logistics (DOL) will:

(1) Operate the HMCC (Hazardous Material Control Center) by:

(a) Maintaining a centralized location to receive and distribute hazardous material.

(b) Publishing and maintaining the External HMCC SOP.

(c) Ensuring that copies of the Material Safety Data Sheet (MSDS) are provided whenever shipments of HM are distributed to receiving units/activities.

(d) Ensuring that Hazardous Substance Management System (HSMS) labels are affixed to applicable HM products received at the HMCC and the DOL RAD satellite site for tracking purposes.

(2) Ensure that the following DOL operations involving the use or handling of HM comply with appropriate regulations and with the HM procedures in this regulation.

(a) Vehicle, aircraft and equipment maintenance. See Appendix N, *Environmental Compliance for General Support Maintenance.*

(b) Painting operations.

(c) Materiel supply operations.

(d) Vehicle battery shop operations. See Appendix N, *Environmental Compliance for General Support Maintenance.*

(e) Other DOL operations handling HM.

f. The Command Safety Office will exercise staff proponency for:

(1) Management of radioactive materials, IAW AR 11-9 and FORSCOM Reg 385-1.

(2) The hazard communication program, IAW FL Reg 385-5.

g. Madigan Army Medical Center (MAMC) will:

(1) Manage the supply, storage, and use of pharmaceutical stocks and biomedical materials.

(2) Provide command oversight to medical, dental, and veterinary activities for the management of mission-unique supplies that are HM.

h. Preventive Medicine Services, MAMC will:

(1) Provide occupational health service support and will conduct the required health-monitoring program for government employees handling HM.

(2) Provide technical support as appropriate to ENRD for the conduct of LBP surveys and other surveys/studies involving HM.

i. Subordinate commands, Team Lewis members, directorates and activities that store or handle HM will:

(1) Appoint in writing an Environmental Compliance Officer (ECO) IAW paragraph 2-12 of this regulation. The ECO coordinates Hazardous Material Management and is responsible for the following:

(a) Ensure all Hazardous Materials (HM) are purchased through the HMCC except where permitted in this regulation.

(b) Ensure *DA Form 1687, Notice of Delegation of Authority,* (Tab 5) is current at the HMCC.

(c) Ensure unit HM Authorized Use List (AUL) is current.

(d) Ensure quantities of HM are maintained and stored IAW the unit's AUL.

(e) Ensure all persons performing HM-related tasks are certified by successfully completing the Environmental Operations Management and Environmental Compliance Inspection Courses.

(f) Ensure Hazardous Material Technicians (HMT) are appointed on orders and are properly trained.

(g) Ensure all HM storage areas are properly maintained.

(h) Ensure HM inspections are conducted as required by this regulation.

(i) Review EOC and ensure compliance.

(j) Update changes to EOC.

(k) When required, ensure HFL Form 953 is submitted to Environmental Services in a timely manner.

(2) Ensure the HMT assists the ECO in implementing the unit's HM Management Program. Typical duties may include the following:

(a) Prepare Form 3161 Requests For Issue or Turn-In for HM for the unit/organization.

(b) Prepare HFL Form 953, Hazardous Material Inventory, see Tab 4.

(c) Conduct inventories and inspections of HM supplies and storage areas.

(d) Request changes to a unit's HM Authorized Use List (AUL), per unit's Delegation of Authority, using HFL Form 955, *Request for Additions/Changes to Units HM Authorized Use List.*

(e) Perform other duties related to HM management as specified by the ECO.

(3) Establish a hazard communication station, as required by FL Reg 385-5.

(4) Emphasize management procedures that ensure processes will use only HM that is specified by the unit or activity Authorized Use List (AUL). The AUL is enclosed with the Environmental Operating Certificate (EOC). If no EOC has been issued, coordinate with Environmental Services to develop an AUL.

(5) Monitor unit/activity HM procedures to ensure that only the authorized types and quantities of HM are stored and used and that in-use quantities are appropriate to support mission requirements.

(6) Ensure that all personnel who work with HM are appropriately trained for the job requirement IAW Appendix J of this regulation.

(7) Comply with the HM management requirements stated or referenced in this appendix.

(8) Ensure sufficient personnel in the rear detachment with ECO/HMT training are available to ensure compliance with HM management requirements during the unit absence. Sufficient personnel with ECO/HMT training must also accompany the unit to ensure HM compliance during the deployment. If no rear detachment, ensure submission of memorandum requesting pick-up of all non-deployable excess HM through the Environmental Services and HMCC thirty days prior to unit departure. Coordinate with Environmental Services at 967-4786, if technical assistance is required.

(9) Comply with HM management procedures during field training as stated in Appendix L, *Environmental Compliance During Field Training.*

(10) Prior to accepting any samples or committing to any financial agreement, refer all vendors, distributors, and sales representatives, who wish to market their products with hazardous constituents for commercial application on Fort Lewis to PW Environmental Services (967-4786, Bldg 1210) for a Hazardous Material Product Review.

6. SAFETY. Federal regulations and FL Reg 385-5 provide specific requirements for information and training on using, handling and storing HM in the workplace. Contact the Installation Safety Office (967-3079) for technical assistance or support tools, if needed.

7. HM STAFF SERVICES. Public Works, Environmental Services, Hazardous Materials staff will:

a. Maintain centralized MSDS repository for the installation.

b. Perform HM management actions.

c. Provide HM management training.

d. Provide technical support.

(1) Hazardous Material Reviews: MSDS for new products submitted to ES and will be evaluated and approved or disapproved based on the environmental impact of their constituents and current legal restrictions.

(2) Coordinate review of proposed industrial (new processes or changes) for environmental impact.

(3) Perform field assistance visits.

(4) Provide environmental liaison support at HMCC.

(5) Provide HMIRS/HMIS assistance for customers.

8. HAZARDOUS MATERIAL IDENTIFICATION. It is essential that hazardous materials be accurately identified to ensure safe storage, handling and disposal. TAB 1 provides various ways HM may be identified.

9. HAZARDOUS MATERIAL REQUISITION AND RECEIVING.

a. Limitations. Units and activities are limited as to which hazardous materials they can requisition and receive and how they may acquire them.

(1) All hazardous material must be obtained through the HMCC; no credit card purchases of hazardous materials are allowed, except as authorized by the Pollution Prevention Program Manager on a case-by-case basis.

(2) Restricted Use List (RUL): Products on the RUL are being phased out of normal use due to some undesirable hazardous characteristic. Special permission is required from the Pollution Prevention Program Manager to use any RUL item.

(3) Authorized Use List (AUL): An AUL is included in the Environmental Operating Certificate (EOC) issued by Public Works. Refer to paragraph 3 of the EOC.

(4) If your unit has not been issued an EOC, coordinate with Environmental Services to develop an AUL. Authorized HM can be determined by using:

(a) Technical Manuals: Expendable/durable lists

(b) Common Table of Allowance (CTA)

(c) Regulations: FORSCOM Reg 700-2 for field sanitation; FL Reg 420-4 for R&U/self-help; FL Reg 725-1 for NBC

(d) Historical Data: Inventories and transaction histories

b. Requisition HM. To requisition an authorized hazardous material, follow the detailed instructions in the HMCC External SOP available from the ECO/HMT, or at the HMCC counter. Note that overall environmental conservation practices encourage requisitioning the smallest unit of use available to complete the job.

c. Receive HM.

(1) The HMCC External SOP contains detailed instructions for receiving hazardous materials.

(2) HM is issued along with the Material Safety Data Sheet (MSDS and requires the use of a commercial or government-owned vehicle for transporting hazardous material.

d. Change the HM AUL. In the event a unit's AUL must be changed due to mission requirements, submit HFL Form 955, *Request for Additions/Changes to Unit HM AUL*, to the ENRD Pollution Prevention, HM Section.

10. TRANSPORTATION OF HM. The following requirements apply to the transportation of HM:

a. Vehicles used for transportation will meet the safety requirements of FL Reg 385-55 and appropriate Field Manuals (FMs) and Technical Manuals (TMs). Operators will meet the requirements of AR 600-55 and FL Reg 55-2. HM that is subject to the inventory requirements of this regulation will not be transported or stored in privately owned vehicles on Fort Lewis or its Sub-installations.

b. Routes selected will maximize safety and reduce exposure in the event of accident. Whenever possible, transporters on Fort Lewis will follow the ammunition transportation routes outlined in FL Reg 700-20. The Safety Office (967-3079) is available to provide assistance in risk assessment of proposed routes.

c. Incompatible materials will not be transported in the same vehicle.

d. Containers will be transported in an upright position, and will be secured/braced during transportation to avoid spills. Containers will be stacked no more than one tier high.

e. 55-gallon drums will be transported no more than three to a pallet; 85-gallon drums will be no more than two to a pallet; 30-gallon cans will be no more than four to a pallet. Pallets will be stacked no more than one tier high.

f. When transporting HM on or off-post, the vehicle operator will have a complete list of the HM in his/her possession. When the operator is not in the vehicle, the list will be kept next to the operator's door. In the event of a spill or material release, the list will be provided to the emergency response personnel arriving on the scene.

g. Units/activities will ensure that operators of vehicles transporting HM on or off-post are properly trained and tested under the Army Licensing Program and are briefed on procedures to be taken in the event of a spill or material release.

h. Any vehicle transporting HM over a public highway (including public highways on the installation or sub-installation) must have proper U.S. Department of Transportation (DOT) container marking/labeling, and vehicle placarding, if applicable. Units/activities requiring information and assistance concerning proper marking/labeling and placarding will contact the Joint Transportation Directorate, Unit Movements Branch (967-6349/5973).

11. HM STORAGE AND QUALITY CONTROL. Organizations are legally compelled to take positive and specific actions in day-to-day management of hazardous materials. TAB 2 provides general requirements for storing hazardous materials.

12. HM HANDLING AND USE.

a. Before handling or using any hazardous material, always check the label and/or MSDS, which identifies contents, hazards and precautions.

b. Technical Manual: The Joint Service "Storage and Handling of Hazardous Material Manual," dated 13 January 1999, is an essential reference for those responsible for the proper storage and handling of a wide range of hazardous materials within the government. The manual (TM 38-410) is available in Portable Document Format (pdf) from the Hazardous Technical Information Services (HTIS) web site at http://www.dscr.dla.mil/htis/htis.htm. The document is also available via a link to the HTIS web site from your service component sector on the Defense Environmental Network & Information eXchange (DENIX) web site at http://www.denix.osd.mil/denix/Public/Policy/policy.html.

13. HM DISPOSAL.

a. Proper disposal of hazardous property is essential to the protection of human health and the environment. DoD policy is to store and dispose of hazardous property in an environmentally acceptable manner in accordance with applicable environmental laws and regulations, including state and local laws.

b. Fort Lewis HMCC: Fort Lewis units and activities must follow the detailed instructions in the HMCC External SOP for HM disposition of hazardous material. The HMCC External SOP is available from the ECO/HMT, or at the HMCC counter.

c. Special Programs: The following special programs support units/activities with HM disposition:

(1) Turn–In of Excess HM: Multi-step process beginning with unit/activity submitting the completed "Turn–In of Excess Hazardous Material" form. Environmental staff review, research, and inspect as needed, and decide appropriate disposition (HMCC reissue, HMCC free issue, DRMO resale, or DRMO hazardous waste).

(2) Shelf life. Environmental staff provides research assistance in determining Type I or Type II classification for shelf life, and if an expired shelf-life item can be extended.

(3) Paint amnesty: Held every other month at Building 1210. Units or activities with small amounts of paints or adhesives may turn them in. For specific information, call 967-4786.

14. HM INSPECTIONS. Accident prevention surveys and inspections and sound operating procedures are among the principal elements of a total safety and health program. In addition to these inspections, organizations are subject to both announced and unannounced inspections conducted by state and federal agencies under authority of the Federal Facilities Compliance Act (FFCA), Title 29 CFR and 40 CFR. TAB 3 contains HM inspection information.

15. HM INVENTORIES AND REPORTS. Accurate inventory information is essential for HM management and to tabulate necessary information for compliance reporting. TAB 4 provides inventory guidance.

16. TRAINING. Federal, State, and Army regulations require that individuals who perform functions associated with the storage or use of HM or with the management of HW be trained for the functions performed. The design and conduct of personnel training programs can reduce serious injury and provide for environmental protection. Appendix J addresses environmental training; see the HM Section for required and recommended HM training.

17. EMERGENCY RESPONSE PLANS/SOPs. The potential for fire, explosions, or spills/releases is always present when storing and handling HM. The potential for such incidents must be minimized, and if they occur, timely and effective response must be taken.

a. See Appendix K (*Oil and Hazardous Substances Spill Control and Contingency Plans*) of this regulation and the Fort Lewis Installation Spill Contingency Plan (ISCP) for information and emergency response to hazardous substance spills or releases.

b. Minimize the potential for spills by proper management of HM storage.

c. Each activity that stores HM or generates HW will have a written (short and concise) activity-level contingency plan or site map for emergencies tailored for the HM storage facility and conditions. If the facility is also used for HW accumulation, the plan or site map should also address a HW spill.

(1) The contingency plan or site map will implement, at activity level, the emergency reporting and response procedures outlined in the ISCP.

(2) The emergency reporting and response procedures outlined in the contingency plan or site map will be executed whenever there is a fire, explosion, or spill of HM which could threaten human health or the environment.

(3) The contingency plan or site map will be posted at the hazard communication station. All activity personnel who routinely work at the site will read and understand the procedures contained in the contingency plan or site map. Personnel will review and rehearse emergency reporting and response procedures in the contingency plan or on the site map at least quarterly, unless an exception has been granted in writing by the Chief, Operations Section, PW-ENRD. The following criteria must be met by an organization before a request for exemption to the quarterly training requirement is submitted. Once an exemption is granted, the organization only needs to document training/practice for each person once during the calendar year. However, if any of the standards are not met, a memorandum will be sent to the organization revoking the exemption.

(a) The organization has implemented the Installation Environmental Management System and received validation that it meets the ISO 14001 Standard.

(b) The organization has not received a finding (either minor or major) under the ISO 14001 Standard 4.4.7 (Emergency Preparedness and Response) as a result of the last two consecutive EMS internal audits or surveillance audit.

(c) The organization has received, at a minimum, a Trained w/Commendable Areas as an over-all rating for the last two consecutive Environmental Compliance Inspections.

(d) Any newly assigned or hired personnel have completed all spill response training, as required under the organization spill contingency plan or site map within 60 days of assignment or hiring. That the training can be verified (copy of spill training outline, training plan, etc) and has been annotated in the persons training record.

(4) The contingency plan or site map will contain required elements as listed in EMS document EMS-240.

(5) The contingency plan or site map will be brief, and will focus on the emergency response procedures that are to be taken until the Fort Lewis Fire Department and/or spill response team arrives on the scene. The plan should include:

(a) A statement of the type and severity of spills most likely to occur at the facility.

(b) The alarm system for notifying personnel on site of an emergency.

(c) A step-by-step description of actions to be taken in the event of fire, explosion, or a spill. These actions should be consistent with the immediate action procedures in the ISCP.

(d) The emergency response agencies (e.g., Fire Department) to be contacted, and how to contact them.

(e) The names of unit/activity personnel to be notified, and their phone numbers (both duty and off duty).

(f) A list of emergency response equipment/supplies, and where located.

(g) The location of nearby storm or sanitary drain covers and surface drainage, if any, which may need to be protected from a spill.

(h) A location for personnel to assemble, and route(s) to be taken, if evacuation is necessary.

(6) The contingency plan or site map will be reviewed annually. It will be amended whenever:

(a) The plan fails in an emergency.

(b) The activity undergoes changes in design, construction, operation, location, procedures or other circumstances that require emergency response actions to change.

(c) Key personnel change i.e., unit commander.

(d) The configuration or location of emergency response equipment/supplies changes.

d. A "spill response kit" will be maintained in a readily accessible location at or near the HM storage facility. The spill response kit will contain necessary supplies and equipment for responding to the types of spills most likely to occur. Contact Environmental Services, Hazardous Waste Operations (967-4786) for assistance in determining the type and quantity of supplies that should be maintained for the particular HM stored.

(1) Items in the spill response kit will be maintained for use during emergencies only and will not be cannibalized for routine maintenance activities.

(2) The spill response kit will be inspected as part of the inspection of the HM storage facility.

e. When a POL or other HM spill (i.e., one that is not contained within a secondary containment device) occurs:

(1) Immediately notify the Fire Department (call 911 at Fort Lewis and YTC), regardless of the amount spilled. Provide as much information as possible -- the material and quantity spilled, circumstances, when, where, current status (stopped, ongoing, etc.).

(2) Implement the spill response plan. Stop or confine the spill if within capabilities and if it can be safely done. If possible, keep the material away from storm or sewer drains.

(3) Assist and support the installation spill response team in spill confinement and/or cleanup. The team Incident Commander (IC) from the Fire Department will take initial control of the scene and provide direction. Subsequent direction will be provided by the Installation On-Scene Coordinator (IOSC) from Environmental Services, Hazardous Waste Operations.

18. SPECIAL PROGRAMS FOR HAZARDOUS MATERIALS AND HAZARDOUS WASTES.

a. Asbestos Removal and Disposal. Guidance and procedures are contained in Appendix X, *Toxic Substance Management,* this regulation.

b. Underground Storage Tanks. The UST management program is described in Appendix O, *Underground And Aboveground Storage Tanks (USTs and ASTs),* this regulation.

c. Polychlorinated Biphenyl (PCB) Items. HM storage procedures in this appendix apply. Additional guidance and procedures are contained in Appendix F, *Hazardous Waste Management,* this regulation.

d. Pesticide Management. HM storage procedures in this appendix apply. Additional guidance and procedures are contained in Appendix F, *Hazardous Waste Management,* this regulation.

e. Lead-Based Paint (LBP) Exposure Reduction. HM storage procedures in this appendix apply. Additional guidance and procedures are contained in Appendix X, *Toxic Substance Management,* this regulation.

f. Radioactive Materials and Wastes. HM storage procedures in this appendix apply. Additional guidance and procedures are contained in Appendix F, *Hazardous Waste Management,* this regulation.

g. Pharmaceutical Stocks And Mixed Wastes. HM storage procedures in this appendix apply. Additional guidance and procedures are contained in Appendix F, *Hazardous Waste Management,* this regulation.

h. Waste Munitions. Guidance and procedures are contained in Appendix F, *Hazardous Waste Management*, this regulation.

19. CONTRACTORS AND VENDORS. Contractors and vendors who transport, handle, store and use hazardous materials on Fort Lewis must complete an initial Hazardous Material Inventory (HFL Form 953) and then submit updates on a quarterly basis to Environmental Services, Building 1210 (966-6466).

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TAB 1 – HM Identification

1. GENERAL.

a. Many commodities used by DOD are hazardous or contain hazardous materials that have special requirements for storage and handling. The dangers posed by these items can result in serious personal injury, permanent disabilities and even death. Property and the environment may also be damaged or destroyed. It is imperative that all workers recognize and understand the hazards associated with these commodities.

b. Hazardous Material Control Center (HMCC). The HMCC procures, acquires, distributes, and tracks those products that exhibit hazardous characteristics (ignitability, corrosivity, reactivity, or toxicity) that may pose a risk to human health or the environment.

2. IDENTIFICATION. As required by Federal regulatory agencies, physical, health and environmental hazards must be identified to ensure safe storage, handling and disposal. Labels, Material Safety Data Sheets (MSDS) and federal stock classes (FSC) are used to convey this information.

a. Labels.

(1) Manufacturer Label. If a product label contains any of the words listed below, it is a hazardous material:

Danger	Warning
Caution	Corrosive
Flammable	Volatile
Poison	Caustic

(2) HMCC Bar Code Label. Figure E-1-1 is an example of a bar code label affixed to hazardous material issued by the Fort Lewis HMCC.

b. Material Safety Data Sheets (MSDS). All hazardous materials will have an MSDS. Refer to the HMCC External SOP for detailed information and on how to use a product's MSDS.

c. Federal Stock Classes.

(1) Figure E-1-2 identifies federal stock classes (FSC) in which most material is HM. Organizations that store or use products with these stock classes will manage the products as HM. When there is doubt as to whether a material is a HM, contact the PW ENRD Environmental Services, HM Section at 967-4786 for guidance on handling and storage. Products that do not have an FSC but fall into these categories will be managed as HM.

(2) Figure E-1-3 lists FSCs in which some material is HM. Organizations that store or use products with these stock classes will review product data and manage the applicable products as HM. When there is doubt as to whether a material is a HM, contact the ENRD Environmental Services, HM Section at 967-4786 for guidance on handling and storage.

Figure E-1-1. Sample Bar Code Label For HM Issued by HMCC

FSC	TITLE
2910	Engine Fuel System Components
6810	Chemicals
6820	Dyes
6830	Gases: Compressed and Liquefied
6840	Pest Control Agents and Disinfectants
6850	Misc. Chemical Specialties: Solvent, Antifreeze, Inhibitor
7930	Cleaning and Polishing Compounds and Preparations
8010	Paints, Dopes, Varnishes and Related Products
8030	Preservative and Sealing Compounds
8040	Adhesives
9110	Fuels: Solid
9130	Liquid Propellant Fuels: Petroleum Base
9135	Liquid Propellants and Fuels and Oxidizers: Chemical Base
9140	Fuel Oils
9150	Oils and Greases: Cutting, Lubricating and Hydraulic
9160	Misc. Waxes, Oils and Fats

Figure E-1-2. Federal Stock Classes In Which Most Material Is HM

FSC	TITLE	EXAMPLE
2090	Misc. Ship & Marine Equip	Liquid/Paste Resin, Hardener
2530	Vehicular Brakes, Steering, Axle, Wheel, & Track Components	Brake Shoes
2540	Vehicle Accessories	Mirror adhesive kit
2640	Tire Rebuilding and Tire and Tube Repair Materials	Items containing Toxic and Flammable Compounds
3433	Gas Welding, Heat Cutting and Metalizing Equipment	Compressed Gases (Acetylene Propane, Propylene), Brazing Filler Alloy
3439	Misc Welding, Soldering and Brazing Supplies and Accessories	Cleaners, Acids, Flux
3610	Printing, Duplicating, and Bookbinding Equipment	Flammable or Toxic Lithographic Solutions
4210	Fire Fighting Equipment	Extinguishing Equipment
4240	Safety and Rescue Equipment	Items that release Oxygen or contain Compressed Gases or Initiating Charges, Gas mask canister
5330	Packing and Gasket Materials	Asbestos, Lead Caulking, Seal packing, Gasket, Permatex
5610	Mineral Construction Materials, Bulk	Asphalt, Sealing Compounds
5680	Misc. Construction Materials	Repair Kits containing chemicals, Soil stabilizer, Fiber Glass, Wool Insulation, Concrete, Aircast
5910	Capacitors	Polychlorinated Biphenyls (PCBs), Dielectric
5950	Coils and Transformers	PCBs, Power transformer
5970	Electrical Insulators and Insulating Materials	Insulating Varnish
6135	Batteries, non-rechargeable	Lithium, Mercury, Alkaline
6140	Batteries, Rechargeable	Lead-Acid, Nickel Cadmium, Nickel Metal Hydride, Lithium Ion
6505	Drugs and Biologicals	Atropine, Isopropyl Alcohol, Chemotherapy Drugs
6525	X-Ray Equipment and Supplies	X-Ray Fixer, Developer
6550	In Vitro Diagnostic Substances, Reagents, Test Kits and Sets	Lab Reagents, Test Kits
6750	Photographic Supplies	Solvents, Thinners
6780	Photographic Sets, Kits and Outfits	Solvents, Thinners
7510	Office Supplies	Solvents, Thinners, Cleaning Fluids, Flammable Inks and Varnishes
8520	Toilet Soap, Shaving Preparations And Dentifrices	Borax, waterless cleaner
8720	Fertilizers	Herbicides and/or Insecticides

Figure E-1-3. Federal Stock Classes In Which Some Material Is HM

TAB 2 – HM Storage

1. HM STORAGE FACILITY.

a. A facility used for storing HM must meet product storage, fire, safety, and environmental requirements and be established according to type of storage site(s) available, and mission requirements for product use. The Material Safety Data Sheet (MSDS) provides product storage requirements as well as safety and spill response information. If the MSDS storage guidance is unclear, contact either the Pollution Prevention Coordinator, Hazardous Waste Operations, or the Compliance Inspection Team for assistance on proper storage guidance. As a minimum, the following will be considered in determining requirements for HM storage facilities:

(1) Compatibility of products. Certain products cannot be stored together with other products. Figure E-2-1 shows a chemical incompatibility chart.

(2) Ventilation requirements. Some products require exhaust ventilation, particularly if the product is dispensed in the storage facility.

(3) Fire protection. Storage facilities must meet fire codes for the type of products stored. Questions concerning fire protection compliance should be directed to the Fort Lewis Fire Department (967-4479).

(4) Prevention/containment of product spills. Procedures must be implemented at HM work sites and storage areas to prevent HM from spilling, being deposited or disposed of on the ground or into any storm drain, wastewater collection system, or any water body. HM storage areas must have adequate spill containment. If no built-in containment is provided with the storage building, provide or construct secondary containment as necessary to prevent overflow and have sufficient capacity to contain 10 % of the total volume of all containers or 100 % of the volume of the largest container stored, whichever quantity is larger.

(5) Protection from the elements. Some products must be kept from freezing, e.g., latex paint. Products that are stored outside will have overhead cover to avoid rainwater contamination of the products or contaminated run-off, e.g., lead-acid batteries.

b. Storage facilities approved for use on Fort Lewis and its subinstallations include the following:

(1) Permanent structures at motor pools designed for POL storage, e.g., “POL cages/sheds.”

(2) Flammable material storage cabinets/lockers (NFPA/FM/UL listed only).

(3) Store rooms with fire suppression systems.

(4) Portable HM/HW storage buildings issued by Environmental Services or sub-installation environmental office.

(5) Any facility that meets the requirements in paragraph 1a above and is suitable for the type of product(s) stored.

2. MANAGEMENT OF HM STORAGE FACILITIY.

a. HM shall be stored in an approved facility. Material stored in the facility will be limited to HM and/or hazardous waste (HW) only.

b. The HM storage facility will be secured (locked) when unattended. Access to the storage facility will be restricted to personnel who have received appropriate training and have a need to be in and use the facility.

c. Appropriate warning signs will be posted.

d. No vehicles will be parked within 25 feet of the doorway to a HW storage facility.

e. Co-location of HW accumulation and HM storage. HM storage and HW accumulation may occur in the same storage facility provided that there is adequate visual and physical separation between the HW accumulation and HM storage areas, and each area complies with the appropriate HM or HW management requirements.

3. CONTAINER MANAGEMENT.

a. Store and use only HM that is specified in the unit's EOC or, if a unit does not have an EOC, by the sources listed in Appendix E, Paragraph 9, HM Requisition and Receiving.

b. Store only the HM quantities required for the mission. Comply with AUL authorized stockage levels for each product, and avoid stockpiling. DA Pam 710-2-1 specifies how to determine authorized stockage levels. Review the stockage levels semi-annually to ensure only those quantities consistent with mission requirements are stocked.

c. Keep containers neatly arranged and have labels and shelf life data easily visible. Product labels shall be legible and complete, identifying container contents, use DD Form 2521 or 2522 as required IAW FL Reg 385-5. Keep container rows and the general storage area free of clutter, debris and hazards. Do not stack containers higher than fire codes permit.

d. Segregate containers into two areas. New product (unopened, original containers), and In-Use (opened containers). Open containers shall be stored within a device/area providing secondary containment. Rotate stocks on a "first in, first opened" basis.

e. Closely monitor container shelf life expiration date. All products stored shall be within product shelf life.

(1) Turn in unexpired excess HM to the HMCC.

(2) Contact HMCC concerning HM with an expired shelf life. HMCC staff provide research assistance in determining if an item can be extended or if it must be turned in.

f. Ensure that containers are serviceable. Continually check for dents, rust, leaks, holes and ensure containers are free of dirt, grime and residue.

g. Store containers according to MSDS or product label requirements. Keep non-compatible products separate to prevent mixing. Refer to the storage incompatibility charts at Figures E-2-1 and E-2-2.

(1) Flammables must be stored away from heat, flame and ignition sources.

(2) Some HM (e.g., latex paint) must be stored indoors to keep from freezing.

(3) Some HM (e.g., flammables) must be stored in special containers designed to minimize inherent risks associated with the product.

(4) Compressed gas cylinders require special care. They shall be racked, chained, and have valve stem safety caps installed. They shall not be stored near sources of ignition, hot work, or other incompatible HM.

h. If the container is stored in the open, ensure that it is covered to protect contents from the elements and prevent contamination/runoff from rainwater.

i. Keep container tops and/or bungs tight except when adding/dispensing material. Avoid tipping a drum on its side to issue product outside the HM storage shed; use of a transfer pump is the preferred issue method.

j. Place drip pans (the collapsible type drip pans are preferred) lined with oil absorbent pads, under supply valves to prevent spills or soil contamination.

k. If the HM is recontainerized, mark the new container with the all-applicable warning labels and the name and manufacturer of the HM, use DD Form 2521 or 2522 as appropriate.

4. COLLECTION AND STORAGE OF USED HM.

a. Off-specification fuel (Diesel, JP-8) for recycling. Bar coded containers are issued by Hazardous Waste Operations. Store the container in the HM storage facility or HW accumulation area. Contact Hazardous Waste Operations (967-4786) when the container is full and ready for pickup.

b. Used antifreeze for recycling. The used antifreeze is collected in specially labeled tanks issued by Hazardous Waste Operations. Container storage instructions are provided by Hazardous Waste Operations when issued. Contact Hazardous Waste Operations (967-4786) when the container is full and ready to be pumped.

c. Used motor oil for recycling. Used motor oil is collected in specially designated tanks issued by Hazardous Waste Operations. Contact Hazardous Waste Operations (967-4786) when the container is full and ready for pickup.

IF THE MATERIAL CONTAINS:	IT MAY NOT BE STORED WITH ANY OF THE FOLLOWING:
Acid (pH below 2.0)*	Caustics (pH above 12.5)* Reactive Metals* Alcohol Water Aldehydes Halogenated, Nitrated, or Unsaturated Hydrocarbons Reactive Organic Compounds and Solvents* Spent Cyanide and Sulfide Solutions Oxidizers*
Caustic (pH above 12.5)	Acid (pH below 2.0) Reactive Metals* Alcohol Water Aldehydes Halogenated, Nitrated, or Unsaturated Hydrocarbons Reactive Organic Compounds and Solvents*
Reactive Metals*	Caustics* Acids* Alcohol Aldehydes Halogenated, Nitrated, or Unsaturated Hydrocarbons Reactive Organic Compounds and Solvents* Oxidizers*
Reactive Organic Compounds and Solvents*	Caustics* Acids* Reactive Metals*
Spent Cyanide and Sulfide Solutions	Acids*
Oxidizers*	Acetic or Other Organic Acids Concentrated Mineral Acids Reactive Metals* Reactive Organic Compounds and Solvents* Ignitable [Flammable/Combustible] Substances*

"Ignitable" refers to substances with a flashpoint below 140° F, and includes:
Combustible substances, with a flashpoint below 140 F
Flammable substances, with a flashpoint below 100° F

* Typical examples at Figure E-2-2

Some Deadly Combinations

Acids + Oil or Grease = Fire
Acids + Caustics = Heat/Spattering
Caustics + Epoxies = Extreme Heat
Chlorine Gas + Acetylene = Explosion
Flammable Liquids + Hydrogen Peroxide = Fire/Explosion
Aluminum Powder + Ammonium Nitrate = Explosion
Sodium Cyanide + Sulfuric Acid = Lethal Hydrogen Cyanide
Ammonia + Bleach = Noxious Fumes

Figure E-2-1. Hazardous Materials/Hazardous Waste Storage Incompatibility Chart.

Ignitables (Flammables/Combustibles)	**Corrosives**	
	Acids	**Caustics**
Carburetor Cleaners	Battery Acids	Acetylene Sludge
Engine Cleaners	Degreasers and Engine Cleaners	Alkaline Battery Acids
Epoxy, Resins, Adhesives, and Rubber Cements		Alkaline Cleaners
Finishes	Etching Fluids	Alkaline Degreasers
Fuels	Hydrobromic Acid	Alkaline Etching Fluids
Lacquers	Hydrochloric Acid (Muriatic Acid)	Lime and Water
Paints		Lime Wastewater
Paint Thinners	Nitric Acid (<40%) (Aquafortis)	Potassium Hydroxide (Caustic Potash)
Paint Wastes	Phosphoric Acid	Rust Removers
Pesticides that contain Solvents (such as Methyl Alcohol, Isopropyl Alcohol, Toluene, Xylene)	Rust Removers (Naval Jelly)	Sodium Hydroxide (Caustic Soda, Soda Lye)
Petroleum Solvents (Dry-cleaning Fluid)	Sulfuric Acid (Oil of Vitriol)	
Solvents:		
Acetone	**Reactive Metals**	**Reactive Organic Compounds and Solutions**
Benzene		
Carbon Tetrachloride (Carbon Tet)		
Ethanol (Ethyl Alcohol)	Lithium (Batteries)	Alcohols
Ethyl Benzene	Aluminum	Aldehydes
Isopropanol (Isopropyl Alcohol)	Beryllium	Chromic Acids (from chrome plating, copper stripping and aluminum anodizing
Kerosene (Fuel Oil #1)	Calcium	
Methanol (Wood Alcohol)	Magnesium	
Methyl Ethyl Ketone (MEK)	Sodium	Cyanides (from electroplating operations)
Petroleum Distillates	Zinc Powder	
Tetrahydrofuran (THF)		Hypochlorides (from water treatment plants, swimming pools, sanitizing operations
Toluene (Methacide, Methylbenzene, Methylbenzol, Phenylmethane, Toluol, Antisal 1A)	**Oxidizers**	
White Spirits (White Spirits, Mineral Spirits, Naptha)	Calcium Hypochlorite (>60%)	Organic Peroxides (including Hydrogen Peroxide)
Xylene (Xylol)	Chlorine Gas	
Stains	Nitric Acid (>40%), aka Red Fuming Nitric	Perchlorates
Stripping Agents		Permanganates
Varsol	Nitrates (Sodium Nitrate, Ammonium Nitrate)	Sulfides
Waste Fuels		
Waste Ink	Perchlorates	
Wax Removers	Perchloric Acid	
Wood Cleaners	Peroxides	

In General:

Reactives must be segregated from Ignitables
Acids must be segregated from Caustics
Corrosives shall be segregated from Flammables
Oxidizers shall be segregated from EVERYTHING
Many Corrosives are “Water Reactive”
Most Organic Reactives must be segregated from Inorganic Reactives (metals)

Figure E-2-2. Typical Examples of Hazardous Substance Categories. (use with the HM/HW Storage Incompatibility Chart at Figure E-2-1).

TAB 3 – Environmental Compliance Inspections

Inspections are conducted to meet federal, state and local monitoring requirements.

a. Informal inspections of HM storage areas. Units inspect their own HM storage areas for spills, damaged or leaking containers, expired shelf life, and unsafe storage. These informal inspections should be performed weekly as a good management practice.

b. Formal inspections of HM storage areas: The following inspections are required for HM storage sites:

(1) Semi-Annual Compliance Inspection. A formal inspection of the HM storage facility will be conducted semi-annually by the PW Environmental Compliance Inspection Team. Maintain file copies of semi-annual inspections for five years.

(2) Quarterly inspection of HM storage areas. Units/activities will conduct and document a thorough inspection of HM storage areas. Maintain a file that contains copies of the current and the three previous inspections.

(a) Use Fort Lewis HFL Form 951, *Hazardous Materials (HM) Management Checklist*.

(b) For HM inspection guidance contact the ENRD Environmental Compliance Inspection Section (966-1600).

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TAB 4 – Hazardous Material Inventory, HFL Form 953

1. INVENTORY REQUIREMENT.

a. The command's requirement for maintaining a chemical hazard inventory is stated in FL Reg 385-5, Fort Lewis Hazard Communication Program. A completed HFL Form 953 may be used to fulfill this requirement. To meet the standards, the inventory must be cross-referenced to the labels on the HM containers, as well as to the Material Safety Data Sheets. The inventory must be kept current and available to all personnel on request.

b. Presidential Executive Order 13148, Greening the Government Through Leadership in Environmental Management requires Fort Lewis to provide information on inventories to Washington State and local community emergency planning agencies.

2. SUBMISSION OF HAZARDOUS MATERIAL INVENTORY, (HFL FORM 953) TO PW ENRD POLLUTION PREVENTION, HM SECTION.

a. Units/activities who have an EOC and who are either using the HMCC exclusively, or are tracking purchases through the Hazardous Substance Management System (HSMS), are not required to submit their inventories of Hazardous Materials to Pollution Prevention. However, the inventory must be current and available in accordance with FL Reg 385-5.

b. Units/activities, including sub-installations and on-site contractors, who do not have an EOC issued by Public Works, must submit their quarterly inventory of HM used and stored.

(1) All materials that have an MSDS will be inventoried, with the following limited exceptions:

(a) Routine janitorial cleaning supplies: For specific guidance, refer to Fort Lewis Exempt Janitorial Supply List, available from the Pollution Prevention Office.

- Hazardous Substance Management System (HSMS) is a Department of Defense mandated automated tool. HSMS is designed to track and manage hazardous substances at the chemical constituent level from cradle-to-grave (i.e., from the time the item is requisitioned until it is completely utilized or shipped off the installation as hazardous waste). This system may be used to determine the hazardous constituents of a material, track the generation of waste and its subsequent disposal, limit the procurement of HM to authorized personnel for approved processes, and tabulate necessary information for compliance reporting. It is capable of providing the legal reporting requirements to satisfy Executive Order 13148, Greening the Government Through Leadership in Environmental Management, as well as collect data for use in developing Tier I, Tier II, and Form R reports.

(b) Routine office supplies: For specific guidance, refer to Fort Lewis Exempt Office Supply List, available from the Pollution Prevention Office.

(2) Prepare and submit HFL Form 953, *Hazardous Material Inventory*. Provide the inventory, along with the Material Safety Data Sheet (MSDS) for all new HM received during the quarter. An electronic copy of HFL Form 953, with detailed instructions for completing the form, may be obtained by calling 967-4786 or e-mail your request to *PW HMInventory (HMInventory @lewis.army.mil).

(3) Upon submission, HM staff will date stamp and initial the unit copy. Units will retain for inspection purposes.

(4) Inventory submissions are due within 15 days following the end of each quarter.

TAB 5 – Notice of Delegation of Authority – Receipt for Supplies, DA Form 1687

NOTICE OF DELEGATION OF AUTHORITY - RECEIPT FOR SUPPLIES
For use of this form, see DA PAM 710-2-1. The proponent agency is ODCSLOG.

DATE (1) 1 May 04

AUTHORIZED REPRESENTATIVE(S)

ORGANIZATION RECEIVING SUPPLIES (2) A Btry, 5th FA Bn, 7th FA Bde

LOCATION (3) Fort Lewis,WA

LAST NAME-FIRST NAME-MIDDLE INITIAL	SOCIAL SECURITY NUMBER	AUTHORITY REQ	AUTHORITY REC	SIGNATURE AND INITIALS
(4) Doe, John P. 1LT	(5)	(6)	(6A)	(7) *John P. Doe JPD*
Leader, Rick A. SFC	(5)	(6)	(6A)	(7) *Rick A. Leader RAL*
Comelately, Johnny C. SGT	(5)	(6)	(6A)	(7) *Johnny C. Comelately JCL*
Turnup, Tommy O. PFC	(5)	(6)	(6A)	(7) *Tommy O. Turnup TOT*

AUTHORIZATION BY RESPONSIBLE SUPPLY OFFICER OR ACCOUNTABLE OFFICER

(8) THE UNDERSIGNED HEREBY ☒ DELEGATES TO ☐ WITHDRAW FROM THE PRESON(S) LISTED ABOVE

THE AUTHORITY TO: Receive and/or Request Class: II, III, IV, VIII, IX supplies as shown above

REMARKS (9) HMCC, Bldg 09669, Fort Lewis, WA

I ASSUME FULL RESPONSIBILITY

UNIT IDENTIFICATION CODE (10) W91YAA

DODAAC/ACCOUNT NUMBER (11) W9TYGH APC: BH50

LAST NAME-FIRST NAME-MIDDLE INITIAL	GRADE	TELEPHONE NUMBER	EXPIRATION DATE	SIGNATURE
(12) Charge, Iam N.	(13) 0-3	(14) 966-4321	(15) 1 May 05	(16) *Iam N. Charge*

DA FORM 1687, JAN 82 EDITION OF DEC 57 IS OBSOLETE. USAPPC V3.00

DA Form 1687 Instructions

Block 1: Enter calendar date (DD-MMM-YY) form is prepared.

Block 2: Enter name of unit in the following format: Company; Battalion; Brigade.

Block 3: Enter name of installation on which unit is located.

Authorized Representatives(s): Environmental Compliance Officer(s); Hazardous Material Technician(s)

Block 4: Enter name and rank of authorized representative.

Block 5: Enter phone number of representative(s).

Block 6: (REQ) Enter the following designated numbers: 1- Receive
2-Request & Receive
3-Request, Receive & Turn-in
4-Request, Receive, Turn-in & make Authorized Use List changes

Block 6A: (REC) Enter the following designated numbers: Same as Block 6 above.

Block 7: Enter signature and initials of authorized representative(s). (*)

Authorized by Commander or Designated Representative

Block 8: Enter "X" in this box to show that the authorized representative is delegated to receipt for supplies. Specify classes of supplies for which representatives may sign. (**)

Block 9: Enter HMCC, Bldg 09669, Fort Lewis, WA. (***)

Block 10: Enter Unit Identification Code (UIC).

Block 11: Enter unit DODAAC and any locally assigned account number. (****)

Block 12: Enter name of Commander or his Designated Representative.

Block 13: Enter grade of Commander or his Designated Representative.

Block 14: Enter office telephone of Commander or his Designated Representative.

Block 15: Enter expiration data of the card. This data is determined by the person making the delegation. Do not set a date later than the date the delegating authority expects to remain in the job.

Block 16: Enter signature of Commander or his Designated Representative. (*****)

(*) Note: Computer copy signatures of a Commanding Officer or civilian equivalent signature retains its "value". Original DA form will be retained at HMCC.

(**) Note: When requesting to withdraw a person or persons from the DA Form 1687, do the following: Submit DA Form with "X" in the withdraw box of block 8. List only those to be withdrawn and submit to HMCC for update or edit of card information.

(***) Note: There will be no deviations of this stated information in block 9.

(****)Note: Enter Account Processing Code (APC): right-justify this information in block 11. Units with multiple DODAACs will submit a single DODAAC number per DA Form 1687.

(*****) Note: All entries will be printed in ink or typewritten on original DA From 1687. Signatures and initials will be entered in ink.

