



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

## Safety, Health, and Environmental Standard

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**Title:** FETAL PROTECTION

**Standard No.:** E10

**Effective Date:** 02/28/2011

The provisions and requirements of this standard are mandatory for use by all 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:

Contractor /ATA Director  
Safety and Health Group

Air Force Functional Chief





# Safety, Health, and Environmental Standard

## FETAL PROTECTION

### 1.0 INTRODUCTION/SCOPE/APPLICATION

- 1.1 Introduction – Employee safety and health is of the utmost importance in the workplace and comprehensive safety, industrial hygiene and occupational health programs are in place for all employees. These programs are considered all-inclusive and protective in every sense to include protection of the fetus. However, to ensure all aspects of potential exposures are assessed and addressed, this standard is set forth to establish an open-communication policy between the onsite physician and the pregnant employee or prospective father.
- 1.2 Scope – There is an emphasis on recognition, evaluation and control of workplace stresses and hazards to ensure the lowest exposures possible. Workplace stresses and hazards include, but are not limited to, teratogenic agents such as chemical hazards, toxic atmospheric contaminants, ionizing and non-ionizing radiation, noise, heat, humidity and cold stresses. In-place exposure control techniques include engineering controls, administrative controls and personal protection controls.
- 1.3 Applicability – This standard applies to all AEDC personnel at Arnold AFB and Tunnel 9.

### 2.0 BASIC HAZARDS/HUMAN FACTORS

At Arnold AFB, pregnant employees and those considering a family are encouraged to contact the onsite physician as early as possible in the pregnancy or preferably before the pregnancy so that their work environment can be evaluated by the Safety and Health Group. The onsite physician is available to answer questions concerning the potential effect of the workplace environment on the unborn child. The onsite physician and the Safety and Health Group will observe the ethical and legal precepts governing the confidentiality of medical information. Upon written request by the employee, information will be made available to the employee's personal physician.

Services for Tunnel 9 personnel are coordinated via their medical provider who provides information to AEDC Operating Contractor medical staff and Safety and Health Group as necessary.

### 3.0 DEFINITIONS/TERMS

Annual Workplace Surveys – The Safety and Health Group conduct detailed basewide surveys. An important aspect of these surveys is an evaluation of chemical exposures. Potential chemical and physical exposures are assessed and addressed at the time of the survey.

Entry Routes – Employees can be exposed to chemicals in three common ways: by ingestion (e.g., eating food contaminated by a chemical on the person's fingers), by skin absorption (e.g., contamination of the skin), or inhalation of the chemical in the air.

Exposure Control Techniques – Chemical and physical exposures are controlled through engineering controls, administrative controls and personal protection controls.

Operating Contractor – A base contractor directly accountable to the Air Force for the AEDC mission. This is the term used to identify the AEDC Operation, Maintenance, Information Management and Support Contractor.

Permissible Exposure Limit – A standard established by the Occupational Safety and Health Administration (OSHA) stating a permissible exposure limit (PEL) for a substance or physical agent which must not be exceeded.

Personal Monitoring – A program for sampling of air contaminants or physical energies in the work area in order to establish the level of worker exposure to such agents. Monitoring may consist of personnel wearing monitoring equipment or film badges throughout the work day.

Special Surveys – The Safety and Health Group conduct special surveys which are not scheduled but are requested due to employee concerns or at the request of the onsite physician.

Teratogenic Agent – Any agent with the ability to produce a congenital defect.

Threshold Limit Value-Time-Weighted Average – Recommendations made by the American Conference of Governmental Industrial Hygienists (ACGIH), stating the time-weighted average concentration for a conventional 8-hour workday and a 40-hour workweek, to which it is believed that nearly all workers may be repeatedly exposed,

day after day, without adverse effect. A worker typically works 8 hours per day with a 16-hour break, during which time the body has a chance to remove, modify, or detoxify the chemical.

