

FSGA/HAAF GARRISON
FT. STEWART, GA 31314

GARRISON SAFETY SOP – ANNEX P

TOXIC MATERIALS



FSGA/HAAF Safety Program SOP
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1. Purpose:

This Annex to the FSGA/HAAF Garrison Safety and Occupational Health (SOH) SOP provides policies, information, guidance, and minimum mandatory requirements necessary to protect personnel performing processes where there may be exposure to toxic materials. This Annex implements the toxic materials control program for the Fort Stewart and Hunter Army Airfield (FSGA/HAAF) Garrison.

2. Scope

This Annex to the Garrison SOH SOP applies to all military and civilian personnel assigned to the FSGA/HAAF Garrison who may perform work with potential exposure, of any kind, to toxic materials such as: arsenic, beryllium, lead, cadmium, hexavalent chromium, or nickel. It is intended to provide adequate information so all levels of leadership, SMS, and civilian workforce can properly implement the Garrison SOH Program.

NOTE: Unless otherwise specified by MOU, MOA, or Contract Agreement, tenant organizations and contractors are responsible for work processes, products, and hazardous or toxic materials that they introduce into the facilities they occupy and the surrounding area. They are also directly responsible for reporting accidental releases and contamination of facilities and the environment as well the cleaning, reclamation, and disposal of any hazardous or toxic, contaminated waste they produce from their operations and processes.

3. References

29 CFR 1915.1000, Air contaminants

29 CFR 1910.1018, Inorganic Arsenic

29 CFR 1915.1024, Beryllium

29 CFR 1910.1025, Lead

29 CFR 1915.1026, Hexavalent Chromium

29 CFR 1910.1027, Cadmium

29 CFR 1910.1200, Hazard communication

29 CFR 1960 - Basic Program Elements for Federal Employee Occupational Safety and Health Programs

DoDI 6055.01 - Department of Defense Instruction (DODI), DOD Safety and Occupational Health (SOH) Program

AR 385-10 - The Army Safety Program

DA Pam 385-10 Army Safety Program

4. Records Management:

Records created throughout the processes prescribed by this Annex will be identified, maintained, and disposed of according to AR 25-400-2 (The Army Records Information Management System (ARIMS) and DA Pam 25-403 (Guide to Recordkeeping in the Army). The primary means of recordkeeping for the Garrison Safety Office (GSO) will be the Army Safety

Management Information System (ASMIS) located at <https://mishap.safety.army.mil> . Record titles and descriptions are available on the ARIMS website <https://www.arims.army.mil>

5. Responsibilities

Directors, Managers, and Supervisors will:

- Ensure personnel comply with the requirements of this Annex.
- Prohibit personnel from performing work where potential exposure to toxic materials exist until provided appropriate training as addressed in this Annex.
- Ensure personnel assigned to FSGA/HAAF Garrison who perform work involving exposure to materials addressed in this SOP comply with requirements.
- Ensure personnel use applicable engineering controls as required.
- Ensure personnel wear Personal Protective Equipment (PPE) specified in applicable Safety Data Sheets (SDS), Industrial Hygiene Survey (IHS), Job Hazard Analysis (JHAs), and this Annex.
- Notify the Garrison Safety Office (GSO) immediately of any new materials or processes containing or involving toxic materials.

Garrison Safety Office (GSO) is responsible for:

- Administering this program in accordance with the references above.
- Developing and administering required training as necessary and identified by JHA, Industrial Hygiene (IH) survey, and/or Safety Data Sheet (SDS).
- Assisting in the development and/or maintenance of SOPs and JHAs.
- Reviewing IH surveys to ensure that work processes involving toxic materials are identified.
- Identifying process specific engineering, administrative controls, and ensuring required PPE is provided as necessary.

Industrial Hygienist (IH) / Occupational Health Clinic (OHC) is responsible for:

- Entering personnel into appropriate medical surveillance programs when they have met the criteria specified in this Annex – Industrial Hygiene (IH) identifies processes and/or exposures that may warrant medical monitoring.
- Maintaining required records, including Air monitoring data, Objective data, Medical surveillance, and Training records, as required.
- Advising Directorates and the GSO on general safe work practices.
- Providing Directorate of Public Works (DPW) with technical expertise and advice.