Additional note: If there is a requirement for an additional DA Form 1687, print "CONTINUATION" on top of the form.

APPENDIX F

HAZARDOUS WASTE MANAGEMENT

1. PURPOSE.

a. Provide implementing guidance, and states best management practices for compliance with environmental requirements pertinent to the accumulation of hazardous waste (HW). Guidance in this appendix applies to HW accumulation sites that are operated on Fort Lewis and its sub-installations

b. Implements the AR 200-1 requirement for "Establishing Local Procedures /Responsibilities for Execution of a Waste Management Program".

c. Establishes responsibilities and procedures for complying with Department of Defense (DoD), Army, and Installation Management Agency (IMA) as well as federal, state and local requirements for managing HW.

2. GENERAL.

a. As used in this regulation, the term "hazardous waste" (HW) is a discarded product, which requires special management because it has properties that pose a risk to human health or the environment. A HW either exhibits a hazardous characteristic (ignitability, corrosivity, reactivity, or toxicity) or is specifically listed as a HW by the Environmental Protection Agency (EPA) or by the State.

(1) The terms "hazardous waste" and "hazardous material" (HM) as used in this regulation are not the same, and the regulatory requirements for the management of each are different. In contrast to a HW, a HM is a useful product. A HM becomes, and is managed as a HW, when it can no longer be used for its intended purpose and must be discarded. See Appendix E, *Hazardous Material Management,* this regulation, for management of HM.

(2) A HW is fully governed by federal and state regulations from "cradle to grave" -- that is, from the time of its creation until its proper disposal.

b. HW is generated during the conduct of many processes that are essential for daily mission activities at Fort Lewis. This HW will be managed in accordance with (IAW) the requirements provided or referenced in this appendix.

c. The management of HW is an integral part of the Fort Lewis Pollution Prevention Program. The requirements of this chapter are consistent with and support the pollution prevention actions described in Appendix D, *Pollution Prevention,* of this regulation.

d. The Fort Lewis installation and the Yakima Training Center (YTC) sub-installation are each regulated as a HW generator under individual EPA Identification Numbers.

(1) The Fort Lewis installation is regulated as a large quantity generator (i.e., generates over 2200 pounds of HW per month), under EPA Identification Number WA 9214053465. Fort Lewis is also regulated under the same EPA ID# as the owner of a HW storage facility on the installation. The HW storage facility is located at and is operated by the Defense Reutilization and Marketing Office (DRMO).

(2) The YTC sub-installation is regulated as a large quantity generator, under EPA Identification Number WA 8214053995.

3. KEY APPLICABLE REGULATIONS.

a. Subtitle C of the Resource Conservation and Recovery Act (RCRA) provides "cradle to grave" authority to the Environmental Protection Agency (EPA) to control HW from generation to ultimate disposal. RCRA regulates five kinds of HW management activities: Generation, storage, transportation, treatment, and disposal. Title 40 of the Code of Federal Regulations (40 CFR), *Protection of Environment,* includes the implementing federal regulations applicable to all aspects of managing HW under the provisions of RCRA.

b. Washington Administrative Code (WAC) Chapter 173-303, *Dangerous Waste Regulations,* contains the Washington State regulations that implement RCRA Subtitle C and the State HW Management Act of 1976 as amended. The State has authority from EPA to regulate HW management under the provisions of RCRA.

c. The Federal Facility Compliance Act (FFCA) of 1992 amends the solid and HW provisions of RCRA. It waives previous federal sovereign immunity under RCRA and allows state, county and local governments to impose substantive and procedural requirements; require payment of service charges, including fees; and to impose fines and penalties on federal facilities for violations of their solid and HW laws. The FFCA also requires the EPA to inspect all federal facilities annually. In addition, the states may conduct their own independent inspections.

d. AR 200-1, *Environmental Protection and Enhancement,* requires a written installation Hazardous Waste Management Plan that defines responsibilities and provides procedures for the management of HW.

4. POLICY.

a. Comply with all DoD, Army, federal, state and local regulations concerning the generation, storage, transportation, treatment, and disposal of HW.

b. Pursue all reasonable actions to avoid or reduce the generation of HW.

c. Employ “best management practices” throughout the HW life cycle to minimize risk to public health or damage to the environment.

d. Prevent or minimize pollution from releases of HW to the environment.

e. Provide training appropriate to the job requirement for each individual involved in HW management.

5. RESPONSIBILITIES.

a. Public Works (PW) will exercise overall staff proponency of the HW management program (including oversight for the management of pharmaceuticals, biomedical materials, and drugs) through ENRD, Hazardous Waste Operations. Hazardous Waste Operations will:

(1) Provide guidance on policy and procedures pertaining to the generation, storage, transportation, treatment, and disposal of HW.

(2) Ensure that all Fort Lewis and sub-installation processes which use HM and generate HW are identified with an Annual Dangerous Waste Record Number (ADWR#). (For purposes of this requirement a *process* is a recurring action or series of actions normally performed as part of mission accomplishment in which HM is used and HW is generated as a result).

(3) Maintain the current ADWR# file.

(4) Develop a system for formal review and permitting of installation and sub-installation processes that specifies and authorizes HM to be used, and the HW stream(s) generated in the process.

(5) IAW the Fort Lewis Pollution Prevention Plan, conduct an annual evaluation and prepare a progress report on pollution prevention goal attainment attributable to elimination or reduction of HW generation.

(6) Coordinate with federal, state or local agencies on HW issues, and submit reports as required by regulations.

(7) Operate Fort Lewis Hazardous Waste Operations. The HW-related functions of the Section are to:

(a) Provide simplified HW disposal service to Fort Lewis generating activities.

(b) Provide HW training and technical assistance to units and activities.

(8) Conduct training as specified in Appendix J, this regulation, for personnel engaged in HW management.

(9) Monitor contractor operations performed for PW which involve the generation of HW (e.g., demolition, spill cleanup, and environmental monitoring projects) to ensure compliance with appropriate regulations.

(10) Provide management oversight for the following:

(a) Household hazardous waste program.

(b) Programs for recovery and recycling of used HM such as oil, fuel**,** antifreeze, and petroleum contaminated soil (PCS).

(c) Treatment and disposal of unserviceable munitions.

b. The Environmental and Natural Resources Division (ENRD-YTC) at YTC will manage the HW program for the sub-installation IAW guidance in this regulation and any applicable local requirements, and will:

(1) Provide HW disposal guidance and service to activities generating HW at YTC.

(2) Coordinate with Hazardous Waste Operations at Fort Lewis for technical support as required.

c. The Utilities Division, PW, will ensure that in-house projects involving the generation of HW comply with appropriate regulations and with the HW procedures in this regulation:

(1) Incinerator operations.

(2) Other in-house operations involving the generation of HW.

d. The Maintenance & Repair Division, PW, will ensure that in-house projects involving the generation of HW comply with appropriate regulations and with HW procedures in this regulation:

(1) Vehicle and equipment maintenance. See Appendix M.

(2) Paint operations.

(3) Other in-house operations involving the generation of HW.

e. The Environmental and Natural Resources Division, PW, will ensure that in-house projects involving the generation of HW comply with appropriate regulations and with HW procedures in this regulation:

(1) Pesticide operations.

(2) Other in-house operations involving the generation of HW.

f. Joint Transportation Directorate will:

(1) Exercise staff proponency for compliance with U.S. Department of Transportation (DOT) requirements associated with transporting HW, as needed.

(2) Provide information and/or training when needed/requested to units and activities on proper container marking/labeling, and vehicle placarding when transporting HW.

g. The Directorate of Logistics (DOL) will:

(1) Ensure that the following DOL operations involving the generation of HW comply with appropriate regulations and with the HW procedures in this regulation:

(a) Vehicle, aircraft and equipment maintenance. See Appendix N.

(b) Painting operations.

(c) Battery shop operations. See Appendix N

(d) Other DOL operations involving the generation of HW.

(2) Ensure Ammunition Supply Point (ASP) compliance with procedures for management of waste munitions as outlined in this appendix.

h. The Command Safety Office will exercise staff proponency for:

(1) Disposal of radioactive wastes IAW AR 11-9 and FORSCOM Reg 385-1.

(a) Operate the authorized installation facility for temporary storage of radioactive wastes pending shipment for disposal.

(b) Provide technical assistance to the Radiation Safety Officer (RSO) at the Madigan Army Medical Center (MAMC) for the storage of low-level radioactive wastes from hospital laboratory and clinical operations.

(2) The hazard communication program, IAW FL Reg 385-5.

(3) The Hazardous Waste Operations Emergency Response requirements derived from USDOL-OSHA regulations in 29 CFR 1910.120 and other Army or Army adopted safety and occupational health standards.

i. MAMC will:

(1) Manage the accumulation and disposal of infectious biomedical wastes and discarded controlled pharmaceutical stocks.

(2) Manage the storage and disposal of low-level radioactive wastes from hospital laboratory and clinical operations, in coordination with the Command Safety Office.

(3) Manage the accumulation of RCRA hazardous wastes with potentially infectious characteristics, and chemotherapy pharmaceutical wastes; and will coordinate with Hazardous Waste Operations (253-967-4786) for disposal. See paragraph 20 below.

(4) Coordinate with Hazardous Waste Operations (967-4786) for disposal of mixed wastes (wastes that are regulated under both the Nuclear Regulatory Commission (NRC) and RCRA because of their radioactive and HW properties). See paragraph 21 below.

(5) Provide command oversight to medical, dental, and veterinary activities for the management of HW generated from mission activities.

j. Preventive Medicine Services, MAMC will:

(1) Provide occupational health service support and will conduct the required health-monitoring program for persons handling HW.

(2) In coordination with the Command Safety Office, manage the storage and disposal of low-level radioactive wastes from hospital laboratory and clinical operations.

k. The DRMO will operate the authorized Fort Lewis facility for storage of HW. Except for radioactive material and wastes which are stored at the facility operated by the Command Safety Office, and low-level radioactive wastes from hospital laboratory and clinical operations stored at the facility operated by MAMC, HW are not authorized for storage in any facility on Fort Lewis except at the DRMO. The DRMO will:

(1) Operate the HW storage facility IAW the interim permit from the Washington State Department of Ecology until the application for a final permit is approved. The application was submitted 15 January 1993. Once approved the HW storage facility will operate IAW the final permit.

(2) Maintain the HW Log of all HW turn-ins to the facility; provide a listing of turn-ins from Fort Lewis HW generators when requested.

(3) Assist Hazardous Waste Operations in the preparation of required annual HW reports for submission to the Washington State Department of Ecology.

l. Subordinate commands, tenant units, directorates and activities that generate HW will:

(1) Appoint in writing an Environmental Compliance Officer (ECO), and where specified, a Hazardous Waste Technician (HWT) at each command level needed IAW paragraph 2-12c of this regulation. The ECO/HWT will:

(a) Be trained as specified in Appendix J, within 60 days after being appointed as the ECO/HWT.

(b) Be the unit/activity HW management coordinator. He/she will be available to train personnel in HW management procedures appropriate to the unit/activity.

(2) Complete the HW Delegating Authority Form, obtained from Hazardous Waste Operations at Building 1210 (967-4786), which authorizes the ECO/HWT to request and receive HW containers and supplies from Hazardous Waste Operations or sub-installation environmental office.

(3)Emphasize management procedures that ensure processes using HM and which generate HW will:

(a) Use only HM that is specified by the equipment Technical Manual (TM) or is on the individual units Authorized Use List (AUL).

(b) Use the least hazardous among suitable HM choices.

(c) Undergo periodic assessment for reduction/elimination of HM used and HW generated.

(4) Ensure that all personnel who work with HW are appropriately trained for the job requirement IAW Appendix J of this regulation.

(5) Comply with the HW management requirements stated or referenced in this appendix.

(6) Before departure on major unit deployments to the Yakima Training Center (YTC) or other off-post locations, coordinate with Hazardous Waste Operations at 967-4786 for technical assistance/guidance in managing HW. Units must give a minimum of 30 days notification of deployment to Hazardous Waste Operations for the pick-up of all their hazardous waste, unless deployments are short notice or notification would comprise the mission. A memorandum must be provided and signed by the unit commander stating that no Hazardous Waste will be generated or stored until the unit arrives back from their deployment. Failure to have the memorandum signed by the unit commander and submitted to Hazardous Waste Operations will result in the unit being required to have a trained ECO/HWT available to conduct their weekly Hazardous Waste Inspection. Additionally, sufficient personnel with ECO/HWT

training must also accompany the unit to ensure HW compliance during the deployment.

(7) Comply with HW management procedures during field training as stated in Appendix L. *Environmental Compliance During Field Training.*

m. Explosive Ordnance Disposal (EOD) and engineer units with required Mission Essential Task List (METL) proficiency in the destruction of unserviceable munitions will ensure compliance with policy concerning training, treatment and disposal as outlined in Appendix V.

6. HW ACCUMULATION. The following requirements apply to all activities that generate HW.

a. Each activity that generates HW is responsible for ensuring that the accumulation of HW is strictly managed. The activity's responsibilities relating to HW identification, accumulation procedures, container management, inspection and record keeping, and planning for emergencies are stated below.

b. HW identification.

(1) The identity of all HW generated by the activity must be known. The presence of any container with contents that are unknown is a violation of federal and state regulations. Assistance in identifying HW is available from Hazardous Waste Operations (253-967-4786) or the sub-installation's environmental office.

(2) Hazardous Waste Operations or the sub-installation's environmental office, in coordination with the generating activity, will specify the waste stream(s) that the activity is permitted to generate. The activity must notify Hazardous Waste Operations or sub-installation environmental office when a mission or process change, or other significant action causes a change in the waste streams generated.

(3) Hazardous Waste Operations or the sub-installation's environmental office will coordinate for an activity's HW streams to undergo laboratory analysis if required to identify the waste constituents. Each unique HW stream will be identified by an Annual Dangerous Waste Report Number (ADWR#). The current ADWR# file is kept at Hazardous Waste Operations and an electronic copy is kept at the DRMO..

(4) Turn-in of the HW may require certification by the activity manager that the HW is properly identified. See the paragraph on HW turn-in below.

c. Co-location of HW accumulation and HM storage. HW accumulation and HM storage can occur in the same facility, provided there is adequate visual and physical separation between the HW accumulation area and the HM storage area. However, each area must meet requirements specific to either HW or HM (see Appendix E, *Hazardous Material Management,* for HM storage requirements).

d. HW container management (90-day HW accumulation areas).

(1) Accumulate HW only in approved containers issued through Hazardous Waste Operations or the sub-installation's environmental office.

(2) Containers must be clearly labeled with the words HAZARDOUS WASTE, a description of the waste, and the hazard associated description or label. NOTE: Containers issued at Fort Lewis and YTC for a specified waste stream are tracked through bar code labeling and the bar code label has the required information.

(3) Ensure that the contents of every HW container are clearly identified. The presence of any container with contents that are unknown (unless the label indicates it is awaiting laboratory analysis) is a violation of federal and state regulations. If you have an unknown substance contact Hazardous Waste Operations (253-967-4786) for guidance on the proper management of the container.

(4) Provide a minimum of 30 inches of aisle space between container rows. Container labels must be clearly visible. See Figure F-1.

(5) Hazardous Waste containers must be clearly marked with the accumulation start date (the date HW was first placed in the container). Containers issued at Fort Lewis have the date marked on the label when issued.

(6) No vehicles will be parked within 25 feet of the doorway to a HW storage facility.

(7) Other container management guidance:

(a) Keep container tops/bungs serviceable and tightly closed (wrench tight) except when adding material.

(b) Do not accumulate incompatible wastes in the same container or in the same area. See Figure E-2-1 at Appendix E , this regulation, for a storage incompatibility chart.

(c) Ensure proper grounding of containers containing flammable liquids. Containers must be properly grounded when transferring flammable materials between containers.

(d) Reactive and ignitable waste containers must be stored in a matter that meets Fire Code requirements. Contact the Fort Lewis or sub-installation Fire Department for assistance if needed.

(e) Provide three inches of ullage (air space) when filling 30 and 55-gallon drums to allow for liquid expansion.

(8) Accumulation of non-hazardous waste requiring special handling. Some materials such as contaminated dry sweep and absorbent pads do not designate as HW, but require special handling for disposal. Guidance concerning the specific materials that are accumulated as non-hazardous waste is provided by Hazardous Waste Operations or the sub-installation's environmental office.

(a) Accumulate these materials in containers issued by Hazardous Waste Operations or the sub-installation's environmental office. At Fort Lewis and YTC, the containers are issued with bar coded labels.

(b) Store the containers in the HM storage facility or the HW accumulation site. Containers with solids (e.g., dry sweep) may be stored in an appropriate location such as the motor pool floor provided controls exist to ensure that only the material designated is placed in the container.

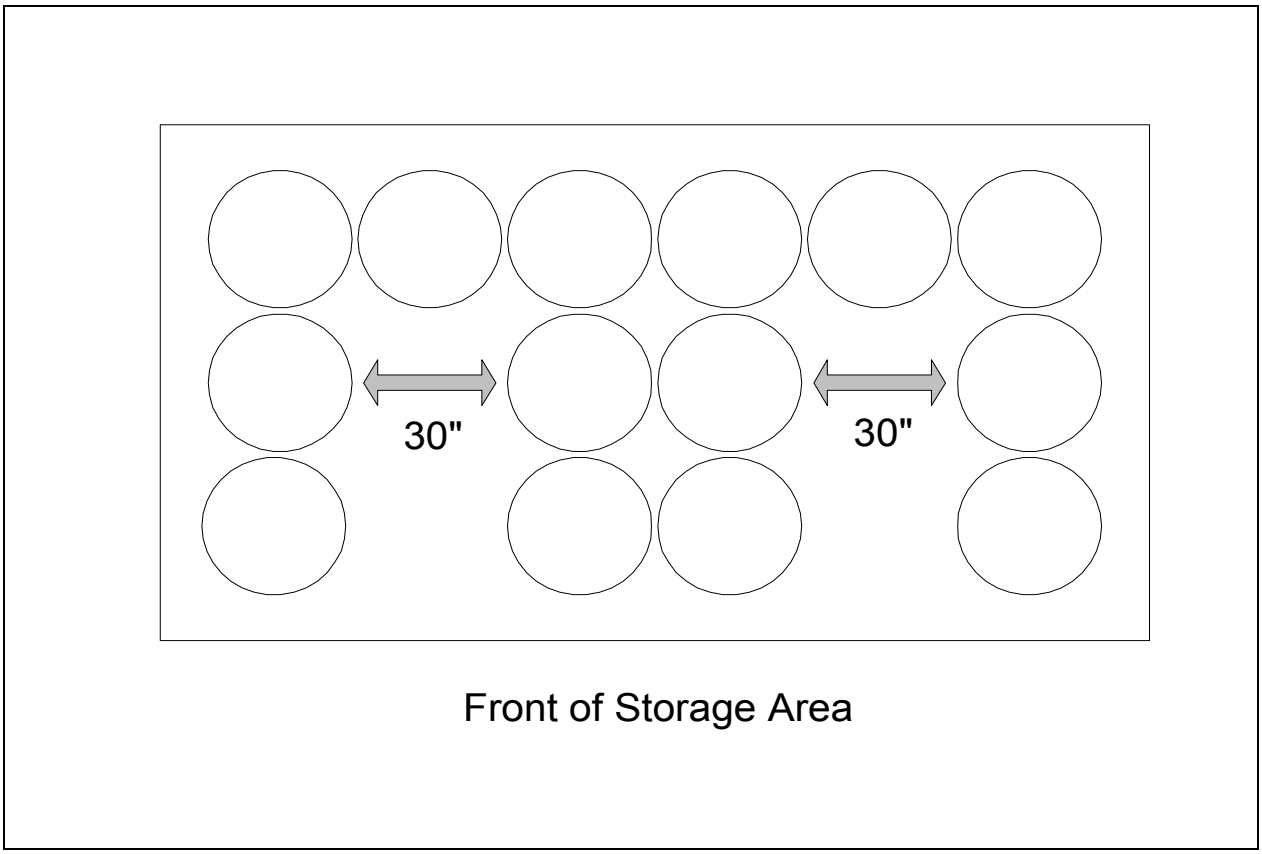


Figure F-1. Aisle Space Requirements for HW Container Storage.

(c) Contact Hazardous Waste Operations or the sub-installation's environmental office for disposal instructions when the container is full.

(9) Universal Waste (e.g., batteries, fluorescent light bulbs) will only be stored in an approved Hazardous Waste Accumulation storage point.

e. HW container turn-in (90-day HW accumulation facilities).

(1) Containers must be turned in NLT 90 days from the accumulation start date, earlier if full. NOTE: Containers issued at Fort Lewis have the turn-in date pre-marked on the container when issued. Do not let a HW container remain on site beyond the 90-day mark --this is a violation of the law!

(2) Ensure that the HW has been identified, accumulated and managed IAW requirements stated above so that the HW is acceptable for turn-in. Depending on the HW, the commander or civilian activity manager may be required to provide signed certification as to HW identity and container compliance with appropriate regulations. The following is suggested language for the certification:

"This is to certify that the attached documentation accurately describes the wastes listed on the DD Form 1348-a1 (DOD Single Line Item Release/Receipt Document) and labeling on the container. This also certifies that the identified wastes are correctly packaged, identified, and described, and are in proper condition for transportation in accordance with applicable laws and regulations of the Department of Transportation, Environmental Protection Agency, and the State of Washington."

(3) When accumulated HW requires turn-in, notify the appropriate office for turn-in instructions.

(a) At Fort Lewis, notify Hazardous Waste Operations at Building 1210 (253-967-4786). The HW will be picked up by Hazardous Waste Operations and processed for turn-in to the DRMO. If the nature or volume of the HW requires on-site pickup, Hazardous Waste Operations will coordinate the pickup with the DRMO.

(b) At YTC, notify the YTC One Stop Shop at Building 450 (509-577-3830). The One Stop Shop will process the HW for turn-in and will coordinate for transport of the HW to the DRMO or for pickup of the HW on-site by a disposal contractor.

(c) Units training at YTC shall refer to the YTC Using Unit SOP for hazardous waste generation guidance.

(d) At locations other than the above, notify the supporting DRMO and comply with the DRMO turn-in requirements.

7. HW ACCUMULATION FACILITIES. Ensure that facilities used for accumulating HW meet waste stream storage, fire, safety, and environmental requirements.

a. Use HW accumulation facilities provided or approved by Hazardous Waste Operations, or the sub-installation's environmental office. (NOTE: At YTC, the only HW accumulation facility is at the One Stop Shop. All other accumulation sites are designated as Satellite Accumulation Areas. See paragraph 8e below for requirements that apply to these areas.) The HW accumulation facility must have the following:

(1) Overhead cover to protect the HW from the elements.

(2) Capability for being locked/secured when not in use.

(3) Secondary containment as necessary to prevent overflow; and have sufficient capacity to contain 10% of the total volume of all containers or 100%.of the volume of the largest container stored, whichever quantity is larger.

(4) Compliance with installation or sub-installation fire regulations.

(5) Has a sign that says "CAUTION HAZARDOUS WASTE ACCUMULATION AREA."

b. Accumulation facilities approved for use on Fort Lewis and its sub-installations include the following:

(1) Permanent structures at motor pools designed for POL storage, e.g., "POL cages/sheds."

(2) Flammable material storage cabinets/lockers.

(3) Store rooms with fire suppression systems.

(4) Portable HM/HW storage buildings issued by Hazardous Waste Operations or the sub-installation's environmental office.

(5) Any facility that meets the requirements in paragraph 7a above and is suitable for the type of product(s) stored.

c. Restrict access to the HW accumulation facility only to trained and authorized personnel.

d. The following will be available at or in the near vicinity of the HW accumulation area:

(1) A posted contingency plan or site map for responding to emergencies (spills, fires, or explosions). If the activity also stores HM, the plan will address emergencies that may involve HM or HW. See Appendix E for requirements concerning content of the plan.

(2) An alarm system for notifying individuals at the site of an emergency.

(3) A "spill response kit" that contains necessary supplies and equipment for responding to the types of spills most likely to occur. Contact Hazardous Waste Operations (967-4786) for assistance in determining the type and quantity of supplies that should be maintained for the particular HW accumulated. Items in the spill response kit will be maintained for use during emergencies only and will not be cannibalized for routine activities. The items will be inspected as part of the weekly inspection of the HW accumulation area.

(4) A telephone to summon assistance in an emergency, and with the following information posted by the telephone: Name of person to call in an emergency, location of fire extinguishers, spill response material, the nearest fire alarm, and telephone number of the Fire Department.

(5) The weekly inspection of HW accumulation areas will verify the presence and serviceability of the spill response kit and any other emergency response equipment maintained at the site; the inspection will also verify the accuracy of the posted emergency information for summoning outside assistance.

e. Generating activities will schedule an annual Fire Department inspection of the activity's process and HW accumulation areas.

f. Satellite accumulation. HW may be temporarily accumulated at the point of generation called a "Satellite Accumulation Area" provided the satellite accumulation is approved by Hazardous Waste Operations or the sub-installation environmental office. NOTE: At YTC, the only 90-day HW accumulation facility is at the One Stop Shop. All other HW accumulation areas are designated as Satellite Accumulation Areas. A satellite accumulation area must comply with the following:

(1) The accumulation area remains under control of the operator where the HW is being generated, and the area is secured at all times when not in use.

(2) Only use containers that are issued Hazardous Waste Operations or the sub-installation's environmental office. Only one container per waste stream is used.

(3) The container is properly labeled " HAZARDOUS WASTE", the HW description, and the primary hazard associated with the waste. NOTE: Containers issued by Hazardous Waste Operations and the sub-installation's environmental office has the proper information already on the label and are tracked through bar coding.

(4) The container lid/bung is secured wrench tight when not in use so that contaminants cannot enter and the HW does not spill if the container tips over.

(5) Secondary containment is provided.

(6) When full, the date is marked on the container label. The full container must then be moved to the 90-day HW accumulation facility within 72 hours.

(7) As a best management practice, an alarm system should be provided to alert personnel in the event of a spill or release at the satellite accumulation area.

8. INSPECTIONS AND RECORDKEEPING.

a. Maintain required records in an organized manner. Keep originals of the weekly inspection checklists at the generator's site, readily available to the ECO and/or HWT.

b. Each HW accumulation facility must be inspected weekly, per federal and state requirement. While the regulations do not include Satellite Accumulation Areas in the weekly inspection requirement, the Fort Lewis policy is to inspect Satellite Accumulation Areas as part of the weekly HW facility inspection. Use Fort Lewis HFL Form 950, *Hazardous Waste (HW) Management Checklist* for the inspection. All checklists must be retained for five years.

c. Inspect the supplies in the spill response kit for availability and serviceability during the inspection of the HW accumulation facility.

d. A formal inspection of the HW accumulation facility will be conducted semi-annually by the PW Environmental Compliance Inspection Team. Maintain file copies of semi-annual inspections for two years.

9. SPILL PREVENTION AND SPILL RESPONSE. The potential for spills/releases is always present when accumulating and handling HW. The potential for spills must be minimized, and if they occur, timely and effective response must be taken.

a. Minimize the potential for spills by proper management of HW. The rest of this appendix provides guidance to assist in proper management.

b. Prepare a spill response contingency plan or site map tailored for the HW accumulation facility and conditions. Keep the plan or site map at or near where the HW is accumulated. If the facility is also used for HM storage, the plan or site map should also address a HM spill. The plan or site map should be brief, state the actions to be taken in the event of a spill, and who takes the actions. Practice the plan or site map at least quarterly. Appendix E of this regulation provides guidance on contents and format of the plan. Hazardous Waste Operations (967-4786) or the sub-installation's environmental office can provide technical assistance in preparing the plan. NOTE: Units training at the YTC are required to prepare a spill response plan

and provide a copy of the plan to the YTC environmental office before the start of the training period. Appendix D of the YTC Installation Spill Contingency Plan (ISCP) provides a sample training unit spill contingency plan.

c. An alarm system must be available for alerting personnel in the event of a HW spill. An elaborate system is not necessary; a simple device such as a bell or metal triangle that is rung can provide the necessary warning.

d. When a HW spill (i.e., one that is not contained within a secondary containment device) occurs:

(1) Sound the alarm.

(2) Regardless of the amount spilled, immediately notify the Fire Department if the spill is in the cantonment area (call 911 at Fort Lewis or YTC), or the Fort Lewis/YTC Range Control if the spill occurs in a training area. Provide as much information as possible -- the material and quantity spilled, circumstances, when, where, current status (stopped, ongoing, etc.).

(3) Implement the spill response plan. If possible, keep the material away from storm or sewer drains.

(4) Assist and support the installation spill response team in spill confinement and/or cleanup. The team Incident Commander (IC) from the Fire Department will take initial control of the scene and provide direction. Subsequent direction will be provided by the Installation On-Scene Coordinator (IOSC) from Hazardous Waste Operations.

(5) At YTC, complete the spill report form provided by the YTC environmental office and submit to the YTC environmental office within 24 hours after the event.

10. SAFETY – HAZARD CONTROL. Each organization that engages in hazardous waste emergency response (HAZWOPER) activities will develop and organizational safety and health program SOP that identifies, evaluates, and controls safety and health hazards, and provides for emergency response. This must include and organizational work-plan, site evaluation and control, a site-specific program, information and training program, personal protective equipment program, monitoring, medical surveillance program, decontamination procedures, and emergency response program. Program SOP requirements are:

a. An organizational work-plan that identifies: Supervisor and employee responsibilities and means of communication, name of person who supervises all of the hazardous waste operations, the site supervisor with responsibility for and authority to develop and implement the site safety and health program and to verify compliance; the tasks and objectives of site operation as well as the logistics and resources required to fulfill these tasks.

b. A preliminary evaluation by a trained person of each site's characteristics prior to entry to identify potential site hazards and to aid in the selection of appropriate employee protection methods. Included would be all suspected conditions immediately dangerous to life or health, or which may cause serious harm.

c. A site control program for each site to protect employees against hazardous waste contamination. At a minimum, the program must have a site map, site work zones, site communications, safe work practices and identification of the nearest medical assistance. Also required is the use of a "buddy system" as a protective measure in particularly hazardous situations so that employees can keep watch on one another to provide quick aid if needed.

d. Train all employees before they are allowed to engage in hazardous waste operations or emergency response that could expose them to safety and health hazards. Allow experienced workers to continue operations and then be given refresher courses when appropriate. Specific training requirements are listed in Appendix J for clean-up personnel, equipment operators, general laborers and supervisory employees and for various levels of emergency response personnel.

e. Provide air monitoring to identify and quantify levels of hazardous substances to assure that proper protective equipment is being used. Monitoring is required before site entry at uncontrolled hazardous waste sites to identify conditions immediately dangerous to life and health, such as oxygen-deficient atmospheres and areas where toxic substance exposures are above permissible limits. Periodic monitoring is required for those employees who are likely to have higher exposures to determine if they have been exposed to hazardous substances in excess of permissible exposure limits. Finally, monitoring is required to identify any potential condition that is immediately dangerous to life and health or for higher exposure that may occur as a result of new work operations.

f. Ensure medical surveillance at least annually and at the end of employment for all employees exposed to any particular hazardous substance at or above established exposure levels and/or those who wear approved respirators for 30 days or more on site. Such surveillance also will be conducted if a worker is exposed by unexpected or emergency releases.

g. Implement engineering controls, work practices and personal protective equipment, or a combination of these methods, to reduce exposure below established exposure levels for the hazardous substances involved.

h. An informational program, with the names of key personnel and their alternatives responsible for site safety and health and the listing of these requirements of the standard.

i. Implement a decontamination procedure before any employee or equipment may leave an area of potential hazardous exposure; operating procedures to minimize exposure through contact with exposed equipment, other employees, or used clothing; and showers and change rooms where needed.

j. An emergency response plan to handle possible on-site emergencies prior to beginning hazardous waste operations. Such plans must address: personnel roles; lines of authority, training and communications; emergency recognition and prevention; safe places of refuge; site security; evacuation routes and procedures; emergency medical treatment; and emergency alerting.

k. An off-site emergency response plan to better coordinate emergency action by the local services and to implement appropriate control action.

11. HAZARDOUS WASTE TURN-IN.

a. All HW that is turned in must be properly identified, contained, marked/labeled, and (if turned in from a site outside Fort Lewis) manifested. The HW Hazardous Waste Operations or the sub-installation environmental office may require commander or activity manager certification as to HW identity and container compliance with appropriate regulations. Hazardous Waste Operations will provide turn-in assistance to generating activities at Fort Lewis that will remove the majority of the administrative burden associated with the turn-in process; however, this assistance does not free the generating activity from the responsibility of ensuring that the HW has been identified, accumulated and managed IAW requirements in paragraph 6 so that the HW is acceptable for turn-in.

(1) HW accumulated by generating activities at Fort Lewis will be turned in by Hazardous Waste Operations to the DRMO. If the nature or volume of the HW requires Hazardous Waste Operations will coordinate with the DRMO for on-site pickup of the HW.

(2) HW accumulated by generating activities at YTC will be processed for turn-in by the HW manager. The HW manager will coordinate with the DRMO for transport of the HW to the DRMO or for pickup of the HW on-site by a disposal contractor.

(3) HW generated at sub-installations other than YTC that are supported by Fort Lewis will be turned in to the DRMO or will be picked up on-site by a disposal contractor, depending on the type and volume of the HW. Coordination for DRMO turn-in or on-site pickup will be made with the DRMO.

b. The DRMO will:

(1) Provide pre-turn-in paperwork checks and assistance as specified in the current facility-operating permit.

(2) Ensure that HW meets turn-in requirements specified in the current facility operating permit.

c. Hazardous Waste Operations will facilitate HW turn-in by:

(1) Assisting generating activities at Fort Lewis with container marking/labeling and inspection prior to turn-in.

(2) Preparing turn-in paperwork for generating activities at Fort Lewis.

(3) Picking up HW from Fort Lewis generating activities and turning in the HW to the DRMO, or coordinating on-site pickup by a disposal contractor.

(4) Assisting the HW manager at YTC with turn-in of HW when required.

(5) Providing sub-installations other than YTC with HW turn-in information when needed.

d. Generating activities at Fort Lewis will:

(1) Notify Hazardous Waste Operations (967-4786) when accumulated HW must be turned-in, or when HM that has exceeded its usable shelf life becomes HW and must be disposed of as a HW.

(2) Provide process information needed for Hazardous Waste Operations to prepare paperwork for turn-in:

(a) Identification of the HW. The HW should be one of the waste streams that the activity is permitted to generate and for which an ADWR# is on file at the DRMO and at Hazardous Waste Operations. HM that has become HW will require the name of the product, the MSDS, the stock number if known, and manufacturer if known, or a completed waste profile analysis.

(b) Type, size, and number of containers or items (e.g., PCB transformers).

(3) Prepare the HW container(s) for turn-in as directed by the Hazardous Waste Operations representative. If the container is closed, the Hazardous Waste Operations representative may require the generating activity to open the container(s) to verify proper identification of the HW before accepting the waste for turn-in to DRMO (does not apply to original, factory-sealed containers).

(4) Assist Hazardous Waste Operations during pick-up of the HW at the activity. Hazardous Waste Operations will pick up and turn in the HW to the DRMO.

e. Generating activities at YTC will coordinate with the YTC HW One Stop Shop (Building 450, telephone 509-577-3830) for HW turn-in.

f. Generating activities at other sub-installations supported by Fort Lewis will:

(1) Contact the DRMO concerning the HW to be turned in.

(2) Submit turn-in paperwork for DRMO verification prior to turn-in.

(3) Prepare HW for turn-in IAW DOT transportation and DRMO turn-in requirements.

(4) Turn in the HW at the scheduled pickup date/time coordinated by the DRMO. The HW will either be transported to the DRMO, or will be picked up by a disposal contractor.

12. TRANSPORTATION OF HAZARDOUS WASTE. The following requirements apply to the transportation of HW:

a. Vehicles used for transportation will meet the safety requirements of AR 385-55, FL Reg 55-2, and appropriate Field Manuals (FMs) and Technical Manuals (TMs). Operators will meet the requirements of AR 600-55 and FL Reg 55-2. HW will not be transported or stored in privately owned vehicles on Fort Lewis or its sub-installations.

b. Routes selected will maximize safety and reduce exposure in the event of accident. When ever possible, transporters on Fort Lewis will follow the ammunition transportation routes outlined in FL Reg 700-20. The Safety Office (967-3079) is available to provide assistance in risk assessment of proposed routes.

c. Incompatible wastes will be transported in accordance with 49 CFR 177 (HW Transportation).

d. Containers will be transported in an upright position and will be stacked no more than one tier high.

e. 55-gallon drums will be transported no more than three to a pallet; 85-gallon drums will be no more than two to a pallet; 30-gallon cans will be no more than four to a pallet. Pallets will be stacked no more than one tier high.

f. Units/activities will not remove HW from Fort Lewis or its sub-installations without written approval from Hazardous Waste Operations. HW will be transported over a public highway only by an authorized HW transporter having an EPA Identification Number, and with the HW recorded on a Uniform Hazardous Waste Manifest (EPA Form 8700-22). The transport vehicle must have proper U.S. Department of Transportation (DOT) container marking/labeling, and vehicle placarding. Generating activities will contact Hazardous Waste Operations for any HW that must be transported over public highways.

g. HW generated at YTC will not be transported off the sub-installation by the generating activity. All HW at YTC will be turned in to the YTC HW One Stop Shop (Bldg 450, telephone 509-577-3830).

h. HW generated on Fort Lewis will be transported on post by Hazardous Waste Operations from the generating activity to the DRMO

i. HW generated off post during exercises at other installations must be turned in at the host installation IAW the installation's turn-in procedures. Coordination with the host facility will be made well in advance of the required turn-in date.

13. EMERGENCY RESPONSE PLAN. The requirements for a plan to respond to emergencies involving HW are similar to those required for HM. See Appendix E, this regulation, for response plan requirements.

14. HW TRAINING REQUIREMENTS. See Appendix J , this regulation, for training requirements applicable to activities and individuals involved with either HM or HW management.

15. ASBESTOS REMOVAL AND DISPOSAL. Guidance and procedures are contained in Appendix X, *Toxic Substance Management,* this regulation.

16. UNDERGROUND STORAGE TANKS. The UST management program is described in Appendix O, *Underground and Aboveground Storage Tanks (USTs and ASTs),* this regulation.

17. POLYCHLORINATED BIPHENYL (PCB) ITEMS.

a. General.

(1) PCBs with contamination levels of 50 parts per million (ppm) or greater are regulated under the federal Toxic Substance Control Act (TSCA), while those with levels between 2 and 49 ppm are regulated by Washington State. Electrical equipment such as ballasts and transformers that contain PCBs must be handled as HW when removed from service for disposal, i.e., will no longer be used for their intended purpose.

(2) PCB items removed from service must be placed in conforming storage within 30 calendar days from the date of removal from service.

(3) Federal regulations require that a PCB item removed from service for disposal must be properly disposed of within 1 year after the item was removed from service.

(4) As of the publishing of this regulation, there are no transformers in service at Fort Lewis or YTC that have PCB contamination levels of 50 ppm or greater. Transformers with contamination levels between 2 and 49 ppm remain in service.

b. The Utilities Division will:

(1) Comply with 40 CFR 761.40 for marking of PCB items.

(2) Notify Hazardous Waste Operations (967-4786) when electrical equipment with PCB contamination levels of 1 ppm or greater contamination levels are removed from service and require disposal.

(3) Use HW turn-in procedures outlined in this chapter for turn-in of PCB items.

(4) Maintain a current transformer database that contains identification data and PCB levels on each transformer currently in service. A copy of the data base will be provided to Hazardous Waste Operations.

c. Hazardous Waste Operations will:

(1) Use HW turn-in procedures outlined in this chapter for turn-in of PCB items.

(2) Prepare the annual document log required by 40 CFR 761.180 as a PCB user/generator.

d. The Defense Reutilization and Marketing Office (DRMO) will:

(1) Accept PCB items as HW IAW turn-in procedures stated in the facility operating permit.

(2) Coordinate for transportation of PCB items to an authorized disposal facility such that the item is disposed of within 1 year after removal from service.

(3) Prepare the annual document log required by 40 CFR 761.180 as a storage facility for turned-in PCB items.

18. PESTICIDE MANAGEMENT. The installation pest management program will be implemented by ENRD in accordance with regulatory guidelines.

a. Only pesticides registered with the EPA will be obtained and used. Pesticides will be used, stored, and disposed of in accordance with applicable regulations and other directives.

b. The following general procedures apply. Specific information is contained in the Installation Pest Management Plan.

(1) Handling. Pesticides will be stored, inventoried, labeled and disposed of in accordance with applicable regulations, HM management guidance in Appendix E of this regulation, HW disposal procedures in this appendix, and other directives.

(2) Restrictions for use. Pesticide application and other insect and rodent control substances will be restricted to use by trained and certified applicators. Pest management SOPs will incorporate procedures and guidance provided in AR 200-1 and AR 420-76. The DA directives provide a categorization list for pesticide use, which identifies pesticides that may be used by certified applicators as well as personnel without special training.

(3) Disposal. No pesticide related waste, container or residue will be disposed of in such a manner as to cause or allow:

(a) Open dumping

(b) Water dumping

(c) Well injection

(d) Direct exposure, which may result in contamination of food or feed supplies

(e) Disposal inconsistent with label instructions

(4) Use of herbicides.

(a) Activities proposing to use a herbicide will contact the Pest Control Section, ENRD (967-7838) for guidance before mixing or applying any herbicide materials.

(b) Herbicide materials will be applied by authorized persons only after an appropriate Integrated Pest Management (IPM) review has been completed for the proposed action. The IPM process identifies and evaluates all alternatives for controlling the pest(s), and requires the use of a pesticide (herbicide, insecticide, etc.) as a last resort.

(5) Spills. Procedures specified in the ISCP for spill response will be implemented on any pesticide spill that threatens human life or the environment.

(6) Environmental documentation. A major application of pesticides, including aerial dispersal, normally requires the completion of an environmental assessment. Hazardous Waste Operations will be consulted during the planning phase of the project to ensure that required environmental documentation as discussed in Appendix C of this regulation is identified and completed.

(7) Reports. ENRD will prepare and submit reports concerning pesticide applications required by higher headquarters or regulating agencies.

19. LEAD-BASED PAINT (LBP) EXPOSURE REDUCTION.

a. Hazardous Waste Operations will coordinate the accomplishment of the Fort Lewis LBP Management Program. Actions will be conducted IAW the Program to:

(1) Comply with requirements of the Residential LBP Hazard Reduction Act to include conducting assessments of targeted housing areas and facilities as defined by the U.S. Department of Housing and Urban Development, by established target dates, performing lead abatement activities, and ensuring training and certification of personnel who work with LBP per guidance from applicable federal regulations.

(2) Comply with DoD, Army, federal, state and local guidance and requirements for lead exposure reductions and LBP hazard reduction.

