

**U.S. Army Garrison
Kaiserslautern
Environmental Management
Division**



Environmental Officer Handbook

EO HANDBOOK

This Handbook is a tool to assist Environmental Officers (EO) to comply with German and US legal requirements, in conjunction with the requirements of the U.S. Army Garrison Kaiserslautern (Army Regulation (AR) 200-1, dated 28 August 2007, chapter 1).

The handbook is regularly reviewed by EMD. Major changes in procedures and responsibilities require the approval of the commander. Minor changes to procedures or modifications in form sheets are not subject to re-approval by the commander.

Whenever a chapter of the EO Handbook is updated, the current version must be indicated in the respective section. An up-to-date electronic version of the EO Handbook is available at EMD.

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Abbreviations

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ADR	European Agreement concerning the International Carriage of dangerous goods by road
AOR	Area of Responsibility
AR	Army Regulation
AR 200-1	Army Regulation 200-1
ARIMS	Army Records Information Management System
AST	Aboveground Storage Tank
AUL	Authorized Use List
C	Chapter
C/EMD	Chief of the Environmental Management Division
CFT	Cross Functional Team
CHWCP	Central Hazardous Waste Collection Point
DPW	Directorate of Public Works
EMD	Environmental Management Division
EMS	Environmental Management System
EO	Environmental Officer
E.O.	Executive Order
EPAS	Environmental Performance Assessment System
EQCC	Environmental Quality Control Committee
FGS	Final Governing Standards
FGS-G	Final Governing Standards Germany
FIFO	First In – First Out
HB	Handbook
HM	Hazardous Material
HMCC	Hazardous Material Control Center
HMMP	Hazardous Material Management Plan
HMMS	Hazardous Material Management System

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HW	Hazardous Waste
HWAP	Hazardous Waste Accumulation Point
HWSA	Hazardous Waste Storage Area
IAW	In Accordance With
IMCOM-Europe	United States Army Installation Management Command, Europe Region
ISO	International Organization for Standardization
MHB	EMS Handbook
MOI	Memorandum of Instruction
MR	Management Representative
MSDS	Material Safety Data Sheet
NLT	Not Later Than
OI	Operating Instruction
OU	Organizational Unit within the USAG Kaiserslautern, such as a directorate, agency, tenant or tactical unit
POL	Petroleum, Oil and Lubricants
SOP	Standard Operating Procedure
SPCC	Spill Prevention, Control and Countermeasure
SPRP	Spill Prevention and Response Plan
USAG	United States Army Garrison
UST	Underground Storage Tank
WI	Work Instruction

B.

Responsibilities

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All individuals in the U.S. Army Garrison Kaiserslautern (USAG Kaiserslautern) shall comply with guidance outlined in this handbook.

1. The Unit Commander is responsible for (IAW AR 200-1):

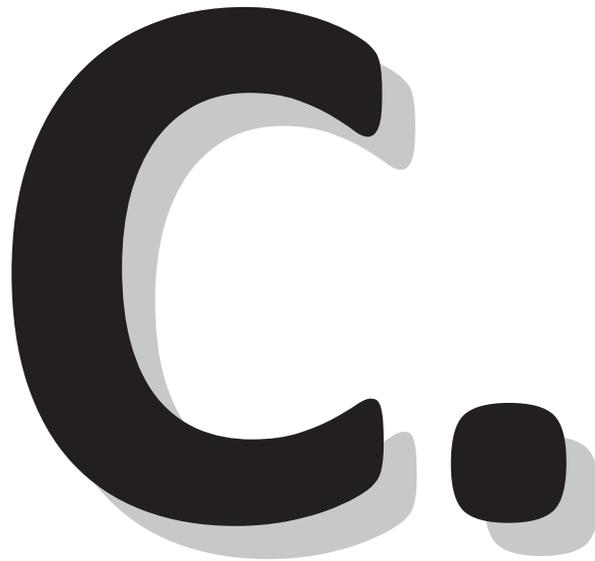
- Complying with installation policies, applicable Federal, State, and local environmental laws, regulations, Executive Orders, and overseas FGS.
- Reporting noncompliance and spills through appropriate channels to the Garrison.
- Appointing the Environmental Officer (EO) and alternate within the unit (see EO Appointment letter, Appendix)
- Ensuring that EO and alternate receive training as required and provided by USAG Kaiserslautern Environmental Management Division (EMD)
- Supporting and complying with the installation-wide EMS
- Confirming receipt of the EO Handbook, including site specific spill response procedures

2. The Environmental Officer is responsible for (IAW AR 200-1):

- Ensuring that the unit is in compliance with the Final Governing Standards for Germany (FGS-G) and all German and US legal requirements where applicable.
- Ensuring that the requirements of the Garrison's Environmental Management System (EMS) are fulfilled (see chapter C)
- Supporting the Garrison's C/EMD and MR in the EMS process
- Attending EMS workshops for obtaining additional help
- Receiving appropriate EO environmental training provided by EMD (at least once a year)
- Ensuring the training of all members of the unit handling Hazardous Material (HM) and Hazardous Waste (HW) for proper usage, spill cleanups, and other environmental issues
- Completing and signing the Weekly Inspection List continuously (see Appendix)
- Ensuring that the units' Hazardous Material/Hazardous Waste is properly labeled, maintained, stored and disposed off in close coordination with EMD.
- Ensuring that the unit's HM/HW spills are cleaned up properly and that spill reports are filled out accordingly and forwarded to the EMD in a timely manner
- The availability of required Material Safety Data Sheets (MSDS) and operating instructions (OI)
- Ensuring that the EO Handbook is provided to EMD for review at least once a year
- The weekly inspection of all HM Above - and Underground Storage Tanks (AST/ UST) within the unit's AOR
- Ensuring that AST/UST covers are appropriately labeled, lid is closed, seals and fill point are cleaned regularly,
- Contacting EMD (483-7125 or 0631-411-7125) when HW tanks are 2/3 full for disposal/recycling
- Ensuring that the transportation of HM/HW over a public road has to be enforced according to the "European Agreement concerning the International Carriage of dangerous goods by road" (ADR). Responsible for the compliance with the ADR is the driver and the Hazardous Cargo Commission. If you have questions about the transportation, please contact EMD

3. The Environmental Management Division is responsible for:

- Providing environmental training, like EO training, spill response training, HM/HW management training, EMS training.
- Conducting assessments
- Assisting in solving environmental problems
- Reviewing the EO Handbook
- Ensuring that HM/HW is tracked in compliance with the USAG Kaiserslautern tracking system



Environmental Management System

EO HANDBOOK

1 General Information

1.1 What is an EMS

Executive Order (E.O.) 13514, “Federal Leadership in Environmental, Energy and Economic Performance” (October 2009) directs federal agencies/organizations to develop, implement and maintain an Environmental Management System (EMS) reflecting the EMS components established by International Standard ISO 14001.

The EMS is to be used to identify and address agency environmental, transportation and energy issues as well as the impacts of activities, products or services on the natural environment. Incorporating environmental considerations into day-to-day operations and overall business processes will allow achieving and maintaining compliance with current environmental requirements and proactively manage future environmental issues that could impact mission sustainability.

The EMS pushes environmental responsibilities out to all members of the organization. It is the Garrison Commander’s program and the Units play a decisive role in the maintenance of the System.

1.1.1 Benefits of the EMS

- Increases Unit’s environmental awareness accounting
 - for improved legal environmental compliance, competency and performance
 - to facilitate recognition of environmental risks and pollution prevention, e.g. spill prevention, aging infrastructure, Hazardous Material storage
- Improves environmental awareness, involvement and competency across the organization – internal and external - accounting
 - for intensified communication and increased coordination of environmental issues between organizations
 - enhancement of public image and relationships with community and regulators
- Supports environmental protection and prevention of pollution in balance with economic effects, like
 - assisting in greater consistency in environmental programs
 - improving efficiency, e.g. energy efficiency, increased recycling and waste reduction, resulting in fiscal efficiency or cost avoidance

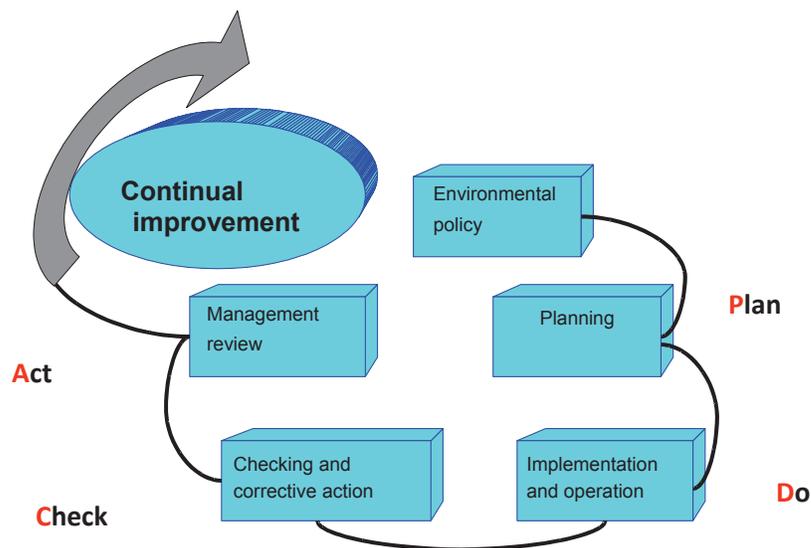
1.1.2 How to support the EMS?

- Conform to the USAG-K and/or Unit’s EMS Policy
- Be familiar with and conform to the EMS requirements and processes implemented within the USAG-K and described in the Garrison’s EMS Handbook (see the Garrison’s homepage at <http://www.kaiserslautern.army.mil>)
- Consider personal environmental performance

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1.1.3 EMS Components established by ISO 14001

The EMS uses the methodology known as “Plan-Do-Check-Act” (see picture below). It is designed to achieve continual improvement in the environmental performance and compliance of an organization.



