



Department of the Air Force
HQ AEDC (AFMC)
Arnold AFB, TN 37389

Safety, Health, and Environmental Standard

Title: HAZARD ABATEMENT PROGRAM

Standard No: A5

Effective Date: 02/10/2014

Releasability: There are no releasability restrictions on this publication.

The provisions and requirements of this standard are mandatory for use by all AEDC personnel engaged in work tasks necessary to fulfill the AEDC mission. Please contact your safety, industrial health and/or environmental representative for clarification or questions regarding this standard.

Approved:

A handwritten signature in black ink, appearing to read "C. R. Plummer", written over a horizontal line.

Contractor/ATA Director
Safety, Health, and Environmental

A handwritten signature in black ink, appearing to read "A. P. R. ...", written over a horizontal line.

Air Force Functional Chief

SHE Standard A5 Hazard Abatement Program

Record of Review/Revision

(Current revisions are highlighted in yellow and marked with a vertical line in the right margin.)

Date/POC	Description
01/17/14 Glover	Three-year review: Administrative changes only; changed SHG to SHE and Operating Contractor to Base Operating Contractor throughout; replaced “Facilities O&M” with “Civil Engineering”; updated ESOH Council meeting from “quarterly” to “semi-annually” to reflect current practice. Reworded 4.2.2.2.1 for consistency with section 4.4, and added 4.2.2.2.2 for clarity and renumbered subsequent paragraphs; updated Hazard Severity Code Descriptions to align with AFI 91-202. No change in process.
03/11/2013	Added NFAC supplement; no other change.
02/16/11 Glover/Bidmead	Consolidated Standards A5 and A7. (AEDC SHE Standard A7 will be rescinded as a result.) Moved Facilities O&M Responsibilities from SHE Standard A3 Compliance and Inspection to this standard. No substantial change to existing processes. Merger/consolidation sections are not highlighted; read entire standard.
Change History for A5	
05/26/09 Eichel	Annual Review: Added paragraph dealing with non-reprisal of employees who submit an SOR. No change to current process.
05/13/08 Eichel	Annual review; minor editorial changes for clarification highlighted in yellow; deleted section addressing training requirements specific to Operating Contractor Safety and Health Group; renumbered subsequent sections. Deleted Annex (copy of Form GC-1703) and references within the text.
06/15/07 Eichel/Tate	Removed references that were no longer applicable; minor rewording in Section 2.0; provided location for GC 1703.
6/05/06 Tate	Annual review; omitted Form GC-1710, which has been eliminated & replaced by GC-1703. Eliminated duplicate statements requiring initiation of SOR response within 10 days; renumbered paragraphs accordingly. .
06/24/05 Tate	Reviewed; minor administrative changes: Replaced Safety and Health Manager with Director throughout; added Toolbox Topics as a forum to communicate safety and health-related findings.
03/15/04 Jennings	Reviewed; no change required.
02/18/04 A.W. Jennings	Original Issue; developed standard on hazard reporting program for AEDC facilities and operations



Safety, Health, and Environmental Standard

HAZARD ABATEMENT PROGRAM

1.0 INTRODUCTION/SCOPE/APPLICABILITY

- 1.1 Introduction – This standard provides a means to record safety hazards, proactive safety measures observed, and compliance with applicable safety, health and environmental requirements. The Hazard Reporting Program is part of the Risk Management process used to minimize loss of resources and to protect personnel from occupational deaths, injuries, or illnesses by managing risks.
- 1.2 Scope – Detecting unsafe or unhealthful working conditions at the earliest possible time and abating hazards promptly at the lowest possible working level are essential elements of the safety and health program. Form GC-1703 Safety Observation Report (SOR) is one of the tools used for hazard reporting at AEDC; personnel may also use AF Form 457 USAF Hazard Report in accordance with AFI 91-202, Air Force Mishap Prevention Program. The hazard reporting program, utilizing the SOR process, provides a system of reporting hazardous conditions and for investigating and correcting those hazards.
- 1.3 Applicability – This standard applies to all personnel conducting operations, maintenance, testing and support at Arnold Air Force Base.

2.0 BASIC HAZARDS/HUMAN FACTORS

Personnel conducting safety observations of facilities, workplaces and operations must be briefed and aware of the potential hazards of the area and ensure proper safety procedures are followed, to include wearing of appropriate personal protective clothing and equipment (PPE). The main focus of the safety observation is to identify hazards, the first step in the risk management process. When a hazard poses immediate danger to personnel, immediate corrective actions shall be taken. All personnel at AEDC have the responsibility to ensure a safe and healthful work environment exists, where recognized hazards are eliminated or controlled to acceptable levels. If unsafe and unhealthful working conditions exist, they shall be eliminated or controlled through engineering, substitution, isolation, administrative controls, revised procedures, special training, or PPE.