#### **4.0 REQUIREMENTS/RESPONSIBILITIES**

##### **4.1 Requirements**

- 4.1.1 Operating Contractor Safety and Health Group (SHG) shall conduct routine industrial surveys in all work areas to determine potential workplace hazards. Physical and chemical agents shall be evaluated during these surveys. Reports and resultant recommendations shall be coordinated with the onsite physician.
- 4.1.2 The routine industrial survey reports shall be posted in the work area for ten days.
- 4.1.3 Special surveys shall be conducted by Operating Contractor SHG upon request by the onsite physician when the onsite physician is notified that a woman is pregnant or that an employee is considering a family.
- 4.1.4 The results of the special surveys, including physical and chemical exposure data, shall be reported to the onsite physician who in turn shall report the findings to the employee for counseling if required. Surveys and reports shall be coordinated between the onsite physician and the other members of SHG. The onsite physician shall make recommendations based upon survey findings.
- 4.1.5 All recommendations made by the onsite physician shall be strictly followed.
- 4.1.6 Upon the employee's written request, survey results and related work condition information shall be made available to the employee's personal physician.

##### **4.2 Responsibilities**

###### **4.2.1 Employees:**

- 4.2.1.1 Notify the onsite physician of any concerns concerning workplace hazards relating to pregnancy.
- 4.2.1.2 Contact the onsite physician with questions concerning potential chemical or physical agent exposures.
- 4.2.1.3 Follow all recommendations made by the onsite physician.
- 4.2.1.4 Provide a written request for exposure information to be made available for their personal physician's review.
- 4.2.1.5 Complete AEDC hazard communication training requirements.

###### **4.2.2 Supervisors:**

- 4.2.2.1 Follow all recommendations made by the onsite physician for the prospective parent.
- 4.2.2.2 Direct all questions to the onsite physician.
- 4.2.2.3 Ensure that current employees are made aware of the availability of the fetal protection program and permitted to request special surveys as warranted by work conditions.
- 4.2.2.4 Post routine industrial survey reports in the work area for ten days.

###### **4.2.3 Clinic:**

- 4.2.3.1 Serve as the primary point of contact concerning questions on potential health hazards of the unborn child.
- 4.2.3.2 Maintain records of all correspondence and counseling sessions.
- 4.2.3.3 Request that SHG conduct a special workplace evaluation of all physical and chemical agents in a pregnant employee's workplace or the workplace of an employee considering a family.
- 4.2.3.4 Make recommendations and coordinate with SHG and the employee's supervisor as deemed necessary.
- 4.2.3.5 Ensure workplace evaluations are available upon the employee's written request for a personal physician's review.

###### **4.2.4 Operating Contractor Safety and Health Group:**

- 4.2.4.1 Document workplace hazards during industrial surveys.

- 4.2.4.2 Conduct special surveys in the workplace upon the request of the onsite physician.
- 4.2.4.3 Document workplace evaluations along with supporting data and forward those evaluations to the onsite physician.
- 4.2.4.4 Coordinate with the onsite physician when necessary.
- 4.2.4.5 Provide new hire hazard communication training, to include presentation of the tenets of the fetal protection program.
- 4.2.4.6 Provide periodic publications and announcements alerting employees to the availability of the fetal protection program.

## **5.0 TRAINING**

Information on the fetal protection standard shall be included as a part of the new hire hazard communication training provided by SHG. In addition this information is provided through periodic publications and announcements.

## **6.0 INSPECTIONS/AUDITS**

Inspections of the work area shall be performed in accordance with this standard.

## **7.0 REFERENCES**

- 7.1 Catalog of Teratogenic Agents, The Johns Hopkins University Press, tenth edition
- 7.2 The Effects of Workplace Hazards on Female Reproductive Health, NIOSH, current edition
- 7.3 Fundamentals of Industrial Hygiene, National Safety Council, current edition
- 7.4 Patty's Industrial Hygiene and Toxicology, John Wiley and Sons, Inc., current edition
- 7.5 Pocket Guide to Chemical Hazards, National Institute for Occupational Safety and Health (NIOSH), current edition
- 7.6 Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices, American Conference of Governmental Industrial Hygienists, current edition
- 7.7 Women's Safety and Health Issues at Work, NIOSH, current edition