(3) Conduct LBP risk assessment and screening, and implement controls consistent with DoD and Army policy in targeted housing areas and facilities.

(4) Conduct analysis of lead contaminated debris as needed to determine if the waste stream is a HW, and dispose of HW IAW guidance in this appendix.

b. The PW Residential Communities Office, in coordination with Hazardous Waste Operations, will inform family housing occupants of pre-1978 housing concerning LBP and LBP hazards, as required by Federal, DoD and Army regulations. In particular, information will include any known LBP hazards in the housing, and the handout of a federally approved document on lead poisoning prevention.

c. The Command Safety Office, in conjunction with Preventive Medicine Services, MAMC, will establish and maintain programs to ensure the health and safety of Government workers dealing with LBP and other lead hazards, and will provide technical support to Hazardous Waste Operations to assist in accomplishing the overall LBP management program.

20. RADIOACTIVE MATERIALS AND WASTES. The Command Safety Office is the responsible agency for the management of radioactive materials and wastes. Units and agencies that handle radioactive materials and/or require storage/disposal guidance will contact the Command Safety Office (967-3079).

a. The handling, use, and disposal of radioactive materials will be in accordance with applicable regulations and in such a manner as to not pollute the environment.

b. Temporary storage of radioactive materials prior to shipment for disposal will be in accordance with TM 3-261, AR 11-9, AR 700-52, and Title 10 of the Code of Federal Regulations Part 20.

c. The Command Safety Office will provide reports on the handling, use, inventory or disposal of radioactive materials and monitoring as requested by DA, EPA, Nuclear Regulatory Commission or other federal agencies, and on nuclear accidents/incidents as required by AR 385-40.

21. RCRA HAZARDOUS WASTES WITH POTENTIALLY INFECTIOUS CHARACTERISTICS AND CHEMOTHERAPY PHARMACEUTICAL WASTES.

a. MAMC is responsible for the management of RCRA hazardous wastes with potentially infectious characteristics and chemotherapy pharmaceutical wastes that are generated from Medical Center activities.

b. The following will apply for disposal of the above-mentioned wastes:

(1) MAMC will contact Hazardous Waste Operations (967-4786) whenever turn-in of RCRA hazardous substances with potentially infectious characteristics is required, and for the turn-in of chemotherapy pharmaceutical wastes after all attempts to process the materials through a vendor return program have been exhausted.

(2) Depending upon the waste class involved, Hazardous Waste Operations will either pick up and turn in the waste to the DRMO or will assist MAMC in arranging for transport of the HW to the authorized disposal facility.

22. MIXED WASTES.

a. It is Fort Lewis policy to avoid the generation of mixed wastes. Mixed wastes are regulated under both the NRC and RCRA because of their radioactive as well as HW properties.

b. The Washington State Department of Ecology has determined that the installation is not a mixed waste facility and has not assessed a mixed waste fee.

c. There is a possibility for inadvertent mixed waste generation from laboratory procedures or spills. MAMC will contact Hazardous Waste Operations (967-4786) and the Command Safety Office (967-3079) whenever turn-in of a mixed waste is required.

23. WASTE MUNITIONS.

a. Waste munitions are defined as follows:

(1) Unused munitions:

(a) Abandoned by being buried or landfilled, disposed of, burned or incinerated or otherwise treated prior to disposal.

(b) Removed from storage for treatment or disposal.

(c) Deteriorated or damaged beyond repair, recycling or reuse.

(d) Declared a waste by a Designated Disposition Authority.

(2) Used or fired munitions:

(a) When transported off range or from the site of use for storage, reclamation, treatment, disposal or treatment prior to disposal.

(b) If recovered, collected and then disposed by burial or landfilling either on or off a range.

b. Waste munitions will be turned into the ASP for storage.

c. The Quality Assurance Surveillance Ammunition Specialist (QASAS) will arrange for the treatment and disposal of waste munitions.

d. Emergency Destruction of Unserviceable Munitions. Some unserviceable munitions, because of safety reasons, must undergo emergency destruction. The transport and disposal of unserviceable munitions in an emergency destruction situation are exempt from formal environmental permitting. This type of disposal is authorized by the State provided the following conditions are met:

(1) The unserviceable munitions pose a serious safety threat that require emergency destruction. The munitions will be destroyed on site or transported to the nearest Safe Disposal Area (SDA). The SDA may or may not be on a military installation.

(2) Determination that an emergency situation exists is made by qualified EOD personnel. Where required, coordination is made with the QASAS at the ASP. The emergency situation is one of the following:

(a) Imminent Threat (Life Threating Situation). Requires immediate action.

(b) Threat. Requires rapid action.

(c) Extended Threat. Requires deliberate action.

(3) When the munitions are located on-post and emergency destruction is performed on-post, Hazardous Waste Operations (ENRD-YTC at YTC) is notified. The munitions remain within U.S. government custody/control throughout the emergency destruction process and do not require State notification for destruction. Coordination is made with Range Control for range use.

(4) When the munitions are located off-post and emergency destruction is performed on-post, the appropriate State Department of Ecology regional office and Hazardous Waste Operations (ENRD-YTC at YTC) are notified by the EOD. Coordination is made with Range Control for range use.

(5) When the munitions are located off-post and the emergency destruction is performed off-post, the appropriate State Department of Ecology regional office is notified prior to conducting the off-post destruction. Contact with the State is normally made by the agency finding/owning the munitions. The EOD will confirm that State has been notified before undertaking the emergency destruction.

(6) The munitions will be destroyed by qualified EOD personnel. Key mission information is recorded on the EOD Incident Report Form. As a minimum, the information will include the identity of the activity, organizations and personnel involved, date, time location of munitions, type and amount destroyed, reasons for the emergency destruction, and if available, information on residues or contamination. Explosive emergency disposal incident reports and journal will be maintained IAW DOD Interim Policy.

(7) The munitions are destroyed without delay. If it is necessary to temporarily store the munitions overnight, coordination is made with the QASAS at the ASP for storage in an ASP ammunition bunker. Munitions will be destroyed at the earliest opportunity.

e. Burning of excess powder charges. The burning of excess powder charges as part of training is currently not RCRA regulated. However, soil that is contaminated from the burning is subject to designation and management as HW. Until such time, the current practice of burning excess powder charges on the ground during the conduct of training is authorized.

APPENDIX G

SOLID WASTE MANAGEMENT

1. PURPOSE. This appendix establishes policy, responsibilities and procedures for the management of solid waste other than hazardous waste.

2. KEY APPLICABLE REGULATIONS.

a. The Resource Conservation and Recovery Act (RCRA), as amended, is the federal law which governs the disposal of solid waste. Subtitle D of the Act establishes federal standards and requirements for state and regional authorities concerning solid waste disposal.

b. AR 200-1, *Environmental Protection and Enhancement,* states Army policy and responsibilities for managing solid waste and mandates compliance with federal, state and local solid waste requirements. The Army objective is to manage solid waste in a manner that permits maximum opportunity for resource recovery without jeopardizing natural resources or health and the environment.

c. AR 420-47, *Solid and Hazardous Waste Management,* remains in force except where superseded by AR 200-1.

d. AR 215-1, *Administration of Morale, Welfare and Recreation (MWR) Activities and Nonappropriated Funds Instrumentalities (NAFIs),* contains guidance for the involvement of NAFI activities in the recycling program.

e. Revised Code of Washington (RCW) 70.95. Solid waste provisions of this RCW are implemented by Chapter 173-350, Washington Administrative Code (WAC), *Solid Waste Handling Standards,* and Chapter 173-351, WAC, *Criteria for Municipal Solid Waste Landfills.*

f. FL Reg 420-12, *Refuse Collection and Disposal. (rescinded)*

g. FL Reg 210-5, *Fort Lewis Recycling Program.. (rescinded).*

h. FL Reg 210-10, *Police of the Fort Lewis Military Reservation.*

i. The Fort Lewis Integrated Solid Waste Management Plan.

3. POLICY.

a. Minimize solid waste generated through source reduction.

b. Maximize recovery of waste materials by diversion, reuse or recycling.

c. Disposal by effective use of composting, treatment, and landfilling as the last resort.

d. Comply with federal, state, and local regulations applicable to solid waste management.

e. Ensure the diversion rate for non-hazardous solid waste is greater than 40%, while ensuring integrated non-hazardous solid waste management programs provide an economic benefit when compared with disposal using landfilling.

4. RESPONSIBILITIES.

a. Public Works (PW) will:

(1) Exercise overall staff responsibility for solid waste management and ensuring compliance with applicable laws and regulations.

(2) Establish the Fort Lewis Solid Waste Advisory Committee (SWAC).

(3) Appoint a representative from ENRD, as selected by the PW-ENRD Division Chief, as chairperson of the SWAC. The SWAC will consist of primary members and secondary members whose involvement will be driven by specific issues brought to the attention of the SWAC by their activities.

(4) Primary members include:

(a) Chairperson.

(b) Installation Solid Waste Program Manager.

(c) Installation Pollution Prevention Program Manager.

(d) Contracting Officer Representative for the Solid Waste and Recycling Contract.

(e) Installation Recycling Coordinator.

(5) Secondary membership includes:

(a) Representative from the Defense Reutilization and Marketing Office (DRMO).

(b) MAMC Environmental Science Officer.

(c) Representative from Directorate of Contracting

(d) Representative from Directorate of Community Activities (DCA).

(e) Representatives from state and local regulating agencies as appropriate, i.e., TPCHD.

b. The SWAC will provide review and advisory input in the management of solid waste and will:

(1) Prepare the Fort Lewis Integrated Solid Waste Management Plan (ISWMP).

(2) Review and monitor proposed solid waste programs, policies and procedures for consistency with the SWMP.

(3) Review the quarterly submission of the Solid Waste Annual Report (SWAR).

c. PW ENRD will:

(1) Monitor and maintain the Fort Lewis landfill #5 in accordance with approved closure plans and in compliance with applicable federal, state and local regulations. Sub-installations will operate their own permitted landfill(s) or provide for collection and delivery to off-site waste landfills.

(2) Coordinate and monitor solid waste disposal practices to prevent groundwater contamination and migration.

(3) Coordinate with regulatory agencies in obtaining certificates of designation, permits, and in conducting inspections.

(4) Provide training for installation personnel involved with solid waste operations.

d. PUBLIC WORKS ECMD will:

(1) Administer a contract to provide installation refuse and recycling collection services. ECMD will also strive to incorporate recycling and diversion practices in all contracted work.

(2) Provide data to the Pollution Prevention Section, PW-ENRD, as to the quantity and disposition of all solid waste managed under contract.

e. The Pollution Prevention Program Manager will:

(1) Collect data from various sources that generate solid waste. Data will include information regarding disposal, recycling, composting, energy recovery, and reuse of excess materials or waste.

(2) Compile and analyze data received to track success in recycling and diversion efforts. Identify and plan for implementation of diversion and recycling programs.

f. The Directorate of Contracting(DOC) will manage and administer the installation Refuse and Recycling Contract.

g. The Directorate of Community Activities (DCA) will:

(1) Provide a representative to the SWAC as a secondary member.

(2) Administer Qualified Recycling Program (QRP) funds generated from the sale of recyclables.

h. The Defense Reutilization and Marketing Office (DRMO) will:

(1) Provide contract management and sales of recyclable materials turned in from Fort Lewis activities.

(2) Provide data to the PW Pollution Prevention Section as to the type and quantity of materials recycled and the revenues that are generated from the sales

(3) Provide a representative to the SWAC as a secondary member.

i. Staff directorates, activities, and subordinate commands will:

(1) Comply with provisions of this and referenced Fort Lewis regulations.

(2) Develop and implement programs that will emphasize reduction in solid waste generated from mission activities, and maximize the amount of recyclable material recovered.

(3) Ensure that all recyclable items turned in to the DRMO have the following information on the DD Form 1348-1 turn-in document :

(a) In block D, Project: W68EVQ

(b) In blocks AA-BB-CC-DD-EE, Remarks: Recyclable material 21F3875.1111 88TR S45016

5. SOLID WASTE PROCESSING.

a. All solid waste (except wastewater sludge, hazardous or toxic waste, and regulated medical waste) and material that cannot be recovered or recycled, will be disposed of under the refuse and recycling contract administered by the Directorate of Contracting.

(1) Disposal of wastewater sludge will be managed by the Engineering and Contract Management Division (ECMD), PW.

(2) Management of hazardous waste will be IAW requirements in Appendix F of this regulation.

(3) Regulated medical waste will be processed IAW the MAMC supplement to this regulation.

b. Collected commingled recyclable material will be pre-processed at the sanitary landfill to recover recyclable material.

c. Solid waste will be disposed of by the contract service provider (LeMay) in an approved landfill.

6. RECYCLE CENTER (FORT LEWIS INSTALLATION).

a. A Recycle Center located near the Commissary and the Fort Lewis Post Office operates daily for processing recyclables. Recyclable commodities include such things as; paper, cardboard, metal (ferrous and non-ferrous), glass, plastic bottles, aluminum cans, and wood. The site is operated by the Refuse and Recycling provider LeMay Inc.

b. Operating hours of the Recycle Center are Monday – Saturday 07:30 – 16:00 daily. Current information about commodities accepted at the recycle center is also available by calling the Center (360-280-3999).

c. The Recycle Center will establish a schedule for the pickup of recyclable materials from activity collection points.

d. A 24-hour recycling hotline can be dialed for information on how to recycle, where to recycle, what to recycle, household hazardous waste disposal, troop area recycling, office area recycling and current events in recycling. The phone number is 966-2100.

7. DISPOSAL OF RECYCLABLE MATERIAL FROM MISSION ACTIVITIES. The following materials are considered recyclable. Disposal of each type of material for units and agencies on Fort Lewis will be as directed below. Sub-installations will establish local recycling programs appropriate for the types and quantities of material generated.

a. Metals. All types of metal must be segregated by type (i.e., steel, aluminum, etc.) and turned in to the to the Recycle Center. Metal must be cut into 4-foot lengths or smaller. Winch cable must be cut into 2-foot lengths or coiled and tied into a 3-foot coil. Appliances, with the exception of microwave ovens, are also accepted. Steel drums of all sizes are also recyclable. 55-gallon drums will be turned in through ENRD Environmental Services. Drums must be empty, clean, bungs installed and tight, and not be crushed (see Appendix E, *Hazardous Material Management,* this regulation). All other steel drums/cans will be empty, cut in half, and turned in to the Recycle Center as scrap metal.

b. Tires. Tires from appropriated fund activities will be turned in to the DRMO. Tires from non-appropriated fund activities must be adequately funded for disposal prior to turn-in to the DRMO. Disposal of tires from privately owned vehicles (POVs) is the responsibility of the owner.

c. Cardboard. Corrugated cardboard is composed of an inner fluting of material and one or two outer linings. Clean, brown paper bags may be mixed with corrugated cardboard. Wax or plastic coated corrugated cardboard is not acceptable. Non-contaminated corrugated cardboard will be placed into cardboard recycling containers or turned in to the Fort Lewis Recycle Center.

d. Wood Products.

(1) *Cargo pallets*. Serviceable pallets will be taken to DRMO. Unserviceable pallets will be taken to the Fort Lewis recycle center. Wood will not be placed in dumpsters.

(2) *Wood Waste*. Solid waste consisting of wood pieces or particles generated as a by-product or waste from the manufacturing of wood products, construction, demolition, handling and storage of raw materials, trees and stumps. This includes, but is not limited to, sawdust, chips, shavings, bark, pulp, hogged fuel, and log sort yard waste, but does not include wood pieces or particles containing paint, laminates, bonding agents or chemical preservatives such as creosote, pentachlorophenol, or copper-chrome-arsenate.

e. Mixed Paper Recycling (Blue Bins-Red Label). Mixed paper includes; catalogs and books, newspaper, telephone books, magazines, note paper, file folders, printed or copy paper and shredded paper. Shredded paper must be placed into sealed plastic bags then placed into the blue bins.

f. Mixed recyclables (Blue Bin-Green Label). Mixed recyclables include; rinsed aluminum and tin cans, rinsed glass bottles, rinsed milk or juice cartons, rinsed "bottle grade" plastic bottles. Note: "Bottle Grade" is defined as the neck of the bottle being smaller than the body of the bottle.

g. Batteries. Units and activities will turn in used batteries to their supporting Supply Support Activity (SSA). The SSA will deliver the batteries to the Installation Battery Shop operated by the Directorate of Logistics.

h. Used Petroleum, Oil and Lubricants (POL). See Appendix E, Tab 2, *Hazardous Material Management,* this regulation, for recycling and/or energy recovery procedures.

i. Recycle Bins. The bins at the Recycling Center are intended for deposit of recyclable materials only. Dumping of garbage in or around this area or in these containers is illegal and subject to punitive action.

9. MATERIALS NOT ACCEPTABLE FOR RECYCLING. Current information about commodities accepted at the recycle center is also available by calling the Center (360-280-3999).

10. UNAUTHORIZED DUMPING OF WASTES.

a. The dumping of wastes in unauthorized locations is illegal, unsightly, unsanitary, and requires undue expense to clean.

b. The dumping of hazardous substances, including the abandonment of containers (drums, cans, boxes, etc.) containing such substances is a violation of Chapter 173-303, Washington Administrative Code (WAC), *Dangerous Waste Regulations.*

c. The phrase "unauthorized dumping" is intended to be all inclusive, encompassing all types of improper waste disposal including household wastes, hazardous substances, construction and demolition wastes, yard wastes, and animal manure. The following are some examples of unauthorized dumping:

(1) Throwing, tossing, or dropping anything from a vehicle; failure to prevent wastes from blowing or dropping from a vehicle.

(2) Abandoning, or disposing of any material or waste outside of established procedures (see Appendix E, *Hazardous Material Management,* and Appendix F, *Hazardous Waste Management,* this regulation).

(3) Throwing, tossing, or dropping a can, bottle, or other wastes into a stream, reservoir, or any body of water.

(4) Dumping old appliances, tires, or other wastes in an unauthorized location.

(5) Abandoning a vehicle anywhere.

(6) Burying or disposing of waste in pre-existing excavations.

(7) Dumping or depositing solid waste generated off post or in family housing areas in on-post dumpsters.

d. Anyone observing an instance of unauthorized dumping will report the violation to the Military Police (Fort Lewis 967-3107; YTC 577-3236).

11. SOLID WASTES FROM POLICE AND CLEANUP ACTIVITY.

a. Disposal of solid waste collected during routine police and cleanup activity in the cantonment area, ranges, and field training areas will be IAW policy stated in this appendix.

b. Disposal of hazardous substances found during police and cleanup activity will be coordinated with Environmental Services at 967-4786 and disposed of IAW the policy in Appendix, F *Hazardous Waste Management*, this regulation.

(1) The hazardous substances are the responsibility of the finding unit and will be temporarily stored in the unit's hazardous waste (HW) accumulation area pending identification, documentation and pickup by Environmental Services.

(2) If movement of the substances from the discovery site presents an unacceptable safety or environmental hazard, or if large quantities make storage in the unit's HW accumulation area inappropriate, Environmental Services will coordinate disposal efforts.

APPENDIX H

AIR POLLUTION MANAGEMENT

1. PURPOSE. This appendix provides policy, responsibilities and procedures for the control and abatement of air pollution.

2. APPLICABILTY. The following is a list of activities which may have requirements contained in this appendix.

a. Stationary and Fugitive Air Pollution Sources (e.g., boilers, woodworking shops, solvent tanks, construction/demolition)

(1) Construction or install or contract for construction or installation – see paragraph 6, 7, 8 and 9.

(2) Modify, move, or contract for modification or movement – see paragraph 6, 7, 8 and 9.

(3) Remove – see paragraph 6.

(4) Operate – see paragraph 7, 8 & 9.

b. Burning, Outdoor and Indoor – see paragraph 10

(1) Firefighter Training.

(2) Fire Extinguisher Training.

(3) Wild Fire Fighter Training.

(4) Silvicultural Burning and Ecosystem Management.

(5) Other Types of Outdoor Burning.

(6) Indoor Burning.

c. Military Smoke Training (e.g., smoke generators, smoke artillery and mortars, pots, and grenades) – see paragraph 11.

(1) Conduct this type of training.

(2) Approve use of training lands for these types of exercises.

d. Asbestos – see Appendix X, *Toxic Substance Management,* this regulation.

(1) Abatement of building materials including performing and contracting

(2) Vehicle maintenance (e.g., brake shoes and gaskets).

(3) Own equipment/buildings (e.g., fire proof safes and fire doors).

(4) Issue housing quarters or buildings.

e. Ozone Depleting Chemicals (ODC's such as freon and halon) – see paragraph 12.

(1) Own equipment containing ODC's.

(2) Maintain equipment containing ODC's.

f. Mobile Sources of Air Pollution (e.g., cars and trucks) – see paragraph 13.

(1) Own or lease non-tactical vehicles on Fort Lewis (see paragraph for definition of tactical).

(2) Have employees that operate vehicles on Fort Lewis greater than 60 days a year.

(3) Drive a POV on Fort Lewis greater than 60 days a year.

(4) Mud, debris and unsecured loads on motor vehicles.

g. Commuter Trip Reduction – see paragraph 14.

(1) Have employees that drive to work.

(2) Drive to work as an employee of Fort Lewis.

h. Radon – see Appendix X, *Toxic Substance Management,* this regulation.

(1) Maintain Radon Mitigation Systems.

(2) Maintain buildings that contain Radon Mitigation Systems.

(3) Issue housing quarters or buildings.

(4) Own or occupy a building or housing quarters with a Radon Mitigation System.

3. KEY APPLICABLE REGULATIONS.

a. The Clean Air Act (CAA) Amendments of 1990. The Act, 42 U.S. Code 7401-7671q, Public Law (PL) 101-549, is composed of seven major titles, each of which addresses specific aspects of the national air pollution control program.

b. Fort Lewis Title V Air Operating Permit # 21277.

c. Other federal regulations that govern major Fort Lewis environmental programs contain provisions that pertain to air emissions.

(1) The Resource Conservation and Recovery Act (RCRA) has several provisions which regulate air emissions including releases from hazardous waste storage, treatment, and disposal facilities, open burning and open detonation of explosive wastes.

(2) The Toxic Substances Control Act (TSCA) requires certain wastes containing polychlorinated biphenyls (PCBs) to be burned in high efficiency boilers or furnaces for disposal.

(3) The Comprehensive Emergency Response, Compensation and Liability Act (CERCLA) requires site remediation projects to comply with all the substantive requirements of other laws, including the CAA.

(4) The Emergency Planning and Community Right-to-Know Act (EPCRA), also known as the Superfund Amendments and Reauthorization Act (SARA) Title III, requires the reporting of accidental releases to the environment of extremely hazardous substances, including air releases; and, when reporting thresholds for listed chemicals apply, requires annual reporting of releases from processes that use the chemicals, including air releases.

c. AR 200-1, *Environmental Protection and Enhancement,* mandates compliance with federal, state and local regulations concerning air quality.

d. The Washington Clean Air Act, Revised Code of Washington (RCW) 70.94, established regional air pollution control authorities with jurisdiction over the emission of air contaminants. Figure H-1 illustrates the regional air pollution control jurisdictions in Washington State. The following regional authorities have jurisdiction over Fort Lewis, Yakima Training Center, and Vancouver Barracks. Army Reserve Centers and other facilities supported by Fort Lewis should consult with their respective Environmental Office or Facilities Manager for guidance, who in turn will consult with the local air pollution authority.

(1) The Puget Sound Clean Air Agency (PSCAA) has jurisdiction in Pierce County, which contains the upper half of Fort Lewis.

(2) The Olympic Region Clean Air Agency (ORCAA) has jurisdiction in Thurston County, which contains the lower half of Fort Lewis.

(3) The Yakima Regional Clean Air Authority (YRCAA) has jurisdiction in Yakima County, which contains the lower half of Yakima Training Center.

(4) The Washington State Department of Ecology Central Regional Office has jurisdiction in Kittittas County, which contains the upper half of Yakima Training Center.

(5) The Southwest Clean Air Agency (SWCAA) has jurisdiction in Clark Count.

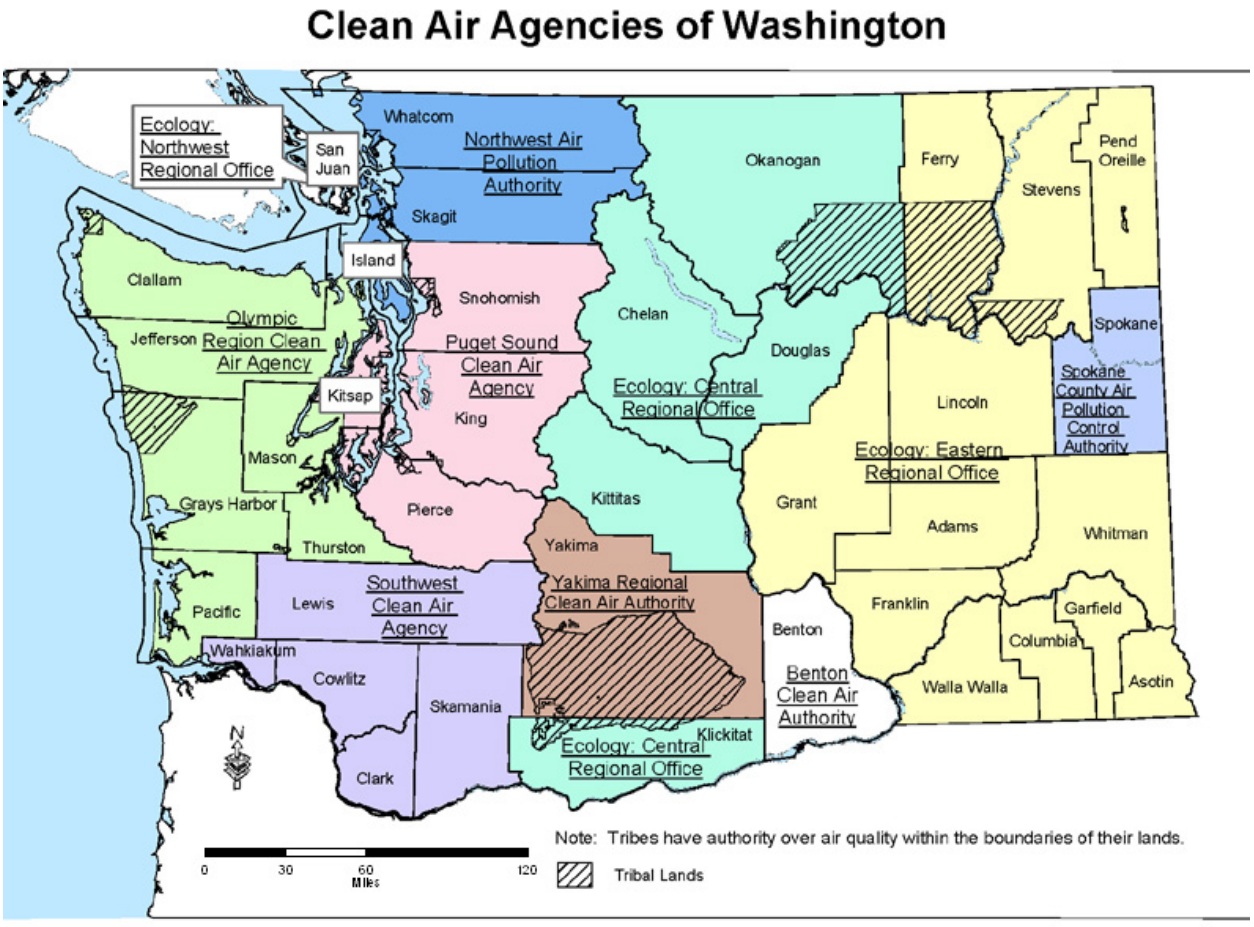
4. POLICY.

a. Identify, control and monitor air pollution emission sources to ensure compliance with federal, state and local emission and ambient air quality standards, policies and plans.

b. Obtain required permits for the construction and/or operation of regulated sources.

c. Obtain training and/or certification for operators of air pollution sources to comply with regulatory requirements and minimize emissions from those sources.

d. Cooperate with federal, state, regional and local air quality control authorities in meeting objectives of pertinent air quality control plans.



- Benton Clean Air Authority (Benton County only)
- Ecology: Central Regional Office (Chelan, Douglas, Kickitat, Kititas, Okanogan Counties)
- Ecology: Eastern Regional Office (Adams, Asotin, Columbia, Ferry, Franklin, Garfield, Grant, Lincoln, Pend Oreille, Stevens, Walla Walla, Whitman)
- Ecology: Northwest Regional Office (San Juan)
- Northwest Air Pollution Authority (Island, Skagit, Whatcom Counties)
- Olympic Regional Clean Air Authority (Clallam, Grays Harbor, Jefferson, Mason, Pacific, Thurston Counties)
- Puget Sound Clean Air Agency (King, Kitsap, Pierce, Snohomish, and Wahkiakum Counties)
- Southwest Clean Air Agency (Clark, Cowlitz, Lewis, Skamania, Wahkiakum Counties)
- Spoken County Air Pollution Control Authority (Spoken County only)
- Yakima Regional Clean Air Authority (Yakima County only)

Figure H-1. Local Clean Air Agencies.

5. RESPONSIBILITIES.

a. Public Works (PW) will exercise overall direction and coordination of the air pollution management program, and will execute the program through the Environmental and Natural Resources Division (ENRD). The ENRD will:

(1) Develop and disseminate policy on air pollution management.

(a) Provide guidance on policy and regulations concerning air pollution sources management that reflects DA, IMA and FORSCOM guidance, and pertinent provisions of air pollution control laws. Supplement and implement, as required, Federal Clean Air Act regulations, Clean Air Washington Act Regulations, and local Air Pollution Control Authority regulations.

(b) Maintain copies of all relevant federal, state, regional and local regulations; DoD and Army directives; and other pertinent documents on air emissions.

(c) Develop and maintain Air Quality Compliance Procedures (AQCP) for major stationary air pollution sources.

(d) Maintain liaison with air quality control agencies and authorities.

(2) Provide overview of air pollution control projects.

(a) Manage the identification, budgeting, reporting, engineering, design and construction of projects required to control and monitor discharges in accordance with applicable federal, state, regional and local air quality standards.

(b) Ensure that all new stationary sources of pollutants and all major modifications to existing stationary sources are designed to meet or exceed applicable standards.

(3) Obtain required state, regional and local air pollution permits, and submit reports required by pertinent air pollution regulations.

(4) Coordinate and monitor program execution.

(a) Conduct and maintain up-to-date emissions inventories of stationary sources of air pollution located on the Fort Lewis installation.

(b) Review emission data to identify and minimize or eliminate sources of air pollution.

(c) Inform units and activities with sources of air pollutants of all required operations and maintenance upgrades.

(d) Implement compliance procedures for the PW vehicle fleet to meet vehicle emission requirements stated in paragraph 13.

(e) Ensure the appointment of Authorized Technical Representatives (ATRs) in PW to validate requirements in contracts or requisitions for Class I ozone-depleting chemicals (ODCs), as stated in the ODC management policy in paragraph 12.

(5) Identify training requirements for air pollution compliance and coordinate for installation-level training to be provided as appropriate, including annual training on Operations and Maintenance Manual procedures for operators of selected air pollution sources.

(6) Provide the Fort Lewis Vehicle Emission Inspection and Maintenance (I/M) Coordinator and provide compliance reports to the State I/M Administrator.

b. The Directorate of Logistics (DOL) will: Manage the Fort Lewis Commute Trip Reduction (CTR) Program as outlined in paragraph 14 and provide the Fort Lewis Employee Transportation Coordinator (ETC).

c. Preventive Medicine Services, MAMC will:

(1) Monitor health and welfare aspects of air pollution from fixed sources, with support from PW and the Installation Safety Office.

(2) Assist the Command Safety Office and PW in identifying sources of hazardous pollutants and enforcing pertinent federal and state regulations on such items as asbestos and solvents.

d. The YTC will:

(1) Develop and disseminate policy on air pollution management.

(a) Provide guidance on policy and regulations concerning air pollution sources management that reflects DA, IMA and FORSCOM guidance and pertinent provisions of air pollution control laws. Supplement and implement, as required, Federal Clean Air Regulations, Clean Air Washington Act Regulations, and local Air Pollution Control Authority Regulations.

(b) Maintain copies of all relevant federal, state, regional and local regulations; DOD and Army directives; and other pertinent documents on air emissions.

(c) Develop and maintain air emission Standard Operating Procedures (SOPs) for major stationary air pollution sources.

(d) Maintain liaison with air quality control agencies and authorities.

(2) Provide overview of air pollution control projects.

(a) Manage the identification, budgeting, reporting, engineering, design, and construction projects required to control and monitor discharges in accordance with applicable federal, state, regional, and local air quality standards.

(b) Ensure that all stationary sources of pollutants and all major modifications to existing stationary sources are designed to meet or exceed applicable standards.

(3) Obtain required state, regional and local air pollution permits, and submit reports required by pertinent air pollution regulations.

(4) Coordinate and monitor program execution.

(a) Conduct and maintain up-to-date emissions inventories of stationary sources of air pollution located on the installation.

(b) Review emission data to identify and minimize or eliminate sources of air pollution.

(c) Inform units and activities with sources of air pollutants of all required operations and maintenance upgrades.

(d) Ensure the appointment of Authorized Technical Representatives (ATRs) to validate requirements in contracts or requisitions of Class I ozone-depleting chemicals (ODCs), as stated in the ODC management policy in paragraph 12.

(5) Identify training requirements for air pollution compliance and coordinate for installation-level training to be provided as appropriate, including annual training on Operations and Maintenance Manual procedures for operators of selected air pollution sources.

6. STATIONARY AIR POLLUTION SOURCE CONSTRUCTION, INSTALLATION, MODIFICATION, MOVEMENT, OR REMOVAL.

a. New or Modified Sources. The proponent for the construction, installation, or modification of an air pollution source will coordinate with ENRD or the appropriate environmental office. Additional actions may be required prior to execution of the project.

b. Notice of Construction. A Notice of Construction and Application for Approval must be submitted to and approved by the local air pollution control authority to construct, install, establish, or modify air pollution generating equipment/sources as per WAC 173-400-110. The project proponent will ensure completion and submission of these documents through ENRD or the appropriate environmental office.

(1) Examples of equipment/sources requiring a Notice of Construction and Application for Approval include:

(a) Fuel burning equipment such as boilers, heaters, or generators.

(b) Refuse burning equipment such as incinerators.

(c) Process equipment such as air strippers, asphalt plants, concrete plants, degreasers/parts washers, gasoline/avgas storage tanks, kilns, melting furnaces, rock crushers.

(d) Processes such as media blasting, dry cleaning, electroplating, fiberglass operations, soil venting, spray painting operations, and woodworking/other material working equipment using a vacuum system to collect dust.

(2) Responsibility for obtaining the Notice of Construction.

(a) Work done in-house: Coordination will be made with ENRD for project review and assistance in completing the application. ENRD will obtain the Notice of Construction and later submit the Completion Notice.

(b) Work done by contractor: The contractor will obtain the Notice of Construction and pay the associated review fee to PSCAA. The project proponent must ensure the contractor complies with the steps of the procedure below. The Notice of Construction can be obtained either by the construction or design contractor.

(3) Procedures for obtaining a Notice of Construction

(a) Complete the application including the Environmental Checklist (the proper forms can be obtained from PSCAA). The address on the Notice of Construction and Application for Approval for the property owner should be Department of the Army, Public Works, ATTN: AFZH-PWE, MS17, Box 339500, Fort Lewis, Washington, 98433-9500.

(b) Submit the application. If a contractor prepares the application, it will first be submitted to the Contracting Officer's Representative (COR), who will forward the documents to ENRD for review. If it is complete and accurate, the application will be approved for submittal to PSCAA by the contractor. If it is not complete or accurate, the contractor will be requested to submit a revised application. The contractor shall allow 14 days for review by the Government. The proponent shall allow 75 days for review, negotiation, and approval by PSCAA. This process time line applies to standard projects. If the project is a major air pollution source, which requires other environmental documentation and public comment, the process time should be adjusted accordingly.

(4) Implement the Best Available Control Technology (BACT) as determined by the regulatory authority in the air pollution source design and construction/installation/operation.

(5) Assure that all the standards/limits included in the Notice of Construction are implemented or met. This includes performance testing of the air pollution source, installing control equipment or monitoring equipment, and installing equipment that meets the specified emission limits.

c. Prevention of Significant Deterioration permit. When a major modification is made to a major air pollution source (Fort Lewis as a whole), a Prevention of Significant Deterioration permit must be obtained as per WAC 173-400-141. Contact ENRD or the appropriate environmental office regarding the definition of a major modification. This permit should be obtained during the design process or when the environmental documentation is being completed. Contact ENRD (967-5337) for further guidance.

d. General Conformity Determination. 40 CFR Part 51 requires that the federal government evaluate the affect of specific criteria air pollutants generated by projects funded by the federal government or that occur on federal land. The criteria air pollutants that must be evaluated are those for which the project area is in maintenance or nonattainment. Fort Lewis is in maintenance areas for Carbon Monoxide (cantonment area) and Ozone (Pierce County area). Yakima is in a nonattainment area for PM-10 (small slice of cantonment area). When the project will result in emissions of one or more of these pollutants:

(1) A general conformity applicability analysis must be completed which examines the direct and indirect emissions produced by a project.

(2) If the project emissions exceed the *de minimus* level for that pollutant or if the project does not qualify for one of the listed exemptions, a general conformity determination must be completed.

(3) Mitigative measures or emissions trading may be needed to continue the project.

b. Removal or movement of a Registered Source of Air Pollution. ENRD must be notified (967-5337) when a registered source of air pollution has been removed or planned for movement. The movement of a source may require one of the actions outlined under paragraph a above.

7. GENERAL OPERATING AND EQUIPMENT REQUIREMENTS FOR STATIONARY AND FUGITIVE AIR POLLUTION SOURCES.

a. Owners/operators of air pollution sources must obtain the proper permits, if applicable, as outlined in paragraph 6. above.

b. Owners/operators of air pollution sources must follow the Fort Lewis Air Operating Permit, applicable Air Quality Compliance Procedures (AQCP) and applicable source specific permits. Contact ENRD or the appropriate environmental office regarding applicable permits or AQCP.

c. Owners/operators of affected air pollution sources must prepare and maintain an Operation and Maintenance (O&M) Plan. Guidance on preparation of O&M Plans is at paragraph 8 below.

d. Any exceedances or violations by an air pollution source must be reported to ENRD or the appropriate environmental office verbally within one business day and written within three business days.

e. Air pollution source operators must perform testing, monitoring, record keeping, inspections and reporting requested by ENRD or required by an applicable AQCP, permit, or regulation.

f. All equipment must be maintained in good working order and operated following good industrial practice.

g. Air pollution monitoring devices must be calibrated and maintained according to manufactures instructions, industry practice, regulation or permit.

h. Monitoring gauges such as opacity, pressure differential monitors, and flow monitors will be marked with the permitted operating range as per manufactures instructions, industry practice, regulation, or permit.

i. An air pollution source must not emit visible emissions (i.e., visible smoke from a stack or dust from a bag-house) for more than three minutes in any one-hour, unless the source has a calibrated opacity monitor in which case the standard outlined in the permit or regulation will take precedence.

j. Waste derived fuel (e.g.,, waste oil) must not be burned in any Fort Lewis air pollution source without prior coordination with ENRD (967-5337).

k. Fugitive dust created from projects such as construction, demolition, or material transfer will be minimized by employing a technique such as water spray or a closed system. Fugitive dust must not be emitted from air pollution generating equipment such as boilers and incinerators.

l. An air pollution source must not emit air pollutants in such quantities and of such characteristics and duration which are likely to be injurious to human health, plant or animal life, property, or which unreasonably interfere with enjoyment of life and property.

m. An air pollution source must not emit odor bearing air pollutants. Source operators/supervisors must document any odor complaints received. They must investigate the complaint to determine if there is a violation of an applicable air quality requirement. Any violations will be corrected within 24 hours or the source will be shut down.

n. Persons must not conceal or mask the emission of an air pollutant, which violates air pollution regulations or causes a detriment to the health, safety, or welfare of any person.

8. GUIDANCE FOR PREPARATIONS OF O&M PLANS.

a. The Fort Lewis Air Operating Permit (AOP) issued by the Puget Sound Clean Air Agency (PSCAA) requires operators of equipment generating or controlling air pollution on Fort Lewis to have an O&M Plan. The purpose of the O&M Plan is to ensure that all equipment, including pollution control equipment, is operated in a manner consistent with manufacture's recommendations and good pollution control procedures and that the operator is prepared to address malfunctions as soon as practicable.

b. The minimum requirements for an O&M Plan and a suggested format for the Plan are provided below.

Title	An identifying document number and title for easy reference, an original document date, a revision date and number (when applicable), and the name and signature of the document owner and approving official. The process owner can be the operator with the approving official being the supervisor. Public Works activities will use procedures in EMS-240 Document Control.
Section 1	Purpose of Plan.
Section 2	Affected process and air pollution control equipment listing: Be as specific as possible including type of equipment, manufacturer, model, and serial number.
Section 3	References to supporting documents including applicable Environmental, Safety and Health requirements (including the applicable Air Quality Compliance Procedures); and Manufactures Manuals and Guidance Documents.
Section 4	Procedures for Operating and Maintaining Process and Air Pollution Control Equipment (may include manufacturer's manuals and guidance and/or locally prepared procedures).

a. Start up.

b. Shut down (including emergency shut down).

c. Normal operation (including minimization of dust where applicable).

d. Identify records that will be maintained to demonstrate the proper procedures for operation and maintenance were followed.

Section 5 Malfunction Corrective Action Plan.

a. Identify and establish a list of routine and predictable malfunctions (including a troubleshooting chart).

b. Identify and outline the actions to be taken when a routine malfunction occurs that provide for prompt repair of the malfunction.

c. A provision that needed parts must be available to repair identified routine malfunctions.

d. Identify and outline actions to be taken if a non-routine malfunction were to occur.

e. Outline a routine maintenance schedule for required maintenance tasks to ensure prevention of malfunctions when possible.

f. Identify records that will be maintained to demonstrate the Malfunction Corrective Action Plan was followed, which corrective actions were taken (including why and when), and preventive maintenance was completed.

Section 6 Periodic Monitoring of Process and Air Pollution Control Equipment Parameters to ensure proper performance.

a. List of the process and air pollution control equipment parameters that must be monitored to ensure proper performance.

b. Include the acceptable range for each parameter and the schedule for monitoring.

c. Identify any action that will be taken if a problem is found.

d. Identify records that will be maintained to demonstrate periodic monitoring is completed including indicating the acceptable range for the parameter and the current parameter reading, and any corrective actions taken.