This model consists of 5 basic phases:

I. Environmental Policy

- The environmental policy describes the organization’s overall approach.

II. Planning (PLAN)

- Identify environmental aspects and develop objectives, targets & programs.
- Identify and comply with legal and other requirements.

III. Implementation and Operation (DO)

- Define and assign the necessary roles and resources to facilitate EMS management and to ensure the effective implementation and control of the EMS.
- Investigate the essential requirements (e.g. training, communication, documentation) and implement appropriate processes to operate an EMS effectively.

IV. Checking and corrective action (CHECK)

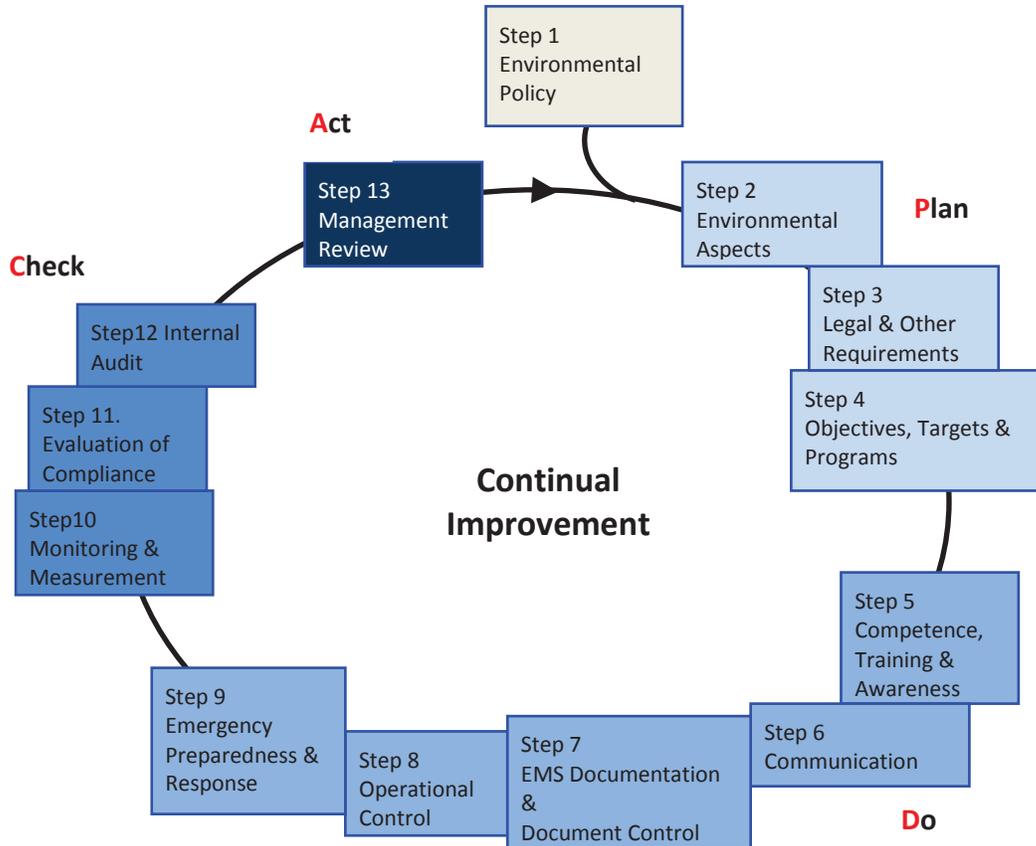
- Ensures key operations posing significant impact to the environment are being measured, monitored and evaluated on a regular basis.
- Conduct periodic surveys of the entire EMS processes and develop corrective actions to ensure the EMS remains effective.

V. Management review (ACT)

- Conduct periodic reviews of the EMS and identify actions for a continual improvement of the system.

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2 Implementation of EMS



STEP 1: ENVIRONMENTAL POLICY

Each Unit is required to create an environmental policy. The environmental policy shall:

- Appropriately describe nature, scale, and environmental impacts of the Unit
- Include a commitment to continual improvement and prevention of pollution
- Include a commitment to relevant legal requirements
- Provide a framework for setting and reviewing environmental objectives and targets

The Unit’s environmental policy has to comply with the Garrison’s policy.

Alternatively, the Unit can adopt the Garrison’s environmental policy. This policy is approved by the Garrison’s Commander and published on the Garrison’s official homepage at <http://www.kaiserslautern.army.mil>.

TO DO:

- 1. EO/Unit compiles the environmental policy (or adopts the Garrison’s).**
- 2. Unit Commander signs the environmental policy.**
- 3. EO communicates the environmental policy to the Unit members.**

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STEP 2: ENVIRONMENTAL ASPECTS (PLAN)

Each Unit is required to identify their significant environmental aspects.

What is an environmental aspect?

All Unit activities, products, and services that interact with/have an impact on the environment (e.g. hazardous substances, air emissions, energy consumption, etc.).

What is an environmental impact?

Any change to the environment (adverse or beneficial) resulting from a Unit’s environmental aspect (e.g. soil pollution, waste generation)

What is a significant environmental aspect?

Any aspect that might cause a significant environmental impact.

Examples for environmental impacts/aspects:

Activity/Service	Environmental impact	Environmental aspect
vehicle maintenance	reduced landfill space (-)	HW generation
fuel dispensing	contamination of soil (-)	soil pollution
engine test run	reduced air quality (-)	air emissions
upgrade engine test stand	reduction of air pollution (+)	air emission
office work	loss of natural resources (-)	energy consumption

The Garrison’s environmental aspects are annually re-evaluated. The result is reviewed at the Environmental Quality Control Committee (EQCC) meeting, which is representing various command and garrison activities. The environmental aspects are approved by the Garrison Commander.

Ideally the Units also identify their specific significant environmental aspects annually, using EMS Form 431-1 (see Garrison’s EMS Handbook, available at EMD) or developing an equivalent aspect rating sheet.

TO DO:

- 1. EO knows the Garrison’s significant aspects (briefed at the EQCC, available at EMD).**
- 2. EO evaluates Unit activities, products and services and how they impact the environment. EMS Form 431-1 (available at EMD) or Unit specific rating sheet shall be used to document the aspect assessment.**

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STEP 3: LEGAL & OTHER REQUIREMENTS (PLAN)

Each Unit is required to establish and maintain procedures to identify and access environmental regulations and guidance applicable to the job.

The US Army in Germany has to comply both with US and German laws (see Article 53 of the North Atlantic Treaty Organization (NATO) Status of Forces Agreement (SOFA) Supplementary Agreement (SA), 29 March 1998).

As the single definitive source of environmental criteria, the Final Governing Standards for Germany (FGS-G) were developed by comparing and adopting the more protective U.S. and German environmental laws and applicable international agreements. Where Host Nation law (HN) applies and standards are more protective than those contained in the FGS, then the applicable HN law shall take precedence.

The current version of the FGS-G is available at the Garrison's official homepage (see <http://www.kaiserslautern.army.mil>) or at EMD.

A list of applicable legal and other requirements is reviewed annually by and available at EMD.

TO DO:

1. **EO ensures compliance with the applicable legal and other requirements within their area of responsibility.**
2. **EO is observant for potential non-conformities and opportunities for improving environmental performance.**
3. **EO requests EMD for assistance, when needed.**

STEP 4: OBJECTIVES, TARGETS & PROGRAMS (PLAN)

Each Unit is required to establish objectives & targets for the significant environmental aspects and maintain an environmental program for achieving those objectives and targets.

What is an environmental objective?

An overall environmental goal that an organization sets itself to achieve (e.g. proper storing of hazardous material).

What is an environmental target?

Performance requirement that needs to be set and met in order to achieve the objectives (e.g. purchase of flammable cabinets and secondary containments). The Garrison's objectives & targets are integrated in the Garrison's "Action Plan".

What is an environmental program?

Determination of actions, responsibilities, resources and periods for obtaining the objectives.

TO DO:

1. **EO knows the Unit's objectives & targets and supports the Unit's environmental program.**
2. **As member of the EQCC, the EO supports the USAG-K with the review of the Garrison's "Action Plan" if needed.**

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STEP 5: COMPETENCE, TRAINING & AWARENESS (DO)

Each Unit requires appropriate environmental competence, training and awareness.

All EO and Alternate are required to receive annual EO training. Contact EMD for training information.

The EO acts as environmental trainer for Unit members for issues like:

- handling of hazardous substances (e.g. proper storage, appropriate chemical substitutes, proper disposal/turn in),
- EMS requirements (e.g. required documentation, significant aspects, environmental program),
- Environmental Awareness (e.g. recycling, waste reduction).

To increase EMS Awareness, Garrison's EMS information is published on an EMS-flyer, available either at EMD or on the Garrison's homepage at <http://www.kaiserslautern.army.mil>.

TO DO:

1. **EO hands out the Garrison's EMS information flyer to the Unit (e.g. by posting it on the bulletin board).**
2. **EO provides EMS training to new personnel in a timely manner.**
3. **For personnel whose work may create a significant impact on the environment, the EO ensures that**
 - training requirements are identified
 - training plans are on hand.
4. **EO maintains training certificates and other training records. Training records may be reviewed by EMS Auditors.**

STEP 6: COMMUNICATION (DO)

Each Unit has to establish procedures to communicate EMS related information internally and externally.

What is internal communication?

Addresses any flow of information within a Unit (e.g. information boards, briefings, meetings).

What is external communication?

Addresses any flow of information between a Unit and external interested parties e.g. other Units, organizations, neighbors, German authorities or the press.