3.0 DEFINITIONS

Base Operating Contractor – A base contractor directly accountable to the Air Force for the AEDC mission.

Controls – Action(s) taken to eliminate or mitigate hazards or reduce their risk.

Deficiency – A violation of an AEDC Safety, Health, and Environmental Standard (SHE Std), regulation, or other written guidance which requires a Risk Assessment Code (RAC) number be assigned.

Finding – A finding is a statement included on an inspection report to identify a safety or health issue, or situation, discovered during the inspection that could have positive or negative impact on the safety and health program. Deficiencies noted during inspections are reported as findings. Findings are based on the weight of evidence, professional knowledge, and potential risk to personnel.

Hazard – Any real or potential condition that can cause injury, illness, or death to personnel or damage to or loss of equipment or property, mission degradation, or damage to the environment.

Hazard Abatement Log (HAL) – The database kept by **Base Operating Contractor** Safety, Health, and **Environmental (SHE)** (or local log at the discretion of the functional manager/supervisor) which records and tracks hazards by identification/description, location, finding, RAC, interim control measures and completion date.

Imminent Danger – Conditions, procedures, or work practices which could reasonably be expected to cause death or severe injuries.

Interim Control Measures – Those measures developed by the **Base Operating Contractor's SHE** professional in concert with the functional manager/supervisor to reduce the hazards of a RAC 1, 2, or 3 finding to an acceptable level, i.e., RAC 4 or 5.

Occupational Hazard – Conditions, procedures, and practices directly related to the work environment that create a potential for producing occupational injuries/illnesses.

Occupational Hazard Abatement – The elimination or permanent reduction of an occupational hazard by complying with applicable safety and health requirements or by taking equivalent protective measures.

Outside Contractor/Subcontractor – An organization employed by a contractor or the Air Force to do construction, maintenance, repair or other work at AEDC. There is no relationship, control or supervision of the subcontractor's employees by AEDC contractors.

Risk Assessment – A structured process to identify and assess hazards. An expression of potential harm, described in terms of hazard severity, accident probability, and exposure to hazard. See SHE Std A4 System Safety for further details.

Risk Assessment Code (RAC) – An expression of the risk associated with a hazard that combines the hazard severity and accident probability into a single Arabic numeral.

Risk Management – The process used to assist management and supervision in identifying and controlling safety, health and environmental hazards and making informed decisions. The process involves the following:

- Identifying the hazard
- Assessing hazards to personnel, equipment, and mission
- Developing controls
- Making risk decisions to eliminate all unnecessary risks
- Implementing controls
- Supervising and evaluating appropriateness of established controls and making adjustments where necessary

Safety Observation Report Form GC- 1703 (SOR) – The report form used for immediate safety observations and hazard reporting. AF Form 457 USAF Hazard Report may be used in lieu of GC-1703.

Spot Inspections – A method of identifying and reporting workplace hazards. Spot inspections may utilize the SOR form or other in-depth inspection criteria, depending on the nature of the inspection to be performed.

4.0 REQUIREMENTS/RESPONSIBILITIES

4.1 Requirements

4.1.1 **Hazards to Report.** Mishap prevention depends on personnel identifying, reporting, and correcting hazards promptly and efficiently. Any person assigned, attached, or under contract to the Air Force may report a hazard by submitting an SOR/AF Form 457 on any event or condition that affects operations, facilities, workplaces, ground, or explosives/weapons, safety. Reportable hazards include unsafe procedures, practices, or conditions. Reports may be submitted anonymously.

4.1.2 **Reporting Criteria.** Hazard reports shall be submitted for conditions noted above unless personnel can take immediate corrective action to eliminate the hazard.

4.1.3 At the discretion of the **Base** Operating Contractor's **SHE** evaluator or the **SHE** Director, results of the SOR/AF Form 457 may prompt a more extensive safety and health compliance inspection, audit or spot inspection. See SHE Std A3 Compliance and Inspection for details.

4.1.4

4.2 Responsibilities

4.2.1 Management/Supervision shall

4.2.1.1 Ensure all personnel have safe and healthful work environments where recognized hazards are eliminated or controlled at the lowest possible risk level. If unsafe or unhealthful working conditions exist, they should be eliminated or controlled through engineering, substitution, isolation, administrative controls, revised procedures, special training, or PPE.