Environmental Office will:

- Ensure proper accumulation and disposal of toxic materials at approved disposal facilities IAW applicable federal, state, and local regulations.

Employees will:

- Follow process specific controls (PPE, ventilation, and respiratory protection) when performing work that can generate or cause exposure to toxic materials.
- Ensure the GSO is notified when new work processes involving toxic materials are being performed.
- Report to all scheduled/required medical examinations and complete all required training.
- Establish a boundary around and identify Regulated Areas as required by this Annex.
- Use good hygiene practices when working with toxic materials including washing hands, face, and any other exposed skin at the end of the activity, process, or work shift and prior to eating, drinking, smoking, chewing tobacco or gum, applying cosmetics, or using the toilet.
- Remove contaminated PPE and wash hands, face, and any other exposed skin after performing work in a Regulated Area or as directed by a technical publication.

6. Policy

The following policies will be used to prevent, to the maximum extent possible, overexposure and injuries related to personnel exposure to metals of toxic significance.

- **Exposure Monitoring.** Exposure monitoring is required to determine the extent of employee airborne exposure to hazards, including toxic materials. Results of exposure monitoring are used to implement process specific controls. Processes that have the potential to generate exposures to toxic materials and those processes identified in the IHS exposure-monitoring plan will be monitored.
- **Regulated Areas.** A Regulated Area will be established when employee exposure to toxic materials can be reasonably expected to equal or exceed OSHA PELs.

NOTE: There are no standard work processes performed by FSGA/HAAF Garrison personnel identified as generating airborne exposures near or exceeding PELs for toxic materials.

- Regulated Areas will be demarcated with signs and a physical boundary such as tape, rope, plastic sheeting, or a blast booth.
 - Signs, including a “Caution Respirator Area” sign will be placed at open boundaries or access points to Regulated Areas.
 - Only personnel trained and protected are permitted to enter Regulated Areas while work operations are in progress.
 - Personnel will clean and remove any potentially contaminated PPE prior to leaving Regulated Areas using a “laydown area” at the area boundary if necessary.
 - Upon completion of work and cleanup, signs and boundaries will be removed or covered.
- The following activities are prohibited in Regulated Areas: eating, drinking, smoking, use of Electronic Nicotine Delivery Systems (ENDS), chewing tobacco, gum, application of cosmetics, or storage of materials.
- **Methods of compliance.** Engineering and work practice controls will be implemented to reduce and maintain employee exposure to toxic materials below PELs.

- Substitution of materials. In all cases, when technically acceptable, less hazardous materials will be substituted in place of those that have the potential to generate hazards. Hazardous or toxic materials used at FSGA/HAAF must be approved by the GSO, DPW Environmental, and DES Fire prior to use.
- Isolation of processes. Processes will be enclosed, such as with blast cabinets or containments, to prevent hazards from reaching the worker's breathing zone or skin.
- Engineered tools and equipment. Hazards associated with a specific process will be captured immediately at the point of generation by specifically designed tools or equipment, such as through the use of HEPA vacuum tools, HEPA vacuum cabinets, and/or contained booths equipped with HEPA capture and filtration systems.
- Administrative Controls. Administrative controls such as job rotation schedules to reduce an employee's 8-hour TWA exposure to airborne hazards. Job rotation schedules are prohibited as a singular method of reducing an employee's exposure below the Medical Surveillance Action Level (MSAL) when work involves exposure to arsenic, beryllium, lead, cadmium, and hexavalent chromium.
- Wet method work practice. Use of a water spray or mist, when appropriate, to minimize airborne dust from dust generating processes such as paint removal and work area cleanup.
- Ventilation. Ventilation will be used to capture, reduce, or eliminate airborne hazards, e.g., dust, fume, mist, gases, etc., during industrial processes. Process specific mechanical exhaust ventilation requirements are specified in the references above.
 - Local mechanical exhaust ventilation is primarily used to capture contaminants at the point of generation. Local ventilation must be positioned as close as possible to the point of generation to provide effective capture velocities and pull contaminants out of a worker's breathing zone. An example of local exhaust includes movable vent hoods.
 - General area mechanical exhaust ventilation reduces concentrations of toxic fumes and particulates by bringing clean air into a work area to dilute contaminated air and then exhausting the diluted air. This type of ventilation must be positioned to pull contaminants out of a worker's breathing zone i.e. work must be positioned between the worker and air intake. An example of general area mechanical exhaust ventilation includes blast booth ventilation systems.
- Respiratory Protection. Respiratory protection will be worn in accordance with the references above and FSGA/HAAF Garrison SOH SOP, Annex K, Respiratory Protection.
- Personal Protective Equipment (PPE). Personnel performing operations involving toxic materials will wear PPE to prevent skin, eye, and/or personal clothing contact. PPE could include coveralls, gloves, shoe covers, head covers, etc.
 - Disposable coveralls should be worn except when performing hot work processes. Disposable coveralls specifically identified as flame retardant or melt resistant may be worn when performing hot work processes.
 - PPE exposed to toxic materials will not be taken home unless cleaned.