TO DO:

1. **EO informs EMD about organizational changes, e.g. EO replacement, Unit restructuring, field trainings, deployment, and etc.**

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STEP 7: DOCUMENTATION & DOCUMENT CONTROL (DO)

Each Unit keeps records of, or documents, environmental related procedures, equipment and work practices.

What is a record?

Document stating results achieved or providing evidence of activities performed, e.g. hazardous material list, inspection reports, training records, list of permits.

What is a document?

Information and its supporting medium, e.g. manuals, memoranda, Standard Operation Procedures (SOPs), Work Instructions (WI), EMS flyer, environmental policy.

What is document control?

Units will establish procedures to identify current documents/records and to remove obsolete versions. All environmental related documents and records need to be:

- revised annually,
- approved,
- distributed/communicated to Unit members,
- handled in compliance with the Garrison's EMS as well as ARIMS, and
- retrievably filed.

What is a controlled document/record?

It provides at least information about the date of issue, the version, and the issuing authority. Templates for EMS related controlled documents are available at EMD.

Minimum required documentation:

- the current Unit environmental policy,
- the EO Handbook,
- the current EO-appointment letter,
- the current EO training certificates,
- the current USAG-K EMS flyer, and
- the current list of EMS relevant documents and records.

TO DO:

- 1. EO is familiar with the procedures described in the Garrison's EMS Handbook, see Garrison's homepage under <http://www.kaiserslautern.army.mil>.**
- 2. EO identifies all environmental relevant documents/records in his/her area of responsibility by using EMS Form 445-1: "list of EMS relevant documents and records" (EO can use the template from the appendix or similar).**
- 3. EO completes and updates legal compliance documents (e.g. documentation for all equipment requiring HN permission or notification such as water/oil separators, paint spray booths, motor test cells). A copy of the document has to be provided to EMD.**
- 4. EO communicates EMS related documents (e.g. memoranda, policies, EO handbook) to Unit members.**

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STEP 8: OPERATIONAL CONTROL (DO)

Each Unit posts and implements work-related instructions (e.g. Standard Operation Procedures (SOPs), Operation Instructions (OI), Work Instructions (WI)) for mission activities or operations.

These instructions shall be consistent with the Garrison's/Units environmental policy, objectives and targets.

TO DO:

1. EO implements, documents, regularly updates and communicates operational control procedures (e.g. energy conservation procedures, proper handling and use of hazardous material, buying "green").
2. EO integrates work-related instruction/documents into EMS Form 445-1 "list of EMS relevant documents and records" (template available at EMD) or similar unit-specific document.
3. EO instructs new employees on work related operating instructions prior to start of work.

STEP 9: EMERGENCY PREPAREDNESS & RESPONSE (DO)

Each Unit is required to establish and maintain procedures to identify potential and to respond to emergency situations and accidents.

TO DO:

1. EO ensures that emergency equipment (e.g. fire extinguishers, absorbent, spill kits, emergency showers, and eye wash stations) is ready to use and regularly inspected.
2. EO is familiar with the Garrison's Spill Prevention and Response Plan (SPRP), available at EMD.
3. EO ensures that unit specific operational and emergency plans are up-to-date and readily available.
4. EO conducts training and exercises to familiarize employees with the applicable emergency plans and procedures. Maintain the documentation of training and exercises. Contact Division of Emergency Services (483-7442) for support.

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STEP 10: MONITORING & MEASUREMENT (CHECK)

Each Unit ensures that calibrated or verified monitoring and measurement equipment is used (e.g. fire extinguishers, eye wash stations, oil level gauges, leakage indicators, emergency showers, etc.) and that appropriate instructions (SOPs/OIs/WIs) as well as equipment maintenance/inspection documents are on hand.

TO DO:

1. **EO completes and maintains a “list of facilities, equipment and items subject to inspection (for template see EMS Form 451-1) or similar.**
2. **EO integrates equipment-related instruction/documents into the “list of EMS relevant documents and records” (for template see EMS Form 445-1) or similar.**
3. **EO or designated personnel in charge ensures all listed items are inspected as required.**

STEP 11: EVALUATION OF COMPLIANCE (CHECK)

EMD assesses Unit’s compliance with applicable legal and other requirements (excluding permit requirements) by means of the annual internal Environmental Performance Assessment Survey (EPAS) and random inspections. In addition, IMCOM-Europe (IMCOM-E) conducts an external EPAS every 3 years.

EPAS inspection teams review the environmental performance status of the USAGK and for any non-compliance issue (finding) they recommend corrective and preventive actions required to enhance compliance. All findings are communicated to the Units for their further action.

TO DO:

1. **EO ensures compliance with legal and other requirements. Upon request, the EMD will advise the EO on this topic.**
2. **EO resolves EPAS findings/non-conformities in his/her area of responsibility as directed and guided by EMD.**
3. **EO informs EMD upon completion of findings. EMD regularly requests the finding status update.**

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STEP 12: INTERNAL AUDIT (CHECK)

E.O. 13514, ISO 14001 and DA policy requires each Unit to perform an internal EMS Audit. EMD supports the Units by taking the lead on this Audit, assessing a Unit's conformance to ISO 14001, to the Garrison's EMS Handbook, to the EO Handbook as well as to legal and other requirements through interview, site visits and documentation review. The EO is the Auditors Point of Contact (POC). Subject areas for random check are:

- legal compliance (e.g. availability of MSDSs or permissions, valid nomination letters,) and/or
- compliance with established EMS procedures (e.g. availability of SOP/OI/WI, updated documentation, EMS policy on hand and communicated) and/or
- performance of the EMS (e.g. Unit's targets and goals – Action Plan – are met).

An Audit Schedule and subject area of interest will be coordinated with each Unit. Ideally the EO is the Point of Contact (POC) for the Auditor and ensures that the area of interest is accessible. For all Audit findings the Auditor recommends corrective and/or preventive actions. All findings are reported to EMD and communicated to the Unit for further action. The findings also provide the basis for future targets and goals in regards to a continual improvement.

TO DO:

- 1. EO informs all Unit members about the scheduled Audit.**
- 2. EO has updated EMS relevant documents and records available (e.g. list of HazMat, list of equipment, valid nomination letters, training documents, MSDSs).**
- 2. EO resolves internal Audit findings as directed and guided by EMD.**
- 3. EO informs EMD upon completion of findings. EMD regularly requests the finding status update.**

STEP 13: MANAGEMENT REVIEW (ACT)

E.O. 13514, ISO 14001 and DA policy require an annual Management Review in order to assess the opportunities for improvement and the need for changes to the EMS. EMD will brief the USAG-K Commander in regards to:

- results of internal Audits and EPAS on Unit's and Garrison's level,
- communication(s) with external interested parties, including complaints,
- the environmental performance of the Units and the Garrison,
- the extent to which the environmental objectives and targets have been met,
- the status of corrective and preventive actions,
- the status of follow-up actions from previous Management Reviews,
- changing circumstances related to the Garrison's environmental aspects, and
- recommendations for improvement.

The results of the review are briefed at the EQCC and a copy/excerpt of the report can be requested at EMD.



Management of Hazardous Material and Hazardous Waste

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1 Hazardous Material (HM) Management
1.1 Classification and Identification of Hazardous Materials

All HM used or generated and discarded in USAG-K operations must be identified and listed so that it can be managed in a manner that will not endanger human health or the environment.

1.1.1 What are Hazardous Materials?

HMs include all material which, because of its quantity, concentration, and/or physical, chemical, or infectious characteristics, may pose a substantial hazard to human health or the environment. That includes new HM, recyclable HM and expired HM. If the shelf life can be extended please label “not for use – Lab test” till shelf life extension, see chapter 2.1.9. Munitions are excluded.

Note:

Table C5 of GFGS contains a list that identifies substances considered to be hazardous by DoD, the German federal government, and the German states. HM can be also identified by its chemical properties. Accordingly, based on chemical properties of HM, ADR classifies HM into 9 classes.

Typical HM at U.S. Military Activities (list is not exhaustive):

Material Name	Hazardous Property	Water Hazard Class
Acetylene Gas	Flammable, Compressed	n/a
Acetone	Flammable, Toxic	1
Adhesives	Flammable, Toxic	2
Ammonia	Corrosive, Irritant	2
Anti-Freeze	Irritant, Toxic	1
Asbestos containing items	Carcinogenic	n/a
Argon Gas	Non-Flammable, Compressed	n/a
Battery Acid	Corrosive, Toxic	1
Brake Fluid	Toxic	1, 2, 3
Break-free/CLP	Irritant, Toxic	2, 3
Carburetor Cleaners	Flammable	1
Calcium Hypochlorite	Corrosive, Oxidizer	2
Carbon Remover	Irritant, Toxic	1
CARC Paint	Toxic, Flammable	3
Chlorinating Kits	Toxic, Oxidizer	2
Chlorine Gas	Toxic, Oxidizer, Compressed	n/a
Cleaning Compounds	Toxic, Flammable	1
Corrosion Inhibitors	Flammable, Corrosive	2
Denatured Alcohol	Flammable	1