Section 7 Periodic Inspection of Process and Air Pollution Control Equipment to ensure proper operation.

a. List of items to be periodically inspected on process and air pollution control equipment to ensure proper operation.

b. Including an inspection schedule.

c. Identify actions that will be taken when a problem is found.

d. Identify records that will be maintained to demonstrate process and air pollution control equipment was inspected and operating properly, and any corrective actions taken.

Section 8 Records.

a. List of all required records (including training and O & M Plan review records) which demonstrate the plan is followed, equipment is monitored and inspected, equipment is operated and maintained properly, and malfunctions are repaired promptly.

b. Records can be completed forms, checklists, logs or similar forms.

c. Identify the person responsible for completing and maintaining the records and the location of the blank and completed records.

d. Include any blank forms or checklists associated with the O & M Plan in this section.

e. Required provisions.

(1) Records must be fully completed.

(2) Records must be maintained on-site for 5 years, 2 years near the equipment.

(3) Records must be made available to PW-ENRD and Environmental Regulators.

Section 9 Training Plan.

a. Identify who must be trained.

b. Identify the training schedule.

c. Identify records that will be maintained to demonstrate the training was provided (including when, what was covered, and to whom).

Section 10 O & M Plan Review.

a. Provision requiring an annual review of the O & M Plan to ensure it is updated and accurate.

b. The review must ensure the O & M Plan is consistent with current procedures, manufacturer's recommendations and industry standards, and update typical malfunctions and actions.

c. Identify records that will be maintained to demonstrate the review was completed and the changes made to the document. This can be in the form of a revision history at the end of the O & M Plan.

9. SOURCE SPECIFIC OPERATING AND EQUIPMENT REQUIREMENTS FOR STATIONARY AIR POLLUTION SOURCES: This paragraph contains requirements, that are in addition to any requirements contained in source type specific AQCP.

a. Boilers.

(1) Heating oil will be sample tested in accordance with EMS document PWE-014 as per the Fort Lewis Air Operating Permit.

(2) Opacity violations must be corrected within 24 hours or the source must shut down until repaired.

(3) All natural gas/heating oil dual fired boilers must burn natural gas as the primary fuel. Heating oil can be burned during periods of natural gas curtailment by the gas company or testing. Burning heating oil for testing is limited to 14 days annually. If the testing is going to exceed 4 days annually, ENRD must be notified.

b. Spray Coating.

(1) All items will be spray coated in a paint booth. Exceptions to this rule include coating stationary structures or equipment, or the use of aerosol cans.

(2) All paint booths will contain dry filter systems, which use paint arresters (filters) that are at least 95% efficient for all types of products being sprayed.

(3) All exempted outdoor spray coating will use low VOC or no VOC coatings, when available, applied using High Volume Low Pressure spray guns or aerosol cans. Reasonable methods will be used to confine over-spray such as tarps, shrink wrap, or similar methods.

(4) All indoor spray coating will use High Volume Low-Pressure paint guns or aerosol cans.

(5) The paint booth filter manufacturer will certify the pressure drop range for their filters in each booth. That pressure drop range will be indicated on the manometer. When a new filter manufacturer is used, that manufacturer will certify the pressure drop range for their filters on that particular booth.

(6) If the pressure drop is outside the range certified by the filter manufacturer, the operation must shut down immediately until repaired.

(7) Any leaks from enclosed spray gun cleaners must be repaired within 15 days of discovery or taken out of operations until repaired.

(8) Any other violations must be corrected by the start of the next work shift after identification or the source must be shut down until repaired.

c. Gasoline Stations.

(1) No tank will have a capacity greater than 40,000 gallons.

(2) All tanks must have submerged fill lines that end within 6 inches of the bottom of the tank.

(3) All tanks greater than 1,000 gal must employ Stage I and II vapor recovery systems approved by the local air regulators. New or modified tanks must employ dual point Stage I vapor recovery and vacuum assist Stage II vapor recovery. Note: The Flying Club fuel point is categorically exempt from the requirement of having a Stage II vapor recovery system.

(4) The following controls and restrictions must be met:

(a) Only gasoline which meets the federal defined requirements for unleaded gasoline will be dispensed by the station; the dispensing of any gasoline which is produced with the use of lead additives or contains more than 0.05 grams of lead per gallon is prohibited; and no fuel other than unleaded gasoline will be dispensed into any motor vehicle which is equipped with a gasoline tank filter inlet which is designed for unleaded gasoline.

(b) Each pump from which unleaded gasoline is dispensed will be equipped with a nozzle spout having the following specifications: The outside diameter of the terminal end will not be greater than 0.840 inch (2.134 centimeters); the terminal end will have a straight section of at least 2.5 inches (6.34 centimeters) in length; and the retaining spring will terminate 3.0 inches (7.6 centimeters) from the terminal end.

(c) Any station will equip each pump that introduces the fuel into motor vehicles with a nozzle that dispenses fuel at a rate not to exceed 10 gallons per minute.

(5) Any problems found with the vapor recovery systems must be corrected as soon as possible, but no later than 7 days or the operation must be shut down.

d. Gasoline Transport Tanks (delivery to gasoline stations or bulk plants).

(1) Any gasoline tanker truck unloading gasoline to a storage tank must have Stage I vapor Recovery.

(2) The transport tank must be leak tested annually in accordance with Method 27 of 40 CFR 60 Appendix A. An inspection sticker must be displayed on the tank indicating the date of the inspection and the identification number of the tank. If it fails, it will be repaired and retested. The test report will be forwarded to ENRD within 5 business days of completion.

(3) The tank will be loaded and unloaded in such a manner as to minimize the buildup of gasoline vapors.

(4) There will be no liquid leaks in excess of 3 drops per minute from the tank and no more than 10 milliliters (ml) of liquid drainage per disconnect.

(5) Transport tanks will be bottom loaded.

e. Dust Generating Equipment with a Dust Collecting Vacuum and Ventilation System:

(1) If the collection system is located outside or it exhausts outside, it will utilize a bag-house to control the dust exhausted.

(2) For bag-houses: The bag manufacturer will certify the pressure drop range for their bags in each bag-house. That pressure drop range will be indicated on the manometer. When a new bag manufacturer is used, that manufacturer will certify the pressure drop range for their bags on that particular bag-house.

(3) Any violations found with bag-houses or cyclones must be corrected within 24 hours or the operation must be shut down until repaired.

f. Non-Contained Radionucleide Air Pollution Source: Sources must comply with WAC 246-247 and obtain a permit from the Washington State Department of Health, if applicable. A copy of any new or modified permit must be provided to ENRD within one week.

g. Waste Water Treatment Plant.

(1) An odor complaint system must be developed and implemented.

(2) The flare must be maintained in good working order. Any problems must be repaired within 24 hours of discovery or the operation must be shut down.

(3) The following information will be recorded: average daily flow, methane burned in boilers and flare. It will be provided to ENRD upon request.

h. Landfill Flare.

(1) An odor complaint system must be developed and implemented.

(2) The flare must be maintained in good working order. Any problems must be repaired within 24 hours of discovery or the operation must be shut down.

i. Degreaser/Parts Washers/Solvent Stills.

(1) Part Washers.

(a) Shall not use halogenated solvents (methylene chloride, perchloroethylene, trichloroethylene, 1,1,1-trichloroethane, carbon tetrachloride, and chloroform), nor solvents with a true vapor pressure greater than 0.6 pounds per square inch absolute (psia).

(b) Parts must be allowed to drain before removal.

(c) The solvent must drain into a storage container or the parts washer must have a lid.

(d) Solvent, use solvent, and solvent soaked rags must be stored in closed containers.

(2) Solvent stills must not have a batch capacity greater than 55 gallons.

(3) Vapor degreasers are not authorized.

j. Printing Operations.

(1) Rotogravure or flexographic printing facilities shall not be installed without approval from ENRD.

(2) Printing operations cannot use more than 2 gallons of ink material per day without approval from ENRD.

k. Welding Operations: Shall not use more than one ton of welding rods per day.

l. Dry Cleaning Operations: Shall not occur on Fort Lewis.

m. Electroplating/Anodizing Operations: Shall not occur on Fort Lewis without approval from ENRD.

n. Fiberglass and Other Resin Operations: Operations using styrene as the active monomer in the resin shall not be used without approval from ENRD.

o. Tire Buffing Operations: Shall not exceed 6600 tires per year.

p. Ethylene Oxide Sterilizes and Aerators: Shall not be used on Fort Lewis.

10. OUTDOOR AND INDOOR BURNING, AND SMOKE GENERATION FOR TRAINING.

a. Outdoor burning is not permitted except for the types of fires listed below, subject to the restrictions noted. Burning shall not occur whenever an impaired air quality burn ban has been called by the state or local air authority, or when a fire danger burn ban has been called by the appropriate fire authority. Fires must only contain natural vegetation, except fire fighter training as outlined below.

(1) Structural fires by the installation or sub-installation Fire Department for conducting fire-fighting training, with prior coordination through ENRD or appropriate environmental office to ensure that asbestos survey and permit requirements are met. The training must be conducted by qualified personnel and a training plan must be prepared and available for review by the local air pollution control authority upon request. Composition roofing, asphalt roofing shingles, asphalt siding material, debris from inside the structure, carpet, linoleum, and floor tile must be removed and disposed of prior to the training exercise. The fire department is responsible for responding to citizen complaints.

(2) Small, short-duration fires by the installation Fire Department for conducting fire extinguisher training. Qualified personnel must conduct the training

and a training plan must be prepared and available for review by the local air pollution control authority upon request. The fire department is responsible to citizen complaints. Combustible materials used in the training will be limited to:

(a) Less than 2 gallons of clean kerosene or diesel fuel per training exercise.

(b) Gaseous fuel (propane) as required per training exercise.

(c) Less than 0.5 cubic yards of clean, solid combustible materials per training exercise. Examples include seasoned wood, untreated scrap lumber, and unused computer paper.

(3) Prescribed burning by ENRD or appropriate environmental office for maintaining fire dependent ecosystems or improving forestlands, for instruction in the methods of forest fire fighting, and to prevent or abate a forest fire hazard with prior written approval from the Washington Department of Natural Resources.

(4) Fires for abating a fire hazard, when it has been determined that no reasonable alternative is available for abating the hazard and approval has been granted by the local air pollution control authority.

(5) Charcoal, propane, natural gas, or wood fires used solely for the preparation of food.

(6) Campfires, consisting of naturally occurring dry firewood, at designated recreation and training areas. Campfires must not be more than 4 feet in diameter or 3 feet in height.

b. Indoor burning is prohibited during any stage of impaired air quality (indoor burn ban) declared by the state or local air authority. Only properly seasoned fuel wood will be burned in a fireplace, wood stove or a like device. The smoke generated by the fire may not be visible for more than three minute in any one hour.

11. MILITARY SMOKE TRAINING.

a. Smoke generation operations using smoke generators, artillery and mortar smoke projectiles, smoke grenades or smoke pots are only permitted in accordance with the appropriate air permit or variance granted by the local air control agencies. The pertinent permit conditions that apply to Range Control or to units conducting smoke training are stated below.

b. The unit conducting the smoke mission will plan, conduct and report on smoke training IAW requirements in Fort Lewis Policy Statement #23, located on the Fort Lewis Intranet web page under publications. The unit will ensure that the following air quality compliance requirements are met:

(1) Follow all applicable standard operating procedures, field handbooks, and other operating guidance documents.

(2) Provide a copy of the Range Facility Management Support System (RFMSS) request or Fort Lewis form HFL 473, *Training Resource Request,* to ENRD or the appropriate environmental office with the following information noted: Unit designation, a point of contact, and a phone number; purpose and description of the smoke mission; location; date and time; and type/number of smoke devices to be used.

(3) Conduct an analysis of the proposed training scenario and the current meteorological conditions to ensure smoke will not cross the installation boundary, enter the cantonment area, or cross any public road in such concentration that may injure persons, damage property, or violate regulations.

(4) When training with M56 and M58 smoke generators, refer to Section 7.0, "Operator's Guide for Smoke Releases" in the Fort Lewis Final Air Quality Impact Study for smoke Training at Fort Lewis, Washington dated October 1999. In particular:

(a) Determine a release scenario, release location, and time period for the training.

(b) Obtain a weather forecast for the smoke training duration.

(c) Determine the stability class for each forecast hour using the FLWSTAB computer program.

(d) Determine restrictions for ambient PM10 standards and ensure that the area of adverse environmental impact lies totally with the Fort Lewis boundary. If it does not, relocate the release point and/or wait until more favorable meteorological conditions are forecast.

(5) When training with smoke pots or smoke grenades, maintain a safety buffer of 1500 meters for smoke pots and 300 meters for grenades from the installation boundary.

(6) Cease smoke training immediately if smoke crosses the installation boundary, if the smoke is in danger of crossing the boundary, or if meteorological conditions are expected to change in a way that would transport the smoke across the boundary.

(7) During training area checkout with Range Control, provide the amount of obscurant used (fog oil, graphite, artillery, mortars, pots, and grenades), the date and duration of the obscurant training, the name of the responsible person, and the analysis of the proposed scenario and the meteorological conditions conducted.

c. Range Control will:

(1) Track the daily and annual usage of fog oil, graphite, artillery shells, mortar rounds, smoke grenades and smoke pots to ensure that Fort Lewis daily and annual limits are not exceeded. the pertinent limits are the following:

(a) No more than 1,875 gallons of fog oil and 3,600 pounds of graphite in one day.

(b) No more than 42,120 gallons of fog oil and 75,000 pounds of graphite in a calendar year.

(c) No more than 100 mortar rounds, 65 artillery shells, 251 smoke grenades, and 24 smoke pots in one day.

(d) No more than 1,940 mortar rounds, 437 artillery shells, 28,670 smoke grenades, and 275 smoke pots in a calendar year.

(2) NLT 30 days after the end of each quarter, provide PW-ENRD with the calendar year to date totals of fog oil, graphite, and smoke munitions (by type) used.

12. MANAGEMENT OF OZONE DEPLETING CHEMICALS. Title VI of the Clean Air Act (CAA) of 1990 requires the phasing out of the production and use of substances known to deplete the earth's ozone layer. These ozone-depleting chemicals (ODCs) are used in many applications on military installations, most commonly in air conditioning and refrigeration (freon) and fire suppression (halon).

a. Background.

(1) An international policy known as the Montreal Protocol, revised in 1992, established a schedule to phase out the production and use of ODCs. The U.S. public policy enacted in the CAA of 1990 accelerates the phase out ahead of the Montreal Protocol timelines. The effective production phase out schedule is as follows: Halons as of 1 January 1994; methyl bromide as of 1 January 2001; and all other Class I ODCs as of 1 January 1996. The list of Class I ODCs is at Figure H-3.

(2) <u>The production of Class I ODCs (except methyl bromide) ceased as of 1 January 1996.</u> Stocks remain in the supply system but requisitioning will become increasingly difficult.

(3) Congress created the requirement for DoD to review the requisition process for Class I ODCs. The Army implementation requires formal review and approval by a General Officer or Senior Executive Service, known as the Senior Approving Official (SAO), whenever a contract or requisition calls for a Class I ODC for which there is no feasible technical alternative. The ODC requisition and approval process is at Appendix T, *Requisition of Ozone Depleting Chemicals*.

chlorofluorocarbon-11	chlorofluorocarbon-13
chlorofluorocarbon-12	chlorofluorocarbon-111
chlorofluorocarbon-113	chlorofluorocarbon-112
chlorofluorocarbon-114	chlorofluorocarbon-211
chlorofluorocarbon-115	chlorofluorocarbon-212
halon - 1211	chlorofluorocarbon-213
halon - 1301	chlorofluorocarbon-214
halon - 2402	chlorofluorocarbon-215
carbon tetrachloride	chlorofluorocarbon-216
methyl chloroform	chlorofluorocarbon-217
methyl bromide	

Figure H-3. List of Class I ODCs.

(4) The CAA of 1990 established the "no venting" rule, which makes it unlawful for anyone servicing/maintaining or disposing of an item of equipment that uses/contains ODCs, to knowingly vent or otherwise release the ODC to the environment.

(5) Sections 608 and 609 of the CAA require that equipment for recovering or recycling ODCs be obtained, be registered with the Environmental Protection Agency (EPA), and be present whenever services or repairs are performed on equipment containing or using ODCs. These sections also require that technicians who use the ODC recovery/recycle equipment be formally trained and certified in use of the equipment.

b. PW, through the ENRD, will:

(1) Develop and provide program guidance for compliance with Army timelines to phase out the use of ODCs.

(2) Maintain an inventory of installation equipment or systems that require the use of ODCs.

(3) Register ODC recovery/recycle equipment with EPA Region 10.

(4) Maintain a copy of training certificates for EPA-certified technicians/mechanics who operate ODC recovery/recycle equipment.

(5) Maintain a copy of appointment orders for Authorized Technical Representatives (ATRs) who review the requirement for ODCs in contracts and requisitions.

(6) Prepare and submit a CFC and Halon Report per DoD Directive 6050.9.

c. The Senior Mission Command G-4 will provide staff assistance to commanders of military maintenance units and supply organizations that perform equipment maintenance or requisition ODC stocks for equipment that uses ODCs. Assistance will be keyed to meeting responsibilities in paragraphs f and g below.

d. The DOL will assist units/agencies who own ODC recovery/recycle equipment in obtaining EPA-certified training through the Fort Lewis Logistics Assistance Office.

e. Commands/agencies that <u>own or manage equipment</u> requiring the use of ODCs are the PW Maintenance & Repair Division, PW Fire and Emergency Services Division, MAMC, Fort Lewis sub-installations, and tenant agencies such as AAFES and Defense Commissary Agency (DECA). Commanders/directors/chiefs of these organizations will:

(1) Maintain a current inventory of equipment requiring the use of ODCs. Provide an update to the Pollution Prevention Program Manager when equipment retrofit, replacement, or new installation occurs.

(2) Program and budget for equipment retrofit or replacement to meet the Army ODC phase out schedule. Non-Army agencies such as DECA will meet their agency phase out schedule approved by the Department of Defense.

f. Commands/agencies that <u>maintain, service or repair equipment</u> requiring the use of ODCs are the organizations listed in paragraph e above, plus the DOL, and military maintenance units. Commanders/directors/chiefs of these organizations will:

(1) Make all maintenance personnel aware of the CAA “no vent” rule stated in paragraph 13a(4) above.

(2) Require the presence and, when needed, the use of EPA-approved ODC recovery/recycle equipment whenever maintenance/service/repairs are performed on equipment that uses ODCs.

(3) Register all ODC recovery/recycle equipment, including new acquisitions, with the ENRD. The ENRD will register all Fort Lewis ODC recovery/recycle equipment with the EPA.

(4) Ensure that only certified technicians operate ODC recycle/recovery equipment. EPA-approved training for military organizations and Fort Lewis staff directorates is available through the Fort Lewis Logistics Assistance Office.

(5) Maintain copies of certificates of training at a central location and forward a copy of the certificate to the Pollution Prevention Program Manager.

(6) When performing service on equipment that contains 50 pounds or more of refrigerant, provide a written record to the equipment owner that documents the amounts of refrigerant recovered, recycled, and/or added. A sample "CFC Control and Documentation" format for the documentation is at Figure H-4. Tenant agencies such as DECA and AAFES may use their internal agency forms in lieu of the Control and Documentation form to record refrigerant use/replacement.

(7) Conduct proper disposal of ODCs and equipment using ODCs.

(a) Turn in unserviceable equipment to the DRMO for resale, or to the Fort Lewis Recycle Center for disposal as scrap metal. Complete a disposal certificate, using the format in Figure H-5 that will accompany the unserviceable equipment. If equipment is to be disposed of as scrap, remove ODC from the equipment before disposal, using approved ODC recovery equipment.

(b) Whenever possible, recycle or reclaim, rather than dispose of spent ODCs. Spent ODCs that are not recycled or reclaimed must be managed as a hazardous waste using guidance contained in Appendix F of this regulation.

(c) Notify the Hazardous Waste Management Section (HWMS) at 967-4786 of usable ODCs that are excess to mission requirements and will not be needed in the future. The HWMS will coordinate for distribution to other agencies that may require the ODC, turn in to the DRMO for resale, or if not needed at Fort Lewis, process for turn-in to the DoD reserve stockpile facility.

(8) If maintenance/service/repair is done by a contractor, ensure that the contractor complies with requirements above.

g. The organizations listed in subparagraph (2) below prepare/process requisitions for Class I ODCs or process contracts that require the acquisition of Class I ODCs. Commanders/directors/chiefs of these organizations will comply with the requirements in sub-paragraphs (1) and (2). Tenant agencies such as DECA and AAFES will comply with their agency policy for review of ODC requisitioning and minimization of ODC use.

(1) If the Class I ODC is locally purchased, or required in a contract that will procure the Class I ODC through commercial means, ensure that the requirement for the ODC is formally reviewed by an Authorized Technical Representative (ATR) who verifies that there is no feasible technical alternative for the ODC, and approved by the Fort Lewis Senior Approving Official (SAO). The Fort Lewis SAO is the Commander, I Corps and Fort Lewis. (Note: Class I ODCs (or products containing Class I ODCs) in the DoD/Army supply system have already undergone ATR/SAO review approval at DoD level and are exempt from the local review requirement. However, only required stocks should be requisitioned; avoid stockpiling.)

CFC CONTROL AND DOCUMENTATION

Building Number _____ Refrigerant Type _____

Recovered and Recycled? YES NO (Circle one)

Recovered for Reclamation? YES NO (Circle one)

Amount Recovered _____ Lbs._____ Oz.

New Refrigerant Used? YES NO (Circle one)

Amount Used _____Lbs. _____ Oz.

Type of Unit (Circle one)Refrigerator Freezer A/C Unit Heat Pump

Type of malfunction _____

Service performed _____

_____ _____
Signature of certified technician Date

Figure H-4. Sample Format For Documenting Amounts of Refrigerant Recovered, Recycled, And/Or Added (Use When Servicing Equipment Containing 50 Pounds Or More Of Refrigerant).

(2) Appoint an ATR, in writing, at the organizations listed below. The ATR will review and make a recommendation to the SAO on pertinent Class I requisitions using the procedures at Appendix T, *Requisition of Ozone Depleting Chemicals*.

(a) Utilities Division, PW.

(b) Fire and Emergency Services Division, PW.

(c) MAMC.

(d) DOL.

APPLIANCE DISPOSAL CERTIFICATION

_____(Organization/Agency)_____

This document certifies that all refrigerant _____ **was** _____ **was not** removed prior to disposal or shipment for disposal. (check one)

Equipment Description _____

Manufacturer _____

Model No. _____

Serial No. _____

Building or Location Removed From _____

Facility Shipped to (if other than on-site) _____

Date _____

Signature of Responsible Officer _____

Figure H-5. Sample Format For ODC Equipment Disposal Certificate (Accompanies ODC Equipment Being Disposed).

(e) DCA.

(f) 304th Support Center (CMMC).

(g) YTC.

(h) Senior Mission Command G-4.

(i) Company C, 1110th Signal Battalion (SATCOM Station, Camp Roberts).

(3) Provide a copy of the ATR appointment order/memorandum to the ENRD.

13. GENERAL REQUIREMENTS FOR MOTOR VEHICLES.

a. Fugitive Dust: Motor vehicles will not enter public roadways with deposits of mud, dirt, or other debris or unsecured loads.

b. Vehicle Emission Inspection and Maintenance Program.

(1) The following motor vehicles that fall within the model years shown in Table H-1 which operate on the installation over 60 days per year are subject to the vehicle emission testing requirement:

(a) Privately owned vehicles (POVs) including individually owned, commercial agency, and private organization vehicles, regardless of whether the vehicles are registered in a Washington State area not requiring emission testing, or are registered outside of Washington State. Vehicles located in State I/M test areas such as Pierce or King County and validly registered with the State are already in compliance with the Fort Lewis policy because these areas require emission testing in order to register the vehicle.

(b) Non-tactical vehicles owned, leased or operated by the U.S. Government including GSA, non-appropriated fund, administrative, and all other commercial design vehicles designed to carry personnel or cargo and not categorized as a tactical vehicle.

(2) The following motor vehicles are exempt from the vehicle emission-testing requirement.

(a) Retiree POVs are exempt, unless the retiree works on the installation or owns a vehicle that is driven by a family member who works on the installation. The State agrees that a retiree normally does not operate a vehicle on the installation over 60 days per year

(b) Tactical vehicles: The State accepted definition of a tactical vehicle is "*A motor vehicle designed to military specification or a commercial design motor vehicle modified to military specification to meet direct transportation support of combat, combat support, tactical, or relief operations, or for training of personnel for such operations".* In practical terms, this definition includes all vehicles listed on a military unit's Modified Table of Organization and Equipment (MTOE); these vehicles deploy with the unit for training and mission response worldwide.

c. Compliance requirements.

(1) Applicable vehicles require testing IAW Washington State emission requirements and compliance with the schedule in Table H-1.

(2) POVs: Emission testing is the responsibility of the individual owner or owning agency. An authorized Washington State inspection station must perform the emission testing. Proof of compliance will be a requirement for obtaining a decal from the vehicle registration office authorizing the vehicle to be operated on the installation.

(3) U.S. Government vehicles:

(a) Emission testing and compliance of GSA vehicles is the responsibility of the agency. A report of compliance by vehicle will be provided by GSA to the State I/M coordinator.

(b) Emission testing and compliance of nonappropriated fund vehicles is the responsibility of the appropriate owning agency (AAFES; DPCA). The responsible agency shall provide to the Fort Lewis I/M Coordinator an inventory of vehicles subject to emission testing NLT 31 January of each year and a report of compliance by vehicle NLT the 20th day of April, July, October, and December for vehicles tested during the previous quarter.

(c) U.S. Government vehicles that are neither GSA nor nonappropriated fund (e.g., Public Works) will be emission tested by McChord Air Force Base (AFB) under the Installation Inter-service Support Agreement. Owning agencies will coordinate directly with the 62d Transportation Squadron at McChord AFB (984-5592) for conduct of the emission testing. Owning agencies shall provide to the Fort Lewis I/M Coordinator an inventory of vehicles subject to emissions testing NLT 31 January of each year and a report of compliance by vehicle NLT the 20th day of April, July, October, and December for vehicles tested during the previous quarter.

(4) I/M program implementation.

(a) Proof of POV emission testing, if testing applies to the vehicle, is required to obtain a Fort Lewis registration decal. When the owner of a POV applies or reapplies for a Fort Lewis registration decal at the vehicle registration office, a

determination is made by the vehicle registration office concerning whether the owner needs to show proof of emission testing. The vehicle registration office will ensure that proof of testing is checked IAW the schedule at Table H-1. If a vehicle is not required to be emission tested until the following year, a decal valid for one year is issued and proof of emission testing is checked during the year that the vehicle becomes eligible.

(b) U.S. Government vehicles will be tested IAW the schedule in Table H-1.

(5) Major subordinate commanders, staff directors, and commanders/chiefs of tenant units and agencies will ensure that personnel are made aware of the requirement for Washington State emission compliance to operate a POV on Fort Lewis over 60 days per year.

(6) Individuals who own vehicles that operate on Fort Lewis which are subject to vehicle emission compliance will comply with all applicable requirements stated above.

d. Commute Trip Reduction (CTR).

(1) The DOL will be the proponent staff directorate for the CTR program.

(2) The ETC and a CTR Ad Hoc Committee will implement programs to achieve State goals, work to promote and publicize commuting alternatives to personnel at Fort Lewis, conduct surveys, and provide required State reports.

(3) Employers will participate in commuting alternative programs whenever possible.

Year	**Model Year of Vehicles Needing Inspection**
2002	1978, 1980, 1982, 1984, 1986, 1988, 1990, 1992, 1994, 1997
2003	1979, 1981, 1983, 1985, 1987, 1989, 1991, 1993, 1995, 1996, 1998
2004	1980, 1982, 1984, 1986, 1988, 1990, 1992, 1994, 1997, 1999
2005	1981, 1983, 1985, 1987, 1989, 1991, 1993, 1995, 1996, 1998, 2000
2006	1982, 1984, 1986, 1988, 1990, 1992, 1994, 1997, 1999, 2001
2007	1983, 1985, 1987, 1989, 1991, 1993, 1995, 1996, 1998, 2000, 2002
2008	1984, 1986, 1988, 1990, 1992, 1994, 1997, 1999, 2001, 2003
2009	1985, 1987, 1989, 1991, 1993, 1995, 1996, 1998, 2000, 2002, 2004
2010	1986, 1988, 1990, 1992, 1994, 1997, 1999, 2001, 2003, 2005
2011	1987, 1989, 1991, 1993, 1996, 1998, 2000, 2002, 2004, 2006
2012	1988, 1990, 1992, 1994, 1997, 1999, 2001, 2003, 2005, 2007

Table H-1. Vehicle Model Years Requiring Emission Testing

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APPENDIX I

WATER RESOURCES MANAGEMENT

1. PURPOSE. This appendix establishes policy, responsibilities and procedures for the control and abatement of water pollution and the conservation of water resources.

2. KEY APPLICABLE REGULATIONS.

a. The Federal Water Pollution Control Act, commonly known as the Clean Water Act (CWA), governs the control of water pollution in the nation. The CWA objective is to restore and maintain the chemical, physical and biological integrity of the nation's waters.

b. The National Pollutant Discharge Elimination System (NPDES) permit program requires that wastewater discharges into water bodies from point sources such as wastewater treatment plants be regulated by discharge permit.

c. The Safe Drinking Water Act (SDWA) regulates the safety of drinking water and applies to public water systems in the country. The State of Washington has primacy for enforcing compliance with the SDWA. The governing regulation affecting Fort Lewis is Chapter 246-290, Washington Administrative Code (WAC), for *Group A Public Water Systems.*

d. Chapter 173-200, WAC, *Water Quality Standards for Ground Waters of the State of Washington.*

e. Chapter 173-201a, WAC, *Water Quality Standards for Surface Waters of the State of Washington.*

f. AR 200-1, *Environmental Protection and Enhancement,* mandates compliance with the CWA, SDWA, and applicable state and local requirements.

g. AR 420-46, *Water and Sewage,* establishes policies and procedures for facilities that supply water and dispose of wastewater and industrial waste.

3. POLICY.

a. Assist the installation mission by ensuring that our training environment will maintain its high quality and continue to support training operations through time; protect human health by providing clean and healthful drinking water; ensure that stormwater and wastewater meet or exceed water quality standards; protect beneficial uses of all surface water bodies; and ensure that Fort Lewis achieves and maintains compliance with all applicable environmental laws and regulations. This policy applies to:

(1) All bodies of water, natural or manmade, including reservoirs, pools, ponds, lakes, wells, wetlands, streams, rivers, ditches and underground aquifers.

(2) All wastewater collection systems, treatment facilities and effluents.

b. Conserve water resources through the use of water-saving techniques, including devices, fixtures, methods, and recycle and reuse technology.

c. Provide clean, safe drinking water.

e. Cooperate with federal, state, regional and local authorities in local water planning efforts.

f. Monitor, evaluate, mitigate, and minimize any adverse effects of mission activities on water resources and water quality.

4. RESPONSIBILITIES. Responsibilities for compliance with the above stated policy items, and with the goals established by the CWA, SDWA, and other federal, state and local laws and regulations are stated below. Sub-installation commanders and facilities managers of ARNG and Reserve Centers will develop local plans for accomplishing the actions stated. Technical assistance for preparing the plans is available from the Environmental and Natural Resources Division (ENRD) and Utilities Division, Public Works (PW).

a. PW will exercise overall staff responsibility for water resources management and ensuring compliance with applicable laws and regulations.

b. The Environmental and Natural Resources Division (ENRD), PW, will:

(1) Coordinate drinking water quality, wastewater and storm water pollution abatement, and surface water quality.

(2) Conduct surface and ground water monitoring at selected representative locations to evaluate impacts of training and other activities on water quality installation-wide.

(3) Regulate gates, weirs, and outlet structures to control water levels and flows on surface water bodies within the installation.

(4) Review master plans, construction plans and activities, and other activities for controls to surface water run-off that minimize erosion and the discharge of pollutants.

(5) Conduct studies, analyze data, identify and eliminate/minimize all sources of pollutants in cooperation with Preventive Medicine Services, Madigan Army Medical Center (MAMC).

(6) Develop and coordinate policies and procedures for water resources management that reflect Army guidance and pertinent provisions of water pollution control laws.

(7) Apply for and obtain applicable permits required by federal, state and local regulations, including NPDES discharge permits..

(8) Coordinate with federal, state, regional, and local water quality control agencies and authorities.

(9) Provide technical guidance to sub-installations, Army National Guard (ARNG) and Reserve Centers.

(10) With Utilities Division, develop long-range programs and policies for wastewater treatment to achieve water quality objectives and goals of the CWA and other pertinent laws and regulations.

(11) With Utilities Division and Planning Division, manage the identification, budgeting, reporting, engineering, design and construction of projects intended to control and monitor wastewater discharges in accordance with applicable federal, state, regional and local water quality standards.

c. The Utilities Division, PW, will operate water supply and wastewater treatment facilities in accordance with all applicable laws and regulations, and will:

(1) Coordinate the installation water conservation program.

(2) With ENRD, develop long-range programs and policies for wastewater treatment to achieve water quality objectives and goals of the CWA and other pertinent laws and regulations.

(3) With ENRD and Planning Division, manage the identification, budgeting, reporting, engineering, design and construction of projects intended to control and monitor wastewater discharges in accordance with applicable federal, state, regional and local water quality standards.

(4) Coordinate water conservation practices for reducing water consumption.

(5) Establish policies for the control and disposal of storm water and industrial wastewater.

(6) Apply for and obtain maintain potable water permits required by federal, state and local regulations.

(7) Submit discharge (DMR) and other required reports in accordance with permit schedules.

(8) Construct, operate, and maintain waterworks, wastewater treatment facilities, storm water treatment facilities, and their associated distribution systems at Fort Lewis in accordance with applicable laws, regulations and directives.

(9) Provide training for operators of waterworks and wastewater treatment plants to meet the levels of proficiency consistent with the operator certification requirements of the state.

(10) Design and construct water supply wells which comply with specific regulatory requirements.

(11) Maintain inventories and drawings of water, storm water, and wastewater distribution systems.

(12) Coordinate with federal, state, regional, and local water quality control agencies and authorities.

(13) Provide technical guidance to sub-installations, Army National Guard (ARNG) and Reserve Centers.

(14) Develop and maintain the following written plans or programs for Fort Lewis:

(a) Comprehensive Water System Plan.

(b) Cross-Connection Control Program.

(c) Storm Water Design and Construction Manual.

(d) Drought Contingency Plan.

d. The Preventive Medicine Services, MAMC will coordinate the accomplishment of the Medical Command (MEDCOM) policy and responsibilities pertaining to water quality.

e. Other staff directorates, activities and subordinate commands on Fort Lewis will:

(1) Comply with Fort Lewis requirements stated in paragraph 5 below.

(2) Incorporate appropriate procedures into unit SOPs, tactical SOPs and daily activities to assist in complying with Fort Lewis policies concerning water resource management.

(3) Contact ENRD (967-5337) for guidance when any proposed action or project has the potential (or if there is a question as to the potential) to affect a water resource. ENRD will coordinate with the Utilities Division and Planning Division as necessary.

5. WATER QUALITY REGULATIONS, STANDARDS AND PROCEDURES. The actions described below are major aspects of water resource management on Fort Lewis. Compliance with applicable requirements is mandatory for all organizations and personnel on the installation. Additional details are available from ENRD, PW.

a. Water Pollution Abatement.

(1) Storm water pollution prevention.

(a) Design and construction plans for storm water drainage structures will be in accordance with the Fort Lewis Storm Water Manual. The plans will be reviewed and approved by PW.

(b) ENRD will conduct annual inspections of unit/agency facilities and activities in the cantonment area for storm water pollution prevention practices. A report of the inspection will be provided to the unit/agency for information and correction of any deficiencies noted.

(c) Storm water pollution prevention training will be incorporated in the Environmental Operations Management Course and Environmental Compliance Inspection Course conducted by the ENRD.

(d) Vehicle maintenance activities are not permitted in housing areas, barracks areas, or parking lots.

(e) All exterior vehicle washing will be conducted at one of the three consolidated vehicle wash racks on post. Soap or detergents will not be used at the wash racks. External vehicle washing is prohibited at unit wash racks and commercial (AAFES) wash facilities. All drain/hull plugs shall be re-installed prior to departing a wash rack or motor pool.

(2) Control of industrial wastewater discharges.

(a) All discharges from industrial processes (e.g., steam cleaning) into the sanitary wastewater system require approval by ENRD and Utilities Division.

(b) Units/agencies using the centralized vehicle wash facilities will comply with procedures stated in Fort Lewis Staff Memorandum (FL SM) 420-1, *Operation of Centralized Vehicle Wash Facilities.*

(c) Operation of grease racks and oil water separators, and other motor pool activities that could potentially cause water pollution will follow the guidelines outlined in Appendix M, *Environmental Compliance for Operations at Motor Pools.*

(d) Water and soap from dining facility outdoor washing of garbage cans, field kitchen equipment or other items will not be allowed to run into streets or storm drains.

Only that area designated for washing which empties into the sanitary wastewater system will be used. Grease and garbage will not be dumped into storm drains.

(e) Wastewater returned to the cantonment area from field training operations will be collected and disposed of as stated in Appendix L, *Environmental Compliance During Field Training.*

(f) Hazardous materials will be stored and handled in a manner that will minimize the potential for spills which could release material into storm drains or the sanitary wastewater system. The storage and handling of hazardous materials is prescribed in Appendix E, *Hazardous Material Management,* this regulation.

(3) Control of discharges to the sanitary wastewater system. All connections that discharge into the sanitary wastewater system require approval by ENRD and Utilities Division.

b. Water Pollution Abatement During Field Activities.

(1) Field Training Events. See Appendix L, *Environmental Compliance During Field Training,* for requirements regarding the following field activities that have potential to impact water resources. For additional information, contact ENRD (967-5337):

(a) Digging of individual, equipment, or vehicle positions.

(b) Wheeled and tracked vehicle maneuver.

(c) Stream crossings.

(d) Field sanitation.

(e) Activities near or on water bodies.

(f) ROWPU training.

c. Protection of Drinking Water Quality.

(1) Drinking water quality will be managed by the ENRD and Utilities Divisions in accordance with the Comprehensive Water System Plan.

(2) The installation of on-site water filter systems in facilities and offices requires approval by Utilities Division.

(3) Cross-connection control (backflow protection).

(a) All installations of backflow protection devices will be approved by the Utilities Division.

(b) No connection will be made between a potable water line and any other line or container carrying a non-potable fluid, such that it is possible for the non-potable fluid to enter the potable system by backflow. The Utilities Division (966-1684) will be contacted whenever the potential for this to occur is discovered or suspected.

(c) Construction and design plans will be reviewed by the Utilities Division and Planning Division for compliance with cross-connection control requirements. Cross-connection control devices will be installed on potable water systems in accordance with the Cross-connection Control Plan.

(d) Annual testing of backflow prevention devices in buildings and facilities maintained by PW will be coordinated by the M & R Division and Utilities Division. All other water users on Fort Lewis will ensure completion of the testing and will submit results to the Utilities Division.

(4) Wellhead protection.

(a) All construction and design within wellhead protection areas (the recharge zones around drinking water wells and springs) requires approval by the Utilities Division.

(b) Training within wellhead protection areas is prohibited unless approved by the Utilities Division.

(c) Wellhead protection will be managed by the Utilities Division in accordance with the Wellhead Protection Plan.

d. Water Conservation.

(1) Schedules for watering of lawns and grass areas are determined by the Utilities Division. Under severe conditions, stricter requirements than those published may be imposed. Water users should monitor watering activities to prevent sprinkling of paved areas and runoff into streets and storm drains.

(2) Washing of privately owned vehicles (POVs) should be accomplished with minimum water usage by confining water use to one wet down for washing and one rinse. At no time will equipment or vehicles be washed in streams, creeks, range ponds or other surface waters. Individuals should make maximum use of established POV washing facilities.

(3) Faucets and valves not in use should be turned completely off. Leaking faucets, valves, toilets, and water lines should be reported immediately to the PW service order desk (967-3131).

6. REPORTS AND INVESTIGATION OF COMPLAINTS. Complaints about drinking water quality will be submitted to the Utilities Division (966-1684). Complaints about other types of water pollution will be submitted to ENRD (967-5337), who will coordinate with the Utilities Division if required. Complaints from off-post sources will be referred to the Public Affairs Office (967-0146). Inquiries from state or federal agencies regarding pollution reporting or investigations will be referred to the ENRD.

APPENDIX J

TRAINING REQUIREMENTS

1. PURPOSE. This appendix establishes training requirements for those individuals performing duties that involve storage or use of hazardous material (HM), generation of hazardous waste (HW), conducting down range police call, or contact with asbestos containing material (ACM).

2. GENERAL.

a. Federal, State and Army Regulations require that individuals who perform functions involving HM/HW/ACM be trained to know the hazards and precautions for the HM/HW/ACM with which they work.

b. Every employee who performs any function regulated by the HM/HW/ACM regulations may not perform that function unless he or she has received training, both initial and recurrent, that includes:

(1) General awareness/familiarization training.

(2) Function-specific training.

(3) Safety training.

(4) Testing.

c. Completion of the Environmental Compliance training courses does not represent qualification for certification IAW OSHA or other regulated Hazardous Material Technician (HMT) or Hazardous Waste Technician (HWT) qualifications or programs. The title “HMT” and “HWT” is solely for local use and only indicates the bearer of the title as having attended the required training needed to perform HM or HW management at the organization level on Fort Lewis.

3. TRAINING COURSES.

a. Environmental Compliance.

(1) Environmental Operations Management Course. A 6-hour classroom training course, taught by ENRD Operation Branch, which covers Federal, State, and Army environmental regulations and requirements. The first 3-hours will address specific procedures for ordering HM, storing HM; controlling HM; reporting requirements and an overview of the Fort Lewis HM Management System. The second 3-hours will address pollution prevention; troop area recycling and recycling incentives; program implementation; spill response and an overview of the Fort Lewis HW Management System.

(2) Environmental Compliance Inspector Course: A 3-hour classroom training course, taught by ENRD Environmental Compliance Inspection Team, which covers the procedures and record keeping required to operate a HM storage area and a HW accumulation facility to maintain compliance with appropriate environmental requirements.

(3) Annual Refresher. A 2-hour classroom course, taught by ENRD Operations Branch, which provides required annual refresher training and identifies changes in environmental laws/regulations and their applicability to Fort Lewis.

b. Down Range Police Call. A 15-20 minute training class taught by ENRD Operations Branch, which provides proper safety procedures to be followed when any hazardous substance is discovered during down range police call duties.

c. Asbestos.

(1) Certification Courses.