4.2.1.2 Establish management actions to deal with any deficient areas identified during the hazard reporting process.

- 4.2.1.3 Supervisors shall monitor hazards that have been identified in the Hazard Abatement Log and provide updates concerning the hazards within their area of responsibility.
- 4.2.1.4 Review SORs/AF Forms 457 which may require the deficiency be entered as a hazard abatement project and establish priorities.
- 4.2.1.5 Assure that no employee is subject to restraint, interference, coercion, discrimination or reprisal for filing a report (SOR) of an unsafe or unhealthful working condition, or other participation in AEDC occupational safety and health program activities. This includes the right of an employee to decline to perform his or her assigned task because of a reasonable belief that, under the circumstances, the task poses an imminent risk of death or serious bodily harm coupled with a reasonable belief that there is insufficient time to seek effective redress through normal hazard reporting and abatement procedures established in accordance with this standard.
- 4.2.1.6 Ensure the SOR or AF Form 457 is available to all personnel.
- 4.2.1.7 Apply the Risk Management process to the workplace including the following:
- Investigate and correct all observed and / or reported hazardous conditions
 - Enforce all applicable safety and health practices
 - Promptly report to a superior authority any hazardous condition for which immediate onsite correction is not possible

4.2.2 Base Operating Contractor SHE or AEDC/SE shall

- 4.2.2.1 Have authority to direct contractor/subcontractor activities only when a condition exists which presents imminent danger to personnel. In all other situations, discrepancies noted during inspections shall be reported as findings and forwarded to the functional manager, supervisor, contract monitor, and/or department director for resolution.
- 4.2.2.2 Assign an SHE investigator who will take the following actions upon validation of the hazard reported on the SOR/AF Form 457:
- 4.2.2.2.1 Assign a RAC and a tracking number. If the reported condition exists after 30 calendar days, AF Form 1118 shall be issued for RACs 1, 2, or 3 and posted as close to the hazard as possible. (See annex for RAC explanations, and SHE Std A3 for explanation of tracking number.)
- 4.2.2.2.2 Evaluate and assign the Cost Effective Index (CEI) and Abatement Priority Number (APN) for all RAC 1, 2, and 3 Hazards and ensure follow up every 30 days until the RAC is closed.
- 4.2.2.2.3 Inform the originator (if known) of the corrective action and conduct follow-up reviews until the action is completed. Within 10 workdays after the report is closed, the investigator shall inform the originator (if known) about the completed action and document this communication on the SOR/AF Form 457.
- 4.2.2.2.4 Advise the submitter that if he or she is not satisfied with the response to the SOR/AF Form 457, it will be locally reevaluated and reviewed by the SHE Director. If the submitter is still not satisfied, the SOR/AF Form 457 shall be forwarded to the Base Operating Contractor Office of the General Manager, then to AEDC/SE, as appropriate for further evaluation.

4.2.3 Base Operating Contractor SHE Director shall

- 4.2.3.1 Ensure all SORs/AF Forms 457 are evaluated and investigated in a timely manner. When validated, findings are documented accurately and objectively and that those findings are communicated to the affected area's functional manager/supervisor, and department director as applicable.
- 4.2.3.2 Forward completed SORs/AF Forms 457 to AEDC/SE and department directors as applicable.
- 4.2.3.3 Reevaluate SORs/AF Forms 457 submitted by personnel not satisfied with the response from the Base Operating Contractor's investigator. If still not satisfied, the SOR shall be forwarded to AEDC/SE or the Base Operating Contractor Corporate Safety, Health, and Environmental as applicable for further evaluation.

4.2.4 Base Operating Contractor Civil Engineering shall

- 4.2.4.1 Provide cost data and status information on hazard or deficiency abatement actions associated with real property facilities and real property installed equipment.
- 4.2.4.2 Include hazard abatement information in project submittals intended to abate hazardous conditions. Code hazard abatement projects within the Air Force Civil Engineer System (ACES) and provide a monthly printout of ACES data regarding projects that include safety, fire prevention, and health concerns with RACs 1, 2, or 3 to the Base Operating Contractor's SHE for use in updating the HAL.
- 4.2.4.3 Ensure RACs are incorporated into ACES for corrective actions.
- 4.2.4.4 Ensure Base Operating Contractor Work Control section schedules maintenance for correction of hazards in a timely manner.