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Degreasers	Corrosive, Irritant	2
Diesel Fuel	Flammable	2
Dry Cell Batteries	Toxic, Irritant	n/a
Dry Cleaning Solvents	Flammable, Toxic	2
DS2 Decontaminating Agent	Corrosive, Flammable	1
Engine Cleaners	Flammable, Corrosive	1
Epoxy Resins	Flammable	2
Ethanol (Ethyl Alcohol)	Flammable	1
Fertilizers	Toxic	1
Floor Cleaners	Toxic, Ignitable	3
Formaldehyde	Toxic, Corrosi, Flamm., Carcin.	2
Gasoline (Mogas)	Flammable, Carcinogenic	3
Grease (Lubricant)	Irritant	2
Halon Gas	Non-Flammable, Compressed	n/a
Heating Oil (Light)	Flammable, Harmful	2
Herbicides	Toxic	3
Hydraulic Fluid	Toxic	2
Hydrochloric Acid	Corrosive	1
JP 8	Flammable, Carcinogenic	3
Lacquers	Flammable, Toxic, Irritant	2
Lithium Batteries	Flammable	n/a
Lubricants, Grease	Irritant	2
Methanol (Methyl Alcohol)	Flammable, Toxic	1
Mogas	Flammable, Carcinogenic	3
Oil, Lubricating	Flammable, Irritant	1,2,3
Oily Rags/Absorbent	Flammable, Toxic	2
Oxygen Gas	Oxidizer, Compressed	n/a
Paints	Flammable, Toxic	2
Paint Thinner	Ignitable, Toxic	2
Paint Strippers	Flammable, Irritant, Toxic	1
Parts Cleaners	Toxic, Flammable	2
PCBs	Toxic	3
Pesticides	Toxic	3
Phosphoric Acid	Corrosive	1
Photo Chemicals (Fixer)	Corrosive	1
Photo Chemicals (Developer)	Corrosive	1
Primer	Toxic, Flammable	3
Propane Gas	Flammable, Compressed	n/a
Radiator Leak Compounds	Irritant	1
Rust Removers	Corrosive	1

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Sealants	Toxic, Flammable	1
Sodium Chloride	Irritant	1
Sodium Hydroxide	Corrosive	1
Solvents	Toxic, Flammable, Irritant	2, 3
STB Super Tropical Bleach	Corrosive, Oxidizer	2
Sulfuric Acid	Corrosive, Toxic	1
Toluene	Flammable	2
Transmission Fluid	Toxic	3
Used/Waste Oil	Flammable, Toxic	3
Varnishes	Flammable, Toxic, Irritant	2
Wax Removers	Flammable	1
Windshield Cleaners	Flammable	1
Wood Preservatives	Flammable, Harmful	2
Zylene	Flammable, Harmful	2

Note:

According to the VwVwS (Verwaltungsvorschrift wassergefährdende Stoffe), which is the national German regulation on water hazard classification, all substances are either classified as non-hazardous to water (nwg, nicht wassergefährdende) or assigned to one of three classes, WGK 1, WGK 2, and WGK 3, with increasing water hazard.

1.1.2 How does one find out if a material is hazardous?

Manufacturers of HMs are required to provide a clear warning or a respective hazard sign indication a specific risk or danger on the HM container. More detailed information on a HM is provided in the Material Safety Data Sheet (MSDS) (see chapter 2.2.4).

Hazard symbols:

Explosives  E	Oxidizers  O	Extremely Flammable  F+	Highly Flammable  F
Flammable  F	Very Toxic  T+	Toxic  T	Harmful to Health  Xn
Corrosive  C	Irritants  Xi	Sensitizers  S	Carcinogens  Cn
Mutagen  M	Toxic for Reproduction  R	Environmental Hazards  N	Inhalation Hazards  H
Compressed Gases  G			

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Examples:



2.1 Hazardous Material Storage

Responsibilities and mandated practices surrounding the storage and management of HM are regulated by the GFGS Chapter 5. In addition, DoD regulations 4145.19-R-1 are applicable as specified in the GFGS. Because the USAG-K is located in Germany, the regulations of the Federal Republic of Germany relating to the storage and management of HM are also applicable.

2.1.1 What is storage by definition?

According to German regulations "storage" is defined as storing amounts over the amount needed in one day's work.

Note:

The temporary storage of water-endangering substances in areas not normally designated for this proposes shall not exceed 24 hours, exclusive of non-workdays.

2.1.2 Where to store Hazardous Material?

HM have to be stored at facilities under the USAG-K within a Hazardous Material Storage Area (HMSA). HM for daily use can be temporarily stored during operation on secondary containments outside the HMSA.

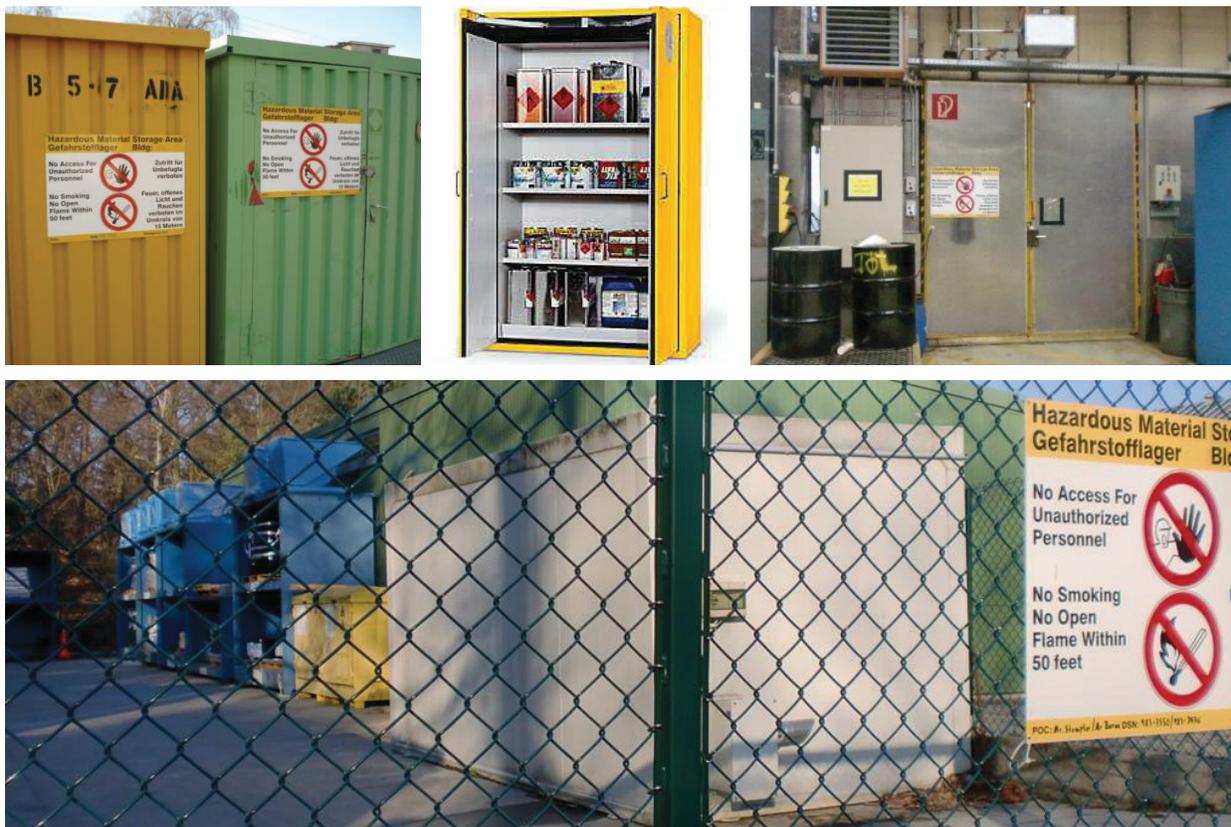
Note:

Generally, secondary containment system must be capable of containing 100 percent of the volume of the largest container or 10 percent of the total accumulated volume, whichever is greater. Spilled or leaked material and accumulated precipitation must be removed from the secondary containment system as soon as it is identified to prevent container corrosion or mixing with HMs. Accumulated precipitation must be checked prior to discharge to ensure it does not contain HM residues.

2.1.3 What is a Hazardous Material Storage Area (HMSA)?

A HMSA is an outdoor storage shed, storage warehouse, indoor storage room, garage or storage locker used for the purpose of storing HM. The location or relocation of a HMSA must be approved prior to its use by DPW/EMD.

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Examples:**2.1.4 What are the requirements for a Hazardous Material Storage Area?**

- HMSAs which accumulate and store ignitable or reactive HM must be located at least 50 feet (15 meters) inside the installation property boundary.
- Sufficient security must exist at HMSAs to prevent uncontrolled accumulation of HM. Sufficient security would be lockable container, lockable fenced compound area, or facility.
- All HMSAs must be well ventilated.
- Material at HMSAs must not be located near drains that lead to sanitary or storm water sewers.
- Each HMSA must be capable of preventing environmental contamination due to container overfills or leaks. All containers for storing liquid HM must be either double-walled or have secondary containment systems.
- The USAG-K ordinance forbids any outdoor storage of oils, "poisons" and pesticides on unsealed surfaces. Concrete surfaces are insufficient. Impermeable coatings or their equivalent are essential.
- Material stored outdoors during the normal course of activities shall be provided with protection from direct sunlight and precipitation by means of a roof.
- For incompatible materials, segregated containments must be provided by using either separate containment areas or by separately dike areas.
- All HMSAs must post sufficient bilingual (English and German) signs (provided by DPW/EMD) readable from a distance of 25 feet (8 meters) and all angles of approach as follows:

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- Additionally, depending on the HM stored, the area must post sufficient yellow **warning signs** as follows:

Warning! Compressed Gas Cylinders		Vorsicht! Gasflaschen
Warning! Corrosive Substances		Vorsicht! Ätzende Stoffe
Warning! Flammable Substances		Vorsicht! Feuergefährliche Stoffe
Warning! Explosive Atmosphere		Vorsicht! Explosionsgefährliche Atmosphäre
Warning! Harmful to Health or Irritant Substances		Vorsicht! Gesundheitsschädliche oder reizende Stoffe
Warning! Oxidizing Substances		Vorsicht! Brandfördernde Stoffe
Warning! Toxic Substances		Vorsicht! Giftige Stoffe
Warning! Danger from Batteries		Vorsicht! Batterien
Warning! Explosive Substances		Vorsicht! Explosionsgefahr

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- Depending on the HM stored, the area must post sufficient **mandatory signs** (personal protective equipment) as follows:

Wear Safety Boots		Schutzschuhe tragen
Wear Safety Gloves		Schutzhandschuhe tragen
Wear Ear Protection		Gehörschutz tragen
Wear Respirator		Atemschutz tragen
Wear Safety Goggles		Schutzbrille tragen
Wear Hard Hat		Schutzhelm tragen

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2.1.5 How does one store and segregate Hazardous Materials in a Hazardous Material Storage Area?