(a) Asbestos Worker, basic course. A 32-hour course given prior to deployment in the activity requiring certification. Course consists of: asbestos physical characteristics, types of products, health hazards, personal protective equipment, medical and air monitoring, work practices, hygiene practices, additional OSHA issues, regulations overview, and hands-on training (14 hour minimum). A 100-question closed book exam with 70 percentile is required to pass.

(b) Asbestos Worker, annual refresher. A 8-hour course that reviews all basic course topics, and specifically addressing industry changes in the last year.

(c) Asbestos Supervisor, basic course. A 40-hour course given prior to deployment in the activity requiring certification. Candidates require 1600 hours of specific experience to qualify. Course consists of: same basic study areas as in Worker course, with expanded emphasis in the areas of supervisory techniques, insurance and liability, specifications, air monitoring, and equipment calibration. A 100-question closed book exam with 70 percentile is required to pass.

(d) Asbestos Supervisor, annual refresher. A 8-hour course that reviews all basic course topics, and specifically addressing industry changes in the last year.

(e) Asbestos Building Inspector, basic course. A 24-hour course given prior to deployment in the activity requiring certification. Course consists of: asbestos physical characteristics, types of products, health hazards, Inspector functions and qualifications, legal liabilities and defenses, understanding building systems, public relations, the over all inspection and documentation process, friability and condition assessments, bulk sampling, personal protective equipment, record keeping and report writing, regulations overview, and field trip. A 50-question closed book exam with 70 percentile is required to pass.

(f) Asbestos Building Inspector, annual refresher. A 4-hour course that reviews all basic course topics, and specifically addressing industry changes in the last year.

(g) Asbestos Project Designer, basic course. A 24-hour course given prior to deployment in the activity requiring certification. Course consists of: asbestos physical characteristics, types of products, health hazards, asbestos construction projects, safety system design, personal protection equipment, other safety hazards, fiber aerodynamics and control, designing abatement solutions, final clearance process, budget/cost estimating, writing abatement specifications, preparing abatement drawings, contract prep and admin, legal liabilities and defenses, material replacement, other consultants' role, occupied buildings, regulations overview, and field trip. A 100-question closed book exam with 70 percentile is required to pass.

(h) Asbestos Project Designer, annual refresher: A 8-hour course that reviews all basic course topics, and specifically addressing industry changes in the last year.

(2) Non-certification Courses.

(a) Class II Material-Specific abatement training basic course. An 8-hour course (for intact, non-friable material that is not risk Class I material) that covers most topics of the asbestos worker basic course, but only those specific work practices for the material to be removed, with 2 hours of hands-on. OSHA requires knowledge retention testing of unspecified nature. Refresher is annual, with no duration specified, but reviews all basic course subject matter.

(b) Class III abatement training basic course, basic course. A 16-hour course for workers that remove asbestos-containing materials that do not exceed that quantity of material which can be contained in one bag NTE 60" x 60". The course covers asbestos physical characteristics, types of products, health hazards, personal protective equipment, medical and air monitoring, work practices, hygiene practices, additional OSHA issues, regulations overview, and hands-on training, plus the requirements for Awareness level training. Refresher is annual, with no duration specified, but reviews all basic course subject matter.

(c) Class IV Awareness level training. A 2-hour course for those personnel that contact but do not disturb intact, installed asbestos materials during the course of their work. The course covers asbestos physical characteristics, types of products, health hazards, locations of ACMs in the work area, recognition of damage, deterioration, and delimitation, contacts to report conditions of concern. Refresher is annual, with no duration specified, but reviews all basic course subject matter.

(d) Lead Based Paint.

(1) Training requirements

(a) The U.S. Environmental Protection Agency (EPA), the Occupational, Safety, and Health Administration (OSHA), and state and local agencies have established qualifications and training requirements for personnel who perform inspections, risk assessment, interim control, and abatement activities in lead hazard management.

(2) EPA training requirements. Individuals identified below are required (except for project designer) to be trained by an accredited training program, as defined by 40 CFR Part 745, Subpart L, and certified by EPA pursuant to 40 CFR Part 745.226 (See Federal Register, 29 August 1996, pages 45777-45830, "Lead; Requirements for Lead-Based Paint Activities in Target Housing and Child-Occupied Facilities; Final Rule). This EPA final rule establishes training and certification for lead-based paint activities mandated by the Toxic Substances Control Act (TSCA), Section 402.

(a) Certified Inspector. A person who conducts a surface-by-surface investigation to determine the presence of lead-based paint and the provision of a report explaining the results of the investigation of samples for the presence of lead in dust and soil for the purposes of abatement clearance testing.

(b) Certified Risk Assessor. A person who conducts an on-site investigation to determine the existence, nature, severity, and location of lead-based paint hazards, and the provision of a report by the individual or the firm conducting the risk assessment, explaining the results of the investigation and options for reducing lead-based paint hazards. A certified risk assessor also samples for the presence of lead in dust and soil for the purposes of abatement clearance testing.

(c) Certified Project Designer. A person who prepares abatement project designs, occupant protection plans and abatement reports. EPA does not require that a Certified Project Designer be used for work covered by 40 CFR Part 745, Subpart L. It is the building owner option to determine whether to use a trained project designer or not. EPA does, however, provide for training accreditation and certification in this discipline.

(d) Certified Supervisor. A person who supervises and conducts abatements, and who prepares occupant protection plans and abatement reports.

(e) Certified Abatement Worker. A person who performs abatement work.

(3) OSHA training requirements. The Occupational, Safety, and Health Administration (OSHA) has established training requirements for supervisors and workers that apply regardless if the work is considered abatement or interim controls. For on-site supervisors, designated OSHA competent persons, and workers who perform work activities covered by OSHA standards 29 CFR Part 1926.62 (lead in construction) and 29 CFR 1910.1025 (lead in general industry), training is required which complies with those standards for the specific type of work to be performed.

(4) State and local training requirements. In the State of Washington, the Department of Community, Trade and Economic Development has been tasked by the legislature to administer the EPA-authorized state lead based paint program. The program is currently in development. This document will be updated with the specific requirements as soon as they become finalized.

4. ATTENDEES.

a. Environmental Compliance.

(1) Environmental Compliance Officer (ECO). All ECOs will complete the Environmental Operations Management Course and the Environmental Compliance Inspection Course within 60 days after being appointed to the position by the appropriate commander or manager. Attendance at the Annual Refresher course is required annually.

(2) Hazardous Material Technician (HMT). All HMTs will complete the Environmental Operations Management Course and the Environmental Compliance Inspection Courses within 60 days after being appointed. Attendance at the Annual Refresher course is required annually.

(3) Hazardous Waste Technician (HWT). All HWTs will complete the Environmental Operations Management Course and the Environmental Compliance Inspection Courses within 60 days after being appointed. Attendance at the Annual Refresher course is required annually.

(4) Military/Civilian Supervisors. It is recommended that supervisors in organizations/activities that store or use HM and generate HW attend the Environmental Operations Management Course so they can receive an overview of environmental laws and regulations and their applicability to Fort Lewis.

b. Down Range Police Call. All personnel who perform down range police call duties will contact Environmental Services (967-4786) prior to going down range to schedule the required training.

c. Asbestos. Supervisors will determine which employees will attend which course based on an evaluation of the specific duties performed as compared to training requirements found in 40 CFR 763.92, 29 CFR 1910.1001, 29 CFR 1915.1001, and 29 CFR 1926.1101. Assistance in determining training requirements can be obtained by contacting the ENRD TSCA Program Manager at 966-1775.

5. RESPONSIBILITIES.

a. The ENRD will:

(1) Schedule and conduct the Environmental Compliance training as stated in paragraph 3a above.

(2) Schedule and conduct Asbestos training as stated in paragraph 3b(1)(b), (d), (f), (h) and 3b(2) and assist in coordinating the availability of training listed in paragraph 3b(1)(a), (c), (e), and (g) taught by outside training organizations.

(3) Conduct other HM/HW training as needed.

b. Subordinate commands, tenant units, directorates and activities will:

(1) Ensure that each ECO, HMT and HWT, appointed by memorandum of the appropriate commander/manager, completes Environmental Operations Management and the Environmental Compliance Inspection courses within 60 days after being appointed as an ECO/HMT/HWT, and receives Annual Refresher training annually.

(2) Ensure that individuals who work at HM storage facilities and HW accumulation sites are provided initial and sustainment training in their specific responsibilities.

(3) Conduct hazard communication training as required by FL Reg 385-5 and 29 CFR 1910.1200. Further guidance is provided in DoD Instruction 6050.5, DoD Hazard Communication Program. As a minimum, the training program must cover the following for all personnel who work with HM or HW:

(a) Potential exposure to physical and health hazards.

(b) Methods and observations used to detect the presence or release of a chemical.

(c) Explanation of warning labels, markings, and MSDSs.

(d) Exposure symptoms and first aid treatments.

(e) Precautions for safe use.

(f) Safe storage methods.

(g) Methods and procedures to extend shelf life of HM on-hand.

(h) Spill response guidelines.

(i) PPE and control devices.

(j) Waste disposal instructions.

(4) Conduct quarterly unit spill contingency plan reviews and rehearsals as stated in Appendix E, paragraph 17c(3) and Appendix F, paragraph 9b.

(5) Maintain a record of all required training, and the date conducted for each individual required to be trained.

c. Madigan Army Medical Center (MAMC) will:

(1) Develop a HM/HW training program that addresses unique MAMC requirements and conditions.

(2) Incorporate the training program with the MAMC supplement to this regulation.

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APPENDIX K

OIL AND HAZARDOUS SUBSTANCES SPILL CONTROL AND CONTINGENCY PLANS

1. PURPOSE.

a. Establishes policies and designates installation responsibilities for the control and abatement of discharges of oil and hazardous substances.

b. Emphasizes key provisions of the Fort Lewis Integrated Contingency Plan (ICP) and the Spill Prevention Control and Countermeasure Plan (SPCCP).

2. KEY APPLICABLE REGULATIONS.

a. The Clean Water Act (CWA) requires the preparation of a spill prevention plan and a integrated contingency plan for discharges of oil into water bodies.

b. Under Subtitle C of the Resource Conservation and Recovery Act (RCRA-C), owners/operators of facilities where hazardous waste is treated, stored or disposed of must have a contingency plan for response to any unplanned release of the wastes.

c. The Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) requires federal agencies to plan for emergencies and develop procedures for addressing oil discharges and releases of hazardous substances, pollutants or contaminants. CERCLA provides a list of hazardous substances and their release quantity subject to reporting.

d. The Clean Air Act (CAA) amendments of 1990 include accidental release prevention provisions that apply to a list of toxic substances, flammables and high explosives when these items are present in the threshold quantity for the item.

e. The Emergency Planning and Community Right-to-Know Act (EPCRA) requires that each Local Emergency Planning Committee (LEPC) prepare an emergency response plan for the release of extremely hazardous substances (EHS) covered under the Act. EPCRA also requires facilities where EHS are present in the specified threshold quantity to notify the LEPC of the quantity used/stored, and to notify the LEPC of any reportable releases of an EHS.

3. POLICY.

a. Handle, use, and store all hazardous substances in a manner that avoids or minimizes the potential for unauthorized discharge into/on land, air and water.

b. Ensure that storage facilities for oil/hazardous substances and accumulation areas for hazardous wastes incorporate safeguards such as dikes, catchment areas or

other secondary containment to confine/contain the accidental spill or discharge of the substances and to minimize the contamination of land, air and water resources.

c. Prepare and maintain plans that will ensure the capability to respond in emergency situations to promptly confine/contain and clean up discharges of oil and spills of hazardous substances that occur on Fort Lewis, its sub-installations, or the geographical area for which Fort Lewis has spill response responsibility.

4. RESPONSIBILITIES.

a. The Director of Public Works (DPW) will:

(1) Be responsible for the installation spill prevention and emergency response program, and execute the program through the Environmental and Natural Resources Division (ENRD).

(2) Designate the ENRD, RCRA Program Manager as the Installation On-Scene Coordinator (IOSC) for spill response at Fort Lewis. The IOSC (or qualified individuals designated by the IOSC as alternate IOSCs) will perform spill response functions as specified in the Fort Lewis ISCP.

b. The ENRD will:

(1) Prepare the Fort Lewis ICP and SPCCP to comply with all applicable regulations, and will implement the plans when required.

(2) Review and amend the Fort Lewis ICP and SPCCP when required.

c. Commanders of the Yakima Training Center (YTC) and Army Reserve Centers supported by Fort Lewis will prepare and maintain a ICP and SPCCP if applicable to their respective installations. The plans will be prepared in accordance with guidance contained in Chapter 8, AR 200-1 and DA Pam 200-1. Copies of the YTC plan will be provided to and maintained on file at ENRD.

d. Commanders of activities that generate hazardous waste (HW) or store hazardous material (HM) will:

(1) Ensure that a written activity-level spill prevention plan for the HW accumulation and HM storage areas is prepared and available on site. See Appendix E of this regulation for specific guidance.

(2) Ensure that personnel who work at the activities know the process for reporting accidental spills/releases of HM or HW to activate emergency response under the ISCP.

e. Staff directorates, activities and subordinate commands will:

(1) Implement the ICP and ISCP and execute responsibilities contained therein when directed, to include providing assistance and resources when requested by the Incident Commander (IC) or the IOSC.

(2) Prepare plans applicable to their operations, which supplement the ICP and SPCCP if needed.

(3) Provide information on facilities for listing in the inventory of potential spill sites in the SPCCP. If a facility that stores or uses POL or other hazardous substances is added to facilities controlled by the command/agency, or is no longer used, Environmental Services (967-5337) will be contacted so that the SPCCP list can be updated.

(4) Conduct spill contingency training as specified in Appendix J, 5b(4), this regulation.

5. ICP KEY PROVISIONS.

a. General.

(1) Federal, state and Army regulations require a ICP when the installation has the potential to spill oil or a hazardous substance in such quantity that it would be harmful to human health or welfare, or to the environment.

(2) The purpose of the ICP is to identify and assess potentially significant POL or hazardous substance spill sites on the installation so as to prevent or limit the potential for environmental contamination at the sites.

(3) The ICP will be formally staffed for review and amendment every three years. In addition, a review will be conducted when:

(a) A major change in facility design, construction, operation, or maintenance affecting the potential for spills of oil or hazardous substances occurs; or

(b) The EPA regional administrator directs amendment as an action following major spill incidents.

(4) The ICP will be certified by a registered professional engineer.

b. The Fort Lewis ICP contains a current inventory and key data about potential spill sites on the installation.

(1) The potential spill sites are listed within 10 categories:

(a) Category 1: Extremely Hazardous Substance (EHS) Storage Sites.

(b) Category 2: Directorate of Logistics (DOL) Maintenance and Hazardous Material Storage Sites.

(c) Category 3: Hazardous Waste Storage Facility (Defense Reutilization and Marketing Office (DRMO)).

(d) Category 4: Bulk Fuel Points / Refuel Facilities.

(e) Category 5: Bulk Fuel Oil Storage Facilities.

(f) Category 6: Motor Pools with Fuel Points.

(g) Category 7: Motor Pools without Fuel Points.

(h) Category 8: Other Major Potential Spill Sites.

(i) Category 9: Minor Potential Spill Sites.

(j) Category 10: Outgrant easements.

(2) Each listed site includes the following information:

(a) The name and telephone number of the person in charge.

(b) A description of the site and the site operating procedures.

(c) The potential for spills at the site.

(d) Equipment and supplies available at the site for spill response.

(e) Secondary containment on site.

(f) Site security measures.

(g) Inspections and records.

c. Guidelines for spill prevention and containment. Specific procedures for the effective and efficient spill notification, confinement/containment, cleanup, and disposal are provided. Hazardous substances and hazards of special interest to Fort Lewis are discussed.

6. SPILL PREVENTION CONTROL AND COUNTERMEASURE PLAN (SPCCP) KEY PROVISIONS.

a. General.

(1) Federal, state, and Army regulations require that contingency plans be prepared for emergency response to spills of oil or hazardous substances which threaten human health or welfare, or the environment.

(2) The purpose of the SPCCP is to describe the installation personnel, equipment, facilities, and procedures that are activated in response to hazardous substance spills.

(3) The SPCCP will be formally staffed for review and evaluation once every three years. In addition, a review will be conducted when one of the following occurs:

(a) The plan fails or has serious shortfalls in an emergency.

(b) Applicable regulations are revised.

(c) There is a significant change in design, construction, or operation at a key site that increases the potential for spills.

(d) The IOSC designation (the position, not the name) changes.

(e) The list of emergency equipment changes significantly.

b. The following general response procedures apply to spills occurring on Fort Lewis. Specific details are contained in the SPCCP.

(1) Discovery. Personnel who routinely work at potential spill sites will be trained to know the areas where spills or leaks could most likely occur and will inspect those areas regularly. Units and agencies responsible for potential spill sites will have inspection plans for the detection of spills and leaks at the sites.

(2) Notification. All spills, regardless of quantity, will be reported to the Fire Department immediately (telephone 911). The Fire Department will provide initial response and will notify the IOSC. Spill incidents are recorded in the Spill Incident Log maintained by the ENRD.

(3) Initial response. The unit/activity responsible for the facility/equipment and the spill will make every effort to confine the spill, <u>provided it can be done safely.</u> The Fire Department will provide the initial spill response team. The senior member of the Fire Department will assume control at the scene as the Incident Commander (IC). The primary function of the Fire Department is to eliminate all immediate threats to life or property and, within their capability, to confine the spill. When the IC and IOSC jointly

agree that immediate threats to life or property have been eliminated, the IOSC will assume on-scene control from the IC. Following IOSC assumption of control, Fire Department personnel will remain on the scene in a support role until released by the IOSC.

(4) Containment and cleanup. The next level of response will normally be from the ENRD. Under direction of the IOSC, Environmental Services and their spill responders will conduct spill containment operations and/or supervise spill cleanup. The majority of spills will not normally require resources above this level.

(5) Additional support. When additional spill response support is required which is beyond the capability of the Public Works (or, if the spill is significant, beyond the capability of Fort Lewis), the IOSC will coordinate to obtain the required resources, normally through contract.

(6) Command and control. The IC will take initial control at the spill scene and will relinquish control to the IOSC as discussed above. (See paragraph 6b(12) below for the role of the Installation RPO as an IC when the response is to an ionizing radiation emergency). The IOSC will establish an on-scene command post. The IOSC will be in contact with the Installation Response Operations Center, which will be manned by personnel designated in the ICP. The Response Operations Center will initially be the Fire Department Communications Center, then will be at Environmental Services in Building 1210, Fort Lewis. If the significance of the spill dictates, the Response Operations Center will relocate to the Fort Lewis Emergency Operations Center.

(7) Emergency response termination. The IOSC will terminate emergency response operations when the following conditions are met: All threats to life and property are eliminated; the spill has been contained and no further expansion to the environment will occur; and spill cleanup is routine and has begun. However, the IOSC will continue to supervise all operations until the site has been completely cleaned of contamination and any hazardous wastes are disposed of properly.

(8) Cleanup. The spilling organization will conduct cleanup operations under technical supervision of ENRD personnel when the IOSC determines that the cleanup is within the capability of spilling organization personnel to conduct, and that the personnel will not undergo unsafe exposure; otherwise cleanup operations will be performed by ENRD personnel or by qualified resources (e.g., contractor) coordinated through ENRD.

(9) Disposal. Whenever practical, the spilled substance will be recovered. All nonrecoverable material will be disposed of in an environmentally approved manner as determined by the IOSC.

(10) Reporting. The IOSC will ensure that telephonic and written reports on spills are provided to local, state, federal, and Army authorities in accordance with environmental regulations. Detailed reporting requirements are contained in the SPCCP.

(11) Post-incident actions. The IOSC will ensure that equipment and supplies used for spill response are maintained or replenished; an after-action review with key response personnel is conducted to assess the effectiveness of response actions; and revision of the ISCP and related plans is initiated if appropriate.

(12) Ionizing Radiation Emergencies. During ionizing radiation emergencies, once any fire threat is over, the Installation RPO will assume control as the IC from the Fire Department IC, and will direct operations, including spill control, warnings, isolation, decontamination, bioassays, and cleanup and disposal of radioactive materials. When the IC and the IOSC jointly agree that immediate radiation threats have been eliminated, the IOSC will assume on-site control from the IC.

c. SPCCP procedures will apply outside Fort Lewis when the spill involves Army units and is within distance for timely response as determined by the IOSC.

d. SPCCP personnel and equipment may be committed outside Fort Lewis in support of agencies handling non-Army spills when approved through Headquarters, Forces Command. Approval of Headquarters, U.S. Army Reserve and the Regional Support Command are also required when Reserve units are involved.

e. Resources available for all spill responses.

(1) Each unit/activity with potential for leaks/spills from POL handling and storage areas, fueling points or hazardous/toxic materials storage areas will maintain a supply of spill response equipment and supplies. Spill material supplies should be available to handle, at a minimum, a spill from the largest container in storage or use.

(2) Installation spill response equipment and supplies, and where located, that are available for handling Fort Lewis spills, are listed in the SPCCP.

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APPENDIX L

ENVIRONMENTAL COMPLIANCE DURING FIELD TRAINING

1. PURPOSE. This appendix provides implementing procedures for compliance with environmental requirements as they affect field training. The intent is to assist with conduct of realistic field training at Fort Lewis and its sub-installations in Washington State in an environmentally sustainable manner.

2. REFERENCE. Army Training Circular (TC) 3-34.489 *(The Soldier and the Environment and FM 3-11.4 (Environmental Considerations in Military Operations),* are excellent information references and guides for unit-level programs to meet environmental responsibilities. Appendix A of the TC provides a checklist that contains information to help prevent environmental damage and reduce environmental risks. Appendix H of the FM contains a checklist to assess the state of the unit's environmental program and the unit's compliance with environmental laws and regulations.

3. PLANNING THE TRAINING. Training that follows sound environmental practices requires that environmental considerations be included in the planning process. The process must determine the environmental conditions that may affect the proposed training, and the potential training impacts to the land, water, or air. Specific actions that need to be taken (or avoided) for meeting applicable environmental requirements must then be provided in training guidance and given appropriate priority during mission accomplishment.

a. Determine if a written assessment of environmental impacts is required.

(1) Federal, state and Army regulations require that the potential individual and cumulative environmental impacts of any action be considered before the action is implemented.

(2) The environmental impacts of most types of field training activities conducted at Fort Lewis and YTC have already been assessed in existing environmental documents and require no additional written assessment. However, some training exercises may require a written assessment of environmental impacts because of the size, duration, location or type of training planned. Contact the appropriate environmental office (the Environmental and Natural Resources Division (ENRD) at Fort Lewis, Building 2012, telephone 966-1780, or the Environmental and Natural Resources Division (ENRD-YTC) at YTC, Building 810, telephone 509-577-3402) if the exercise has one or more of the following characteristics:

(a) Task organization of Brigade level or higher.

(b) Of duration longer than 30 days.

(c) Activity with high potential for direct contamination of soil or water (e.g., river crossings and other operations on water bodies, and major field refuel or supply point operations involving storage or handling of over 1500 gallons of fuel).

(d) Activity that requires approval: Smoke generation; digging.

(e) Requires the removal or topping of trees.

(f) At an off-post location not controlled by the military, e.g., on State or National Forest lands. Refer to FL Reg 350-2, Appendices F and G, *Off-Post Training and Off-Post Land Use: Nonmilitary Resources*, respectively.

(g) A doubt exists about the requirement for environmental documentation.

(3) If preparation of environmental documentation is required, the appropriate environmental office will provide technical assistance. See Appendix C of this regulation for environmental documentation requirements.

b. Appoint a Point of Contact (POC) to coordinate environmental matters.

(1) The POC should be a knowledgeable individual from the planning headquarters who will be available from initial planning until completion of the training.

(2) Consider assigning this task to the organization Environmental Compliance Officer (ECO). Chapter 2 of this regulation requires an ECO to be appointed in writing at company/battery/troop level and higher.

c. Identify and resolve potential environmental conflicts.

(1) Examine the planned training area(s) on the appropriate Environmental Coordination Map (Fort Lewis or YTC) for off-limits or restricted training areas.

(2) During coordination with Range Control for scheduling of training areas, additional sensitive areas that may have been added since the Environmental Coordination Map was published may be provided, or restrictions based on current training area conditions may be imposed.

(3) Review the guidelines in paragraph 4 below for applicability to the planned training.

(4) Consult the ENRD/ENRD-YTC if the training requires it, or if an unresolved environmental issue exists.

(5) Organize the training so as to comply with all identified requirements, and include applicable guidance in mission orders and other training execution documents.

4. GENERAL GUIDELINES FOR USE OF TRAINING AREAS.

a. Do not conduct tracked and wheeled vehicle maneuvers, perform excavations, or establish bivouacs in areas protected by seibert stakes or designated as a Special Use Areas (SUAs). Seibert stakes are metal or plastic poles with highly visible colored band markings (red, yellow, white) emplaced at Fort Lewis and YTC to protect selected sensitive areas. Do not move, remove, or run over seibert stakes.

b. Make reasonable efforts to avoid damage to ground vegetation, shrubs and trees.

c. Do not cut live trees or brush at Fort Lewis unless approved by ENRD. At Fort Lewis, the use of dead or fallen trees, or branches from the lower 1/3 of trees, except where posted, is permitted. At YTC, cutting of both live and dead vegetation for any purpose, including camouflage, is prohibited.

d. Do not harass or intentionally harm fish and wildlife. If the training will kill fish or wildlife (e.g., survival training), coordinate the training with ENRD or ENRD-YTC, prior to implementation and preferably during the planning stage of the exercise.

e. Upon discovery of any historic or prehistoric cultural remains or artifacts, cease mission activities in the vicinity, take steps to prevent further disturbance, inform the chain of command immediately, and inform the appropriate Range Control of the discovery. Cultural sites protected by seibert stakes are off-limits to vehicle traffic or excavation. Do not remove seibert stakes.

f. Upon discovery of a potential hazardous waste site, i.e., Methamphetamine Lab, cease mission activities in the vicinity and immediately contact the military police. Do not attempt to investigate the site. Special training is available to assist units in dealing with the discovery of hazardous substances during down range events, see Appendix J, 3b, this regulation.

g. Conduct area police and clearance upon completion of training in accordance with the pertinent Range Regulations (FL Reg 350-30 for Fort Lewis, FL Reg 350-31 for YTC).

5. WHEELED AND TRACKED VEHICLE MOVEMENT.

a. Use only established roads and trails during movement to and from maneuver areas and ranges. Non-tactical off-road movement is prohibited.

b. Cross-streams and rivers only at approved designated hardened crossing sites which include bridges, low water crossings having sufficient tonnage ratings, or at authorized fording sites. Fording sites at Fort Lewis are shown on the appropriate Environmental Coordination Map. Fort Lewis crossing sites are physically identified with signs and are identified on the Fort Lewis military installation map. They include bridges or physically hardened fording sites. At YTC, crossings are permitted where roads cross-streams, at concrete fords, or where marked by seibert stakes.

c. During off-road movement:

(1) At Fort Lewis stay at least 50 meters from the ordinary high waterline of all reservoirs, wetlands, rivers/streams and other bodies of water unless a maintained road or designated crossing point exists for traversing the restricted area. At YTC, vehicle movement parallel to reparian drainages must remain 60 meters from drainages that have not been seiber staked.

(2) Operate vehicles in a manner that minimizes destruction of ground cover. Minimize sharp turns (e.g., tank neutral steer) that cause ruts in the soil.

(3) Exercise care in wooded areas to avoid damage to vegetation.

(4) Avoid unnecessary neutral steer turns.

d. Do not use ditches and road shoulders as tank trails, or drive on erosion control structures, including earthen dams and gabions constructed across a natural depression, ditch, gully or ravine.

6. REVERSE OSMOSIS WATER PURIFICATION UNITS (ROWPU).

a. Fort Lewis ROWPU operational restrictions:

(1) The following locations are authorized for ROWPU training:

Location	Time of Year
Lewis Lake	Unrestricted
Sequalitchew Lake	Unrestricted
Solo Point (salt water)	Unrestricted
Nisqually River (downstream from bridge)	Unrestricted
Chambers Lake	ENRD Approval Required
Wright Marsh	ENRD Approval Required
Johnson Marsh	ENRD Approval Required

(2) All wastewater, backflush, and excess product water must be discharged to a dug sump at least 50 meters distant from the water source. The rate of discharge must not exceed capacity of the sump so as to avoid overflow, which could result in discharge into bodies of water and soil erosion. No wastewater or product water can

be returned to the source, or any body of water. If power tools are used to dig the sump, a digging permit must be obtained, see Appendix S. All excavations must be filled in and graded before leaving the site.

(3) The use of flocculates and disinfecting agents is authorized, provided they are discharged at diluted concentrations in the normal course of the ROWPU operation. The disposal of any excess or unused chemical concentrate or undiluted chemical in the field is strictly prohibited.

(4) If use of a dug sump for disposal is not feasible or is deemed inappropriate, the wastewater and excess product water must be containerized and disposed of in the cantonment area sanitary sewer system. All such disposal must first be coordinated with the Wastewater Treatment Plant, 967-7453.

(5) Any questions concerning ROWPU restrictions should be directed to the ENRD Water Quality Program Manager, 967-2326.

b. YTC ROWPU operational restrictions:

(1) The following locations are authorized for ROWPU training:

Location	Time of Year
Dead Truck Farm Pond	Year round, access limited by weather
Upper Foster Pond	Year round, access limited by weather
East Coyote Pond	Year round, access limited by weather
Lambing Camp Pond	Year round, access limited by weather
Kiddies Pond	Year round, access limited by weather

(2) Product (purified) water – Water resulting from operation of water purification units should be discharged at a minimum distance of 100 meters from any water body at a rate no greater than 25 gallons per minute.

(3) Waste (filtrate) water, discharged during the filtration process can be discharged back in to the source pond. Water discharged back in to the pond cannot contain any contaminants introduced through the purification process (e.g., flocculates and disinfecting agents).

(4) Backwash water and water containing flocculates and disinfection agents must be disposed of at a gray water pit (properly sited and approved through the dig permitting process), or in to the sanitary sewer system at the YTC Cantonment Area. All ROWPU operations are coordinate with the YTC PW/ENRD at (509) 577-3500.

7. DIGGING.

a. Digging or soil excavation with mechanical equipment ("See" tractor, Dozer, Backhoe, Deuce, etc.) require a permit. Steps in obtaining a permit are provided in Appendix S, *Digging Permit Procedures,* this regulation. Obtain the permit before performing any digging. Have the permit available on site when digging. Additional specific digging policies and procedures for YTC are found in the YTC Using Unit SOP, found at the YTC PW web site (https://yakima-pw.lewis.army.mil/home.htm).

b. Dig only in those areas for which the digging permit was approved.

c. Consistent with training objectives, minimize the digging of personnel and weapons positions and other emplacements in areas of severe soil erosion.

d. Avoid sitting tank traps and hull defilade positions in or near drainage channels or on slopes exceeding thirty percent or within 50 meters of lakes, streams, and wetlands.

e. Refill grade and compact all emplacements dug during training exercises, including severe rutting, upon completion of the training unless the appropriate Range Control has approved the site to be left open.

f. If the ground is severely disturbed by the digging operations, provide the locations to the appropriate Range Control upon completion of training.

g. If cultural artifacts are discovered during the digging, follow the guidance stated in paragraph 4e above.

8. ASSEMBLY AREA ACTIVITIES.

a. Locate assembly areas at least 100 meters away from lakes, streams, wetlands, other water bodies, and seibert staked areas. Select areas that do not drain into water bodies.

b. Where compatible with the training objectives, locate major (battalion and brigade) assembly areas at YTC at sites designated for these activities. Information about these sites is available from YTC Range Control.

c. Follow required management practices for hazardous material (HM) and hazardous waste (HW). See paragraphs 8 and 9 below.

d. Establish field refuel sites and conduct refuel operations in accordance with applicable guidance in FM 10-69 *(Petroleum Supply Point Equipment and Operations),* FM 10-68 *(Aircraft Refueling),* and FM 10-71 *(Petroleum Tank Vehicle Operations).* Conduct refueling activities only at established refuel sites at least 100 meters away from water bodies. Avoid drainage into the water bodies. At YTC stand off distance

from any drainage for refueling activities are: refueling is 200 meters; staging or bivouacking of refuelers is 100 meters.

e. Use “common sense” management practices during field maintenance of vehicles and equipment. Examples include the use of drip pans to protect ground surfaces; having POL-absorbing compounds readily available; and ensuring qualified leader supervision of high-risk operations such as engine/transmission removal.

f. If field maintenance on heating or air conditioning systems involves the use of ozone depleting chemicals (ODCs) such as freon, ensure the work is performed by properly certified individuals and with EPA-registered refrigerant recovery equipment available.

g. Follow field sanitation guidelines in FM 21-10 *(Field Hygiene and Sanitation).*

h. Field latrines, gray water, and soakage pits:

(1) Obtain a digging permit (See Appendix S of this regulation for digging permit procedures).

(2) Locate these facilities at least 100 meters away from water bodies. Avoid natural drainage into the water bodies, and stay away from seibert staked areas.

(3) Use portable chemical latrines as the first alternative if there are no fixed latrines at the training site.

(4) When chemical latrines are unavailable or their use is impractical, use field expedient (pit) latrines. Construct (and close!) pit latrines as described in FM 21-10. Range regulations require pit latrines to be properly marked and closed before departing the area.

(5) Do not use lime in latrines.

(6) Construct (and close!) gray water and soakage pits for liquid wastes from field showers/washing and kitchens as prescribed in FM 21-10.

(7) Do not dispose of POL products or containers in soakage pits. Return these to the cantonment area for disposal.

j. Field showers and kitchens.

(1) Locate these facilities at least 100 meters away from water bodies. Avoid natural drainage into the water bodies, and stay away from seibert staked areas.

(2) Do not install showers or field laundry units on ranges or training areas for more than a one-time use without approval of the ENRD/ENRD-YTC and Preventive Medicine Services, MAMC.

k. Vehicle washing is allowed only at installation designated vehicle wash facilities. Decontamination training operations are coordinated and approved through Range Control and PW/ENRD at Fort Lewis and YTC.

l. Ensure that solid waste (garbage, rubbish, refuse) is never buried or burned. Return all solid waste to the cantonment area for disposal.

9. MANAGEMENT OF HAZARDOUS MATERIALS (HM). Review the requirements for managing the storage and use of HM as stated in Appendix E, *Hazardous Material Management,* of this regulation. The following are particularly applicable to HM storage areas during field training:

a. Locate HM storage areas at least 100 meters away from lakes, streams, wetlands and other water bodies. Select areas that do not drain into water bodies.

b. Have a spill contingency plan available, and appropriate spill response supplies, tools and equipment on site. Designate and train personnel to implement the plan. See paragraph 10 below for spill reporting and response.

c. Store and manage HM containers, to include conducting inventories and inspections, following procedures in Appendix E of this regulation.

d. If the HM will be transported over a public highway, the transporting vehicle must be properly loaded and placarded. See Appendix E, paragraph 10 of this regulation.

10. ACCUMULATION AND DISPOSAL OF HAZARDOUS WASTES (HW). Regulations that govern the accumulation of HW are stringent and are as applicable to field training situations as they are in the cantonment area. Requirements for managing HW are stated in Appendix F *(Hazardous Waste Management)* of this regulation. The following are particularly applicable to HW accumulation during field training:

a. Site location and spill contingency preparedness as discussed in paragraph 8 above for HM also apply to HW accumulation areas.

b. The HW accumulation site and the HM storage area may be co-located, subject to certain restrictions. See Appendix F, paragraph 6, this regulation.

c. Manage HW containers, to include conducting site inspections, using procedures stated in Appendix F of this regulation.

(1) Secondary containment for a HW accumulation site is a regulatory requirement. The use of "Poly-safetypack" secondary containment systems is recommended. These systems are available on a loan (first come, first served) basis from the Fort Lewis Hazardous Waste Operations (967-4786) or from ENRD-YTC at YTC (577-3402).

(2) If the HW must be transported over a public highway, contact the ENRD (ENRD-YTC at YTC). HW can only be transported over public highways by an authorized transporter with an EPA identification number, and using a Uniform Hazardous Waste Manifest.

11. RESPONSE TO SPILLS OF POL AND OTHER HAZARDOUS SUBSTANCES. Quick and effective unit response to spills that occur in field training areas is critical, because of the time lag for installation spill response teams to arrive from the cantonment area after the spill has been reported.

a. Prepare a spill contingency plan for the specific training event.

(1) See Appendix E, paragraph 17 of this regulation for guidance on contents of the spill plan.

(2) The YTC Installation Spill Contingency Plan provides a sample unit spill contingency plan for units training at the YTC. The sample plan is also available from the YTC ENRD.

b. The following procedures apply to POL and other hazardous substance spills occurring in field training areas:

(1) Report all spills immediately, regardless of quantity, to the appropriate Range Control. Range Control will notify the Fire Department.

(2) If training is at an off-post area not controlled by the military, report the spill to the Fort Lewis or YTC Fire Department (253-967-5859 at Fort Lewis, 509-577-3117 at YTC). The Fire Department will contact the appropriate spill response agencies.

(3) Implement the unit spill contingency plan and take immediate action, within capability and safety constraints, to stop or confine the spill. Place emphasis on keeping the spill from entering water bodies or drainage into the water bodies.

(4) Continue unit efforts to stop or confine the spill until the spill response team, normally from the Fire Department, arrives.

(5) Upon arrival of the spill response team, provide support with personnel or equipment and supplies as directed by the team Incident Commander (IC) or Installation On-Scene Coordinator (IOSC), who will take charge of further response actions.

(6) When the spill has been confined and cleanup can begin, specific cleanup guidance will be provided by the IC or IOSC.

12. NOISE GENERATING ACTIVITIES.

a. Forecast all noise producing training such as artillery firing, demolitions, or live fire maneuver exercises to be conducted between the hours of 2200 and 0700, per Fort Lewis and YTC Range Regulations.

b. If the training includes the use of field expedient demolitions, road cratering, or other “non-routine” noise producing sources, contact the ENRD/ENRD-YTC.

13. AIR POLLUTING ACTIVITIES. Guidance and procedures are contained in Appendix H, paragraph 10a, *Air Pollution Management,* this regulation.

APPENDIX M

ENVIRONMENTAL COMPLIANCE FOR OPERATIONS AT MOTOR POOLS

1. PURPOSE AND APPLICABILITY. This appendix provides implementing guidance and states best management practices for compliance with environmental requirements pertinent to operations at motor pools. Guidance in this appendix applies to motor pools that are operated on Fort Lewis and its sub-installations.

a. The guidance in this appendix should be used to prepare a Standing Operating Procedure (SOP) specific to the facilities and conditions at the motor pool.

b. Contact the Fort Lewis Hazardous Waste Operations at 967-4786 (or the environmental office at the sub-installation) for technical assistance or additional information concerning requirements stated in this appendix.

2. COMPLIANCE ADMINISTRATION.

a. Unit environmental personnel. A unit Environmental Compliance Officer (ECO) and one or more Hazardous Waste Technicians (HWT) and/or Hazardous Material Technicians (HMT) are required by paragraph 2-12 of this regulation to be appointed and trained at company level and above. These individuals are key to environmental compliance at the motor pool. They are the unit liaison with the installation/sub-installation environmental office. They have knowledge of environmental requirements, particularly those that apply to the management of hazardous materials (HM) and hazardous waste (HW), which are present at most motor pools.

b. Training. Provide environmental compliance training to personnel who work at the motor pool that is specific to their duties. Paragraph 2-12, Appendix E, paragraph 5 i, and Appendix F, paragraph 5l of this regulation requires the following initial and sustainment training:

(1) The ECO, HWT, and HMT receive the installation Hazardous Material Management, Hazardous Waste Management, and Environmental Compliance Training within 60 days after appointment as an ECO/HWT/HMT, and receive Annual Refresher training.

(2) Hazard communication training as required by FL Reg 385-5.

(3) Quarterly spill plan familiarization training for personnel who will implement the plan.

c. Safety.

(1) Hazard communication station. Establish a hazard communication station, required by FL Reg 385-5, at a location accessible to motor pool personnel. A written program is required that explains how personnel are informed about the specific HM/HW hazards, and trained in the precautions to be taken. Contact the Fort Lewis Safety Office (967-3079) or appropriate sub-installation safety office for technical assistance if needed. Post and maintain current copies of the following at the station:

(a) Material Safety Data Sheets (MSDS) for all hazardous materials used and/or stored. It's recommended the MSDS's be cataloged to correspond with the HFL Form 953, *Hazardous Material Inventory*, to provide for ease of access.

(b) A current inventory of the hazardous materials.

(c) The spill response plan, specific to the motor pool.

(2) Ensure that all personnel who handle HM or HW have available and wear personal protective equipment (PPE) required by the product label or the MSDS.

d. Environmental document file. Maintain an environmental document file that contains essential documents and references. The file should include but not be limited to the following:

(1) Original copies of required inspections by motor pool personnel.

(2) Copies of inspections by higher headquarters or external agencies.

(3) Personnel environmental training records and certifications.

(4) Other required/pertinent records.

(5) FL Reg 200-1 and other pertinent regulations.

(6) Units Environmental Operating Certificate

e. Inspections, inventories and reports. The following inspections, inventories, and reports are required at the motor pool:

(1) Inspection of HW accumulation facilities. <u>HW accumulation facilities must be inspected weekly. This is a federal and state regulatory requirement.</u> Fort Lewis policy also requires weekly inspection of Satellite Accumulation Areas. HFL Form 950, *Hazardous Waste (HW) Management Checklist*, will be used to record this inspection.

(2) Inspection of HM storage areas. Inspect HM storage areas weekly for spills, damaged or leaking containers, expired shelf life, and unsafe storage. Perform this inspection concurrent with the weekly inspection of the HW accumulation area. Once a quarter, conduct and document a thorough inspection of HM storage areas, using HFL Form 951, *Hazardous Material (HM) Management Checklist*.

(3) Weekly compliance inspection. Inspect the motor pool areas weekly for compliance of activities that have potential environmental impact. Fort Lewis HFL Form 952, *Operational Area Checklist*, will be used for the inspection.

(4) Quarterly inventory and reporting of HM stored and used. Fort Lewis HFL Form 953, *Hazardous Material Inventory*, is used for this report. Provide the report, along with the Material Safety Data Sheet (MSDS) for all new HM received during the quarter, to the ECO or to the unit individual designated to submit HM data, for forwarding to the installation Pollution Prevention Program Manager. Units/activities that have a completed Environmental Operating Certificate (EOC) and who have been transitioned to the Hazardous Substance Management System (HSMS) do not have to submit their inventories of HM to the Pollution Prevention Program Manager.

