



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

Effective  
07/31/09

Std. No.  
A8

## Safety, Health, and Environmental Standard

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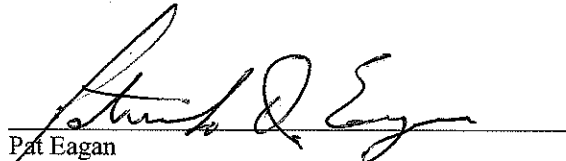
**Title:** Environmental Impact Analysis Process

**Standard No.:** A8


**Effective Date:** 07/31/09

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:



Pat Eagan  
Director, ATA Support Services



Pamela F. King  
Chief, Asset Management Flight  
704th Civil Engineering Squadron





# Safety, Health, and Environmental Standard

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## ENVIRONMENTAL IMPACT ANALYSIS PROCESS

### 1.0 INTRODUCTION/SCOPE/APPLICABILITY

#### 1.1 Introduction

The Environmental Impact Analysis Process (EIAP) is implemented at Arnold Air Force Base to determine potential environmental effects of projects conducted on base. This standard provides guidance for complying with the requirements of the EIAP.

#### 1.2 Scope

This standard implements the National Environmental Policy Act of 1969 (NEPA) which requires an analysis of the environmental impact “in every recommendation or report on proposals for legislation and other major federal actions significantly affecting the quality of the human environment.” The purpose of NEPA is “to declare a national policy which will encourage productive and enjoyable harmony between man and his environment; to promote efforts which will prevent or eliminate damage to the environment and biosphere and stimulate the health and welfare of man; to enrich the understanding of the ecological systems and natural resources important to the Nation; and to establish a Council on Environmental Quality.” Federal agencies must consider the NEPA recommendations for the proposed project or activity; however, NEPA does not mandate the selection of the more environmentally preferable alternative.

The Environmental Impact Analysis Process, the Air Force’s implementation of NEPA, is outlined in Title 32 Code of Federal Regulations Part 989 (32 CFR Part 989), *Environmental Impact Analysis Process*. AFI 32-7061, *Environmental Impact Analysis Process*, implements Air Force Policy Directive (AFPD) 32-70, *Environmental Quality*, and incorporates 32 CFR 989 by reference as the Air Force Instruction on the EIAP. The EIAP review ensures that all appropriate environmental impact analyses, historic property consultations, and environmental permits are obtained and implemented in order to not impact test capabilities and established schedules. In addition, the review ensures all permit conditions required for operations are maintained, and that the Air Force is in compliance with regulatory requirements. The instruction is applicable to Arnold Engineering Development Center (AEDC) and applies to all government and contractor personnel within all AEDC organizations who propose actions, projects, and operations. The process is integral to the implementation and maintenance of the Arnold Air Force Base Environmental Management System (EMS).

The cited regulations, policies, and directives are essential to achieve and maintain compliance with NEPA and the Council on Environmental Quality (CEQ) Regulations for Implementing the Procedural Provisions of the NEPA (40 CFR Part 1500 et seq. referred to as the “CEQ regulations”). Further requirements are contained in the Department of Defense Directive (DoDD) 4715.1, *Environmental Security*, Department of Defense Instruction (DoDI) 4715.9, *Environmental Planning and Analysis*, DoDD 5000.1, *Defense Acquisition*, and 5000.2-R, *Mandatory Procedures for Major Defense Acquisition Programs and Major Automated Information System Acquisition Programs*.

### 1.3 Applicability

This standard applies to all personnel, organizations, and operations located on Arnold AFB.

## 2.0 BASIC HAZARDS/HUMAN FACTORS

Construction projects and operational activities that occur at AEDC may have the potential to adversely affect human health, the environment, or cultural resources. In order to properly evaluate the potential impacts, the EIAP utilizes an interdisciplinary team to review details of the project or activity, which includes the following areas:

- Air Installation Compatible Use Zone (AICUZ)
- Air Quality
- Water Resources
- Safety and Occupational Health
- Hazardous Materials
- Hazardous Waste
- Biological Resources
- Cultural Resources
- Geology and Soils
- Socioeconomic

## 3.0 DEFINITIONS

Air Force Media Managers – An interdisciplinary team of Air Force personnel with expertise in environmental, safety, and health who review the evaluations of the EIAP Review Team.