HM must be stored in such a way as to prevent chemical reactions which may cause heat, fire, explosion, pressure buildup, or the evolution of toxic or flammable decomposition products due to incompatible chemical reactions. In addition, HM must not be located near anything with which it is incompatible.

The material must be stored in accordance with following table:

	Flammable 	Corrosive 	Irritant 	Toxic 	Oxidizer 
Flammable 	YES	NO	⊖	NO	NO
Corrosive 	NO	AVOID	YES	NO	NO
Irritant 	⊖	YES	YES	⊖	⊖
Toxic 	NO	NO	⊖	YES	NO
Oxidizer 	NO	NO	⊖	NO	YES

YES	Co-storage is allowed
⊖	Allowed, but not recommended
AVOID	Allowed by law, but incompatibility might occur
NO	Not allowed

2.1.6 How does one segregate Hazardous Materials when stored in Hazardous Material lockers?

- Small HM containments can be stored in material safety lockers. Depending on the chemical and physical characteristics HM shall be stored segregated in lockers for flammable material (generally yellow) and lockers for corrosives / acids (generally blue).
- Group and allocated HM on the different shelves that the segregation of HMs is achieved at the best when only one material safety locker is present.

2.1.7 How does one segregate Hazardous Materials when stored in indoor storage room, garage etc.?

- When HM is stored in a storage room HM containers shall be grouped and allocated in the room in a manner that the segregation of incompatible HM is achieved at the best.

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- Hazardous liquids must be stored on separate secondary containments if incompatible.
- Double walled containers can be stored without a secondary containment.

2.1.8 What are the special requirements for the storage of compressed gases?

- Store cylinders in a HMSA but away from other HM.
- Store cylinders outside and away from work areas when possible.
- Store in a well ventilated gas storage building, shed or cage.
- Segregate incompatible gases through a brick wall of at least 2m height or by a distance of at least 15m.
- Safeguard cylinders against tilting or knock over with a chain or other protective measure.



TO DO:

- Keep HMSA under sufficient security to prevent uncontrolled access.
- Keep HMSA clean.
- Never store HW inside a HMSA.
- Segregate incompatible HM from each other and don't mix non-hazardous materials with HM.
- All HM must be stored "First in – First out". The material with the earliest expiration date needs to be used first! The EO shall ensure that the material with the earliest expiration date is stored in front of the storage rack, divided by separate items.
- Never store and use expired HM.

2.1.9 What to do with expired Hazardous Materials?

Expired HM shall not be stored and used. But, the shelf life of HM can possibly be extended. The Mannheim Laboratory Center (Material Testing Laboratory) accepts material samples for testing and is approved to extend the shelf life of HM after positive testing. Contact EMD or

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Mannheim Laboratory Center for shelf life extension (POC: Dr. Heinrich Gaa, DSN 382-4115, Coleman Bks, Bldg. 52). During the testing period, please label the expired material e.g. “not for use – Lab test”.

When the shelf life of a material cannot be extended than dispose of the expired material.

2.1.10 What to do with no longer needed or excess but still serviceable Hazardous Materials?

Contact a Hazardous Material Reuse Center (HMRC) to turn in HM (POC at the HMRC Kaiserslautern: Mr. Scholz, DSN 483-7570, Mr. Dahlmanns DSN 483-8017, Kaiserslautern Army Depot, Bldg. 2248).

2.2 Inspection and Record Keeping for Hazardous Material Management

EO shall keep weekly inspection list, current inventory lists of HM, a valid Authorized Use List (AUL) and MSDS for each HM. At locations where German employees are required to work with HM Operating Instructions (Betriebsanweisungen) are required in addition.

2.2.1 How does one do the inspections and keep the inspection checklist?

All HMSA shall be inspected weekly by the EO. During the inspection, the areas shall be examined for leaking containers, deterioration of containers, and the deterioration of secondary containments where the container is placed. Check HMSA for the accuracy of inventory lists, expired materials and proper labeling. The inspection shall be documented in writing and will include the name of the inspector, the site number or name, date, time of the inspection, deficiencies, and a description of actions taken to correct problems when they were detected. The EO can use the templates for an inspection checklist from the appendix.

2.2.2 How does one record the Hazardous Material inventory?

A detailed inventory list shall be updated annually after any significant change in the amount and types of HM stored or used. The inventory list shall be accessible to all personnel working at the storage, distribution, or handling locations. The EO can use the templates for an inventory list from the appendix.

2.2.3 What is an Authorized Use List (AUL)?

Each Unit shall keep a current AUL. The AUL is a list of all the materials in quantities that the unit is authorized to use, approved by the commander. The EO can use the templates for an inventory list and the AUL from the appendix.

2.2.4 What are Material Safety Data Sheets (MSDSs) and where to find them?

Chemical manufacturers and importers are required to provide their customers with Material Safety Data Sheets (MSDS, Sicherheitsdatenblatt) for each HM. The MSDS is a form which contains information on chemical, physical and hazard properties of the product, safety and health hazards, spill or leak procedures, protective equipment requirements and information on how the HM should be stored, handles or labeled.

The EO shall keep MSDSs for each HM at the working area readily accessible to all employees. The MSDSs shall be kept in a binder at the HMSA. Each MSDS shall be in English or the predominant language of the workforce.

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Note:

Generally, MSDSs are delivered to the customer together with the ordered HM. If the MSDS is provided only in German language the MSDS in English language can be requested from the manufacturer. Some manufacturers have a download service on their web pages. Alternatively, HMIRS can be used to search for missing MSDSs or one of the following links:

<http://hazard.com/msds/>

<http://www.dlis.dla.mil/hmirs/>

<http://www.denix.osd.mil/>

<http://www.msdssearch.com/>

2.2.5 What are Operating Instructions (Betriebsanweisungen)?

Operating instructions are workspace-specific instructions that provide information on handling HM as well as information on risks for human health and the environment associated with the HM. Units/activities are responsible for providing the specific operating instructions at locations where German employees handle HM. The operating instructions shall be in German language. Generic operating instructions can be obtained from DPW/EMD.

TO DO:

- Inspect HMSA weekly and keep inspection checklists.
- Keep an Authorized Use List (AUL).
- Keep a current inventory list.
- Keep all MSDSs easily accessible.
- Provide German employees with Operating Instructions (Betriebsanweisungen)

2.3 HM Management with the Hazardous Material Management System

2.3.1 What is the Hazardous Material Management System (HMMS)?

HMMS is a tracking software based on a worldwide database that helps Army installations to meet the Army in Europe Regulations (AER)200-1, AER 710-7, Final Governing Standards (FGS), and the Host Nation (HN) requirements.

The aim of the program is the implementation of HM/HW tracking “from cradle-to-grave”.

TO DO for HMMS users only:

- HM must be labeled with a unique serial number by the Hazardous Material Control Center (HMCC) or directly on site by Environmental Division (EMD), depending on the supply channel.
- When a unit receives HM without HMMS serial numbers, EO has to contact DPW/EMD to get HM labeled.
- Provide EMD with a copy of the MSDS and the shipping documents of the new material so that EMD can enter the new material into the database.
- Current inventory list shall be printed out of HMMS.

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3 Hazardous Waste (HW) Management
3.1 Generation, Accumulation and Storage of Hazardous Waste

All Hazardous Waste (HW) generated in USAG-K operations must be identified and handled so that it can be managed in a manner that will not endanger human health or the environment.

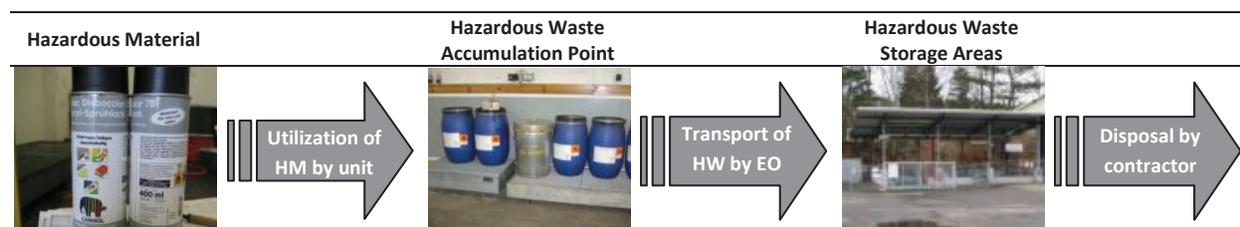
3.1.1 What is Hazardous Waste?

HW includes all used, no longer usable, expired (if the shelf life cannot be extended after laboratory testing) or spilled HM. Recyclable hazardous materials are also considered and handled as HW.

3.1.2 What to do with Hazardous Waste?

The actual organization, unit, or shop within USAG Kaiserslautern that produces HW is responsible for properly managing HW. The generated HW shall be accumulated at a Hazardous Waste Accumulation Point (HWAP) at or near the point of generation. For final disposal by the disposal contractor HW is usually taken by the EO to the Hazardous Waste Storage Area (HWSA).