(5) Report of HM credit card purchases. Units/activities will not procure HM by credit card without proper authorization from the Pollution Prevention Program Manager. Those units/activities that have received authorization will submit a quarterly HM Inventory listing item(s) description and quantity.

f. Actions prior to major unit deployment. Before departure on major unit deployments to the Yakima Training Center (YTC) or other off-post locations, coordinate with the Hazardous Waste Operations at 967-4786 for technical assistance/guidance in managing HM and HW. Sufficient personnel in the rear detachment with ECO/HWT/HMT training must be available to ensure compliance with HM and HW management requirements during the unit absence. Sufficient personnel with ECO/HWT/HMT training must also accompany the unit to ensure HM and HW compliance during the deployment.

3. SPILL PREVENTION AND SPILL RESPONSE. Many motor pool activities involve the handling/use of HM and generation of HW. The potential for spills/releases of these hazardous substances is always present. The potential for spills must be minimized, and if they occur, timely and effective response must be taken.

a. Minimize the potential for spills by proper management of HM storage and HW accumulation. This appendix provides regulatory guidance and best management practices for HM and HW at motor pools.

b. Prepare a spill response plan tailored for the facilities and conditions at the motor pool. The plan should be brief, focus on the immediate action procedures to be taken in the event of a spill, and who takes the actions. Practice the plan at least quarterly. Appendix E, paragraph 17 of this regulation provides guidance on contents

of the plan. The Hazardous Waste Operations (967-4786) or sub-installation environmental office can provide technical assistance in preparing the plan.

c. Maintain a "spill response kit" in a readily accessible location at or near where HM are stored or HW is accumulated. The supplies in the kit are intended to be for spill response and are not to be cannibalized. Inspect the supplies when the HM storage facility or HW accumulation site is inspected. Contact Hazardous Waste Operations (967-4786) or the sub-installation environmental office for assistance in determining the type and quantity of supplies that should be maintained.

d. When a POL or other hazardous material spill (i.e., one that is not contained within a secondary containment device) occurs:

(1) Immediately notify the Fire Department (call 911 at Fort Lewis, 577-3117 at YTC), regardless of the amount of material spilled. Provide as much information as possible -- the material and quantity spilled, circumstances, when, where, current status (stopped, ongoing, etc.).

(2) Implement the spill response plan. Stop or confine the spill if within capabilities and if it can be safely done. If possible, keep the material away from storm or sewer drains.

(3) Assist and support the installation spill response team in spill confinement and/or cleanup. The team Incident Commander (IC) from the Fire Department will take initial control of the scene and provide direction. Subsequent direction will be provided by the Installation On-Scene Coordinator (IOSC) from Hazardous Waste Operations or the sub-installation environmental office.

4. STORAGE OF POL AND OTHER HM. Compliance requirements for management of HM are in Appendix E, *Hazardous Material Management,* this regulation. The following guidelines are particularly applicable to motor pools:

a. Store only the HM quantities required for the mission. Establish and document authorized stockage levels for each product, and avoid stockpiling. AR 710-2-1 specifies how to determine authorized stockage levels. Review the stockage levels semi-annually to ensure only those quantities consistent with mission requirements are stocked.

b. Store and use only HM that is specified in the unit specific Authorized Use List (AUL). The most current AUL is maintained at the Hazardous Material Control Center (HMCC).

c. Restrict access to the HM storage area only to trained and authorized personnel.

d. Comply with storage facility requirements and container management procedures in Appendix E, *Hazardous Material Management,* this regulation.

e. Transporting of HM.

(1) See Appendix E, paragraph 10 of this regulation for vehicle, operator and loading requirements whenever transporting any HM.

(2) If HM is transported over public highways, such as during a deployment to the Yakima Training Center (YTC), requirements for U.S. Department of Transportation container marking/labeling and vehicle placarding must be met. The Joint Transportation Directorate, Unit Movements Branch (967-6569) can provide information and technical assistance.

5. ACCUMULATION AND DISPOSAL OF HW. Compliance requirements for management of HW are in Appendix F, *Hazardous Waste Management*, this regulation. The following guidelines are particularly applicable to motor pools:

a. HW is not HM. Unlike HM, HW is no longer a useful product, and requires disposal. HW and HM are managed under different regulations. Federal and state regulations governing HW are stringent and require strict compliance.

b. HW accumulation and HM storage can occur in the same area provided sufficient room exists for physical separation between the HW and HM. However, each area must be managed according to the applicable HM or HW requirements.

c. Limit access to the HW accumulation facility to trained, essential personnel.

d. Comply with HW accumulation facility requirements, accumulation and disposal procedures at Appendix F, *Hazardous Waste Management*, this regulation.

e. Transporting of HW.

(1) Transport of HW over a public highway can only be performed by an authorized HW transporter having an EPA Identification Number, and with the HW recorded on a Uniform Hazardous Waste Manifest (EPA Form 8700-22). Contact Hazardous Waste Operations (967-4786) or the sub-installation environmental office if HW is to be transported over a public highway.

(2) See Appendix F, paragraph 12 of this regulation for vehicle, operator and loading requirements whenever transporting any HW over installation or sub-installation (non-public) roads.

f. Transfer Containers.

(1) Organizational identified transfer containers will be used to transport HW from the work site to the appropriate HW storage container located in an approved accumulation area.

(2) All transfer containers must be properly labeled with a label which clearly identifies it as a transfer container and what product, i.e., antifreeze, oil, it is used to transfer. Labels may be self generated by the organization or obtained from Hazardous Waste Operations or the sub-installation environmental office.

(3) All transfer containers must be emptied daily.

6. MAINTENANCE ACTIVITIES AND OTHER MOTOR POOL OPERATIONS.

a. General.

(1) All storm and sanitary sewer system drains lead to water bodies. Avoid any activity near drains that could cause POL, POL-contaminated water or other hazardous material to enter the drains. If necessary to temporarily conduct these activities near a drain, take special care to avoid/prevent spills that could enter the drain.

(2) Items that could be a source of pollution to the stormwater system need to be stored under cover or in a manner that prevents contaminated runoff. Examples of such items include engines or engine parts, vehicles undergoing maintenance, machinery, containers of POL or other HM, or other items from which pollutants could be washed by precipitation.

(3) Oil water separators are designed to accommodate runoff of oil contaminated water. Do not dispose of POL, solvents, antifreeze, or any other regulated substance into oil water separators or any drain.

(4) Ensure all vehicle drain/hull plugs are re-installed prior to departing the motor pool.

(5) Keep a vehicle from being driven outside the motor pool if it leaves a visible, continuous or intermittent trail of POL on the ground (Class 3 Leak).

(6) Place drip pans under vehicles with known seeps and leaks to preclude discharges into wastewater collection systems. The use of collapsible drip pans is preferred.

(a) Line drip pans with an oil absorbent pad that repels water. Maximize the use of absorbent pads. Replace them when they no longer can effectively absorb contaminants.

(b) Collect the used absorbent pad for disposal in an appropriate container provided by Hazardous Waste Operations or the sub-installation environmental office.

(7) Solvents or other unauthorized material will not be used for cleaning heavily soiled and/or oily maintenance bay floors.

(a) Use dry sweep to clean up oil, fuel, and other contaminants.

(b) Collect dry sweep for disposal in appropriate containers provided by Hazardous Waste Operations or the sub-installation environmental office.

(c) Avoid mixing trash, garbage, nuts and bolts with used dry sweep. Place this type of waste into covered, non-leaking refuse containers.

(8) Use the exhaust ventilation system whenever a stationary vehicle is operated inside the maintenance bay.

(9) Keep catch buckets in all floor drains designed to use them. Inspect the catch buckets and empty them of trash daily.

(10) Turn off all faucets/valves not in use. Report leaking faucets/valves to PW work order desk at 967-3131(Fort Lewis) or to the sub-installation facilities maintenance office.

(11) Ensure containers used for recovery of recyclable liquids remain locked when not in use.

b. Fuel handling.

(1) Ensure that fuel tankers have spill kits on the vehicle. When practical, avoid parking fuel tankers or placing fuel bladders within 100 feet of storm or sanitary sewer drains. Fuel bladders should be placed on a hardstand if possible.

(2) Avoid fueling/refueling operations within 100 feet of storm or sanitary sewer drains. If it is impractical to meet this requirement, ensure the drain is protected with a drain blocker and that a spill kit is readily available before commencing the fueling/refueling.

(3) Use drain blockers during refueling operations.

(4) When filling a tank and pump unit or any size container with fuel, if possible, perform this operation with two persons -- one to run the pump and the other to fill the container. This will enable monitoring of the pump for leaks, pump shut-off in case of emergency, and prevent container overflow.

(5) Any gasoline tanker truck unloading gasoline to a storage tank must have Stage I Vapor Recovery. The tanker truck must pass an annual leak test.

(6) Ensure that the issued Fuel Storage and Transfer SOP is available and used for above or underground storage tanks of greater than 1000 gallons which store gasoline.

c. Handling of used oil.

(1) Collect used oil only in approved, above ground storage tanks or containers.

(2) Collect only uncontaminated used oil in the used oil tanks or containers. Use separate containers for hydraulic, transmission and brake fluids (contact Hazardous Waste Operations at 967-4786 or the sub-installation environmental office for specific guidance on items not in these categories). DO NOT put hardware, dirt, dry sweep, trash, water, antifreeze, solvent or fuel into the into any used oil container.

(3) When the used oil tank is 3/4 full, contact Hazardous Waste Operations or sub-installation environmental office for pumping of the tank.

(4) If a leak in the tank is discovered or if the tank overflows and has reached the soil or has entered/threatens to enter a drain, activate the spill response plan.

d. Collection of off-specification fuel (Diesel, JP-8) for recycling/recovery. At Fort Lewis, a program exists for the collection of off-specification fuel for recycling/recovery.

(1) The fuel is collected in 55-gallon drums or 275-gallon tanks. Bar coded containers with the words "HAZARDOUS MATERIAL" are issued by Hazardous Waste Operations.

(2) Store the container in the HM storage facility or HW accumulation area. Contact Hazardous Waste Operations (967-4786) when the container is full and ready for pickup or ready to be pumped out.

e. Collection of used antifreeze for recycling. At Fort Lewis, a program exists for the collection of used antifreeze.

(1) The used antifreeze is collected in specially labeled tanks issued by Hazardous Waste Operations.

(2) Contact Hazardous Waste Operations (967-4786) when the container is ¾ full and ready for pickup.

f. Turn-in of recyclable solid waste. See Appendix G, this regulation, for guidance on turn-in of recyclable materials. The following are particularly applicable to motor pools:

(1) Turn in used tires to the Fort Lewis DRMO.

(2) Used batteries.

(a) Used lead acid batteries are recyclable. Turn in used lead acid batteries to the supporting Supply Support Activity (SSA), for further turn-in to the DOL Battery Shop. While in the motor pool awaiting turn-in, keep the batteries on a pallet and under cover.

(b) All other batteries (Nickel Cadmium, Lithium, etc.) are treated as a universal waste and units need to acquire a universal waste label from Hazardous Waste Operations or the sub-installation environmental office.

g. Parts washers. Ensure that parts washers are registered with the Fort Lewis Air Pollution Program Manager (966-1781) and Pollution Prevention Program Manager (966-6463) or sub-installation environmental office.

(1) Cold solvent tank parts washers:

(a) The only solvent authorized for use in cold solvent tank parts washers is *Breakthrough* ™ (manufactured by Inland Technology, Inc., one of five TACOM-approved PD680 replacement solvents). Any other solvent used in the washer must be approved by the installation Pollution Prevention Program Manager (966-6463).

(b) Ensure that parts washers have lids closed when not in use.

(c) Pre-clean parts before immersing in solvent tank.

(d) Allow solvent to drain from parts into tank before removal.

(e) Store solvent, used solvent, and solvent soaked rags in closed containers.

(2) Aqueous parts washers.

(a) Prior to obtaining an aqueous parts washer, organizations must obtain approval from the installation Pollution Prevention Program Manager (966-6463).

(b) Aqueous parts washers are not authorized for cleaning small arms, aircraft armaments and vehicle parts. Aqueous cleaning is prohibited by TACOM.

(c) Use only water in authorized aqueous parts washers.

7. MOTOR POOL GREASE RACKS. These facilities are designed for general maintenance activities on engine, suspension and driveline systems of wheeled and tracked vehicles.

a. Some grease racks are supplied with installed hot water/high pressure washers. The washers are intended for cleaning of vehicle motors, undercarriages, and similar dirt/grease removal only. Follow the guidance in the "Fort Lewis Operating Manual for Grease Racks". The manual is available from Hazardous Waste Operations at Building 1210 (967-4786)

b. Except when using the installed hot water/high pressure washer as stated above, do not use the grease rack or other motor pool areas for washing vehicles. Perform vehicle washing, including light exterior or interior cleaning, at a Centralized Vehicle Wash Facility. The following are the centralized wash rack facilities:

(1) Fort Lewis: Facilities J0200, 3560, 3925.

(2) YTC: Facility 977.

c. Use of portable washers is prohibited, unless used on a designated and approved grease rack.

d. The use of solvents, detergents or "gunk" in hot water/high pressure washers is not authorized. This includes "Simple Green".

8. WATER PURIFICATION UNITS. When servicing a water purification unit following a purification mission, the water used for backwashing of the water purification filters is contaminated and must be disposed of through the Wastewater Treatment Plant. Coordinate with the Wastewater Treatment Plant (967-7453 at Fort Lewis or 577-3407 at YTC) for disposal.

9. DISCHARGE OF BILGE WATERS FROM TACTICAL VEHICLES. Tactical vehicles are prohibited from discharging bilge waters to the environment, including roads, streets, trails, or undeveloped areas of Fort Lewis. Bilge water from military vehicles contains oils and other potentially hazardous chemicals and must be properly disposed of. Military vehicles are authorized to discharge bilge water at Consolidated Wash Racks (CWR) facilities, or at unit steam clean facilities (grease racks) that are served by an oil-water separator, subject to the restrictions stated below.

a. Contents of bilges to be emptied must be mostly water. Small amounts of lubricants, JP-8, or diesel are permissible, but if the bilge water contains significant amounts of floating OPL products, the POL must be removed from the water and drummed before discharging the bilge to the wash rack. A sheen on the bilge water is OK, but floating product is not.

b. Bilge water containing chemicals, solvents, cleaning agents, soap, detergent, simple green, or any other emulsifying agent shall not be discharged to any Fort Lewis facility. Call the Environmental Services Office at 967-4786 for assistance for disposal.

c. Addition of any oils, fuels, chemicals, soaps, or solvents to bilge water prior to discharging is strictly prohibited.

d. Actual discharge must take place directly over a drain to minimize spread of any oily residue. Any liquid or solid residue remaining after discharge must be rinsed into the drain, leaving the wash rack deck clear of oil or grease.

e. Discharge to any wash rack drain NOT served by an oil-water separator is strictly prohibited. If in doubt whether your facility has an oil-water separator, or for other questions concerning this guidance, call the PW Water Program for assistance at 967-2326.

10. MAINTENANCE ACTIVITIES WITH AIR POLLUTION IMPACTS. The majority of motor pool activities have potential environmental impacts to water or to the soil. However, some activities have potential air pollution impacts. The following guidance will be followed where applicable.

a. Spray painting. All spray painting, except for the use of aerosol cans for touch-up purposes, must be conducted in an installation approved paint booth that is registered with the local air pollution control authority. The use of aerosol cans is the only permissible method of spray painting outside of an approved paint booth, and only for touch-up. Spray guns must not be used in the field or other location outside of an approved paint booth.

b. Asbestos brake shoe repair. When conducting replacement or repair of brake shoes that contain linings, which have or are suspected to have asbestos, follow the procedures at Paragraph 8 to minimize exposure to asbestos.

c. Welding; tire buffing. If one or both of these operations are authorized to be performed at the motor pool, the operation(s) must be registered with the Air Pollution Program Manager (966-1781 at Fort Lewis or the sub-installation environmental office).

d. Ozone depleting chemicals (ODCs). ODCs are used in many applications on military installations, most commonly in air conditioning and refrigeration (freon) and fire suppression (halon). If work is performed at the motor pool on vehicle air conditioning systems or equipment cooling systems that contain ODCs, the guidance below applies. Additional details are contained in Appendix H of this regulation.

(1) The work must be performed by personnel who have completed an approved certification course. The installation Logistics Assistance Office provides certification training for mechanics or personnel requiring certification.

(2) During air conditioning or cooling system maintenance/servicing, equipment for recovering or recycling ODCs must be present and used so no venting of the ODC occurs. The equipment must be registered with the Air Pollution Program

Manager (966-1781) and the Pollution Prevention Program Manager (966-6463) at Fort Lewis or the sub-installation environmental office, and be operated by personnel certified to operate the equipment.

(3) Substances known as Class I ODCs are no longer being manufactured as of 1 January 1996, although they may still be requisitioned. When these substances are not procured through the supply system (i.e., are locally purchased), they must be formally approved by the Commander, Fort Lewis. The list of Class I ODCs and the approval process are at Appendix H, paragraph 12 *(Air Pollution Management)* and Appendix T, *Requisition of Ozone Depleting Chemicals,* this regulation.

11. BRAKE INSPECTION AND SERVICE. The following information is adapted from Title 29, Code of Federal Regulations (CFR), 1987 rev, Section 1910.1001, Occupational Exposure to Asbestos, Tremolite, Anthophyllite, and Actinolite.

a. There are two control methods that OSHA believes will lower the asbestos exposure (to 0.1 fiber/cc). Either method does not require respiratory protection.

(1) Enclosed High Efficiency Particulate Air (HEPA) vacuum system method. (Preferred Method).

(2) Spray bottles with soap and water solution method.

b. Follow the procedures below when using spray bottles filled with water and soap solution during brake inspection/service.

(1) Before removing the wheels, line the area beneath them with disposable towels or rags. This is to catch the asbestos contaminated soap solution dripping from the backing plate or brake drum.

(2) As the wheels are being removed a second person should be spraying the front of the backing plate and brake drum with a fine mist from either a solvent spray can or spray bottle containing a water and soap solution. These areas should be thoroughly wetted. The person spraying reaches around the tire and will not get underneath the vehicle during removal.

(3) If the brake shoes need to be replaced -- remove the old brake shoes and immediately place them into two asbestos disposal bags (double bag) then tie bags securely. DO NOT REMOVE THE LINING FROM THE SHOE UNLESS YOU ARE AT THE DIRECT SUPPORT MAINTENANCE LEVEL. Asbestos disposal bags must be impermeable, at least 6 mils thick and have the danger label printed on both sides. Asbestos disposal bags may be obtained by contacting Hazardous Waste Operations at 967-4786 (Fort Lewis), or the sub-installation environmental office.

(4) Wipe the backing plate and brake drum with disposable towels or rags and place them into the asbestos disposal bag and tie the bag securely.

(5) Asbestos and asbestos contaminated disposable towels and rags must be disposed of properly. Contact Hazardous Waste Operations or the sub-installation environmental office for proper disposal procedures.

12. GASKET AND FRICTION ASBESTOS PRODUCTS DISPOSAL PROCEDURES.

a. Applicability.

(1) Use this procedure to dispose of waste gasket material when known or assumed to contain asbestos (>1%).

(2) Use this procedure to dispose of waste friction products when known or assumed to contain asbestos (>1%).

b. Definitions.

(1) Friction Products: Materials that offer resistance to the movement of one body past another body with which it is in contact. In this case, brake pads and clutch facings.

(2) Gaskets: Seals or packing used between matched machine parts or around pipe joints to prevent the escape of a gas or fluid. See Figure M-2 for a list of vehicles and asbestos-positive gaskets.

(3) Asbestos: Incombustible, chemical-resistant, fibrous mineral forms of impure magnesium silicate, used for fireproofing, electrical insulation, building materials, brake linings, and chemical filters, etc.

(4) Asbestos Containing Material (ACM): Any material containing asbestos, greater than 1%.

(5) Asbestos Waste: Any ACM (or assumed ACM) that is being thrown away as non-reusable.

c. Asbestos Waste Gasket & Friction Product Disposal Procedures.

(1) Obtain an Asbestos Permit from PW-ENRD, POC Sheila Albrecht 967-4786, Kelly Rosacrans 966-1776, or Mike Roberts 966-1775. Each central collection site for waste from asbestos gasket/friction product removal need only be permitted.

(2) Permits are valid for 10 days only**.** The oldest date written on each waste bag at each collection site determines the 10-day window.

(3) Obtain asbestos waste bags from building 1210, HAZMAT**.** Only those with a valid permit may obtain bags.

(4) Follow your established SOP and/or the "Wet Method" at a minimum during procedures that generate gasket and friction product asbestos wastes. Contact Fort Lewis Safety or Madigan Industrial Hygiene for directives.

(5) Close each asbestos waste bag, and place it in a second waste bag. Use duct tape to seal each bag. This is called double bagging, and is a regulatory requirement.

(6) Write the date the bag was closed, the building number, and the permit number on the outside of the bag using an indelible ink marker. Write "NF–Brake Linings", "NF-Gaskets", or "NF-PPE" (personal protective equipment) as appropriate on the exterior of each bag.

(7) Before 10 days elapse, and 24 hours in advance, call the LeMay Transfer Site (building 5208, Crary Avenue) at (360) 280-3999 (Don Santorini) to set up the delivery**.** Each entity generating waste will be responsible to deliver the bags to the transfer station within the mandatory 10-day window. Make two copies of permit; one for you, one for LeMay. Return original permit to Albrecht, Rosacrans, or Roberts for record.

(8) After each load of asbestos waste has been delivered to the transfer station, start this procedure again from c (3) above until directed otherwise.

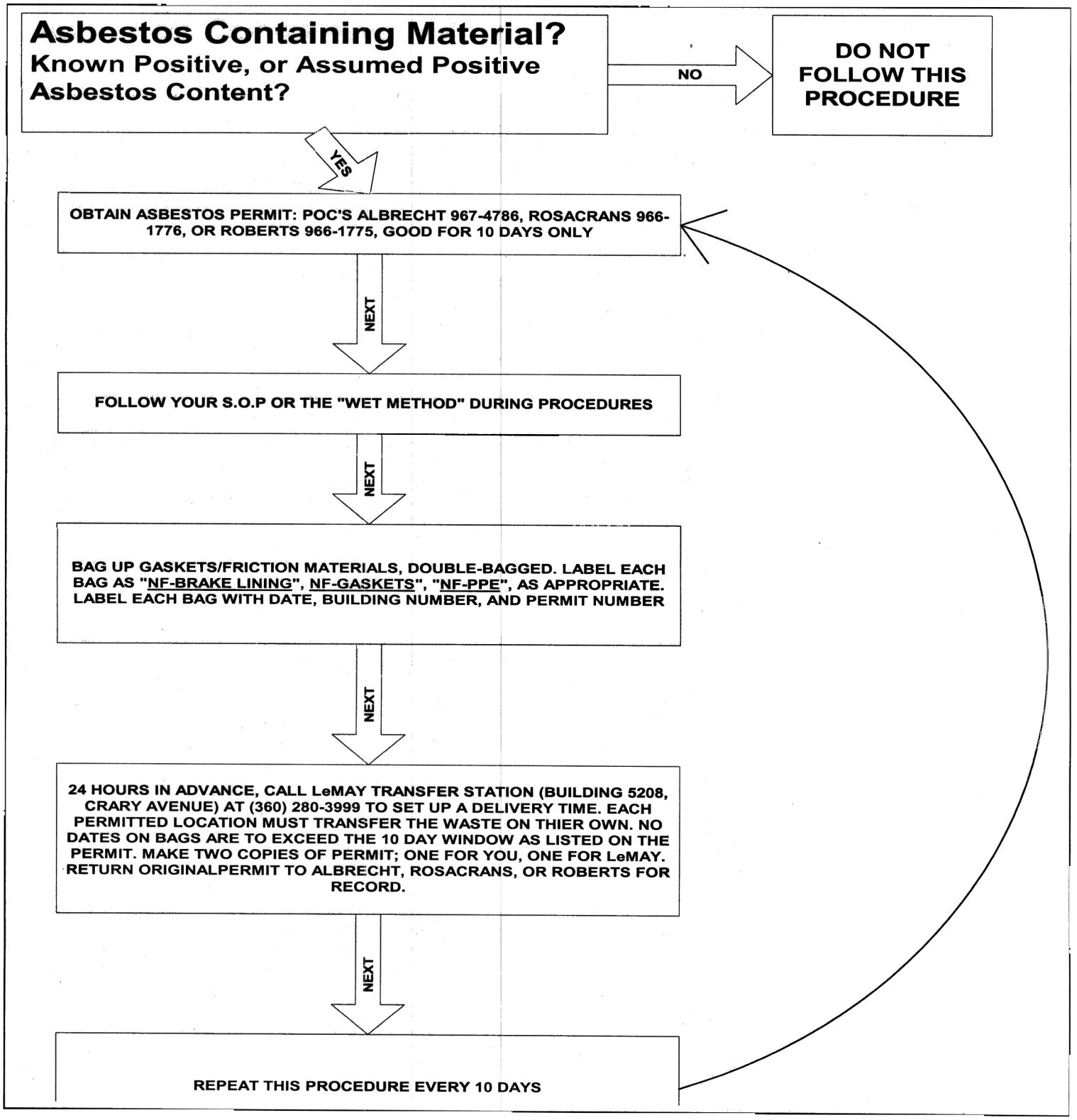
Asbestos Containing Material?
Known Positive, or Assumed Positive Asbestos Content?
NO
DO NOT FOLLOW THIS PROCEDURE
YES
OBTAIN ASBESTOS PERMIT: POC'S ALBRECHT 967-4786, ROSACRANS 966-1776, OR ROBERTS 966-1775, GOOD FOR 10 DAYS ONLY
NEXT
FOLLOW YOUR S.O.P OR THE "WET METHOD" DURING PROCEDURES
NEXT
BAG UP GASKETS/FRICTION MATERIALS, DOUBLE-BAGGED. LABEL EACH BAG AS "NF-BRAKE LINING", NF-GASKETS", "NF-PPE", AS APPROPRIATE. LABEL EACH BAG WITH DATE, BUILDING NUMBER, AND PERMIT NUMBER
NEXT
24 HOURS IN ADVANCE, CALL LeMAY TRANSFER STATION (BUILDING 5208, CRARY AVENUE) AT (360) 280-3999 TO SET UP A DELIVERY TIME. EACH PERMITTED LOCATION MUST TRANSFER THE WASTE ON THIER OWN. NO DATES ON BAGS ARE TO EXCEED THE 10 DAY WINDOW AS LISTED ON THE PERMIT. MAKE TWO COPIES OF PERMIT; ONE FOR YOU, ONE FOR LeMAY. RETURN ORIGINALPERMIT TO ALBRECHT, ROSACRANS, OR ROBERTS FOR RECORD.
NEXT
REPEAT THIS PROCEDURE EVERY 10 DAYS

Figure M-1

LIST OF ASBESTOS GASKETS
MAMC-IH SURVEY, 2000

HMMWV-998	ENGINE TYPE:	6.2 Liter	
SAMPLE NUMBER	**SAMPLE DATE**	**GASKET LOCATION**	**TEST RESULTS**
GM000085	16-Mar-00	Head Gasket	None Detected
GM000086	16-Mar-00	Exhaust Manifold	None Detected
GM000087	16-Mar-00	Intake Manifold	None Detected

M4K Forklift	ENGINE TYPE:	Case G207D	
SAMPLE NUMBER	**SAMPLE DATE**	**GASKET LOCATION**	**TEST RESULTS**
GM000088	**16-Mar-00**	**Cooling System**	**10% Asbestos**
GM000089	16-Mar-00	Oil Pan	None Detected
GM000090	**16-Mar-00**	**Head Gasket**	**40% Asbestos**
GM000091	**16-Mar-00**	**Exhaust Manifold**	**70% Asbestos**
GM000092	**16-Mar-00**	**Intake Manifold**	**70% Asbestos**

Figure M-2

10K Watt Gen	ENGINE TYPE:	Onan DN4-M1	
SAMPLE NUMBER	**SAMPLE DATE**	**GASKET LOCATION**	**TEST RESULTS**
GM000119	30-Mar-00	Intake Manifold	None Detected
GM000120	30-Mar-00	Thermostat	None Detected
GM000121	30-Mar-00	Water Manifold	None Detected
GM000122	30-Mar-00	Exhaust Manifold	None Detected
GM000123	30-Mar-00	Water Pump	None Detected
GM000124	30-Mar-00	Valve Cover	None Detected
GM000125	30-Mar-00	Head Gasket	None Detected
GM000126	30-Mar-00	Crankcase	None Detected

Onan 2.3 Diesel			
SAMPLE NUMBER	**SAMPLE DATE**	**GASKET LOCATION**	**TEST RESULTS**
GM000222	13-Jul-00	Head Gasket	None Detected
GM000223	13-Jul-00	Exhaust Gasket	None Detected
GM000224	**13-Jul-00**	**Intake Manifold**	**80% Asbestos**
GM000225	13-Jul-00	Valve Cover	None Detected
GM000226	**13-Jul-00**	**Injector Gasket**	**60% Asbestos**

Figure M-2 (continued)

M 998 Series			
SAMPLE NUMBER	**SAMPLE DATE**	**GASKET LOCATION**	**TEST RESULTS**
GM000342	**19-Sep-00**	**Head Gasket**	**50% Asbestos**
GM000343	19-Sep-00	Intake Manifold	None Detected
GM000344	**19-Sep-00**	**Exhaust Manifold**	**50% Asbestos**
GM000345	19-Sep-00	Valve Cover	None Detected
GM000346	**19-Sep-00**	**Oil Pump**	**<1% Asbestos***

6V53 Detroit			
SAMPLE NUMBER	**SAMPLE DATE**	**GASKET LOCATION**	**TEST RESULTS**
GM000439	26-Oct-00	Exhaust Gasket	None Detected
GM000440	26-Oct-00	Throttle Cover	None Detected
GM000441	26-Oct-00	Governor Cover	None Detected
GM000442	26-Oct-00	Front Cover	None Detected
GM000443	26-Oct-00	Water Inlet	None Detected
GM000444	**26-Oct-00**	**Oil Pump**	**90% Asbestos**
GM000445	26-Oct-00	Blower, Rear	None Detected
GM000446	26-Oct-00	Quill Shaft	None Detected
GM000447	**26-Oct-00**	**Air Box**	**90% Asbestos**
GM000448	26-Oct-00	Air Horn	None Detected

* = See Fort Lewis Safety or MAMC-IH for procedures during disturbance of materials <1% asbestos

Figure M-2 (continued)

APPENDIX N

ENVIRONMENTAL COMPLIANCE FOR GENERAL SUPPORT MAINTENANCE

1. PURPOSE. This appendix provides implementing guidance and states best management practices for compliance with environmental requirements pertinent to operations of a General Support (GS) Maintenance facility. Guidance in this appendix applies to GS maintenance facilities that are operated on Fort Lewis and its sub-installations.

a. The guidance in this appendix should be used to prepare, if needed, a Standing Operating Procedure (SOP) specific to the facility.

b. Contact the Fort Lewis Hazardous Waste Operations office at 967-4786 for technical assistance or additional information concerning requirements stated in this appendix.

2. COMPLIANCE ADMINISTRATION.

a. Environmental personnel. An Environmental Compliance Officer (ECO), Hazardous Waste Technician (HWT) and/or Hazardous Material Technician (HMT) are required by paragraph 2-12 of this regulation to be appointed and trained. These individuals are key to environmental compliance at the facility. They are the facility liaison with the installation environmental office and have the knowledge of environmental requirements, particularly those that apply to the management of hazardous material (HM) and hazardous waste (HW), which are present in the maintenance facility.

b. Training. Provide environmental compliance training to personnel who work at the facility that is specific to their duties. Paragraph 2-12, Appendix E, paragraph 5 i, and Appendix F, paragraph 5 l of this regulation requires the following initial and sustainment training:

(1) The ECO, HWT, and HMT receive the installation Environmental Operations Management and Environmental Compliance Inspection Course within 60 days after appointment as an ECO/HWT/HMT. Additionally, they will receive an annual Refresher Course.

(2) Hazard communication training as required by FL Reg 385-5.

(3) Quarterly spill plan familiarization training for personnel who will implement the plan.

c. Safety.

(1) Hazard communication station. Establish a hazard communication station, required by FL Reg 385-5, at a location accessible to facility personnel. A written program is required that explains how personnel are informed about the specific HM/HW hazards, and trained in the precautions to be taken. Contact the Fort Lewis Safety Office (967-3079) for technical assistance if needed. Post and maintain current copies of the following at the station:

(a) Material Safety Data Sheets (MSDS) for all hazardous materials used and/or stored. It's recommended that MSDS's be cataloged to correspond with the HFL Form 953, *Hazardous Material Inventory,* to provide for ease of access.

(b) A current inventory of the hazardous materials.

(c) The spill response plan, specific to the maintenance facility.

(2) Ensure all personnel who handle HM or HW have available and wear personal protective equipment (PPE) required by the product label or the MSDS.

d. Environmental document file. Maintain an environmental document file that contains essential documents and references. The file should include but not be limited to the following:

(1) Original copies of required inspections by facility personnel.

(2) Copies of inspections by higher headquarters or external agencies.

(3) Personnel environmental training records and certifications.

(4) Other required/pertinent records.

(5) FL Reg 200-1 and other pertinent regulations.

e. Inspections, inventories and reports. The following inspections, inventories, and reports are required at the facility.

(1) Inspection of HW accumulation area. HW accumulation areas must be inspected weekly. This is a federal and state regulatory requirement. Fort Lewis policy also requires weekly inspection of Satellite Accumulation Areas. HFL Form 950, *Hazardous Waste (HW) Management Checklist,* will be used to record this inspection.

(2) Inspection of HM storage areas. Informal inspection of HM storage areas for spills, damaged or leaking containers, expired shelf life, and unsafe storage should be performed weekly as a good management practice. Once a quarter, conduct and

document a thorough inspection of HM storage areas, using HFL Form 951, *Hazardous Material (HM) Management Checklist.*

(3) Weekly compliance inspection. Inspect the maintenance areas weekly for compliance of activities that have potential environmental impact. Fort Lewis HFL Form 952, *Operational Area Checklist,* will be used for the inspection.

(4) Quarterly inventory and reporting of HM stored and used. Fort Lewis HFL Form 953, *Hazardous Material Inventory,* is used for this report. Provide the report, along with the Material Safety Data Sheet (MSDS) for all new HM received during the quarter, to the installation Pollution Prevention Program Manager. Activities that have a completed Environmental Operating Certificate (EOC) and who have been transitioned to the Hazardous Substance Management System (HSMS) or operate a satellite HSMS do not have to submit their inventories of HM to the Pollution Prevention Program Manager.

(5) Report of HM credit card purchases. Activities will not procure HM by credit card without proper authorization from the Pollution Prevention Program Manager. Those activities that have received authorization will submit a quarterly HM Inventory listing item(s) description and quantity.

3. SPILL PREVENTION AND SPILL RESPONSE. Many maintenance activities involve the handling/use of HM and generation of HW. The potential for spills/releases of these hazardous substances is always present. The potential for spills must be minimized, and if they occur, timely and effective response must be taken.

a. Minimize the potential for spills by proper management of HM storage and HW accumulation. The rest of this appendix provides regulatory guidance and best management practices for HM and HW at maintenance facilities.

b. Prepare a spill response plan tailored to the maintenance facility and its operating conditions. The plan should be brief, focus on the immediate action procedures to be taken in the event of a spill, and who takes the actions. Practice the plan at least quarterly. Appendix E, paragraph 17 of this regulation provides guidance on contents of the plan. The Hazardous Waste Operations office (967-4786) or sub-installation environmental office can provide technical assistance in preparing the plan.

c. Maintain a “spill response kit” in a readily accessible location at or near where HM is stored or HW is accumulated. Inspect the supplies when the HM storage areas and or HW accumulation site is inspected. Contact the Hazardous Waste Operations office (967-4786) or the sub-installation environmental office for assistance in determining the type and quantity of supplies that should be maintained.

d. When a POL or other hazardous material spill (i.e., one that is not contained within a secondary containment device) occurs:

(1) Immediately notify the Fire Department (call 911 at Fort Lewis, 577-3177 at YTC), regardless of the amount of material spilled. Provide as much information as possible – the material and quantity spilled, circumstances, when, where, current status (stopped, ongoing, etc.).

(2) Implement the spill response plan. Stop or confine the spill, if within capabilities and if it can be done safely. If possible, keep the material away from storm or sewer drains.

(3) Assist and support the installation spill response team in spill confinement and/or cleanup. The team Incident Commander (IC) from the Fire Department will take initial control of the scene and provide direction. Subsequent direction will be provided by the Installation On-Scene Coordinator (IOSC) from the Hazardous Waste Operations office or the sub-installation environmental office.

4. STORAGE OF POL AND OTHER HM. Compliance requirements for management of HM are in Appendix E, *Hazardous Material Management,* this regulation. The following guidelines are particularly applicable to maintenance facilities:

a. Store only the HM quantities required for the mission. Establish and document authorized stockage levels for each product, and avoid stockpiling. AR 710-2 specifies how to determine authorized stockage levels. Review the stockage levels semi-annually to ensure only those quantities consistent with mission requirements are stocked.

b. Store and use only HM that is specified in the activity Authorized Use List (AUL). The most current AUL is maintained at the Hazardous Material Control Center (HMCC).

c. Restrict access to the HM storage area only to trained and authorized personnel.

d. Comply with storage requirements and container management procedures in Appendix E, *Hazardous Material Management,* this regulation.

5. ACCUMULATION AND DISPOSAL OF HW. Compliance requirements for management of HW are in Appendix F, *Hazardous Waste Management,* this regulation. The following guidelines are particularly applicable to maintenance facilities.

a. <u>HW is not HM.</u> Unlike HM, HW is no longer a useful product and requires disposal. HW and HM are managed under different regulations. Federal and state regulations governing HW are stringent and require strict compliance.

b. HW accumulation and HM storage can occur in the same area provided sufficient room exists for physical separation between HW and HM. However, each area must be managed according to the applicable HM or HW requirements.

c. Limit access to the HW accumulation facility to trained, essential personnel.

d. Comply with HW accumulation facility requirements, accumulation and disposal procedures at Appendix F, *Hazardous Waste Management,* this regulation.

e. Satellite accumulation. HW may be temporarily accumulated at the point of generation in a "Satellite Accumulation Area", if approved by Hazardous Waste Operations or the sub-installation environmental office. A satellite accumulation area must comply with the following:

(1) The accumulation area must remain under the control of the operator where the HW is being generated and be secured at all times when not in use.

(2) Only containers issued by Hazardous Waste Operations or the sub-installation environmental office will be used. Only one container per waste stream is authorized and all containers must be properly labeled.

(3) The container lid/bung will be secured wrench tight when not in use.

(4) Secondary containment must be provided.

(5) When full, the date is marked on the container label. The full container must then be moved, within 72 hours, to the 90-day HW accumulation facility.

f. Transfer Containers.

(1) Organizational identified transfer containers will be used to transport HW from the work site to the appropriate HW storage container located in an approved accumulation Area.

(2) All transfer containers must be properly labeled with a label which clearly identifies it as a transfer container and what product, i.e., antifreeze, oil, it is used to transfer. Labels may be self generated or obtained from Hazardous Waste Operations or the sub-installation environmental office.

(3) All transfer containers must be emptied daily.

g. Transporting of HW.

(1) Transport of HW over public highway can only be performed by an authorized HW transporter having an EPA Identification Number, and with the HW recorded on a Uniform Hazardous Waste Manifest (EPA Form 8700-22). Contact the Hazardous Waste Operations office (967-4786) or the sub-installation environmental office if HW is to be transported over a public highway.

(2) See Appendix F, Paragraph 12 of this regulation for vehicle, operator and loading requirements whenever transporting any HW over installation or sub-installation (non-public) roads.

6. MAINTENANCE ACTIVITIES AND OTHER FACILITY OPERATIONS.

a. General.

(1) All storm and sanitary system drains lead to water bodies. Avoid any activity near drains that could cause POL. POL-contaminated water or other hazardous material to enter the drains. If necessary to temporarily conduct these activities near a drain, take special care to avoid/prevent spills that could enter the drain.

(2) Items that could be a source of pollution to the stormwater system need to be stored under cover or in a manner that prevents contaminated runoff. Examples of such items include engines or engine parts, vehicles undergoing maintenance, machinery, containers of POL or other HM, or other items from which pollutants could be washed by precipitation.

(3) Oil water separators are designed to accommodate runoff of oil contaminated water. Do not dispose of POL, solvents, antifreeze, or any other regulated substance into oil water separators or any drain.

(4) Keep a vehicle from being driven outside the maintenance facility area if it leaves a visible, continuous or intermittent trail of POL on the ground (Class 3 leak).

(5) Place drip pans under vehicles with known seeps and leaks to preclude discharges into wastewater collection systems. The use of collapsible drip pans is preferred.

(a) Line drip pans with an oil absorbent pad that repels water. Replace the pads as required.

(b) Collect the used absorbent pad for disposal in appropriate containers provided by Hazardous Waste Operations or the sub-installation environmental office.

(6) Solvents or other unauthorized material will not be used for cleaning heavily soiled and/or oily maintenance bay floors.

(a) Use dry sweep to clean up oil, fuel, and other contaminants.

(b) Collect dry sweep for disposal in appropriate containers provided by Hazardous Waste Operations or the sub-installation environmental office.

(c) Avoid mixing trash, garbage, nuts and bolts with used dry sweep. Place this type of waste into covered, non-leaking refuse containers.

(7) Use the exhaust ventilation system whenever a stationary vehicle is operated inside the maintenance bay.

(8) Keep catch buckets in all floor drains designed to use them. Inspect the catch buckets and empty them of trash daily.

(9) Turn off all faucets/valves not in use. Report leaking faucets/valves to PW work order desk at 967-3131 (Fort Lewis) or to the sub-installation facilities maintenance office.

(10) Ensure containers used for recovery of recyclable liquids remain locked when not in use.

b. Handling of used oil.

(1) Collect used oil only in approved, above ground storage tanks or containers.

(2) Collect only uncontaminated used oil in the used oil tanks or containers. Use separate containers for hydraulic, transmission and brake fluids (contact Hazardous Waste Operations at 967-4786 or the sub-installation environmental office for specific guidance on items not in these categories). DO NOT put hardware, dirt, dry sweep, trash, water, antifreeze, solvent or fuel into any used oil container.

(3) When the used oil tank is 3/4 full, contact the Hazardous Waste Operations office or the sub-installation environmental office for pumping of the tank.

(4) If a leak in the tank is discovered or if the tank overflows and has reached the soil or has entered/threatens to enter a drain, activate the spill response plan.

c. Collection of off-specification fuel (Diesel, JP-8) for recycling/recovery. At Fort Lewis, a program exists for the collection of off-specification fuel for recycling/recovery.

(1) The fuel is collected in 55-gallon drums or 275-gallon tanks. Bar coded containers with the words “HAZARDOUS MATERIAL” are issued by the Hazardous Waste Operations office.