4.2.5 Personnel shall

- 4.2.5.1 Promptly report safety, fire, health hazards or deficiencies.
- 4.2.5.2 Have the opportunity to request inspections of unsafe or unhealthful working conditions or report those conditions to the functional manager/supervisor, Base Operating Contractor's SHE Director, Fire Protection, or OSHA officials.
- 4.2.5.3 Have access to applicable AEDC, OSHA, and AFOSH standards, installation injury and illness statistics, safety, fire protection, and health program procedures, and their own exposure and medical records.
- 4.2.5.4 Decline to perform an assigned task because of a reasonable belief that the task poses an imminent risk of death or serious bodily harm. The person and local management may request an assessment by the Base Operating Contractor's SHE, Fire Protection, or other professionals before proceeding.

4.3 Procedures**4.3.1 Reporting**

- 4.3.1.1 Hazards shall be reported to the functional manager / supervisor of the area or submitted anonymously. If the hazard is eliminated on the spot, no further action shall be required unless the same hazard applies to other similar operations or to other units or agencies.
- 4.3.1.2 If the hazard presents imminent danger, the functional manager/ supervisor, or individual responsible for that area shall take immediate action to correct the situation or apply interim control measures.
- 4.3.1.3 The Base Operating Contractor's SHE shall investigate the alleged hazard. The SHE investigator shall discuss the hazard with the person who submitted the report (if known), the responsible functional manager/supervisor, and other parties involved to validate the hazard and determine the best interim control and corrective action.
- 4.3.1.4 The priority for corrective action depends upon the risk level assigned.

4.4 Base Operating Contractor Safety, Health, and Environmental and Fire Protection Abatement Process

- 4.4.1 Safety, fire, or occupational health deficiencies are assigned an appropriate RAC or FSD based upon the severity of the finding.
- 4.4.1 Base Operating Contractor's SHE shall prepare and maintain a Hazard Abatement Log for all RAC hazards.
- 4.4.2 RAC 1 hazards are to be corrected immediately.
- 4.4.3 RAC 2 or 3 hazards shall have an interim control measure in place when the hazard has been determined. When possible the RAC 2 or 3 hazards should be corrected within 30 days. When hazards cannot be corrected within 30 days, AF Form 1118 must be issued and posted by area supervisors/building managers.
- 4.4.4 RAC 4 or 5 hazards should be corrected during routine maintenance as funding becomes available.

- 4.4.5 The organization responsible for correcting the hazard or deficiency shall provide updates to the HAL as the update occurs, and shall report on a quarterly basis indicating follow-ups, actions taken, and closeouts.
- 4.4.6 **Base** Operating Contractor's SHE shall conduct quarterly Hazard Abatement Working Group meetings with hazard owners and shall provide minutes documenting these meetings to AEDC/SE. **Base** Operating Contractor's SHE shall determine the format which shall include, as a minimum, the agenda, list of attendees, HAL status, and action items open and closed.
- 4.4.7 The AEDC Hazard Abatement Program shall be reviewed **semi-annually** at the AEDC Environmental, Safety, and Occupational Health Council. The AEDC Commander shall be briefed on an annual basis on the open RACs 1, 2, and 3.

5.0 TRAINING

Personnel shall be made aware of the Hazard Abatement Program and methods for reporting hazards through **Base** Operating Contractor toolbox topics, management safety walks, and periodic inspections.

6.0 INSPECTION/AUDITS

Base Operating Contractor's SHE conducts periodic and random inspections to identify hazards and to determine status of reported hazards. (See Paragraph 4.1.3 for additional information.)

7.0 REFERENCES

- AFI 91-202, Air Force Mishap Prevention Program
- AEDC Safety, Health and Environmental Standard A3 Compliance and Inspection
- AEDC Safety, Health and Environmental Standard A4 System Safety

8.0 ANNEX

- Risk Assessment

9.0 SUPPLEMENT

- A321-0801-XSP A5 Hazard Abatement Program

**Annex
Risk Assessment**

Table 1. Risk Assessment Code Matrix.				
SEVERITY ↓	MISHAP PROBABILITY			
	A	B	C	D
I	1	1	2	3
II	1	2	3	4
III	2	3	4	5
IV	3	4	5	5

RISK
ASSESSMENT
CODE
←

Mishap Severity: An assessment of the potential consequence if a hazard or deficiency results in a mishap. It is the degree of injury, occupational illness, resource loss, or fire damage that could occur. The severity categories are:

- I. Death, permanent total disability, or loss of a facility or asset of \$2,000,000 or more.
- II. Permanent partial disability, temporary total disability in excess of 3 months, or major damage of \$500,000 up to \$2,000,000.
- III. Lost workday injury or minor property damage \$50,000 up to \$500,000.
- IV. Minimal threat to personal property, first aid, minor supportive medical treatment, violation of a , or fire damage less than \$50,000.