Flow of HM to HW:


3.1.3 What is a Hazardous Waste Accumulation Point (HWAP)?

A HWAP is an outdoor shed, indoor room, garage or other area used for the purpose of accumulating HW until the final removal by waste removal contractors or until HW is removed to the Hazardous Waste Storage Area (HWSA) by the EO or a delegated person. The location or relocation of a HWAP must be approved prior to its use by DPW/EMD. Hazardous waste generators can have multiple HWAPs if e.g. the facility is very large.

Note:

The garrison operates numerous HWAPs and one HWSA on each installation. EOs are primarily responsible for the maintenance of the HWAPs. EMD is responsible to assist the EO with the setup of HWAPs. For the setup and maintenance of the HWSAs EMD personnel is responsible.

3.1.4 What are the requirements for a Hazardous Waste Accumulation Point?

- Sufficient security must exist at the main HWAPs to prevent uncontrolled accumulation of HW. Sufficient security would be lockable container, lockable fenced compound area, or facility. Only the HWAPs for daily use may be unsecured.
- HWAPs must be well ventilated.
- HWAPs shall be kept clean.
- Absorbent material to clean up spills must be readily available on-site.

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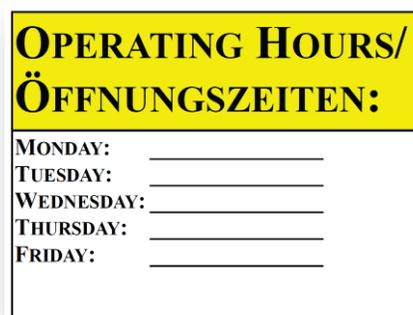
- Each HWAP must be capable of preventing environmental contamination due to container overfills or leaks. All containers for storing liquid HM must be either double-walled or have secondary containment systems.
- For incompatible HW, segregated containments must be provided by using either separate containment areas or by separately dike areas.
- All HWAPs must post sufficient bilingual (English and German) signs (provided by DPW/EMD) readable from a distance of 25 feet (8 meters) and all angles of approach as follows:



- Additionally, depending on the HW stored, the area must post sufficient warning signs at the entrance and on the containers as described in chapter 2.1.4, when the HWAP has a secured access. If the HWAP is directly accessible only the HW containers have to post the warning signs.

3.1.5 What is a Hazardous Waste Storage Area (HWSA)?

Each installation at USAG Kaiserslautern has one HWSA. HWSAs are defined as locations on a DoD installation where hazardous waste is collected and stored prior to shipment for treatment or disposal. Each HWSA at USAG Kaiserslautern posts bilingual (English and German) signs as follows:



Each HWSA is secured against unauthorized entry. Operating contractor and EMD is owner of the keys. Operation hours are always shown at the entrance gates or can be looked up under the following link: <http://www.kaiserslautern.army.mil/sites/directorates/DPW.html> (choose the button "Hazardous Waste Collection Points").

Full containers of HW collected at the HWAPs shall be brought to the HWSAs. EO has to sign a receipt when handing over HW to the disposal contractor at the HWSA. The disposal contractor will take care of the HW from there on.

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Note:

Operating hours of the HWSA will be reduced to a minimum or closed completely after the reorganization of the HWAPs. HWAPs will be under the strict control of the Environmental Officer (EO) or another designated person and will be secured against unauthorized access in near future. Moreover, HWAPs will be serviced by the waste disposal contractor. Waste generators will be not supposed to bring their waste to the HWSA anymore. HWSA will be turned over to the waste disposal contractor for their operations. This is already in progress, but EMD will contact the EOs when this will affect their unit/activity.

3.1.6 How does the disposal procedure differ when the Hazardous Waste Accumulation Point is serviced by a disposal contractor?

Disposal contractor shall check the filling level of the containers regularly. When a container is 75% full the disposal action shall be prepared by the contractor. Full containers are either emptied directly at the HWAP or the full containers are brought to the HWSA and exchanged with empty containers by the contractor. EO has to be present during the pickup and sign a receipt when handing over HW to the disposal contractor. The disposal contractor will take care of the HW from there on.

Note:

Fewest HWAP at USAG Kaiserslautern are serviced by the disposal contractor. EMD will contact the EO when a HWAP will be serviced

TO DO:

- Accumulate HW near the point of generation at a Hazardous Waste Accumulation Point (HWAP).
- During daily operations small amount of HW can be stored at a temporary HWAP but by end of the working day therein accumulated HW shall be removed by the EO to the main and secured HWAP.
- EO shall keep the HWAP clean and in compliance with regulations (see chapter 3.1.4).
- EO has to transport full HW containers to the HWSA on the respective installation; never transport HW from one installation to the other. If HWAP is controlled by contractor, contractor is responsible for the transportation to the HWSA.
- EO has to sign a receipt when handing over HW to the disposal contractor.
- Never store HM together with HW

3.2 Hazardous Waste Container Management

HW is collected either in containers for solid or liquid HW (see chapter 3.2.2) or in tank systems for liquid HW (see chapter 3.2.5). HWAP shall be equipped with separate containers for each waste stream. Chemically incompatible wastes shall be appropriately segregated. All containers shall be labeled and placed on secondary containments when containing flammable or water endangering liquid HW. Containers shall be handled with care to prevent damage and spills.

3.2.1 How does one label Hazardous Waste containers?

When HW is stored in containers, the container must be labeled as “HAZARDOUS WASTE”, with the common name of the waste, the hazardous property and the symbol for the respective hazard warning. Containers which are provided by the disposal contractor shall post all required labels. When units own other containers they are responsible for the correct labeling. Hazard symbols for HW are the same as for the labeling of HM (see chapter 1.1.2).

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3.2.2 How does one store solid and liquid HW properly in containers?

- For the collection of HW containers of different size and types can be used, depending on the amount and category of generated HW.

Examples:

	Container type	Waste type
	Plastic drum (varying in size, but typically 55 gallon)	Solid waste (small containments or other small solid substances)
	Metal drum (typically 55 gallon)	Liquid waste
	1.1 container	Solid waste (containments or scrap without residues of liquid HW that could leak out of the waste container)
	ASP container	Solid waste (containments or scrap with potential residues of liquid HM)

- Container shall be kept in the closed position at all times, unless adding or removing waste.
- All containers shall be stored and handled in a manner that prevents rupture or leaking.
- Container used for storage of flammable liquids shall be grounded during the transfer from one container into another.
- Containers used for the storage of liquids or solid waste with residues of liquids have to be placed on secondary containments, which have the capability to hold 10% of the total HW volume, or 100% of the total volume of the largest container, whichever is greater.
- Incompatible wastes shall be stored in segregated containers and shall not share secondary containment structures.
- Hazardous wastes shall not be placed in an unwashed container that previously held incompatible wastes.

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3.2.3 How does one segregate Hazardous Waste?

Incompatible wastes shall be stored in segregated containers and shall not share secondary containment structures. For the segregation of HW the same rules apply as for the segregation of HM (see chapter 2.1.9). General rule is to keep each of the four major types of HW (ignitable, corrosive, toxic and oxidizers) separated from each other.

Typical waste streams at U.S. Military Activities and how they have to be separated (list is not exhaustive):

Waste category	separate containers
Aerosol cans	Various types, full or empty, (i.e. lacquer, deicing fluid, and cleaning solutions)
	Aerosol cans containing Polyurethane Foam or Pesticides
Batteries	Dry cell batteries (alkaline, carbon zinc and manganese)
	Lithium batteries
	Magnesium batteries
	Ni-Cad batteries
	Mercury batteries
Paint	Non-halogenated paint
	CARC/Polyurethane paint
POL liquids	Brake fluid
	Hydraulic fluid
	Waste oil
	Waste fuel
	Waste Mogas and waste JP8
Solvents	Non-halogenated solvents
	Halogenated solvents
Empty metal containers	
Empty plastic containers	
Grease	

3.2.4 What to do with unknown or mixed Hazardous Waste?

Unknown or mixed HW can be identified by submitting a sample of the HW to the Material Laboratory Mannheim (MLM) at Coleman Barracks, Bldg #52, DSN 382-4115/5221. The laboratory will offer advice and assistance on sample preparation, packaging, and delivery. For more information see also chapter 2.1.9.

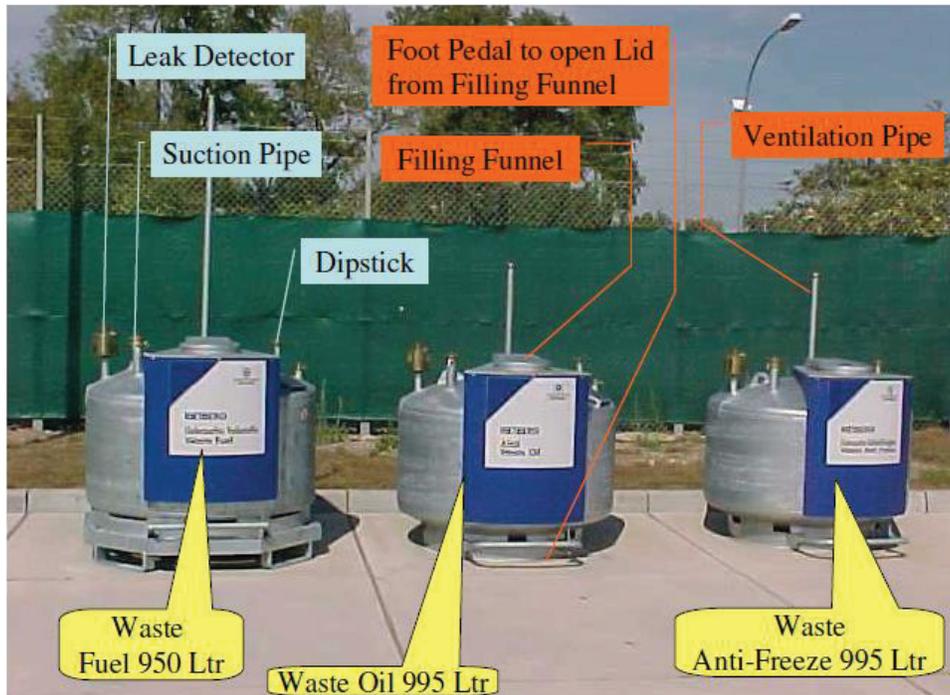
3.2.5 What do you have to be aware of when storing liquid HW in a tank system?