Air Force NEPA Manager – An AF 704 CES\CEA employee responsible for oversight of the EIAP program.

Baseline Hazard Analysis – A compilation of Subsystem Hazard Analyses (SSHA), System Hazard Analyses (SHA), Operating and Support Hazard Analyses (O&SHA), or any other analyses used to document the known hazards concerned with the operation and maintenance of a system or facility.

Categorical Exclusion (CATEX) – Categories of actions that do not individually or cumulatively have potential for significant effect on the environment and do not, therefore, require further environmental analysis in an Environmental Assessment or an Environmental Impact Statement. The list of Air Force-approved CATEXs is in 32 CFR Part 989 Appendix B.

CERCLA – Comprehensive Environmental Response, Compensation, and Liability Act

EIAP Program Manager – A contractor staff member who is trained in the EIAP and NEPA regulations with the responsibility of coordinating and maintaining all EIAP documentation for the Air Force.

EIAP Review Team – An interdisciplinary team of contractor personnel with expertise in environmental, safety, and health who evaluate each proposed project or activity in relation to their area of responsibility.

Environmental Assessment (EA) – A concise public document that serves to:

- Briefly provide sufficient evidence and analysis for determining whether to prepare an Environmental Impact Statement (EIS) or a Finding of No Significant Impact (FONSI), and
- Aid the Air Force in complying with the NEPA when no EIS is required.

Environmental Baseline Survey (EBS) – A survey performed in support of real estate transactions to document any environmental contamination from past or current use and identify any potential for future contamination of real property that may pose a threat to health, safety, or the environment or present a potential liability to the Air force.

Environmental Impact Analysis Process (EIAP) –The Air Force implementation of the NEPA process.

Environmental Impact Statement (EIS) – A document prepared when an Environmental Assessment indicates the potential for significant degradation of the environment, significant threat or hazard to public health and safety, or substantial environmental controversy. The EIS provides a more in-depth evaluation of the proposed project or activity as well as more involvement of the public sector.

Environmental Planning Function (EPF) – At every level of command, the EPF is one of the key Air Force participants responsible for the EIAP. At AEDC, the EPF consists of Air Force and contractor personnel who assist the Commander in making key environmental decisions.

Finding of No Significant Impact (FONSI) – A document by the Air Force briefly presenting the reasons why an action will have no significant effect on the human, natural or cultural environment and, therefore, for which no Environmental Impact Statement will be prepared. It must include a concise summary of the Environmental Assessment or incorporate the EA by reference along with any other related environmental documents.

Interdisciplinary Team – Contractor personnel with expertise in specific media areas responsible for evaluating proposed projects or activities in relation to current environmental regulations and potential impacts.

Open Action Item – Mitigation that requires action by 704 CES/CEA or contractor Environmental personnel prior to or during project execution.

Proponent – Individual or organization advocating an action who can best analyze and describe all the component parts of the action and assist the EPF in development of alternative actions.

Record of Decision (ROD) – A concise public document stating the decision made on a proposed project or activity evaluated in an EIS.

## **4.0 REQUIREMENTS/RESPONSIBILITIES**

### **4.1 EIAP Process**

#### **4.1.1 Proponent Responsibilities**

Ensures integration of the EIAP into the initial planning stages of the proposed project or activity so that decisions reflect environmental values, delays are avoided, and potential conflicts are precluded. The process should be started as early as possible in the planning phase when adequate information is available to evaluate the proposed action and alternatives.