(2) Store the container in the HM storage facility or HW accumulation area. Contact the Hazardous Waste Operations office (967-4786) when the container is full and ready for pickup or ready to be pumped out.

d. Collection of used antifreeze for recycling. At Fort Lewis, a program exists for the collection of used antifreeze.

(1) The used antifreeze is collected in specially labeled tanks issued by the Hazardous Waste Operations office.

(2) Contact the Hazardous Waste Operations office (967-4786) when the container is ¾ full and ready for pickup.

e. Turn-in of recyclable solid waste. See Appendix G, this regulation, for guidance on turn-in of recyclable materials, i.e., used tires, batteries.

f. Parts washers. Ensure parts washers are registered with the Fort Lewis Air Pollution Program Manager (966-1781) and Pollution Prevention Program Manager (966-6463) or sub-installation environmental office.

(1) Cold solvent tank parts washers:

(a) The only solvent authorized for use in cold solvent tank parts washer is *Breakthrough ™* (manufactured by Inland Technology, Inc., one of five TACOM approved PD680 replacement solvents). Any other solvent used in the washer must be approved by the installation Pollution Prevention Program Manager.

(b) Ensure parts washers have lids closed when not in use.

(c) Pre-clean parts before immersing them in the solvent tank.

(d) Allow solvent to drain from the parts back into the tank before removal.

(e) Store solvent, used solvent, and solvent soaked rags in closed containers.

(2) Aqueous parts washers.

(a) Prior to obtaining an aqueous parts washer, organizations must obtain approval from the installation Pollution Prevention Program Manager.

(b) Aqueous-based cleaners are not authorized for use on small arms and aircraft armaments.

(c) Use only water in authorized aqueous parts washers.

(d) Citri-based, aqueous cleaners are not authorized for cleaning tactical vehicle parts.

g. Battery Shop.

(1) The Directorate of Logistics (DOL) Battery Shop, building 9583, is the only facility authorized to charge lead-acid batteries on Fort Lewis.

(2) All Battery Shop personnel will ensure proper personal protective clothing is worn when handling or servicing lead-acid batteries.

(3) Addition of electrolyte into lead-acid batteries is only permitted in the battery shop

(4) The Battery Shop will accept used lead-acid batteries from the installation Supply Support Activities (SSAs) and process them for turn-in to the DRMO. The batteries will be stored on a pallet and kept under cover while awaiting turn-in.

h. Cannibalization Point.

(1) The DOL Cannibalization Point (CP) is the only facility authorized to remove serviceable and unserviceable parts, components and assemblies from material authorized for disposal on Fort Lewis.

(2) All end items assigned to the CP will be parked in a control area, until all fluids have been drained (e.g., gas, oil, antifreeze, hydraulic fluid). A record of this action will be maintained with the item.

(3) All hazardous waste/material drained/removed from items in the CP will be processed in accordance with procedures at Appendix F, *Hazardous Waste management,* this regulation.

(4) All assigned personnel will receive appropriate training as identified in Appendix J, *Training Requirements,* this regulation.

i. Paint Shop. Guidance and procedures are contained in *Standing Operating Procedures for Coating Application Operations Including Aerospace Maintenance Activities,* previously issued.

j. Wood Shop. Guidance and procedures are contained in *Standing Operating Procedures for Woodworking Sources,* previously issued.

k. Particulate Blasting Shop. Guidance and procedures are contained in *Standing Operating Procedures for Particulate Matter Sources,* previously issued.

7. MAINTENANCE ACTIVITIES WITH AIR POLLUTION IMPACTS. Guidance and procedures are contained in Appendix M, *Environmental Compliance for Operations at Motor Pools,* this regulation.

8. UNDERGROUND STORAGE TANKS (USTs). Guidance and procedures are contained in Appendix O, *Underground and Aboveground Storage Tanks (USTs and ASTs),* this regulation.

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APPENDIX O

UNDERGROUND AND ABOVEGROUND STORAGE TANKS (USTs and ASTs)

1. PURPOSE. This appendix establishes policy, responsibilities, and procedures for the management of USTs. This appendix also contains guidelines and requirements for the management of ASTs.

2. APPLICABLE REGULATIONS.

a. The Resource Conservation and Recovery Act, Subtitle I (RCRA-I) establishes federal standards and procedures applicable to USTs. RCRA-I excludes USTs that store heating fuel.

b. Title 40, Code of Federal Regulations, Part 280 (40 CFR 280) implements the compliance requirements of RCRA-I.

c. Chapter 173-360, Washington Administrative Code (WAC 173-360), *Underground Storage Tank Regulations,* establishes the state UST program and requirements for compliance with the program. Some provisions of WAC 173-360 are more stringent than those in RCRA-I. WAC 173-360 does not regulate heating fuel USTs.

d. AR 200-1, *Environmental Protection and Enhancement,* requires compliance with all applicable federal, state and local UST requirements. In addition, AR 200-1:

(1) Waives the RCRA-I categorical exclusion for heating fuel UST systems and requires that they be managed in a manner similar to regulated USTs.

(2) Requires new UST system installations to have:

(a) Double-walled tanks for the product storage and secondary containment system.

(b) Double-walled piping for all product-carrying piping associated with the UST system.

(c) Interstitial monitoring for leak detection for tank and piping, with both a visual and audible alarm.

(3) Prohibits the use of existing or new USTs for the storage of hazardous wastes.

(4) Requires that abandoned USTs and USTs permanently taken out of service be removed from the ground.

(5) Requires all USTs to have cathodic protection, catch basins and overfill warning devices.

(6) Requires existing ASTs be retrofitted with secondary containment and, for field erected tank systems, leak detection systems.

(7) Construct new AST systems with cathodic protection, secondary containment, and overfill protection.

e. Chapter 8.34, *Underground Storage Tanks,* of the Tacoma-Pierce County Health Department (TCPHD) Title 5 Regulations, *Health and Welfare,* requires a permit from the TCPHD for removal of a UST, including a heating fuel tank UST with a capacity over 1100 gallons.

f. Title 29, Code of Federal Regulations (CFR), Part 1910.146 establishes the federal standard for protection of and entry into a confined space.

g. Installation and removal of a UST involves digging or soil excavation. Digging on lands controlled by Fort Lewis requires a permit. See Appendix S, *Digging Permit Procedures.*

h. Regulations that pertain to the design requirements of ASTs include 40 CFR 112.7c, National Fire Protection Association (NFPA) Codes 30 and 30A, WAC 296-24-33005, WAC 173-180A, and Puget Sound Air Pollution Control Authority (PSAPCA) Regulation II, Article 2. Requirements include, but are not limited to, locating, containment, leak detection, overfill protection, venting, vapor recovery, and adherence to industry standards.

i. Refer to paragraph 8 of Appendix H, *Air Pollution Management,* this regulation for applicable air regulations pertaining to the construction, use and management of USTs, ASTs, and transport tanks.

3. GENERAL.

a. An *underground storage tank* or UST is any one or combination of tanks (including underground pipes connected thereto) that is used to contain an accumulation of petroleum or hazardous materials (no UST is to be used for hazardous wastes), and the volume of which (including the volume of underground pipes connected thereto) is 10 percent or more beneath the surface of the ground.

b. A *UST system* or tank system is an underground storage tank, connected underground piping, underground ancillary equipment, and containment system, if any.

c. An *aboveground storage tank* or AST is a storage tank that is not a UST.

d. There are currently no regulated USTs at the Yakima Training Center (YTC). Any future requirements for USTs at YTC will comply with the requirements of this chapter.

4. POLICY.

a. Restrict the installation of UST's on Fort Lewis due to the increased risk of exposure to regulatory penalties and because 100% of existing UST's are targeted for eventual removal at the end of their useful existence. All future replacement tanks and new construction projects designed to have storage tanks will have above ground tanks (AST). However, exceptions to this restriction may be granted, under specific conditions, by the installation UST Program Manager. Requests for exceptions must provide as a minimum the following information:

(1) A clear explanation of how a UST is particularly critical to the mission verses using an AST.

(2) A detailed thirty year maintenance plan for the UST clearly identifying all the tasks required to keep the tank in compliance with all applicable environmental, fire and safety regulations.

(3) A clear estimate of the cost required to perform all the maintenance tasks over the thirty years and what source will provide the funding. this estimate will also include the estimated cost to permanently close the tank at the end of the thirty years. If an exception is granted, any new gasoline tank (UST or AST) greater than 1000 gallons will include installation of a Stage I and Stage II vapor recovery system. Both Stage I & II must be IAW standards outlined by PSCAA at the time the air permit is obtained.

b. Use the AST for all new storage tank installations or replacement of UST's. New AST's, at a minimum, will meet the following construction requirements: All steel construction; liquid level monitoring; secondary containment for at least 110% of the volume of the largest tank in the containment area; containment equipped with a locking storm-water drain to prevent loss of spilled petroleum to the environment; piping aboveground and fully contained; spill containment for dispensing and filling operations; and if greater than 1000-gallon capacity, vapor recovery as described above. Deviations from these requirements and/or additional construction designs must be coordinated with ENRD, 967-5337/966-1777.

c. Replace or close any existing UST system that does not meet WAC 173-360 compliance requirements.

d. Require repairs and services on regulated UST's be performed only by International Fire Code Institute (IFCI) certified UST personnel in accordance with WAC 173-360.

e. Require compliance with Title 29 CFR 1910.146 for any operation, inspection, maintenance or repair activities associated with UST's and AST's.

5. RESPONSIBILITIES.

a. The Fort Lewis Public Works will provide overall program management for storage tanks at Fort Lewis and YTC through the Environmental and Natural Resources Division (ENRD). ENRD will:

(1) Prepare and implement an installation management plan for USTs and AST's as required by AR 200-1. As a minimum, the plan will consist of the following:

(a) A current UST and AST inventory containing key data (e.g., user/operator, location, capacity, construction material, installation date, material stored in the UST, status of compliance with applicable regulations, etc.) on each operational UST/AST.

(b) A schedule for the removal, replacement and installation of USTs. This will include installation of Automatic Tank Gauges on tanks not now equipped with them and must be completed by December 2008.

(c) An inspection and maintenance schedule. Regulated USTs will be inspected monthly.

(2) Review all projects that require installation, retrofitting, closure and removal of USTs for compliance with applicable UST regulations.

(3) Coordinate for the accomplishment of required tank and pipe tightness testing, inspection of corrosion protection systems, and other required systems checks.

(4) Maintain the central file of records on each UST. As a minimum, the records will include documents that prove leak detection performance, inspection of corrosion protection systems, proper repair or upgrade, and proper closure (when a UST is removed). Notices of Intent to Install documents (these contain pertinent information about the UST including drawings and certification of correct installation) and all 30-day notice forms (used when installing or closing a UST) will be part of the file.

(5) Provide all required notification, certification, reports and other documents to regulating agencies and Army commands relating to installation, closure, leaks/releases, and system regulatory compliance. Provide other UST information as requested.

(6) Provide annual certification and obtain all required UST operating permits from regulating agencies and coordinate for payment of appropriate fees.

b. The Installation Safety Office will assist proponents and user/operators of UST's and AST's in evaluating tanks as possible confined spaces.

c. Proponents of projects requiring the installation, retrofit, or removal of a UST/AST system will:

(1) Coordinate with ENRD to ensure that the project is reviewed for UST regulatory compliance.

(2) Obtain permits and other required documents prior to installation.

(3) Ensure that the contractor is a IFCI certified UST installer as required by WAC 173-360.

(4) Evaluate the potential for the proposed UST/AST project to create a permit-required confined space.

d. Users/operators of UST/AST systems will:

(1) Display a valid Washington State permit to operate the UST on or near the tank. The permit will be provided by ENRD and will remain where posted. Permits are renewed annually. If the permit is missing, damaged or expired, ENRD (967-5337/966-1777) will be contacted.

(2) Provide access to the UST system and sufficient fuel when necessary for the required and/or routine conduct of system inspections, testing, and maintenance as coordinated by ENRD. Testing may include the following:

(a) A tightness test performed on the tank and associated piping as a requirement for obtaining a Washington State permit for a newly installed UST.

(b) Annual line tightness testing of UST piping for those systems which have single-walled piping.

(c) A tightness test performed on the tank and/or associated piping when the integrity of the system is suspect.

(d) A tightness test performed on a UST after a repair or retrofit.

(3) Report leaks/releases (i.e., one that is not contained within a secondary containment device) immediately to the Fire Department (call 911) at Fort Lewis, 577-3111 at YTC) and ENRD (966-1777), regardless of the amount of material spilled. Report small contained leaks/releases to the Public Works Service Order Line (967-3131). This requirement also applies to ASTs. Reporting of leaks is a requirement of federal and state regulations. A report will be made when:

(a) A leak detection alarm is activated.

(b) Physical evidence indicates a leak/release.

(4) Report system malfunctions or items requiring repair to the Public Works Service Order Line (967-3131).

(5) Ensure positive control of rainwater in overfill sumps. Users/operators of USTs and ASTs with overfill containment, which collects rainwater, will ensure that the valve that drains the rainwater to the storm water system remains closed at all times, except when in use. If a sheen is present on the water, it will be removed, or if it is suspected that the rainwater is contaminated with any product, call Environmental Services at (967-4786) for further instruction regarding the contaminated water.

(6) Notify ENRD in writing and obtain ENRD approval prior to any change in service action. A change in service action includes but is not limited to the following:

(a) Permanently ceasing use of an active UST.

(b) Temporarily ceasing use of an active UST. Tanks which will be out of service for a period of three months or longer must undergo state temporary closure procedures (to be coordinated by ENRD).

(c) Bringing back into operation a UST that has undergone state temporary closure procedures (i.e., a UST that has been out of service for at least three months).

(d) Bringing back into operation a UST that has been out of service for an unknown period of time.

(e) Changing the type and/or grade of fuel stored in the tank.

(f) Changing to the storage of another type of hazardous material (other than hazardous waste, which is prohibited by AR 200-1 from being stored in a UST).

(7) Assign the Environmental Compliance Officer or authorized representative as the POC for Above Ground and Underground Storage Tank issues. The POC's name and phone number will be provided to ENRD at 966-1777.

(8) Ensure all UST's/AST's are evaluated in writing as potential confined spaces and operate the UST/AST in accordance with the results of the evaluation.

APPENDIX P

ENVIRONMENTAL NOISE POLLUTION ABATEMENT

1. PURPOSE. This appendix establishes policies and designates installation responsibilities for the control and abatement of noise pollution.

2. KEY APPLICABLE REGULATION. 32 CFR 651, *Environmental Analysis of Army Actions* (AR 200-1, *Environmental Protection and Enhancement),* outlines Army requirements for the control and abatement of environmental noise. These requirements include the assessment of noise impact from proposed Army actions and maintenance of an active Environmental Noise Management Plan (ENMP) program.

3. GENERAL.

a. The effects of noise on the population are in two general categories; these are noise exposure levels necessary to protect public health, and those associated with public welfare. Noise levels associated with health are generally related to occupational exposure for the 8-hour work day that result in permanent hearing loss over a period of many years, while those associated with welfare are confined to annoyance and other physiological effects such as loss of sleep.

b. The Army assesses and describes Army environmental noise using the annual average day-night sound level (DNL). This method does not reflect single or infrequent impulsive noise events, which can cause high levels of physiological distress.

4. POLICY. It is the policy of Fort Lewis to:

a. Comply with applicable state and local noise requirements.

b. Control noise produced by activities that negatively impacts the health and welfare of its members and the public within, adjacent to, and surrounding the installation.

c. Assess the environmental impacts of noise from Army activities and mitigate impacts to the maximum extent practicable, consistent with the installation's mission.

d. Abate noise where necessary or appropriate by application of engineering noise reduction procedures, administrative control and modern land-use planning.

e. Provide for noise control in the design and siting of facilities.

f. Institute measures to reduce and/or control the noise from flight activities.

g. Comply with DoD and Army requirements pertaining to ENMP.

5. RESPONSIBILITIES.

a. Public Works (PW) will exercise staff responsibility for the noise pollution abatement program. The Environmental and Natural Resources Division (ENRD), Public Works will coordinate execution of the program and will:

(1) Provide guidance on noise abatement actions to assure compliance with federal, state and local standards regarding environmental noise.

(2) Identify sources of noise which exceed standards, are an annoyance to others, or are injurious to health, and develop remedial projects or procedures to reduce such noise to acceptable levels.

(3) Monitor, in coordination with the Director of Plans, Training and Mobilization (DPTM), the conduct of training activities producing inherently high noise levels to determine actions for minimizing effects on nearby military and civilian populations.

(4) Maintain liaison with appropriate federal, state and local noise pollution abatement authorities and land use planning agencies.

(5) Implement the ENMP Program. Generate information needed to develop ENMP noise contours for Fort Lewis.

(6) Coordinate with the Planning Division, Public Works, to ensure that ENMP data is integrated into land use planning as described in AR 210-20.

(7) Coordinate with Preventive Medicine Services, Madigan Army Medical Center (MAMC) and the Command Safety Office as required in managing the noise control program.

(8) Coordinate with the Airfield Commander to monitor, assess and control helicopter noise.

(9) Coordinate with Range Control and the Airfield Commander in maintenance of operational data on impulsive noise, aircraft noise, and small arms noise.

(10) Conduct on-site monitoring if changes in training activities cause ENMP Zone III to extend outside installation boundaries, or if a significant noise controversy exists.

b. The Director of Plans, Training, Mobilization, and Security (DPTMS) will coordinate with ENRD in working with units to minimize effects on nearby military and civilian populations from training activities that produce inherently high noise levels.

c. The Preventive Medicine Services, MAMC will:

(1) Monitor health and welfare aspects of noise control at Fort Lewis.

(2) Coordinate with Public Works and the Command Safety Office to establish local industrial noise requirements for Major Construction Army (MCA) and repair projects so as to meet Occupational Safety and Health Administration (OSHA) standards.

(3) Inspect activities in the cantonment area and downrange for compliance with hearing safety regulations.

(4) Collect, evaluate and disseminate data on environmental noise conditions that may adversely affect public health.

(5) Provide technical assistance to project proponents for resolving noise issues during preparation of Environmental Assessments and Environmental Impact Statements.

(6) Assist in developing environmental noise abatement programs for facilities and activities.

d. The Command Safety Office will coordinate with the Preventive Medicine Services and Public Works in implementing OSHA requirements.

e. The Staff Judge Advocate (SJA) will:

(1) Investigate alleged property damage caused by Fort Lewis activities and process claims as necessary.

(2) Submit adjudicated noise claims to ENRD for analysis of specific activities causing the claim and possible mitigation actions.

f. The Public Affairs Office (PAO), Community Relations Branch will:

(1) Receive citizen complaints of noise produced by installation activities and maintain a log of these complaints in accordance with FL Reg 360-5.

(2) Inform complainants of the cause of the noise, where possible, and the nature of any corrective measures to be taken to alleviate or prevent unacceptable noise levels from Army actions.

(3) Submit copies of complaints to ENRD.

g. Other staff directorates, activities, and subordinate commands will:

(1) Incorporate procedures into unit SOPs, operations orders, and daily actions to assist in complying with Fort Lewis regulations on hearing conservation and minimizing noise emissions.

(2) Cooperate with Preventive Medicine Services and the Command Safety Office in the establishment of adequate hearing protection procedures.

(3) Consistent with mission requirements, schedule and locate maneuver training, range firing and other activities that generate high noise levels so as to minimize noise impacts on affected installation and adjacent populated areas, with particular emphasis on activities between 2200 and 0700 hours.

6. PROCESSING OF NOISE COMPLAINTS. Citizen complaints may be indicators of situations where noise mitigation measures will be necessary. Noise complaints will be managed as described below.

a. All noise related complaints will be referred to the installation PAO, Community Relations Branch (967-0146). Sub-installation PAOs will forward complaints to the Fort Lewis PAO.

b. Noise complaints will be recorded on form Headquarters, Fort Lewis (HFL) 761.

c. The Fort Lewis PAO will notify ENRD of all complaints, and will inform the Fort Lewis Command Group of any noise complaint that may generate a significant community relation's issue.

d. ENRD will initiate an investigation to determine whether corrective actions are warranted or can be implemented.

e. If any complainant alleges that the noise has caused property damage, an accurate summary of the alleged damage will be provided on complaint form HFL 761 by the PAO and forwarded to the Claims Division, SJA.

f. Complainants will be informed by the PAO of the cause of the noise, where possible, and the nature of any corrective measures to be taken to alleviate or prevent unacceptable noise levels from future Army actions.

7. ENVIRONMENTAL NOISE MONITORING. Specific training events are monitored at Fort Lewis and Yakima Training Center by ENRD. Noise contours will be updated by ENRD as needed for the ENMP Program and land-use planning. Immediate problems will be recognized and appropriate mitigation techniques implemented where possible.

APPENDIX Q

NATURAL RESOURCES MANAGEMENT

1. PURPOSE. This appendix establishes policies and designates installation responsibilities for coordinated management of natural resources, including ecosystem management for habitats, listed species, and fish and wildlife naturally occurring at Fort Lewis and its sub-installations.

2. KEY APPLICABLE REGULATIONS.

a. The Endangered Species Act requires federal facilities to implement programs to protect and conserve federally listed endangered and threatened plants and wildlife.

b. The Sikes Act requires fish and wildlife conservation and mandates federal facilities to execute cooperative plans with the U.S. Fish and Wildlife Service and state for managing fish and wildlife.

c. The Clean Water Act mandates the identification, delineation, and protection of wetlands and requires permits for actions, which affect wetlands.

d. A memorandum from the Deputy Under Secretary of Defense for Environmental Security dated 8 August 1994 , Subject: *Implementation of Ecosystem Management in the DoD* states that ecosystem management is the basis for management of DoD lands and waters.

e. A memorandum from the Deputy Assistant Secretary of the Army for Installations and Housing (known as the "Johnson Memorandum") dated 18 August 1989, Subject: *Policy Regarding Endangered Species Management Requirements on Army Installations* requires that consideration be given to species protected by both federal and state laws. In addition, the policy directs that candidate species be treated as listed species for the purpose of managing natural resources or supporting military mission requirements.

f. AR 200-3, *Natural Resources -- Land, Forest and Wildlife Management,* provides Army policy for managing natural resources.

g. AR 200-5, *Pest Management.*

h. FL Reg 215-1, *Hunting, Fishing and Trapping.*

i. FL Reg 350-30, *Fort Lewis Range Regulations.*

j. FL Reg 350-31, *Yakima Training Center Range Regulation.*

k. FL Reg 420-5, *Federally Listed Threatened, Endangered and Candidate Species.*

3. POLICY. It is the policy of Fort Lewis, consistent with the military training mission, to:

a. Minimize activities that contribute to the degradation of natural resources.

b. Manage for biological diversity through the protection and enhancement of natural ecosystems.

c. Promote the sound use of natural resources and provide for forest products, fish and wildlife habitat, recreational support, environmental education opportunities, and support of scenic and aesthetic values.

4. RESPONSIBILITIES.

a. The Director of Public Works (DPW) will exercise staff responsibility for the natural resources management program. The Environmental and Natural Resources Division (ENRD), Public Works (Fort Lewis and YTC) will coordinate execution of the program and will:

(1) Prepare and maintain the installation Integrated Natural Resources Management Plan (INRMP).

(2) Coordinate the installation timber harvest, and fish and wildlife management programs with appropriate agencies; maintain liaison with the agencies through cooperative agreements as required.

(3) Provide guidance to land users for protecting and preserving natural resources.

(4) Review all master plans and updates for natural resources impacts.

(5) Prepare, maintain, and coordinate all actions for implementing the Installation Pest Management Plan.

(6) Provide natural resource guidance to the Directorate of Community Activities (DCA) to ensure that the recreational hunting and fishing programs operated by the DCA under FL Reg 215-1 comply with the requirements of the INRMP.

(7) Coordinate and publish local policies/regulations as necessary to accomplish natural resources management programs.

(8) Provide input to other installation regulations (e.g., FL Reg 95-1, 350-1, 350-30, 350-31) as needed to reflect natural resources management policy.

(9) Ensure that natural resources and ecosystem values receive consideration in all land leases and outgrants and that environmental protection and provisions of the INRMP are included in the lease or outgrant agreement.

b. The Planning Division, PW will:

(1) Ensure the INRMP is fully integrated into the Installation Master Plan.

(2) Coordinate and monitor all actions for implementing the INRMP.

(3) Conduct an annual review of the INRMP.

c. The DCA will manage the installation recreational hunting and fishing programs in accordance with FL Reg 215-1, and will ensure coordination with ENRD so that the programs are managed within the requirements of the INRMP. NOTE: No recreational trapping is permitted on the installation.

d. The Commander, Yakima Training Center (YTC) will:

(1) Ensure the preparation and implementation of an INRMP applicable to the YTC sub-installation.

(2) Provide guidance to commanders of training units to ensure that training activities are accomplished in concert with the requirements of the INRMP and this regulation.

e. Major subordinate commanders will:

(1) Ensure that the development of training programs includes the assessment of potential impacts to natural resources. Coordination will be made with ENRD (966-1780) for information and guidance on environmental documentation that may be required for planned major exercises.

(2) Conduct training activities in accordance with this regulation to avoid or minimize damage to natural resources.

(3) Emphasize guidance contained in Appendix L, *Environmental Compliance During Field Training,* this regulation.

5. CANTONMENT AREA LAND MANAGEMENT.

a. The use of all land resources within the cantonment area, to include construction of facilities, road and trail construction/maintenance, and all landscaping, will be accomplished/approved by Public Works in accordance with the installation Master Plan.

b. Construction setbacks are required for streams/creeks, wetlands, and other water bodies on the Fort Lewis installation. Proponents of projects in the vicinity of water bodies will consult with ENRD at 966-1780 (ENRD-YTC, 577-3402) to determine specific setback distances.

c. All unit activity commanders and family housing residents will maintain the ground surface, grass, shrubs, and trees within their area of responsibility. No refuse items or materials may be disposed of by leaving them on the ground in their area or surrounding areas. Public Works will maintain all vegetation around the Installation Headquarters and all areas not assigned to or occupied by a unit, activity, or tenant. Public Works also will perform all required pest management activities, in accordance with the Installation Pest Management Plan.

d. Damaging trees is strictly prohibited.

e. The destruction of vegetation contributes to soil erosion and the loss of wildlife habitat. Throughout the cantonment/non-training area (including housing areas), it is not permissible to:

(1) Damage woody vegetation.

(2) Drive or park any motor/tactical vehicle or motor-driven cycle anywhere other than on designated roads, trails, training areas, parking areas, or recreational facilities specifically intended for such use.

6. DOWNRANGE LAND MANAGEMENT.

a. The construction/maintenance of all downrange land resources, including all facilities, roads, trails, firebreaks, dam construction and maintenance activities, and vegetation maintenance activities will be coordinated with ENRD (ENRD-YTC at YTC) for approval to ensure compliance requirements are met and projects are consistent with the INRMP.

b. The requirement in paragraph 5b above for consulting with the appropriate environmental office for construction setback requirements on streams/creeks, wetlands, and other water bodies on installation or sub-installation lands also applies downrange.

c. Unit commanders will conduct training activities so as to avoid damaging sensitive areas and resources depicted in the published Environmental Coordination Maps for Fort Lewis and YTC, or provided by the Fort Lewis or YTC Range Control.

(1) Guidance contained in Appendix L, *Environmental Compliance During Field Training,* pertaining to maneuver activities, digging, stream crossings, field sanitation and other field training activities with the potential natural resource significant impact will be followed.

(2) Prairie and grasslands. These sites are particularly sensitive to training activities. Three prairie/grassland sites in Fort Lewis training areas 21, 22, and 23 are off limits to tracked vehicle maneuvers, digging, and bivouacking. These areas are depicted on the Environmental Coordination Map as dark green shaded areas.

(3) Seibert stakes in training areas. Seibert stakes have been emplaced at Fort Lewis and YTC to protect selected sensitive areas by restricting tracked and wheeled vehicle maneuvers within the staked areas. The seibert stakes control area entry and exit, allow vehicles on designated routes only, and protect vegetation, soils or archaeological sites. Seibert stakes in Fort Lewis training area 15 denote a Research Natural Area which is managed for ecosystem preservation.

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APPENDIX R

CULTURAL RESOURCES MANAGEMENT

1. PURPOSE. This appendix establishes policy, responsibilities, and procedures for management of cultural resources on lands subject to effects from Fort Lewis, sub-installation and supported facility mission activities.

2. KEY APPLICABLE REGULATIONS.

a. National Historic Preservation Act (NHPA) of 1966, as amended (Public Law 89-665; 16 USC 470-470w-6).

b. Archeological Resources Protection Act (ARPA) of 1979 (16 USC 470aa-47011).

c. American Indian Religious Freedom Act (AIRFA) of 1978 (Pubic Law 95-341; 42 USC 1996)

d. Native American Graves Protection and Repatriation Act (NAGPRA) of 1990 (Public Law 101-601).

e. National Environmental Policy Act (NEPA) of 1969 (Public Law 91-190; 42 USC 4321-4347).

f. Department of Defense American Indian and Alaska Native Policy, October 20, 1998.

g. Executive Order 13007, *Indian Sacred Sites*.

h. Executive Order 13287 of March 3, 2003, *Preserve America*.

i. White House Memorandum dated 29 April 1994—*Government-to-Government Relations with Native American Tribal Governments*.

j. Department of Defense (DoD) Directive 4710.1 of 21 June 1984, *Archaeological and Historic Resources Management*

k. AR 200-4, *Cultural Resources Management.*

3. GENERAL.

a. Fort Lewis and its sub-installations contain historic and prehistoric archeological sites; historic districts, buildings, structures, objects and landscapes; Indian sacred sites; traditional cultural properties; and traditional resources and use areas. These places are collectively identified as “cultural resources.”

b. Cultural resource management responsibilities include: activities to inventory, evaluate, and avoid or minimize adverse impacts to cultural resources; consultation with stakeholders including Indian tribes, State and Tribal Historic Preservation Officers, the general public, and others; management of access to traditional cultural places, resources, and use areas; efforts to advance the protection, enhancement, and contemporary use and appreciation of cultural resources; and the long-term curation of artifact collections and associated records.

4. POLICY.

a. It is the policy of Fort Lewis to comply with all federal and state laws, regulations, Executive Orders, and DoD directives that pertain to the management of cultural resources on federal lands.

b. It is the policy of Fort Lewis to recognize the reserved rights that Native American groups hold on lands administered by Fort Lewis and its sub-installations, and seek to accommodate these rights within mission requirements.

5. RESPONSIBILITIES. Successful management of cultural resources requires the commitment of individuals and commanders at all levels. Specific responsibilities are indicated below.

a. The Fort Lewis Garrison Commander (GC) will establish an Installation Cultural Resources Management Program in accordance with AR 200-4 to ensure that the effects of installation mission activities on cultural resources are taken into account in installation planning and decision-making.

b. The Fort Lewis Director of Public Works (DPW) will exercise staff responsibility for the cultural resources management program. The Installation Cultural Resource Manager (CRM) and Installation Coordinator for Native American Affairs will be appointed by the GC within the Fort Lewis Environmental and Natural Resources Division (ENRD) to coordinate program execution at Fort Lewis, Yakima Training Center (YTC), and other sub-installations. The CRM will:

(1) Prepare and implement the Fort Lewis Integrated Cultural Resource Management Plan (ICRMP).

(2) Provide policy level guidance and technical assistance to the YTC cultural resource management program; the YTC Director of Public Works (YTC-DPW) is responsible for day-to-day cultural resource program management and implementation at YTC.

c. The Yakima Training Center Director of Public Works (YTC-DPW) will:

(1) Ensure the preparation and implementation of cultural resource management plans and policies applicable to the YTC sub-installation as a component of the Fort Lewis Integrated Cultural Resource Management Plan (ICRMP).

(2) Take the lead on staff level coordination activities involving the State Historic Preservation Officer, the Yakama Nation, the Wanapum, and the Confederated Tribes of the Colville Reservation. Issues that are controversial or precedent setting in nature will be coordinated with Installation Cultural Resource Manager prior to initiating coordination. The YTC-DPW will take affirmative steps to inform the Installation Cultural Resource Manager and Installation Coordinator for Native American Affairs of all SHPO and Tribal issues and communications.

(3) Ensure that YTC cultural resource program information (GIS databases, archaeological site records, reports of investigations, SHPO and Tribal correspondence, artifact collections and associated records, etc.) is maintained in an orderly fashion accessible to the Installation Cultural Resource Manager and Installation Coordinator for Native American Affairs to facilitate overall program management, coordination, and integration.

d. Unit commanders and staff directors will:

(1) Emphasize awareness within their commands and directorates that mission planning must take into account the effects of mission activities on cultural resources.

(2) Consult the Environmental Coordination Map during planning for training or other mission activity to ensure that adverse impacts to cultural resources are avoided or minimized. Be advised that additional sensitive areas may have been identified since the Coordination Maps were published. Contact the ENRD Fort Lewis at 966-1785 or ENRD YTC at 577-3535 if information is lacking or questionable. Consult Appendix S, *Digging Permit Procedures*, for any activities involving digging or soil excavation.

(3) Upon discovery of any historic or prehistoric cultural remains, cease mission activities in the vicinity, take steps to prevent further disturbance, and immediately inform the appropriate Range Control of the discovery. Range Control will inform the appropriate ENRD.

(4) Inform ENRD of any reports of unauthorized excavation or removal of historic or prehistoric cultural materials.

e. Individuals (military and civilian) will:

(1) Not disturb or collect prehistoric and historic artifacts, souvenirs, or specimens. These may include bullets, bottles, bottle fragments, coins, “arrowheads,” rocks, bones, fossils, shells, dinner plate fragments and other ceramics, bricks, cemetery plantings, historic landscape plantings, or any other potentially historic

materials found on or below the surface of Fort Lewis unless approved in writing by the ENRD.

(2) Inform superiors of any historic or prehistoric cultural materials they observe.

(3) Inform superiors of any unauthorized excavations or removal of historic or prehistoric cultural materials.

(4) Not conduct off-road vehicle maneuvers or any digging in areas delimited by Seibert stakes.

(5) Not use metal detectors or other means to locate, remove or collect artifacts, souvenirs, or specimens of any type from Fort Lewis unless approved in writing by the ENRD.

APPENDIX S

DIGGING PERMIT PROCEDURES

1. PURPOSE AND APPLICABILITY. This appendix states procedures for obtaining a permit to dig or excavate. The digging permit process is intended to protect personnel, avoid damage to publicly owned lands and utilities, and comply with legal environmental requirements. Guidance in this appendix applies for any training or non-training event in which digging or soil excavation will be conducted on Fort Lewis or the Yakima Training Center (YTC). NOTE: Some large-scale training exercises provide for digging permit approval through an exercise control center (ECC). For these exercises, follow the digging permit procedures specified in the exercise directive.

2. GENERAL.

a. Digging activities in training areas that use mechanical equipment ("SEE" tractor, dozer, backhoe, deuce, etc.) and/or hand digging require a permit. ANY digging activity in the cantonment area, including hand digging (for example, digging by a family housing occupant to install a fence) requires a permit.

b. Obtain the permit a minimum of 72 hours before performing the activity at Fort Lewis. At YTC dig requests must be submitted 45 days prior to start of planned training. See Section 4, below for specific procedures for submitting YTC dig requests.

c. Have the digging permit on site during work. Ensure that digging restrictions and any instructions stated in the permit are followed.

d. Schedule and conduct activities as required by FL Reg 350-30, *I Corps and Fort Lewis Range Regulations,* or FL Reg 350-31, *Yakima Training Center Range Regulation.*

e. Any unauthorized/unpermitted digging will be deemed an illegal excavation and a violation of FL Reg 200-1.

3. DIGGING PERMIT PROCEDURES FOR FORT LEWIS. The officer or NCO (military units), the supervisor (civilian agencies), or housing occupant performing the digging will:

a. Identify digging requirements to include purpose of the digging, type of digging to be performed, size of area required, i.e., width-length-depth, location (eight digit military grid coordinates, building number, or street), and equipment proposed for use.

b. Conduct initial coordination with the proponent agency for the location of the digging.

(1) Digging in any training area: Coordinate with Fort Lewis Range Control (Building 4074, telephone 967-6371).

(a) There are locations in the training areas that have been previously cleared with affected agencies and set aside for operator sustainment training with mechanical digging equipment. No digging permit is required for the set-aside areas. If coordination with Range Control indicates that the mission can be performed in a set-aside area, the unit/agency can proceed.

(b) If the digging will not occur in a set-aside area and Range Control has no objections to the mission, the requester will be referred to the PW Digging Permit Desk for further coordination and final approval.

(2) Digging in any location other than a training area: Coordinate with the PW Digging Permit Desk (Building 2012, Room 008, telephone 967-5237).

c. Conduct required coordination with affected agencies.

(1) The Support Division will review the digging requirement, determine affected agencies with which coordination needs to be conducted and will provide a coordination form to be completed.

(2) Obtain agency approval signature(s) on the coordination form.

d. Return the completed coordination form to the Digging Permit Desk for mission approval and issuance of the digging permit.

e. Once a military training exercise or construction project has begun and a resulting change in the actual digging site occurs, immediately stop digging and contact Range Control or the Digging Permit Desk, as appropriate, to obtain approval for the new location.

4. DIGGING PERMIT PROCEDURES FOR YTC. Units/agencies and individuals requiring a permit for digging activities at YTC will:

a. Identify digging requirements to include purpose of the digging, type of digging to be performed, size of area required, i.e., width-length-depth, location (ten digit military grid coordinates, building number, or street), and equipment that will be used for digging.

b. Military units submit dig requests to YTC using the web base dig request tool found at (https://yakima-pw.lewis.army.mil/home.htm). Dig requests must be submitted 45 days prior to start of training event.

c. dig permits for military training activities in the Range or Training Areas are issued by the YTC Operations Center (Building 301). Dig permits for construction or Cantonment Area activities are requested and obtained through the YTC PW (Building 810).

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APPENDIX T

REQUISITION OF OZONE DEPLETING CHEMICALS

1. PURPOSE AND APPLICABILITY. This appendix states the procedures for the review and approval of the requirement for Ozone Depleting Chemicals (ODCs) in contracts entered into by the government. The review process is required by Department of Defense (DoD) regulations to ensure compliance with federal requirements for reducing and eventually eliminating the use of ODCs. Guidance in this appendix applies for new contracts, and to existing contracts, which have a contract value over $10 million and with a period of performance of one year or more beyond the date of modification. NOTE: Purchase or requesting of Class I ODC's for equipment repair, addition to refrigerant or refrigerant replacement must be processed through the Hazardous Material Control Center (HMCC). Purchase requests must be accompanied by the documentation required in paragraph 2.d below.

2. GENERAL.

a. The review process is outlined in the chart at Figure T-1 and is further explained in the paragraphs below.

b. New contracts that require ODCs will be reviewed, including any local purchase of ODCs.

c. Existing contracts must be reviewed if the following conditions are met:

(1) Total contract value exceeds $10 million; and

(2) The contract period of performance will continue one year or more beyond the date of the modification.

d. Approval for Class I ODC requirements in contracts must be granted by a Senior Approving Official (SAO), who is a General Officer or Senior Executive Service. The SAO for Fort Lewis and its sub-installations is the Commander, I Corps and Fort Lewis.

(1) When the review process indicates a valid requirement for the Class I ODCs, the requesting activity will prepare a staff summary (HFL 744) as per Fort Lewis Staff Memorandum 1-2 for approval by the SAO.

(2) The staff summary will include the appropriate certification/statement by the reviewing Authorized Technical Representative (ATR), and a statement for signature of the SAO. Figures T-2 and T-3 contain proposed language for ATR and SAO statements.

3. INITIAL REVIEW BY THE REQUESTING ACTIVITY. The requesting activity will conduct a review of requirements in new contracts and in existing contracts meeting the criteria above to identify whether Class I ODCs are required. A listing of Class I ODCs is provided in Appendix H *(Air Pollution Management),* this regulation. The requesting activity will:

a. If Class I ODCs are not required, prepare a statement indicating that the ODC requirement is not applicable and forward the requirements package to the contracting office.

b. If the initial review establishes the requirement for Class I ODCs in the contract, forward the requirements package to the ATR serving the agency. ATRs are appointed at major Fort Lewis organizations and sub-installations as listed in Appendix H, this regulation. The ATR will conduct formal review of the Class I ODC requirement.

4. ATR REVIEW. The appropriate ATR will review the Class I ODC requirement and will:

a. If use of the Class I ODC is optional, delete the ODC requirement from the contract and prepare a statement for the contracting office indicating that the ODC requirement is not applicable.

b. If either a suitable chemical substitute or an alternate technology is available, conduct an impact analysis and make a recommendation to the SAO for approval or disapproval of the Class I ODC requirement. See Figure T-2 for proposed language to be used in the recommendation and Figure T-3 for proposed language to be used for the SAO action.

c. If neither a suitable chemical substitute nor an alternate technology is available, certify to the non-availability and recommend approval to the SAO for the Class I ODC requirement. See Figure T-2 for proposed language to be used in the recommendation and Figure T-3 for proposed language to be used for the SAO action.

d. Provide the appropriate ATR certification/statement and any supporting documentation to the requesting activity for use in preparing the staff summary (HFL 744) for action by the SAO.

5. SAO ACTION. The SAO will consider the ATR certification/statement, act on the recommendation in the staff summary from the requesting activity, and sign the appropriate SAO statement .