Mishap Probability: An assessment of the likelihood that a hazard or fire deficiency will result in a mishap. Categorize mishap probabilities as:

- A. Likely to occur immediately or within a short period of time.
- B. Probably will occur in time.
- C. Possible to occur in time.
- D. Unlikely to occur.

RAC Descriptions:

1. Imminent Danger.
2. Serious.
3. Moderate.
4. Minor.
5. Negligible.

A321-0801-XSP A5 Hazard Abatement Program Supplement

This supplement has been approved for the NFAC Site.

Review: This supplement will be reviewed and updated using the same cycle as AEDC Safety, Health, and Environmental (SHE) Standard A5 Hazard Abatement Program.

Reference: AEDC SHE Standard A5 Hazard Abatement Program

Scope:

This supplement provides a means to record safety hazards, proactive safety measures observed, and compliance with applicable safety, health and environmental requirements. The Hazard Reporting Program is part of the Risk Management process used to minimize loss of resources and to protect personnel from occupational deaths, injuries, or illnesses by managing risks.

This supplement applies to all personnel conducting operations, maintenance, testing and support at NFAC, NASA AMES.

Requirements/Responsibilities:

- I. Site Management shall
 - a. Ensure all personnel have a safe and healthful work environment where recognized hazards are eliminated or controlled at the lowest possible risk level. If unsafe or unhealthful working conditions exist, they should be eliminated or controlled through engineering, substitution, isolation, administrative controls, revised procedures, special training, or PPE.
 - b. Establish management actions to deal with any deficient areas identified during the hazard reporting process.
- II. NFAC Safety Engineer/Management Designee shall
 - a. Maintain the NFAC Hazard Abatement Log (HAL) and ensure it is incorporated with the AEDC Access database. The NFAC HAL will be reviewed for consistency with the HAL maintained at AEDC.
 - b. For all RAC 1, 2, and 3 hazards, ensure that Hazard Identification Notice A321-0801-XSF-04 (equivalent to AF form 1118) is posted as close to the hazard as possible. When the hazard has been abated the A321-0801-XSF-04 (equivalent to AF form 1118) will be removed and the hazard closed in the NFAC HAL.
 - c. Evaluate and assign the Cost Effective Index (CEI) and Abatement Priority Number (APN) for all RAC 1, 2, and 3 Hazards.
 - d. Inform the originator (if known) of the corrective action and conduct follow-up reviews until the action is completed. Within 10 workdays after the report is closed, the investigator shall inform the originator (if known) about the completed action.
 - e. Ensure AF Form 457 USAF Hazard Report (AF IMT 457, 19730901, V2) is posted on the NFAC Shared Drive so that DoD Air Force civilian personnel can report hazards. Hazard will then be entered into the NFAC HAL and assigned to the appropriate person. (Hyperlink will be generated in final document) Respond to generator of the Hazard Report on the status and action to be taken to mitigate the hazard.
 - f. Collect all Safety Observation Report (SOR) A321-0801-XSF-03. Maintain the SOR status log. SOR reporting hazards will be entered into the HAL and assigned to the appropriate person. Respond to generator of SOR on status and what will be done to mitigate the hazard.

A321-0801-XSP A5 Hazard Abatement Program Supplement

III. Supervisors shall

1. Monitor hazards that have been identified in the HAL and provide updates concerning the hazards within their area of responsibility.
2. Review assigned SORs, identify any which may require the deficiency be entered as a hazard abatement project, and establish priorities.
3. Assure that no employee is subject to restraint, interference, coercion, discrimination or reprisal for filing a report (SOR) of an unsafe or unhealthful working condition, or for other participation in NFAC occupational safety and health program activities. This includes the right of an employee to decline to perform his or her assigned task because of a reasonable belief that, under the circumstances, the task poses an imminent risk of death or serious bodily harm coupled with a reasonable belief that there is insufficient time to seek effective redress through normal hazard reporting and abatement procedures established in accordance with this supplement.
4. Apply the Risk Management process to the workplace including the following:
 - a. Investigate and correct all observed and/or reported hazardous conditions
 - b. Enforce all applicable safety and health practices
 - c. Promptly report to a superior authority any hazardous condition for which immediate onsite correction is not possible
 - d. Ensure the mitigation steps on Hazard Identification Notice A321-0801-XSF-04 are followed

IV. Staff shall

- a. Report all hazards to either their supervisor or submit an SOR
- b. Follow Hazard Identification Notices A321-0801-04