4.1.1.1 Completes Section I of the automated MatrixOne® AF Form 813, *Request for Environmental Impact Analysis*, which includes preparing a Description of Proposed Action and Alternatives (DOPAA) using an interdisciplinary team approach. The electronic form is accessible via the AEDC Portal link to MatrixOne® ([https://ebiz.arnold.af.mil/ematrix/common/emxNavigator.jsp?mode=Tree&MenuName=AEDC\\_Management\\_Links&CommandName=AEDC\\_EnvironmentHome\\_Link](https://ebiz.arnold.af.mil/ematrix/common/emxNavigator.jsp?mode=Tree&MenuName=AEDC_Management_Links&CommandName=AEDC_EnvironmentHome_Link)) under the Environmental tab. Proponents of proposed projects or activities who do not have access to the AEDC Intranet may use the AF Form 813 located in Annex A.

4.1.1.2 Forwards AF Form 813 electronically or mails hard copy AF Form 813 to the EIAP Program Manager.

4.1.1.3 AEDC Civil Engineering (704 CES) and Investment (704 TESH) projects, utilizing MatrixOne® for project approval and tracking, will automatically generate an AF Form 813 during the approval process. Projects associated with Comprehensive Program Management Plans (CPMP) and FY Workload Plans will generate AF Form 813s at the “project control review” step in the approval process.

4.1.1.4 AEDC Test Operation (704 TG) projects with a valid and current Baseline Hazard Analysis do not require EIAP review unless the project requires a Test Peculiar Hazard Analysis (TPHA) as defined in Safety, Health, and Environmental (SHE) Standard A4, *System Safety*. If an AF Form 813 is required as the result of a TPHA, Safety and Occupational Health, Hazardous Materials, and Hazardous Waste review comments in the TPHA will be included in the AF Form 813 by reference. Projects covered by a Baseline Hazard Analysis qualify for CATEX A2.3.7 as defined in 32 CFR 989.40 Appendix B.

#### 4.1.2 EIAP Program Manager Responsibilities

Acts as a liaison between the proponent, the interdisciplinary team, and the Air Force to ensure that all documentation is accurate and adequate for making decisions and recommendations.

4.1.2.1 Provides support to the proponent in preparing the AF Form 813.

4.1.2.2 Reviews the AF Form 813 for completeness. Attaches additional information as needed and links MatrixOne® project plans if available.

4.1.2.3 Evaluates project for AICUZ and Socioeconomic impacts.

4.1.2.4 Under the following circumstances, the EIAP Program Manager can evaluate the following media areas:

- For projects conducted within an existing building or structure (with the exception of the Elk River Dam, Bldg. 3101, or projects with extenuating circumstances): The EIAP Program Manager can identify Biological Resources and Geology/Soils impacts as “NO EFFECT” and the status as “CLOSED.”
- For projects conducted within an existing building or structure that has no impact on potable water, wastewater, or permitted air sources: The EIAP Program Manager can identify Air Quality and Water Resources impacts as “NO EFFECT” and the status as “CLOSED.”

4.1.2.5 Promotes the AF Form 813 to the interdisciplinary review team.

#### 4.1.3 Interdisciplinary Review Team Responsibilities

Evaluates the proposed project or activity in relation to their specific areas of expertise and provides comments on mitigations and/or restrictions. In order to meet the Air Force mandated review period of 60 days, the interdisciplinary review team reviews must be completed within 14 days of receiving the AF Form 813.

4.1.3.1 For each area of responsibility, the impact determination is changed from “Not Reviewed” to “No Effect,” “Positive Effect,” “Adverse Effect,” or “Unknown Effect” as required to best quantify the potential impact of the action (Cultural Resources has an additional impact category of “No Adverse Impact”). If the proposed project or activity does not have sufficient information to make a determination, the AF Form 813 can be rejected and sent back to the EIAP Program Manager for additional clarification.

4.1.3.2 For each area of responsibility, complete the “Description” field to identify any environmental protection requirements or actions that must be addressed during the development of the proposed project or activity.

4.1.3.3 The status for each media area should be left “OPEN” for actions (such as environmental permit applications or modifications, archaeological surveys, historic recordations, etc.) that require 704 CES/CEA or contractor Environmental personnel to accomplish. All actions that are the responsibility of the

proponent, project manager or subcontractor (such as safety requirements, waste containment, stormwater plans, etc.) should have a “CLOSED” status.