Some HWAPs are equipped with above ground or underground tank systems for the storage of liquids. At least once each operation day these tank systems must be inspected. Generally, the disposal

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contractors check the fill status once a week and organize a tour to have the tanks emptied. Nevertheless, the EO shall check the fill status daily and request the pumping/disposal of the waste POL or fuel if the tank is approx. 75% filled. Please contact EMD if you have a tank that has to be emptied promptly or if a new tank has to be included on the regular disposal tour of the contractor.

Above ground tank:



Underground tank:



At the above ground tanks the dipstick has to be read to identify the fill status of the tank. At the underground tanks the dipstick and/or the monitoring unit has to be read to identify the fill status of the tank.

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TO DO:

- It is the EOs responsibility to ensure the correct labeling of the containers, a sufficient separation of waste streams and segregation of HW.
- The EO has to ensure that the HW containers and secondary containments are in a good state to prevent spills.
- The EO has to ensure that containers are kept in the closed position, unless adding or removing waste.
- EO shall check the fill status of above ground tanks and underground tanks daily and request the pumping/disposal of the waste POL or fuel if the tank is approx. 75% filled.

3.3 Inspection and Record Keeping for Hazardous Waste Management

All HWAP should be checked at least weekly by the EO for leaking containers, deterioration of containers, and the deterioration of secondary containments where the containers are placed. EO should check also containers for proper segregation and labeling. The EO can use the template checklist from the appendix.

TO DO:

- Keep HWAPs and HW containers in good order and condition.

3.4 HW Management with the Hazardous Material Management System (HMMS)

3.4.1 What is HMMS?

Please find the definition of HMMS in chapter 2.3.1.

3.4.2 How does one turn in HW into a HWAP regarding HMMS?

EO (or delegated person) sorts the HW into the correct waste containers at the main HWAP and copies the HMMS serial numbers from the label on the item to a turn-in-list that is attached to the waste container. He also copies the waste container number on the turn-in-list (e.g. #5). When the disposal of the container occurs, EO has to provide EMD with these turn-in-lists. After EMD has received these lists, EMD performs the turn-in of HM into HW containers in HMMS.



Spill Response

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1 Pollution Incidents/Spills**1.1 Spill Response**

In general, prevention is the best method for dealing with spills. The resent spill procedures should not replace the establishment of, and adherence to, safe work practices with Hazardous Material and Hazardous Waste as described in chapter 4. Make sure you familiarize yourself with the spill response plan including the red plan for your facility. They are included in the EO Handbook.

1.1.1 What is a spill?

A spill is a situation in which a hazardous substance is accidentally released.

minor spill

Spill without safety, health or environmental hazard and spilled material can be contained single-handed.

Contained release (spill that is contained inside an impervious berm, on a nonporous surface or inside a building) that is not volatilized and is cleaned.

significant spill

Uncontained release to land or water in excess of the following quantities:

- a) Hazardous Material (HM) or Hazardous Waste (HW) of any quantity in excess of the quantity listed in Appendix AP1 of the FGS
- b) POL or liquid/semi liquid HM/HW in excess of 417 liters (110 gallons)
- c) Solid HM/HW in excess of 225 kg (500 lb)
- d) Combinations of POL and liquid, semi liquid and solid HM/HW in excess of 340 kg (750 lb)

1.1.2 What to do in a case of a minor spill?

Employees handling HM/HW are qualified to clean up spills that are “incidental and/or minor”, since they are expected to be familiar with the hazards of the materials they normally work with. If it is a minor spill (no safety, health or environmental hazard), **clean it up immediately**.

1.1.3 How does one clean up a spill?

Wherever HM/HW is handled a spill kit shall be at hand to clean up minor spills. Contents include absorbent socks, mats, pads, instructions etc. and are generally supplied in plastic pails or highly visible mobile wheeled bins.

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Oil and water absorbent (sand and clay):

Put absorbent directly on the oil spill or around a storm drain.



Oil and water absorbent (powder):

Put absorbent directly on the oil spill. Don't use this under stormy weather conditions!



Exsorbet (product name) oil and oil-based paint absorbent (sand):

Put absorbent directly on the oil spill or around a storm drain.



Rolls and pillows:

Place rolls around spills, storm drains, and on cracks in floors.



Drain covers:

Place on the storm drain. Hazardous liquids will be prevented from entering the storm drain.



Clean up a minor spill as follows:

1.	Identification of the spilled material	Identify the material by container label and if unsure about appropriate handling consult MSDS for further instructions.
2.	Prevention of further spilling	If possible stand up spilled containers, seal with cap, close outlet or pump.
3.	If necessary ask for help	When handling Hazardous Material a second person should always be within eyesight and hearing range.
4.	Containing the spill	Narrow the spill with absorbents (absorbent, rags, sand etc.) to one area and keep away from waterways, ditches, gutters and soil.
5.	Removal of spill	Collect contaminated material and place these into a labeled and approved container for disposal.

EO HANDBOOK

1.1.4 What to do in a case of a significant spill?

If the spill exceeds the scope of the employee’s experience, training or equipment to respond, the employee must follow the appropriate procedures (Red Plan) to **obtain assistance**:

	<u>within the installation:</u>	<u>outside the installation:</u>
1. Report the Spill	U.S. fire department DSN 117 and Environmental Management Division DSN 6213 / 6059	U.S. fire department DSN 117 Military Police DSN 114
The report should contain the following information:		
	Where: What: How much: Who:	Exact location of spill / unit Name of spilled material Amount of spill Name of notifying person
2. Determine safe actions	Stay on site until backup shows up. Keep uninvolved individuals away.	
3. Prepare the Report	See chapter 1.1.5	

1.1.5 Preparation of a spill incident report

After a significant spill occurred prepare the report have it signed by supervisor and send to the Environmental Management Division within two days. An outline of the spill area should be attached. The EO can use the template report from the appendix.

<p>TO DO:</p> <ul style="list-style-type: none"> ▪ Do not put yourself or others at risk. ▪ Keep spill kit on hand. ▪ Clean up minor spills. ▪ Obtain assistance for significant spills. ▪ Prepare spill incident reports after significant spills.



Helpful Phone Numbers

EO HANDBOOK

USAG Kaiserslautern Contact Information

Environmental Management Division

Hans Betzhold	Chief EMD	DSN:	483-6213
	Admin Support		483-6059

Fire Department Emergency Number

DSN: 117

Base Police

DSN: 489-7070 or
489-6060

DLA Disposition Services

DSN: 483-6186

Safety Office

Safety and Occupational Specialist	DSN:	493-4027
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Mannheim Laboratory (Material Testing)

Dr. Heinrich Gaa	POC	DSN	382-4115
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Appendices

EO HANDBOOK

Appendix 1: EMS Form 445-1: List of EMS relevant documents and records
(template next page)

EO identifies and maintains all environmental relevant documents and records in his/her area of responsibility by using EMS Form 445-1 or similar.

List of EMS relevant documents and records

OU Name:

POC:

Revision date:

#	Title	Date of issue	Document Description (e.g. permission, MOI, SOP, WO, policy, etc)	POC	ARIMS	document location (Installation, Bldg., Room, ... or path and filename for electronic files)	POC for archiving superseded document	Storage location for archived document	document archive period (Years)

EO HANDBOOK

Appendix 2: EO Appointment Letter (template next page)

Each unit has to nominate one Environmental Offer (EO) and one Alternate. Please provide the Environmental Management Division with a copy of the signed appointment letters and file the appointment letters in this binder.



DEPARTMENT OF THE ARMY
US ARMY INSTALLATION MANAGEMENT COMMAND EUROPE
UNITED STATES ARMY GARRISON, KAISERSLAUTERN
UNIT 23152
APO AE 09227-3152

(Unit Mailing Symbol, i.e. IMEU-KAI-PWE)

SUBJECT: Appointment of Environmental Officer (EO) and Alternate EO

1. Effective _____ , _____ , _____
(Date) (Rank, Name First / Last) (DSN, email address)

is appointed as the primary EO for _____
(Unit's Name, Location and Bldg)

The alternate EO is _____
(Rank, Name First / Last)

(DSN, email address)

2. Authority: AR 200-1 and AE Reg 200-1

3. Purpose: To perform duties as outlined in above references.

4. Period: Until officially released from appointment or DEROS Date _____.
(YYMMDD)

5. Special Instruction: To be familiar with provisions of AR 200-1 and AE Reg 200-1.

Commanding Authority / Director

EO HANDBOOK

Appendix 3: Weekly Inspection Checklists (templates next page)

The Weekly Inspection Checklists for handling HM/HW within unit level will be checked during random sampling by DOL/EMD.

1. Complete correctly the forms on the next pages.
2. Use 1 sheet for every month.
3. The list must be worked through conscientiously.
4. Check off every line, if this action is fulfilled.
5. Rectify a fault immediately.
6. If you have problems to fulfill the actions, call the DOL/EMD POC.
7. Sign the week column.

Weekly Inspection Checklist – HWAP

Please check the HWAP weekly according to this list, to be in compliance with the regulations and to provide a safe work environment for all employees.