- Reusable PPE, gloves, and respirators must be cleaned in accordance with the following paragraphs.
- Reusable coveralls such as blasting coveralls (and head covers, such as flash hoods) when used for toxic material work processes will be professionally laundered.
- Hygiene areas and practices. Wash hands, faces, and exposed skin immediately after completing work and before eating drinking, smoking, using ENDS, or applying cosmetics.
 - Personnel performing work that involves exposures above the PEL will, at a minimum, change into work coveralls prior to working and back into personal clothes after leaving the work area using an isolated changing room away from non-related work areas.
 - Change room “clean-side” (with storage lockers for personal clothing), shower, and a “dirty-side” (with lockers for protective work clothing and equipment) will be used to prevent spread of toxic metal contamination. Use of regular locker rooms and showers is not permitted.
 - Personnel performing work that generates exposures at or above the PEL for BERYLLIUM and CHROMIUM (VI) (6) (Cr6) require a change into PPE prior to performing such work, removal of all exposed PPE after work prior to re-donning personal clothing, washing hands, face, and exposed skin, and leaving work.
 - Personnel performing work that generates exposures at or above the PEL for LEAD, CADMIUM, or ARSENIC require a change into PPE prior to performing such work, removal of all exposed PPE after work, and showering prior to re-donning personal clothing and leaving work.
 - If necessary, soap and towels for showering will be provided.
 - Suiting and Un-suiting signs will be posted at change room (clean side and dirty side, respectively) and Regulated Area boundaries.
 - Prior to removing PPE, including respiratory protection, used during toxic materials work processes it must be cleaned (vacuumed and/or damp wiped). Before storing any PPE, it will be cleaned in accordance with manufacturer’s instructions.
- Housekeeping. Prompt and timely cleaning must be performed to ensure all surfaces in work areas are maintained as free as practicable from accumulation of hazardous dust/debris.
 - Dry sweeping, including the use of “fox tails” or “blowing down” of work surfaces, floors, and clothing/PPE with compressed air, is prohibited with the exception of cleaning performed within walk-in blast booths as follows.
 - When sweeping, shoveling, or using compressed air to clean inside walk-in blast booths, ventilation must be operating, and all personnel must be wearing a minimum of Tyvek® coveralls, gloves, and full-face respirator with P100 filters.
 - Compressed air used for cleaning within walk-in blast booths must be regulated to less than 30 p.s.i.
 - HEPA filtered vacuums will be used to clean work surfaces whenever practical.
 - Wet sweeping (misting water onto dust while sweeping) may be used where vacuuming is ineffective.