4.1.3.4 When the last review team member completes the evaluation, the AF Form 813 is automatically forwarded to the EIAP Program Manager for final review.

4.1.3.5 After final approval of the AF Form 813, interdisciplinary team members are responsible for entering the “Scheduled Completion Date” for any open actions in their area of responsibility, ensuring the action items are completed as scheduled, and closing the action items upon completion.

#### **4.1.4 EIAP Program Manager Responsibilities**

The EIAP Program Manager is responsible for a final review of all comments, requirements, and actions prior to review and approval by AEDC Asset Management Flight (704 CES/CEA).

4.1.4.1 Comments from each media area are reviewed to determine if the proposed action qualifies for a CATEX as defined in 39 CFR 989.40 Appendix B.

4.1.4.2 CATEX A2.3.11: “*Actions similar to other actions which have been determined to have an insignificant impact in a similar setting as established in an EIS or an EA resulting in a FONSI*” requires the pertinent EA or EIS to be referenced in the “Remarks” field and attached to the AF Form 813.

4.1.4.3 If the proposed action does not qualify for a CATEX, further environmental action is required and an EA is initiated. If a proposed action is known to require an EIS, 704 CES/CEA may choose to bypass the EA and proceed with the preparation of an EIS.

#### **4.1.5 AF Media Managers Responsibilities**

AF Media Managers review the finalized AF Form 813, modify the AF Form 813 if required, and forward the document for final approval by the Air Force NEPA Manager.

4.1.5.1 The AF Media Managers have the authority to approve or reject the AF Form 813 based on the information provided. Rejected documents are automatically sent to the EIAP Program Manager to resolve the identified problems.

#### **4.1.6 AEDC Asset Management Flight (704 CES/CEA) Responsibilities**

The final AEDC Asset Management Flight approval requires a signature from the Air Force NEPA Manager to authorize the environmental analysis determination and approve the comments and/or mitigations.

4.1.6.1 The AF NEPA Manager has the authority to approve or reject the document based on the information provided. Rejected documents are automatically sent to the EIAP Program Manager to resolve the identified problems.

4.1.6.2 Notification of approved AF Form 813 is sent electronically by MatrixOne® to the EIAP Program Manager and the proponent.

4.1.6.3 Notification of open action items is sent by MatrixOne® to the responsible AF Media Manager, the responsible contractor Environmental staff, and the proponent of the project.

#### **4.1.7 Proponent or Designated Project Manager Responsibilities**

The proponent or designated project manager is responsible for reviewing and implementing any mitigating requirements identified on the approved AF Form 813.

- 4.1.7.1 The proponent or project manager is responsible for providing the required completion date for any open action items generated by the approved AF Form 813 to the EIAP Program Manager.
- 4.1.7.2 An approved AF Form 813 does not relieve the proponent of the responsibility to comply with all other environmental requirements related to the project. Any substantial changes to the project scope that could change the environmental impact shall require additional review by the interdisciplinary team.