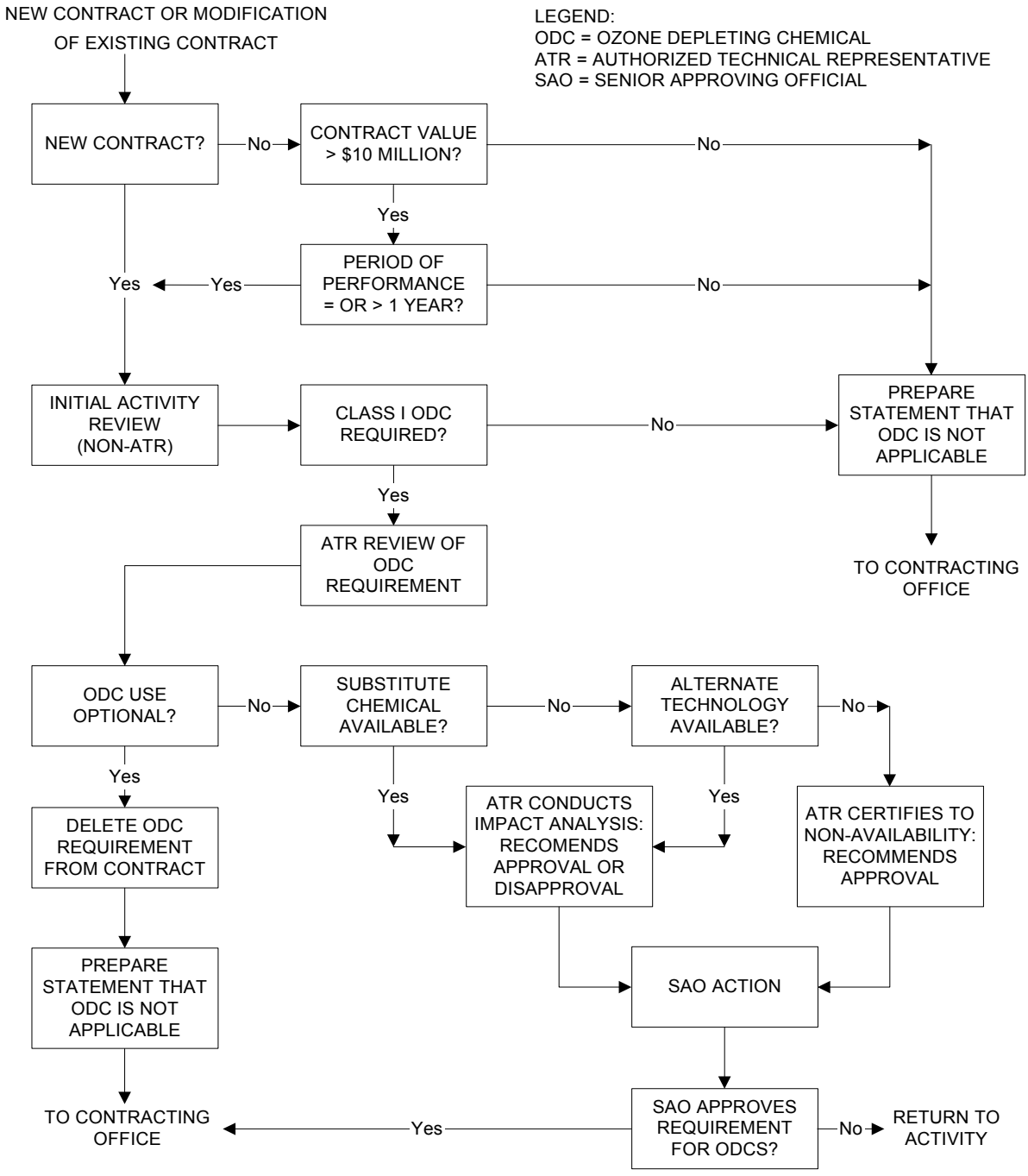

Figure T-1. Review Process For Class I ODC Requirements.

AUTHORIZED TECHNICAL REPRESENTATIVE CERTIFICATION

As an Authorized Technical Representative (ATR), I have reviewed the contractual documents that require Class I ODC use and certify that, to the best of my knowledge and belief, the following is true:

_____ *For the Class I ODCs required by the specifications, standards and requirements (as attached), there are suitable substitutes and/or alternative technologies available for use. Those substitutes and/or alternative technologies are also attached, are cross referenced to each specific Class I ODC application, and should be called out as the required option in the contractual language.*

_____ *For some of the Class I ODCs required by the specifications, standards and requirements (as attached), there are suitable substitutes and/or alternative technologies available for use. Those substitutes and/or alternative technologies are also attached, are cross referenced to each specific Class I ODC application, and should be called out as the required option in the contractual language. For all other required Class I ODC uses (as attached), as specified by the contract, there are no suitable substitutes and/or alternative technologies currently available.*

_____ *There are no suitable substitutes or alternative technologies currently available for the Class I ODCs as required by the contract for the specific applications and processes covered in the contract.*

Atchs

Signature:

Name:

Organization:

Date:

Figure T-2. Proposed ATR Language For Use In Review Of Class I ODC Requirements.

ACTION BY SENIOR APPROVING OFFICIAL

_____ *Based on the Authorized Technical Representative's (ATR) Certification(s), I have determined that economically feasible substitutes and/or alternative technologies are currently available for the specified applications and processes using Class I ODCs in this contract. As the Senior Approving Official (SAO), I am authorizing the contracting office to take the appropriate steps to allow the use of these specific economically feasible substitutes and/or alternative technologies as required options if specified, for the specific applications and processes listed.*

_____ *Based on the Authorized Technical Representative's (ATR) Certification(s), I have determined that economically feasible substitutes and/or alternative technologies are currently available for some of the specified applications and processes using Class I ODCs in this contract. As the Senior Approving Official (SAO), I am authorizing the contracting office to take the appropriate steps to allow the use of these specific economically feasible substitutes and/or alternative technologies as required options if specified, for the specific applications and processes listed. I further authorize the contracting office to include the specific Class I ODC requirements as specified, for which there are no economically feasible substitutes and/or alternative technologies currently available.*

_____ *Based on the Authorized Technical Representative's (ATR) Certification(s), I have determined that economically feasible substitutes and/or alternative technologies are not currently available for the specified applications and processes using Class I ODCs in this contract. As the Senior Approving Official (SAO), I am authorizing the contracting office to include the specific Class I ODC requirements as specified.*

Signature:

Name:

Rank, USA
Senior Mission Commander

Date:

Figure T-3. Proposed SAO Language For Use In Review Of Class I ODC Requirements.

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APPENDIX U

HAZARDOUS MATERIALS SUBSTITUTION PROGRAM

1. PURPOSE. This appendix establishes policies and procedures for the Hazardous Materials Substitution Program (HMSP) to limit the presence of certain hazardous materials, keeping the installation in compliance with various environmental statutes and regulations.

2. KEY APPLICABLE REGULATIONS.

a. Executive Order 13148, *Greening the Government through Leadership in Environmental Management.* This order mandates both a decrease in generation of hazardous waste and a decrease in the use of hazardous material.

b. WAC 173-307, *Washington Hazardous Waste Reduction Regulations.* State laws that require any organization that produces more than 2,640 pounds of hazardous waste annually to implement a plan to reduce generation of hazardous waste.

c. AR 200-1, *Environmental Protection and Enhancement*, asserts the Army's desire to "Focus efforts on pollution prevention where and when possible to reduce or eliminate pollution at the source." Chapter 10 of AR 200-1 cites *material substitution* as one aspect of pollution prevention.

d. The United Nations' Montreal Protocol on Substances that Deplete the Ozone Layer, an international agreement that controls the production and consumption of substances that can cause ozone depletion, such as CFCs, HCFCs, HBFCs, halons, methyl chloroform, carbon tetrachloride, and methyl bromide.

e. Clean Air Act (42 U.S.C. s/s 7401 et seq. 1970) Title VI, sections 601-618 mandates the protection and enhancement of the quality of the Nation's air resources so as to promote public health and welfare and the productive capacity of its population by initiating the phase-out of class I and class II ozone depleting substances.

f. 64 FR 58666, EPA ruling on lowering the reporting thresholds for certain persistent bioaccumulative toxic (PBT) chemicals that are subject to reporting under Section 313 of the Emergency Planning and Community Right-to-Know Act of 1986 (EPCRA) and Section 6607 of the Pollution Prevention Act of 1990 (PPA).

3. POLICY.

a. Ensure compliance with applicable state and federal environmental regulations.

b. Reduce the use of ozone depleting substances (ODS).

c. Reduce the presence of PBT chemicals on the installation.

d. Find viable substitutes for hazardous chemicals and toxic substances.

e. Reduce the use of chemicals that exceed the reporting threshold of the EPA's Toxic Release Inventory (TRI) report.

4. RESPONSIBILITIES.

a. Public Works will exercise staff responsibility for the Hazardous Materials Substitution Program (HMSP). The ENRD Pollution Prevention office will coordinate execution of the program and will:

(1) Annually review and update the Restricted Use List (RUL).

(2) Update Authorized Use Lists (AUL), as required.

(3) Review and approve/disapprove exemption requests for products containing RUL chemicals.

(4) Coordinate with the HMCC.

(5) Coordinate with the Environmental Compliance Inspection Team (ECIT).

b. The Preventive Medicine Services, (MAMC) will:

(1) Recommend additions and/or deletions to the Fort Lewis Restricted Use List (RUL).

(2) Ensure chemicals of concern that are unique to and are restricted from use in MAMC operations are included in the MAMC supplement to FL Reg 200-1.

c. The Command Safety Office will recommend additions to the Fort Lewis Restricted Use List (RUL), as needed.

d. The Directorate of Contracting will ensure that contracts and requisitions processed through the DOC for approval, if requiring the use of HM, specify only HM that does not contain chemicals on the Fort Lewis Restricted Use List (RUL).

e. Subordinate Commands, other Staff Directorates, and Activities will:

(1) Cooperate in the accomplishment of the HMSP.

(2) Exhaust old product supplies, and implement the use of replacement products identified in the PSL.

(3) Request product exemptions when necessary by submitting a completed product exemption form along with product MSDS to PW ENRD, Building 1210.

(4) Cooperate with the Pollution Prevention staff with proposed product substitution testing and product evaluation. Submit product evaluation forms to the Pollution Prevention Program Manager at the end of the arranged testing period.

f. Hazardous Material Control Center (HMCC) will support the accomplishment of the HMSP by:

(1) Updating the HMCC external SOP to include HMSP.

(2) Ensuring the new substitute product NSN is not replaced by the old product NSN.

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APPENDIX V

TRAINING WITH UNSERVICEABLE MUNITIONS

1. PURPOSE. This appendix:

a. Provides implementing guidance and procedures for training with unserviceable munitions.

b. Implements the AR 200-1 requirement for "Establishing Local Procedures/ Responsibilities for Execution of a Waste Management Program".

c. Establishes responsibilities and procedures for complying with Department of Defense (DoD), Army, Installation Management Agency (IMA), and Forces Command (FORSCOM) as well as federal, state and local requirements for managing the use of unserviceable munitions in training.

2. TRAINING WITH UNSERVICEABLE MUNITIONS.

a. The Washington State Department of Ecology recognizes that EOD, engineer and ammunition units that have a METL, which includes the destruction of unserviceable munitions, need to conduct sustainment training to maintain METL proficiency. The use of unserviceable munitions for this training is legitimate and authorized. The State recognizes the use of the unserviceable munitions for the training as a beneficial use and not RCRA regulated.

b. Units desiring to train with unserviceable munitions will contact Environmental Services prior to conducting the training. The training must be conducted to meet specific METL sustainment requirements. The unit will be required to submit a formal training plan to Environmental Services describing the training objectives, the types/quantities of unserviceable munitions to be used during the training, and the specific training events that will be conducted to accomplish the training objectives. (*See TAB 1 for sample training checklist)*

(1) EOD (707th Ordnance Company at Fort Lewis, 53rd Ordnance Company at YTC) will review the proposed training to ensure compliance with environmental and explosive safety requirements.

(2) Following EOD review and approval of the training plan, the unit will obtain range scheduling and approval from Range Control. Environmental Services will review the training plan EOD and Range Control have signed. Initial coordination with range control should be started with the submission of the training plan to EOD for review and approval.

(3) A completed training checklist will be provided Environmental Services NLT two-weeks prior to the scheduled training.

(4) EOD (707th Ordnance Company at Fort Lewis, 53rd Ordnance Company at YTC) or Environmental Services personnel may observe the unit training when conducted to ensure compliance with the submitted and approved training plan.

c. EOD units from other installations or other services are not required to submit their training plan to the installation EOD unit for review/approval. However, the EOD unit must still submit their plan to Environmental Services for review and approval.

d. Burning of excess powder charges. The burning of excess powder charges as part of training is currently not RCRA regulated. However, soil that is contaminated from the burning is subject to designation and management as HW. Until such time, the current practice of burning excess powder charges on the ground during the conduct of training is authorized.

TAB 1 - TRAINING WITH UNSERVICEABLE MUNITIONS CHECKSHEET DATE_____

_____
(UNIT)

1. TRAINING REFERENCES (INCLUDES REASON FOR TRAINING) SEE ANNEX A

40 CFR 266.202(a)!1) "MUNITIONS USED IN THE TRAINING OF MILITARY PERSONNEL AND EXPLOSIVE ORDNANCE DISPOSAL PERSONNEL ARE NOT REGULATED UNDER RCRA...SUCH TRAINING, WHICH COULD INCLUDE TRAINING MILITARY PERSONNEL IN THE DESTRUCTION OF... MUNITIONS, TO CONSTITUTE THE NORMAL USE OF A PRODUCT, RATHER THAN WASTE DISPOSAL ...SUCH TRAINING EXERCISES TYPICALLY FOLLOW DETAILED PROTOCOLS FOR TRAINING MILITARY PERSONNEL"

2. DATE OF TRAINING: _____

3. STARTING TIME: _____ ANTICIPATED ENDING TIME:_____

4. TRAINING LOCATION: _____
(INSTALLATION AND RANGE NUMBER)

5. TRAINING OFFICE / NCO: _____
(PERSON(S) IN CHARGE OF THIS TRAINING)
_____
(Area Code and Telephone Number)

PRIMARY INSTRUCTORS: (INCLUDE QUALIFICATIONS, E.G. EOD SCHOOL TRAINED)

_____

_____

ASSISTANT INSTRUCTORS:

_____

_____

THE PERSONNEL PROTECTIVE EQUIPMENT AND SAFETY PROCEDURES IN THIS CHECKSHEET ARE THE MINIMUM REQUIREMENTS. THE OFFICER IN CHARGE WILL INCREASE AND APPROPRIATELY MODIFY THE SAFETY AND TRAINING REQUIREMENTS TO MEET THE EXPECTED HAZARDOUS OF THE QUANTITY AND TYPE OF MUNITIONS USED IN TRAINING.

THE TRAIINING UNIT MUST RECEIVE EOD AND INSTALLATION ENVIRONMENTAL COMPLIANCE APPROVAL OF THIS CHECKSHEET. THIS CHECKSHEET DOES NOT REPLACE THE UNITS OWN TRAINING PLAN BUT IS MENT TO DEMONSTRATE TO STATE AND FEDERAL ENVIRONMENTAL REGULATORS THAT FORT LEWIS MEETS NOT ONLY THE LETTER BUT ALSO THE SPIRIT OF THE MUNITIONS RULE. MOST EVNIRONMENTAL REGULATORS ARE NOT FAMILIAR WITH MILITARY TRAINING AND THIS CHECKLIST WILL PRESENT A CLEAR, EASILY UNDERSTOOD, UNIFORM FORMAT. THE UNIT ADDS ITS OWN TRAINING PLAN AS ANNEX E.

TRAINING WITH UNSERVICEABLE MUNITIONS CHECKSHEET (continued)

_____
(UNIT)

6. PERSONNEL TO BE TRAINED: SEE ANNEX B

   ADDITIONAL SUPPORT PERSONNEL ON SITE: SEE ANNEX B

7. UNIFORM/EQUIPMENT:

   a. PERSONNEL:

      FIELD DUTY UNIFORM (BDU) WITH KEVLAR HELMET

      SAFETY GLASSES WITH "FLAK VEST" WHEN DOING CAP WORK
      (EOD MAY REQUIRE THESE ITEMS TO BE WORN BY ALL PARTICIPANTS)

      ADDITIONAL:

      _____
      _____
      _____

   b. VEHICLES:(INDICATE CARGO VEHICLES AND PERSONNEL TRANSPORTS)

      _____
      _____
      _____
      _____

   c. RADIO(S):

      _____
      _____

8. ORDNANCE:

   SEE ANNEX C FOR UNSERVICEABLE MUNITIONS TO BE USED

   SEE ANNEX D FOR DONOR MUNITIONS TO BE USED

TRAINING WITH UNSERVICEABLE MUNITIONS CHECKSHEET (continued)

_____
(UNIT)

9. FRAGMENTATION DISTANCE: (TRAINING UNITS MUST COMPLY WITH TM 9-1300-206, PARTICULARLY WHEN DESTROYING CLASS 1 DIVISION 2 (FRAG PRODUCING) MUNITIONS.

SAFETY DISTANCE (IN METERS) = 100 X CUBE ROOT OF THE NET EXPLOSIVE WEIGHT(NEW) IN POUNDS.

10. SPECIAL INSTRUCTIONS.

a. TRAINING WILL MEET ALL RANGE REGULATIONS (FL Reg 350-30) AND STANDING OPERATING PROCEDURE (SOP) AND SPECIAL REQUIREMENTS IMPOSED BY RANGE CONTROL FOR DEMOLITION TRAINING ON RANGE _____

b. USE THE MINIMUM PERSONNEL RULE WHEN CAPPING AND IGNITING FUSE.

c. ALL VEHICLES, EXCEPT TRANSPORTATION FOR THE PERSONNE CAPPING AND IGNITING THE FUSE WILL BE LOCATED IN A SAFE AREA BEFORE IGNITION.

d. MAXIMUM NET EXPLOSIVE WEIGHT PER SHOT IS _____

e. EOD WILL DO A PRELIMINARY SWEEP TO ENSURE RANGE IS SAFE FOR TRAINING AND DETONATIONS.

f. METHOD OF INITIATION.

(1) COMPOSITION C-4 WITH NON-ELECTRIC BLASTING CAPS IS THE USUAL METHOD OF INIITIATION. (UNITS DESIRING TO USE ELECTRIC INITIATION MUST DEMONSTRATE TO EOD'S SATISFACTION THAT THEY HAVE THE KNOWLEDGE AND ABILITY TO USE ELECTRONIC INITIATION. LIKEWISE UNITS DESIREING TO USE DONOR EXPLOSIVES OTHER THAN C-4 MUST DEMONSTRATE COMPETENCY TO EOD)

(2) TIME FUSE CUT TO A MINIMUM OF 5 MINUTES FOR THE LAST PILE TO BE INITIATED. EARILIER PILES MUST HAVE A LONG CUT TIME FUSE. 30 SECONDS IS THE USUAL DELAY BETWEEN AMMUNITION PILE INITIATION.

(3) ALL DETONATIONS WILL BE DUAL PRIMED.

TRAINING WITH UNSERVICEABLE MUNITIONS CHECKSHEET (continued)

_____
(UNIT)

g. SEE ANNEX _____ FOR ADDITIONAL SPECIAL INSTRUCTIONS.

11. QUESTIONS TO ANSWER.

a. HAS UNIT REQUESTED AND RECEIVED CONFIRMATION OF A RANGE FROM RANGE CONTROL?

YES **NO**

b. HAS UNIT PLACED THIS TRAINING ON THE UNIT TRAINING SCHEDULE?

YES **NO**

c. HAVE ALL PARTICIPANTS RECEIVED PRELIMINARY INSTRUCTION IN MUNITION DESTRUCTION PRIOR TO FIELD TRAINING?

YES **NO**

IF "NO", WHAT WILL THE UNIT DO, I.E., SPECIAL CONTROL MEASURES, TO ENSURE THAT PERSONNEL LACKING PRIOR TRAINING WILL NOT CREATE A SAFETY HAZARD DURING FIELD TRAINING WITH LIVE MUNITIONS?

_____

_____

_____

_____

d. HAS UNIT OR AMMUNITION SUPPLY POINT REQUESTED DONOR CHARGES? YES NO

12. CONCEPT OF OPERATION.

a. PARTICIPANTS WILL RECEIVE AN INITIAL SAFETY BRIEF AND OVERVIEW OF THE TRAINING PLAN UPON ARRIVAL AT THE RANGE.

b. EOD OR INSTRUCTORS WILL CLEAR THE DOWN RANGE TRAINING SITE BEFORE PERSONNEL OR AMMUNITION CARRIERS ENTER THE AREA.

TRAINING WITH UNSERVICEABLE MUNITIONS CHECKSHEET (continued)

_____
(UNIT)

c. ALL TRAINING WITH MUNITIONS WILL TAKE PLACE IN THE DOWN RANGE TRAINING AREA CLEARED BY EOD. INSTRUCTORS MUST BE PRESENT AS THE AMMUNITION PILES ARE PREPARED BY PERSONNEL.

d. AFTER THE AMMUNITION HAS BEEN PLACED IN INDIVIDUAL PILES, PERSONNEL NOT INITIATING THE DEMOLITIONS WILL PROCEED TO THE SAFE AREA. PERSONNEL PRIMING AND CAPPING THE AMMUNITION PILES WILL WEAR EYE PROTECTION AND "FLAK VEST'.

e. AFTER ALL AMMUNITION PILES ARE DETONATED, THE EOD TEAM WILL PROCEED DOWN RANGE TO ENSURE THE AREA IS SAFE TO ENTER. WHEN THE AREA IS SAFE, PERSONNEL WILL BE CALLED DOWN RANGE FOR NEXT SERIES OF DEMOLITIONS OR CLEAN UP AS APPROPRIATE.

13. COMMAND AND SIGNAL:

a. RANGE CONTROL FREQUENCY: 40.20 / 41.10

b. MEDEVAC: ON RANGE CONTROL'S NET

c. ADDITIONAL INSTRUCTIONS:

_____

_____

_____

_____

_____

14. APPROVAL OF THIS _____ CHECKSHEET FOR TRAINING
(UNIT)

TRAINING WITH UNSERVICEABLE MUNITIONS CHECKSHEET (continued)

_____
(UNIT)

UNSERVICEABLE MUNITIONS FOR THE PURPOSE OF LEARNING OR MAINTAINING THE SKILL OF DESTROYING MUNITIONS. THIS TRAINING WILL TAKE PLACE ON _____ AT _____.
(DATE) (LOCATION)

_____ _____
UNIT TRAINING OFFICE/RANGE OIC & DATE PRIMARY INSTRUCTOR & DATE

_____ _____
RANGE CONTROL & DATE EOD & DATE

_____ _____
AMMUNITION SUPPLY POINT & DATE PW ENVIRONMENTAL SERVICES & DATE

ANNEX A

TRAINING REFERENCES

ANNEX B

NAME AND RANK OF PERSONNEL TO BE TRAINED [IN PLACE OF TYPING A LIST OF PERSONNEL ON THIS PAGE, THE UNIT MAY ATTACH A PHOTOCOPY OF EXISTING LIST(S)]

_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

NAME AND RANK OF SUPPORT PERSONNEL ON SITE

_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

ANNEX C

UNSERVICEABLE MUNITIONS TO BE DESTROYED DURING TRAINING

GIVE THE DODIC, NOMENCLATURE AND QUANTITY OF EACH ITEM.
[IN PLACE OF TYPING A LIST OF MUNITIONS ON THIS PAGE, THE UNIT MAY ATTACH A PHOTOCOPY OF EXISTING LIST(S)]

DODIC	NOMENCLATURE	QUANTITY

ANNEX D

DONOR MUNITIONS TO BE USED DURING TRAINING

GIVE THE DODIC, NOMENCLATURE AND QUANTITY OF EACH ITEM.
[IN PLACE OF TYPING A LIST OF MUNITIONS ON THIS PAGE,
THE UNIT MAY ATTACH A PHOTOCOPY OF EXISTING LIST(S)]

DODIC	NOMENCLATURE	QUANTITY

ANNEX E

TRAINING PLAN
(WHAT ARE THE UNIT'S TRAINING OBJECTIVES AND HOW ARE THEY TO BE ACHIEVED)

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APPENDIX W

BORROW SOURCE USE

1. PURPOSE. This appendix:

a. Controls borrow source use to reduce or eliminate undesirable impacts to the installation.

b. Allows each individual use request to be tailored for maximum flexibility in meeting the needs of both the proponent (requestor) and the installation.

2. COMPLIANCE.

a. The Department of Defense and the Department of the Army presently do not have regulations that specifically cover mining operations on Army controlled property. However, there numerous statutes and regulations that cover related activities and management requirements associated with mining operations. It is the intent of this appendix to ensure that operations in and around borrow source areas are in compliance with all pertinent and applicable local, state and federal rules and regulations.

b. This appendix is written to ensure that all operations in and around borrow sources on Fort Lewis comply with the Garrison Commander's Fort Lewis Environmental Policy memorandum directing installation users to perform their mission in concert with environmental stewardship and sustainability. This appendix does not excuse proponents from complying with all Fort Lewis, local, state and federal regulations, Fort Lewis policy statements, circulars, supplements and pamphlets or staff memos.

3. AUTHORIZED ACTIVITIES.

a. The following activities are authorized on Fort Lewis: stockpiling, disposal of overburden material, clean fill dirt or other similar suitable material, activities that are a training requirement of the requesting unit, and material excavation and removal.

b. The following activities are not authorized on Fort Lewis: screening, rock crushing, dumping of unsuitable material (i.e., trash, organic material, concrete, asphalt, contaminated soil), and recreational target practice or vehicle use. Also, material excavation and removal by contractors is not authorized. Contractors must obtain material from off-post vendors for use at construction sites.

4. RESPONSIBILITIES

a. The proponent will:

(1) Contact PW/Environmental and Natural Resources Division Solid Waste Program Manager for borrow pit use and activity authorization (966-6452).

(2) Secure Training Area/Range accessibility through DPTM/Range Control (967-5060).

(3) Secure an installation digging permit (967-5237) (see Appendix S of this regulation).

(4) Conduct activities in a safe and responsible manner.

(5) Return location to same or better condition after operations (smooth contours, remove trash, grade steep slopes).

b. The Environmental and Natural Resources Division of Public Works will:

(1) Approve/deny use request.

(2) If approved, determine the location and duration of use.

(3) If removal of mined material is requested, approve quantities to be removed and the depth the material will be removed to.

(4) Sign digging permit.

c. Range Control of DPTM will:

(1) Authorize activity at proposed locations so as to not conflict with higher priority training activities.

(2) Sign digging permit.

d. Other organizations listed on the digging permit will authorize activity by signing the permit.

APPENDIX X

TOXIC SUBSTANCE MANAGEMENT

1. PURPOSE. This appendix provides policy, responsibilities and procedures for the control and abatement of toxic substances.

2. GENERAL.

a. Federal, State and Army Regulations require the controls of activities where toxic substances hazards have been identified, or could potentially be released into the environment.

b. Every employee who performs any function regulated by the HM/HW/LBP/ACM regulations may not perform that function unless he or she has received training, both initial and recurrent, that includes:

(1) General awareness/familiarization training.

(2) Function-specific training – certification (as required).

(3) Safety training.

c. Completion of the Environmental Compliance training courses does not represent qualification for certification IAW OSHA or other regulated Hazardous Material Technician (HMT) or Hazardous Waste Technician (HWT) qualifications or programs. The title "HMT" and "HWT" is solely for local use and only indicates the bearer of the title as having attended the required training needed to perform HM or HW management at the organization level on Fort Lewis.

3. KEY APPLICABLE REGULATIONS.

a. The Clean Air Act (CAA) Amendments of 1990. The Act, 42 U.S. Code 7401-7671q, Public Law (PL) 101-549, is composed of seven major titles, each of which addresses specific aspects of the national toxic substances control program.

b. Other federal regulations that govern major Fort Lewis environmental programs contain provisions that pertain to toxic substances control.

(1) The Resource Conservation and Recovery Act (RCRA) has several provisions which regulate air emissions including releases from hazardous waste storage, treatment, and disposal facilities, open burning and open detonation of explosive wastes.

(2) The Toxic Substances Control Act (TSCA) controls activities regarding Toxic Chemicals (Title I), Asbestos (Title II), Radon (Title III), and Lead (Title IV). This Appendix deals with TSCA Titles II, III, and IV (Asbestos, Radon, and Lead).

(3) The Occupation Safety and Health Act (OSHA) requires employers to provide safe & healthful workplaces for each employee. To accomplish this, the Act mandates employers to assess workplace environments for hazards, inform employees of the hazards, set up mandatory programs to control hazards, train employees in the programs, and take prompt corrective measures to eliminate or avoid hazards.

(4) The Comprehensive Emergency Response, Compensation and Liability Act (CERCLA) requires site remediation projects to comply with all the substantive requirements of other laws, including the CAA.

(5) The Emergency Planning and Community Right-to-Know Act (EPCRA), also known as the Superfund Amendments and Reauthorization Act (SARA) Title III, requires the reporting of accidental releases to the environment of extremely hazardous substances, including air releases; and, when reporting thresholds for listed chemicals apply, requires annual reporting of releases from processes that use the chemicals, including air releases.

c. AR 200-1, *Environmental Protection and Enhancement,* mandates compliance with federal, state and local regulations concerning toxic substances.

d. The Washington Clean Air Act, Revised Code of Washington (RCW) 70.94, established regional toxic substances control authorities with jurisdiction over the emission of air contaminants. Figure H-1 illustrates the regional toxic substances control jurisdictions in Washington State. The following regional authorities have jurisdiction over Fort Lewis, Yakima Training Center, and Vancouver Barracks. Army Reserve Centers and other facilities supported by Fort Lewis should consult with their respective Environmental Office or Facilities Manager for guidance, who in turn will consult with the local air pollution control authority.

(1) The Puget Sound Clean Air Agency (PSCAA) has jurisdiction in Pierce County, which contains the upper half of Fort Lewis.

(2) The Olympic Air Pollution Control Authority (OAPCA) has jurisdiction in Thurston County, which contains the lower half of Fort Lewis.

(3) The Yakima Regional Clean Air Authority (YRCAA) has jurisdiction in Yakima County, which contains the lower half of Yakima Training Center.

(4) The Washington State Department of Ecology Central Regional Office has jurisdiction in Kittittas County, which contains the upper half of Yakima Training Center.

(5) The Southwest Clean Air Agency (SWCAA) has jurisdiction in Clark Count.

4. POLICY.

a. Identify, control and monitor toxic substance sources to ensure compliance with federal, state and local standards, policies and plans.

b. Obtain required permits prior to asbestos abatement operations.

c. Obtain training and/or certification for employees who work with, prepare abatement specs, or perform surveys and/or hazard & risk assessments for asbestos and lead based paint operations as required by regulation.

5. RESPONSIBILITIES

a. Public Works (PW) will exercise overall direction and coordination of the Toxic Substances Management program, and will execute the program through the Environmental and Natural Resources Division (ENRD). The ENRD will:

(1) Develop and disseminate policy on toxic substances management.

(a) Provide guidance on policy and regulations concerning toxic substances management that reflects DA, IMA, and FORSCOM guidance, and pertinent provisions of toxic substances control laws. Supplement and implement, as required, Federal Clean Air Act regulations, EPA and HUD, OSHA and WISHA, and local Air Pollution Control Authority regulations.

(b) Maintain copies of all relevant federal, state, regional and local regulations; DoD and Army directives; and other pertinent documents on toxic substances.

(c) Maintain liaison with toxic substances control agencies and authorities.

(2) Provide overview of toxic substances control projects.

(a) Manage the identification, budgeting, reporting, engineering, design and construction of projects required to control and monitor activities in accordance with applicable federal, state, regional and local toxic substances standards.

(3) Obtain required state, regional and local toxic substances (air pollution control) permits, and submit reports required by pertinent toxic substances regulations.

(4) Coordinate and monitor program execution.

(a) Perform asbestos, lead, and radon surveys & hazard/risk assessments for OMA structures on Fort Lewis. Coordinate the abatement of identified hazards in OMA structures on Fort Lewis.

(5) Identify training requirements for toxic substances compliance and coordinate for installation-level certification or awareness training to be provided as appropriate, including basic and annual refresher training as required by referenced regulations.

b. Preventive Medicine Services, MAMC will:

(1) Monitor health and welfare aspects of toxic substances exposures to protect active duty personnel and their dependants; also civilian personnel, with support from PW and the Installation Safety Office.

(2) Assist the Command Safety Office and PW in identifying sources of toxic substances and enforcing pertinent federal and state regulations on such items as asbestos, radon, and lead based paint.

c. The YTC will:

(1) Develop and disseminate policy on toxic substances management.

(a) Provide guidance on policy and regulations concerning toxic substances management that reflects DA, IMA, and FORSCOM guidance, and pertinent provisions of toxic substances control laws. Supplement and implement, as required, Federal Clean Air Act regulations, EPA and HUD, OSHA and WISHA, and local Air Pollution Control Authority regulations.

(b) Maintain copies of all relevant federal, state, regional and local regulations; DoD and Army directives; and other pertinent documents on toxic substances.

(c) Maintain liaison with toxic substances control agencies and authorities.

(2) Provide overview of toxic substances control projects.

(a) Manage the identification, budgeting, reporting, engineering, design and construction of projects required to control and monitor activities in accordance with applicable federal, state, regional and local toxic substances standards.

(3) Obtain required state, regional and local toxic substances (air pollution control) permits, and submit reports required by pertinent toxic substances regulations.

(4) Coordinate and monitor program execution.

(a) Perform asbestos, lead, and radon surveys & hazard/risk assessments for OMA structures on Fort Lewis. Coordinate the abatement of identified hazards in OMA structures on Fort Lewis.

(5) Identify training requirements for toxic substances compliance and coordinate for installation-level certification or awareness training to be provided as appropriate, including basic and annual refresher training as required by referenced regulations.

6. ASBESTOS ABATEMENT. Many structures on Fort Lewis and its sub-installations were constructed with asbestos containing materials (ACM). The asbestos has the potential to be released during work activities on these structures. Motor vehicle brake shoes, fireproof safes, and other materials on motor vehicles may also contain asbestos. Governmental regulations prohibit the release of asbestos.

a. The project proponent for building repairs, modification or demolition; building system maintenance; equipment installation; or cable stringing for structures at Fort Lewis shall comply with the procedures below. Similar actions will be required at sub-installations and other locations; project proponents at these locations will consult with the environmental office for guidance.

(1) An asbestos survey shall be conducted on suspect material assumed to be asbestos prior to any projects, which have the potential to disturb the suspect ACM.

(2) Contractors working on the project shall be notified of the potential for asbestos contamination and the presence of asbestos materials when applicable.

(3) The project shall be coordinated through ENRD (967-5337) when the work involves the removal and disposal of ACM.

(4) All applicable regulations shall be followed, including the Fort Lewis Asbestos SOP.

(5) All asbestos abatement is conducted by persons with Washington State asbestos certification training.

(6) When the project is contracted, the contractor shall prepare and submit an asbestos plan for approval by ENRD.

(7) The following asbestos project documentation shall be forwarded to ENRD:

(a) Asbestos removal plan.

(b) An asbestos survey, a written statement indicating that the material will be presumed to be asbestos, or a written statement stating that a survey on file with ENRD (indicate which survey) is used.

(c) Personnel lists showing appropriate asbestos certification.

(d) Asbestos abatement/demolition permits and any amendments.

(e) Bulk sample results for samples taken beyond the survey.

(f) Air sample results including pre-abatement, area, personnel, and clearance samples.

(g) Job site entry logs or other documentation indicating who entered the regulated area.

(h) Waste shipment records.

(i) Notification that the project has been completed.

(j) A summary of all asbestos removed and remaining at a project site based on the survey.

(8) Asbestos project documentation shall include the following data:

(a) The building number and street address on all permits.

(b) The building number and permit number on all other project documentation.

(c) The Public Works (ENRD) name and address as the building owner on all permit applications.

Public Works
ATTN: AFZH-PWE, MS17
Box 339500
Fort Lewis, Washington 98433-9500

(d) If the project consists of multiple buildings, the permit application shall also contain: Building numbers of all buildings, and a map showing building locations; Asbestos amount in each building; Abatement schedule for each building.

(9) Fort Lewis HFL Form 954, *Waste Shipment Record for Regulated Asbestos Waste Material* (WSR) form shall be completed. Example of a completed WSR form is at Figure X-1.

b. Commanders/chiefs of units/organizations that perform brake shoe repair will ensure that the repairs are performed according to the SOP included at Appendix M, *Environmental Compliance for Operations at Motor Pools*. Organizations at Fort Lewis will contact the Hazardous Waste Operations (967-4786) for proper disposal procedures of brake shoes. Organizations at other locations will contact the appropriate environmental office.

c. Commanders/chiefs of units/organizations that encounter asbestos materials on motor vehicles or in fireproof safes should contact Preventive Medicine, MAMC, for proper removal technique and the ENRD Environmental Services for proper disposal procedures. Organizations at other locations will contact the appropriate environmental office.

d. Commanders/chiefs of units/organizations who own buildings that contain fire doors shall ensure the doors are not compromised, unless necessary for safety, as asbestos may be released.

e. Self-Help projects.

(1) Commanders/chiefs of units/organizations will request self-help projects through the DPW Work Order Desk at 967-3131.

(2) If the work requires the removal of floor tiles, removal of pipes, or roofing material, the work order desk will coordinate with ENRD 967-5337 to verify if an ACM survey has been conducted at the building and to ensure building locations do not contain ACM.

(3) If the repairs involve any suspected ACM, the unit/organization will follow procedures outlines in paragraph 6 of this Appendix.

WASTE SHIPMENT RECORD

WSR # _____

GENERATOR

1

Work Site Name (Installation/Facility): Fort Lewis, Washington
Location (Bldg. # & Street Name): BLDG #4301, Main Street
Mailing Address: ATTN: AFZH-PWE MS17, Box 339500 County: Pierce
Fort Lewis, Washington 98433-9500
Owner's Name: Public Works Owner's Phone: (253) 967-5337

2

Operator's Name: ABC Asbestos Abatement Contractor I.D. Number: ABCSA * 111TS
Mailing Address: PO Box 9685
Kent, Washington 97805
Contact Person: Eric Rather Operator's Phone: (206) 564-4484

3

Waste Disposal Site (WDS) Name: Salmon River Landfill
WDS Mailing Address: RR 6, Box 29 WDS Phone: (503) 223-6894
Carlsbad, Oregon 97805
WDS Physical Site Location: Section 25, 26: T2N, R21E: Darren County

4

Name and Address of Responsible Agency (Agency where notification was Sent):
Puget Sound Clean Air Agency, 110 Union Street, Seattle, Washington 98101-2038

	5. Description of Waste Materials	6. Containers		7. Total Quantity (cubic yards)
		Number	Type	
5	Asbestos Containing Material (Sheet vinyl mastic)	24	Bags	8 Cubic Yards
6				
7				

8

Special handling instructions and additional information (including emergency response phone number):
If bags become punctured, clean-up debris immediately. In case of major accident call 1-800-456-9876

9

OPERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked, and labeled/placarded and are in all respects in proper condition for transport according to applicable national governmental regulations.

Eric Rather	Asbestos Supervisor	Signed	12/25/95
Printed/Typed Name	Title	Signature	Date

TRANSPORTER

10

TRANSPORTER 1 (Acknowledgement of receipt of waste materials)
Name: Bubb's Trucking Phone: (206) 783-9462
Address: 4598 Columbia Lane, Richland, Washington 98910

John Long	Truck Driver	Signed	12/25/95
Printed/Typed Name	Title	Signature	Date

11

TRANSPORTER 2 (Acknowledgement of receipt of waste materials)
Name: Phone:
Address:

Printed/Typed Name	Title	Signature	Date

WASTE DISPOSAL SITE

12

Discrepancy indication space:
Note: If quantity is different indicate in this space

Optional Disposal Location Index

X	Y	Depth

13

WASTE DISPOSAL SITE CERTIFICATION: I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true, accurate, and complete except as noted in item 12.

Elliot Junksion	Scale House Operator	Signed	12/28/95
Printed/Typed Name	Title	Signature	Date

HFL Form 954

Figure X-1. Example of Waste Shipment Record of Regulated Asbestos Material.

7. RADON MITIGATION.

a. Programs will be implemented to reduce radon concentrations in all buildings to at or below the EPA recommended concentration of 4 pCi/L.

b. Housing will notify new housing occupants of the existence of elevated radon levels or a radon mitigation system in their assigned quarters. They will also notify the occupant of the proper action to take when the system appears to not be functioning properly as shown by the flow-monitoring device.

c. PW Building Assignments will notify new building owners of the existence of elevated radon levels or a radon mitigation system in their buildings. They will also notify the owner of the proper action to take when the system appears to not be functioning properly as shown by the flow-monitoring device.

d. When the flow-monitor on radon mitigation systems shows a reading outside the operating range of the system, the appropriate maintenance agency will be notified.

(1) Fort Lewis owners/occupants of buildings other than family housing will notify the PW Work Order Desk (967-3131).

(2) Fort Lewis family housing occupants will notify the Maintenance Repair Contract Office (964-8844; if no reply is received, call the Family Housing Maintenance Office at 967-6464).

(3) Building owners/occupants at locations other than Fort Lewis will notify the appropriate facilities maintenance office.

e. All newly constructed buildings and building undergoing major modification must have radon testing done. The proponent of the project is responsible to ensure the testing is completed. The results of the test will be forwarded to the PW-ENRD, Radon Program Manager. The testing will follow the protocols outlined in EPA guidance document Indoor Radon and Radon Decay Product Measurement Device Protocols <devprot1.hmtl>, Number 402-R-92-004, July 1992 and meet the following minimum criteria.

(1) Conduct a short-time test using an activated charcoal adsorption device (AC). Follow the manufacture's directions for deployment.

(2) The test must be conducted in closed house conditions (i.e., windows and doors shut at least 12 hours prior to deployment and throughout the testing period.

(3) One AC will be placed at least every 5000 square feet on the lowest level of the occupied space.

(4) The following criteria must be considered when selecting the location of the device:

(a) The device must not be disturbed during the entire test period.

(b) Don't place the device near drafts from HVAC vents, doors, fans, or windows.

(c) Don't place near excessive heat (e.g., direct sunlight) or high humidity.

(d) Don't place device within 3 feet of openings (e.g., windows, doors) in the exterior walls.

(e) Don't place device within 1 feet of an exterior wall with no outside openings.

(f) Don't place device within 20 inches of the floor or within 4 inches of other objects. The breathing zone is the optimal height.

(g) Don't place device in kitchens, bathrooms, laundry rooms, or closets.

(5) The results of the test must be forwarded to the PW-ENRD, Radon Program Manager.

8. LEAD-BASED PAINT (LBP) EXPOSURE REDUCTION.

a. Hazardous Waste Operations will coordinate the accomplishment of the Fort Lewis LBP Management Program. Actions will be conducted IAW the Program to:

(1) Comply with requirements of the Residential LBP Hazard Reduction Act to include conducting assessments of targeted housing areas and facilities as defined by the U.S. Department of Housing and Urban Development, by established target dates, performing lead abatement activities, and ensuring training and certification of personnel who work with LBP per guidance from applicable federal regulations.

(2) Comply with DoD, Army, federal, state and local guidance and requirements for lead exposure reductions and LBP hazard reduction.

(3) Conduct LBP risk assessment and screening, and implement controls consistent with DoD and Army policy in targeted housing areas and facilities.

(4) Conduct analysis of lead contaminated debris as needed to determine if the waste stream is a HW, and dispose of HW IAW guidance in this appendix.

b. The PW Residential Communities Office, in coordination with Hazardous Waste Operations, will inform family housing occupants of pre-1978 housing concerning LBP and LBP hazards, as required by Federal, DoD and Army regulations. In particular, information will include any known LBP hazards in the housing, and the handout of a federally approved document on lead poisoning prevention.

c. The Command Safety Office, in conjunction with Preventive Medicine Services, MAMC, will establish and maintain programs to ensure the health and safety of Government workers dealing with LBP and other lead hazards, and will provide technical support to Hazardous Waste Operations to assist in accomplishing the overall LBP management program.