Location :	Year:	Month:	Week:				
			1 st	2 nd	3 rd	4 th	5 th
To be checked:							
Condition of Area and Containers							
Is the area clean and tidy?							
Is there any evidence of spills (on floor, in secondary containments etc.)?							
Are the HW containers in good condition?							
Are the HW containers closed							
Are all containers for storing liquid HW that are not double-walled stored on secondary containment systems?							
Is the capacity of the secondary containment systems equal to the amount of stored material?							
Is each waste stream labeled with the required signs?							
Are all containers properly segregated?							
Do you have only one container of the following waste streams at a time: acids, pesticides, tar/bitumen, asbestos, insulation, glass wool, lab packs							
Necessary Equipment							
Is spill equipment readily available on-site?							
Is Personal Protection Equipment (PPE) on hand?							
Is appropriate decontamination equipment (eyewash etc.) available and functioning?							
Documents							
Are MSDSs readily available?							
Is the site specific red plan readily available?							
Do you have all required spill procedure plans readily available?							
Comments:							
<p>HWAP inspections shall be conducted by the EO or Alternate. In case the inspections are further delegated, please make sure that the person is trained appropriately.</p>			Signatures:				

Weekly Inspection Checklist – HMSA

Please check the HMSA weekly according to this list, to be in compliance with the regulations and to provide a safe work environment for all employees.

Location :	Year:	Month:	Week:				
			1 st	2 nd	3 rd	4 th	5 th
To be checked:							
Condition of Area and Containers							
Is the area clean and tidy?							
Is there any evidence of spills (on floor, in secondary containments etc.)?							
Is there any evidence of corroded or leaking material containments?							
Are all liquid materials that are not in double-walled containers stored on secondary containment systems?							
Is the capacity of the secondary containment systems equal to the amount of stored material?							
Is the HMSA labeled with the required signs according the material stored inside?							
Are all materials properly segregated?							
Is there any expired material?							
Necessary Equipment							
Is spill equipment readily available on-site?							
Is Personal Protection Equipment (PPE) on hand?							
Is appropriate decontamination equipment (eyewash etc.) available and functioning?							
Documents							
Are MSDSs readily available?							
Is the site specific red plan readily available?							
Do you have all required spill procedure plans readily available?							
Is the inventory list up to date?							
Comments:							
<p>HWAP inspections shall be conducted by the EO or Alternate. In case the inspections are further delegated, please make sure that the person is trained appropriately.</p>			Signatures:				

Wöchentliche Inspektion – HWAP

Bitte inspizieren Sie alle HWAP wöchentlich entsprechend dieser Liste, um Regelkonformität und ein sicheres Arbeitsumfeld für alle Mitarbeiter zu gewährleisten.

Standort :	Jahr:	Monat:	Woche:				
Folgende Punkte sind zu prüfen:			1	2	3	4	5
Zustand des Arbeitsbereichs und der Container							
Ist der Arbeitsbereich sauber und ordentlich?							
Gibt es Hinweise auf Gefahrstoffaustritte (auf dem Boden, in Auffangbehältern etc.)?							
Sind die Abfallbehälter in gutem Zustand?							
Sind die Abfallbehälter geschlossen?							
Sind alle nicht doppelwandigen Container, die flüssige gefährliche Abfälle enthalten, auf Auffangbehältern gelagert?							
Ist die Kapazität der Auffangbehälter ausreichend für die Menge gelagerter Abfälle?							
Sind alle Abfallströme mit den notwendigen Kennzeichnungen versehen?							
Ist die Getrenntlagerung nicht kompatibler Stoffe eingehalten?							
Ist jeweils max. nur ein Container für folgende Abfälle vorhanden: Säuren, Pestizide, Teer/Bitumen, Asbest, Dämmstoff, Glaswolle, Labormaterial?							
Notwendige Schutzausrüstung/-einrichtungen							
Ist Spill Equipment vorhanden?							
Ist persönliche Schutzausrüstung vorhanden (Schutzbrille, Handschuhe etc.)?							
Sind Dekontaminationsanlagen (Augendusche etc.) vorhanden?							
Dokumente							
Sind MSDS verfügbar?							
Ist der standortbezogene Alarmplan (Red Plan) verfügbar?							
Ist der Spill Prevention and Response Plan (SPRP) verfügbar?							
Kommentare:							
<p>Die HWAP Inspektion sollte vom EO oder Stellvertreter durchgeführt werden. Sollte die Aufgabe weiterdelegiert werden, dann ist sicherzustellen, dass die durchführende Person entsprechend unterwiesen wurde.</p>							
			Unterschrift:				

Wöchentliche Inspektion – HMSA

Bitte inspizieren Sie alle HWAP wöchentlich entsprechend dieser Liste, um Regelkonformität und ein sicheres Arbeitsumfeld für alle Mitarbeiter zu gewährleisten.

Standort :	Jahr:	Monat:	Woche:				
Folgende Punkte sind zu prüfen:			1	2	3	4	5
Zustand des Arbeitsbereichs und der Behälter							
Ist der Arbeitsbereich sauber und ordentlich?							
Gibt es Hinweise auf Gefahrstoffaustritte (auf dem Boden, in Auffangbehältern etc.)?							
Gibt es Hinweise auf korrodierte oder undichte Behälter?							
Sind alle flüssigen Gefahrstoffen, die nicht in doppelwandigen Behältern sind, auf Auffangbehältern gelagert?							
Ist die Kapazität der Auffangbehälter ausreichend für die Menge gelagerter Gefahrstoffe?							
Ist die HMSA mit allen Kennzeichnungen versehen, die aufgrund des gelagerten Materials notwendig sind?							
Ist die Getrenntlagerung nicht kompatibler Stoffe eingehalten?							
Sind für die gelagerten Materialien die Mindesthaltbarkeitsdaten überschritten?							
Notwendige Schutzausrüstung/-einrichtungen							
Ist Spill Equipment vorhanden?							
Ist persönliche Schutzausrüstung vorhanden (Schutzbrille, Handschuhe etc.)?							
Sind Dekontaminationsanlagen (Augendusche etc.) vorhanden?							
Dokumente							
Sind alle MSDS verfügbar?							
Ist der standortbezogene Alarmplan (Red Plan) verfügbar?							
Ist der Spill Prevention and Response Plan (SPRP) verfügbar?							
Ist die Inventurliste aktuell?							
Kommentare:							
<p>Die HWAP Inspektion sollte vom EO oder Stellvertreter durchgeführt werden. Sollte die Aufgabe weiterdelegiert werden, dann ist sicherzustellen, dass die durchführende Person entsprechend unterwiesen wurde.</p>							
			Unterschrift:				

EO HANDBOOK

Appendix 4: Inventory List/AUL (template next page)

Each unit shall keep a current inventory and AUL. The AUL is a list of all the materials in quantities that the unit is authorized to use, approved by the commander.

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Appendix 5: Pollution Incident Report (Spill Report) (template next page)

After a significant spill occurred prepare the report and send it to the Environmental Management Division within two days. An outline of the spill area should be attached.

Pollution Incident Report



USAG Kaiserslautern

To be filled by generator

<i>Date of release</i>		<i>Time of release</i>	
<i>Date spill was discovered</i>		<i>Time spill was discovered</i>	
<i>Name of on-scene coordinator</i>		<i>Telephone</i>	
<i>Personnel at the scene</i>			
<i>Location of release (attach sketch of location)</i>			
<i>Type of substance spilled</i>		<i>Amount of substance spilled</i>	
<i>Cause of incident and equipment/facility involved</i>			
<i>Impact on surrounding (water, wildlife, etc.)</i>		<i>size of contamination</i>	
<i>Injuries and/or property damage</i>			
<i>Corrective actions taken</i>			
<i>Corrective actions required</i>			
<i>Offices notified</i>			
<i>Extend of involvement by Host Nation civil offices</i>			
<i>Notes</i>			

Prepared by (Name and Signature): _____

To be filled by EMD

<i>Date of report received</i>	
<i>Action required</i>	
<i>Notes</i>	

Received by (Name and Signature): _____

Gefahrstoffunfallbericht



USAG Kaiserslautern
Auszufüllen vom Verursacher

<i>Gefahrstoffunfalls fand statt am</i>		<i>Uhrzeit</i>	
<i>Gefahrstoffunfalls entdeckt am</i>		<i>Uhrzeit</i>	
<i>Name des Koordinators vor Ort</i>		<i>Telefonnr.</i>	
<i>Anwesende Personen</i>			
<i>Ort des Gefahrstoffunfalls (Skizze anfügen)</i>			
<i>Ausgetretene Substanz</i>		<i>Menge der ausgetretenen Substanz</i>	
<i>Ursache des Unfalls und betroffene Geräte/Anlagen</i>			
<i>Auswirkungen auf die Umwelt (Wasser, Boden, Lebewesen, etc.)</i>		<i>Größe der Kontamination</i>	
<i>Verletzte und/oder Sachschaden</i>			
<i>Getroffene Maßnahmen</i>			
<i>Notwendige Maßnahmen</i>			
<i>Benachrichtigte Dienststellen</i>			
<i>Ausmaß der Beteiligung der deutschen Behörden</i>			
<i>Sonstiges</i>			

Bericht erstellt durch (Name und Unterschrift): _____

Auszufüllen von EMD

<i>Bericht erhalten am</i>	
<i>Notwendige Maßnahmen</i>	
<i>Sonstiges</i>	

Bericht angenommen durch (Name und Unterschrift): _____

EO HANDBOOK

Appendix 6: Unit Training Certificates

Each EO has to receive appropriate EO environmental training provided by EMD at least once a year. Please file your certificates in this binder and provide EMD with a copy.

EO HANDBOOK

Appendix 7: Other useful information