## **4.2 Environmental Analysis Process**

- 4.2.1 An EA is required if a project does not qualify for a CATEX and the project is not known to require an EIS. The EPF may determine that an EA is not necessary and proceed directly to an EIS.
- 4.2.2 Depending on current workload and magnitude of the project, the EA may be conducted in-house by the EIAP program, prepared utilizing reach-back capabilities of the contractor managing partners, or contracted to an outside consulting firm.
- 4.2.3 The review cycle of the EA will begin with a preliminary draft EA. This PDEA will be reviewed by the contractor Environmental staff and the NEPA Manager. A draft final EA will be prepared from comments received on the preliminary draft and reviewed by the EPF, including AEDC/PA, AEDC/JA, and AEDC/SE and the contractor Environmental staff. A legal sufficiency statement or comments detailed enough to assist in creating a legally sufficient final EA document will be provided by AEDC/JA. The final EA will be prepared and submitted to the EPF and the EIAP Program Manager along with an electronic copy of the document in MICROSOFT WORD® and ADOBE ACROBAT® format. If the EA results in a FONSI, a draft FONSI will be submitted with the final EA. An executive summary of the EA limited to cultural resources issues will be produced at the request of the EPF for submission to pertinent Native American organizations. The final EA will be submitted to AEDC/PA for clearance to release the document for public review.
- 4.2.4 The NEPA Manager will notify the EIAP Program Manager that AEDC/PA has approved the document for public release. The EIAP Program Manager will draft a Notice of Intent (NOI) to be placed in area newspapers to notify the public of the proposed action and to solicit comments. The EA and unsigned FONSI will be available to the affected public upon request through the Air Force Public Affairs Office. The review period will be no less than 30 days unless an emergency situation exists or severe mission impacts may occur. Comments will be received by the EPF and forwarded to the EIAP Program Manager if modifications to the EA are required.
- 4.2.5 Copies of the final EA will be sent to the State of Tennessee Single Point of Contact (SPOC), appropriate state offices, and the United States Fish and Wildlife Service (USFWS) during the period of public comment with responses directed to the NEPA Manager.
- 4.2.6 If the proposed action involves cultural resources of interest to Native American organizations, an executive summary will be provided electronically to the pertinent Native American tribes for review and comment.
- 4.2.7 Following the review period, all comments will be considered and incorporated into the FONSI or final EA as appropriate.
- 4.2.8 The FONSI will be signed by the AEDC/CC or his designee. The FONSI signature authority may be designated no lower than the Base Civil Engineer.
- 4.2.9 Copies of the EA and signed FONSI will be maintained by the EPF and the EIAP Program Manager.
- 4.2.10 One hard copy and one electronic copy of the final EA and FONSI will be submitted to the Defense Technical Information Center.

### 4.3 Environmental Impact Statement Process

- 4.3.1 If 704 CES/CEA determines that an EIS is required, the proponent will be apprised of the requirement. The proponent may have the option to choose the *No Action Alternative* if conducting the EIS is not economically feasible.
- 4.3.2 The EPF will furnish HQ USAF/ILEB, through the MAJCOM, the NOI describing the proposed action for congressional notification and publication in the Federal Register.
- 4.3.3 The EPF, through the base Public Affairs Office, will provide the approved NOI to newspapers in the area potentially affected by the proposed action.
- 4.3.4 After publication of the NOI for an EIS, the EPF must initiate a public scoping process to determine the scope of issues to be addressed.
- 4.3.5 AEDC will work in conjunction with AFMC to produce, review, and complete the EIS including consideration of public and agency comments.
- 4.3.6 A ROD will be placed in area newspapers to inform the public of the federal agency's decision on the specific action.

### 4.4 Environmental Baseline Survey (EBS) Process

- 4.4.1 All real property owned by Arnold Air Force Base that has been identified for acquisition, out-grant or disposal requires that an EBS be conducted as defined in AFI 32-7066, *Environmental Baseline Surveys in Real Estate Transactions*.
- 4.4.2 The chairperson of the Environmental, Safety, and Occupational Health Council (ESOHC) or designated representative may waive an EBS requirement if all the following conditions are met:
  - 1) The condition of the property will not create health and safety risks when used as intended;
  - 2) The allowable activities will not introduce hazardous materials or petroleum products on the property; and
  - 3) No material alteration or change in the physical condition of the property will occur if the property is held by the Air Force, such that the Air Force is deemed an owner or operator of the facility under CERCLA.The waiver must be in writing and document why the transaction qualifies for a waiver. The waiver becomes a part of the real estate transaction record.
- 4.4.3 A Phase I EBS investigation of the property and adjacent properties is conducted to determine the potential for present and past site contamination by hazardous substances or petroleum products. At a minimum, this phase includes a comprehensive records search, interviews and visual site inspection.
- 4.4.4 A report must be generated at the end of the Phase I investigation to categorize the potential presence of hazardous substances or petroleum products as defined in AFI 32-7066, Section 2.1.2. The EBS report must contain a certification signed by the preparer and the 704 CES/CEA signatory authority as defined in AFI 32-7066, Attachment 3.
- 4.4.5 A Phase II EBS investigation must be conducted if the property falls into category 7 as defined in the Phase I investigation. Utilizing procedures of the Installation Restoration Program (IRP), additional investigations will be conducted by the contractor or a subcontractor as appropriate to include surface, subsurface, and aquifer sampling.