- **Medical Surveillance.** The medical surveillance program is designed to identify personnel at risk of adverse health effects from chronic exposure to toxic materials, to prevent toxic material-induced diseases, and to detect and minimize existing toxic material-induced diseases. The following requirements have been established.
 - If personnel are assigned to operations expected to produce exposures at or above the Medical Surveillance Action Level (MSAL) for 30 days or more in a 12-month period they will be entered into medical surveillance for the applicable toxic metal(s).
 - The 30-day criteria need not occur over consecutive days.
 - Not all toxic materials have an OSHA regulated medical surveillance program.
 - The GSO and IH will ensure that personnel are entered into appropriate medical surveillance programs when they have met the above criteria or processes/exposures that warrant medical monitoring are identified.
 - The references above provide guidance for administering exams/evaluations and is used at the Occupational Health Clinic's (OHC) discretion.
- **Training.** Hazard Communication Training and applicable standard specific training are required (i.e. specific to the OSHA standard for a toxic metal) and will be provided to personnel who can be exposed to potential toxic material.
- **Records.** Training records will be maintained by the responsible work supervision. Medical Surveillance records will be maintained by the OHC.
- **Waste Disposal/ Regulated Waste Management.** Prior to generating hazardous waste, DPW Environmental must be notified to properly plan for storage, labeling, and management of waste containers.

7. Hazardous Waste Disposal

DPW Environmental shall be contacted for proper disposal instructions.

APPENDIX A – Definitions

Administrative Controls: Methods used to minimize or control exposure to a hazard. Administrative controls include but are not limited to; job rotation schedules to reduce an employee's 8-hour TWA exposure to airborne hazards.

Ceiling: A Ceiling value is an exposure limit which shall at no time be exceeded during any part of a working exposure.

Engineering Controls: Methods used to minimize or control exposure to a hazard. Engineering controls include but are not limited to; substitution, isolation (i.e. enclosures and containments), wet methods (i.e. submersion or water spray), HEPA filtered tools, and ventilation.

High efficiency particulate air (HEPA): A filter that is at least 99.97% efficient in removing mono-dispersed particles of 0.3 micrometers in diameter. The equivalent NIOSH 42 CFR 84 particulate filters used with respiratory protection are P100 filters.

Medical Surveillance Action Level (MSAL): As defined by the Occupational Safety and Health Administration (OSHA), the MSAL is the airborne concentration of a hazard, as averaged over an 8-hour period, which initiates medical monitoring.

NIOSH: National Institute for Occupational Safety and Health. Under the OSHA Act, NIOSH is the testing, approving and certifying agency for respiratory protection devices.

OSHA: Occupational Safety and Health Administration. This organization was created by the Department of Labor to discharge the Department's responsibilities assigned by the Occupational Health Act. OSHA's mission is to save lives, prevent injuries and protect the health of America's workers.

P100 filters: Equivalent in protection to HEPA filters and intended for filtering dust, mist and fumes. "P" series indicates that this filter has the greatest resistance to atmospheres that may contain oil, i.e., "oil proof", which can degrade the efficiency of the filter media.

Permissible Exposure Limit (PEL): PELs are time weighted average (TWA) concentrations that must not be exceeded during an 8-hour work shift of a 40-hour work week.

Regulated Area: In accordance with OSHA, a Regulated Area is an area of work demarcated as to where an employee's exposure to airborne hazards can be reasonably expected to equal or exceed the PEL.

Time Weighted Average (TWA) concentration: The time weighted average concentration for a normal 8-hour workday for a 40-hour workweek, to which nearly all workers may be repeatedly exposed, day after day, without adverse effect.

Toxic material: A material that, when affected by heat or mechanical means, can create inhalation, ingestion and/or direct contact exposures that, in significant concentrations, can cause detriment to the health of personnel receiving the exposure.

Appendix B – Abbreviations

AR	Army Regulation
ARIMS	Army Records Information Management System
ASMIS	Army Safety Management Information System
CFR	Code of Federal Regulations
DA Pam	Department of the Army Pamphlet
DoDI	Department of Defense Instruction
DPW	Directorate of Public Works
FSGA	Fort Stewart Garrison
GSO	Garrison Safety Office
HAAF	Hunter Army Airfield
IH	Industrial Hygiene
OHC	Occupational Health Clinic
OSHA	Occupational Safety and Health Administration
PEL	Permissible Exposure Limit
PPE	Personal Protective Equipment

SM	Service Member
SOH	Safety and Occupational Health
SOHMS	Safety and Occupational Health Management Systems
SOP	Standard Operating Procedure
TWA	Time Weighted Average
USO	Unit Safety Officer

APPENDIX C

ANNUAL GSO REVIEWS

DATE	REVIEWED BY	CHANGES Y/N	SUMMARY OF CHANGES