4.4.6 An addendum will be prepared and attached to the Phase I survey report containing the findings, conclusions, recommendations, and certifications of the Phase II investigation.

## 5.0 REFERENCES

ANNEX A – AF Form 813, *Request for Environmental Impact Analysis*

AEDC Safety, Health, and Environmental Standard A4 – *System Safety*

39 CFR 989, *Environmental Impact Analysis Process (EIAP)*

40 CFR 1500 et seq., *Council on Environmental Quality*

AFI 32-1021, *Planning and Programming of Facility Construction Projects*

AFI 32-7005, *Environmental Protection Committees*

AFI 32-7061, *Environmental Impact Analysis Process*

AFI 32-7066, *Environmental Baseline Surveys in Real Estate Transactions*

AFPD 32-70, *Environmental Quality*

DoDD 4715.1, *Environmental Security*

DoDI 4715.9, *Environmental Planning and Analysis*

DoDD 5000.1, *Defense Acquisition System*

DoDD 5000.2-R, *Mandatory Procedures for Major Defense Acquisition Programs*

<b>REQUEST FOR ENVIRONMENTAL IMPACT ANALYSIS</b>			Report Control Symbol RCS				
INSTRUCTIONS: Section I to be completed by Proponent; Sections II and III to be completed by Environmental Planning Function. Continue on separate sheets as necessary. Reference appropriate item number(s).							
<b>SECTION I – PROPONENT INFORMATION</b>							
1. TO (Environmental Planning Function) ATA Environmental/ Phil Sherrill		2. FROM (Proponent organization and function address symbol)			2a. TELEPHONE NO.		
3. TITLE OF PROPOSED ACTION							
4. PURPOSE AND NEED FOR ACTION (Identify decision to be made and need date)							
5. DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES (DOPAA) (Provide sufficient details for evaluation of the total action.)							
6. PROPONENT APPROVAL (Name and grade)		6a. SIGNATURE			6b. DATE		
<b>SECTION II – PRELIMINARY ENVIRONMENTAL SURVEY.</b> (Check appropriate box and describe potential environmental effects including cumulative effects.) (+ = positive effect; 0 = no effect; - = adverse effect; U – unknown effect)				+	0	-	U
7. AIR INSTALLATION COMPATIBLE USE ZONE/LAND USE (Noise, accident potential, encroachment, etc.)							
8. AIR QUALITY (Emissions, attainment status, state implementation plan, etc.)							
9. WATER RESOURCES (Quality, quantity, source, etc.)							
10. SAFETY AND OCCUPATIONAL HEALTH (Asbestos/radiation/chemical exposure, explosives safety quantity-distance, bird/wildlife aircraft hazard, etc.)							
11. HAZARDOUS MATERIALS/WASTE (Use/storage/generation, solid waste, etc.)							
12. BIOLOGICAL RESOURCES (Wetlands/floodplains, threatened or endangered species, etc.)							
13. CULTURAL RESOURCES (Native American burial sites, archaeological, historical, etc.)							
14. GEOLOGY AND SOILS (Topography, minerals, geothermal, Installation Restoration Program, seismicity, etc.)							
15. SOCIOECONOMIC (Employment/population projections, school and local fiscal impacts, etc.)							
16. OTHER (Potential impacts not addressed above.)							
<b>SECTION III – ENVIRONMENTAL ANALYSIS DETERMINATION</b>							
17.		PROPOSED ACTION QUALIFIES FOR CATERGORICAL EXCLUSION (CATEX) # _____; OR PROPOSED ACTION DOES NOT QUALIFY FOR A CATEX; FURTHER ENVIRONMENTAL ANALYSIS IS REQUIRED.					
18. REMARKS							
19. ENVIRONMENTAL PLANNING FUNCTION CERTIFICATION (Name and Grade)		19a. SIGNATURE			19b. DATE		

AF FORM 813, SEP 99, CONTINUATION SHEET

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