

DRAFT

ENVIRONMENTAL ASSESSMENT (EA)

FOR

THE MISSILE TRANSFER FACILITY

AT

F. E. WARREN AIR FORCE BASE, WYOMING

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TABLE OF CONTENTS

TABLE OF CONTENTS..... - 1 -

EXECUTIVE SUMMARY - 2 -

1. INTRODUCTION..... - 3 -

2. PURPOSE AND NEED FOR ACTION. - 3 -

3. DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES - 3 -

4. SCOPE OF THE ENVIRONMENTAL ASSESSMENT..... - 4 -

5. AFFECTED ENVIRONMENT..... - 4 -

6. ENVIRONMENTAL IMPACTS..... - 5 -

7. PERSONS AND AGENCIES CONSULTED. - 7 -

8. REFERENCES..... - 8 -

9. LIST OF PREPARERS AND REVIEWERS..... - 10 -

EXECUTIVE SUMMARY

F. E. Warren Air Force Base (FEW) proposes to construct a modern Missile Transfer Facility. This facility is used for the processing and maintenance of U.S. Air Force assets. The proposed action includes the construction of a new facility along with associated roadway, utilities and site improvements. The proposed Missile Transfer Facility could potentially impact various environmental aspects including air quality, water resources, safety and occupational health, hazardous materials/waste, biological resources, cultural resources, geology and soils. FEW conducted a comprehensive analysis of all environmental aspects in accordance with 32 CFR§989 *Environmental Impact Analysis Process*. The EIAP process concluded that a Finding of No Significant Impact is appropriate for the proposed action.

1. INTRODUCTION.

The United States Air Force (USAF), Air Force Global Strike Command (AFGSC) and F. E. Warren Air Force Base (FEW) propose to construct a new, 8,632 square-foot Missile Transfer Facility. The new facility will be used for the processing and maintenance of USAF assets as well as for administrative purposes. The existing facility may be removed upon the completion of this project. In addition, the WSMF will reduce personnel requirements and eliminate current facility deficiencies. The FEW Environmental Planning Function (EPF) conducted the Environmental Impact Analysis Process (EIAP) analysis of this proposed action in accordance with 32 CFR §989.

2. PURPOSE AND NEED FOR ACTION.

The purpose of this action is to provide for a modern Missile Roll Transfer Facility. This new facility will replace the current Missile Transfer Facility that will substantially increase the security and safety of USAF assets. The proposed action will also leverage new technologies to reduce program cost and increase efficiencies that will reduce personnel requirements, eliminate security deviations and address facility deficiencies.

3. DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES

A description of the proposed action and alternatives includes:

- 3.1. Construction of modern Missile Roll Transfer Facility adjacent to current facility (Alternative A: Preferred Alternative). This project shall construct a replacement Missile Transfer Facility to process missile booster downstages which may require temporary storage of the booster during processing for shipment, maintenance or install at a missile site. Along with the missile booster transfer process, routine training, Propulsion Replacement Program (PRP), and vehicle maintenance will also be performed within the facility. Associated site work, pavement and utilities are to be provided as part of this project as well as demolition of the existing building. Total square footage of building shall not exceed 8,632 square feet as calculated in UFC 3-101-01. For a complete description of the proposed action refer to Volume 1 of the Design Narrative for the Missile Transfer Facility dated 1 September 2017, which is incorporated into this document by reference.
- 3.2. Rehabilitation of the existing Missile Transfer Facility (Alternative B). This alternative would rehabilitate the existing Missile Transfer Facility within its current footprint. This alternative would not address all of the security issues that plague the current facility. FEW determined that this alternative would require a significant investment, with minimal improvements in the safety and security of USAF assets.
- 3.3. Construction of Missile Roll Transfer Facility on alternative location (Alternative C). This alternative would place the Missile Roll Transfer Facility at another location. This alternative required extensive upgrades to utilities and other infrastructure and was not only cost prohibitive, but likely represented a significant impact to the quality of the

human environment. In light of the significant costs and anticipated environmental impacts, this alternative was not carried forward for detailed analysis.

- 3.4. No action alternative: This alternative would retain the existing Missile Transfer Facility (Alternative D). This action would not address safety and security deficiencies of the current facility.

4. SCOPE OF THE ENVIRONMENTAL ASSESSMENT.

This Environmental Assessment (EA) is required by the Air Force Environmental Impact Analysis Process (32 CFR §989), the National Environmental Policy Act (Public Law 91-190) and Council on Environmental Quality (CEQ) Regulations (40 CFR §1500-1508). This EA identifies, describes, and evaluates the potential direct, indirect, and cumulative environmental impacts that could result from the construction of the proposed action.

During the scoping process the EPF determined that the proposed action has the potential to affect Air Quality, Water Resources, Safety & Occupational Health, Hazardous Material/Waste, Biological Resources and Cultural Resources.

5. AFFECTED ENVIRONMENT.

- 5.1. Air Quality: The proposed action includes the addition of one diesel generator. FEW operates under threshold ceilings for air quality established by the Wyoming Department of Environmental Quality (DEQ) and detailed in Permit MD-1287. FEW is currently within the limits established by this permit.
- 5.2. Water Resources: For the purposes of this proposed action, water resources include ground water and the known trichloroethylene (TCE) plumes located on base. TCE vapors could enter buildings and create a threat to building occupants.
- 5.3. Safety & Occupational Health: The operation of the current facility represents a risk to the safety and occupational health of base employees.
- 5.4. Hazardous Material/Waste: The current facility generates small amounts of hazardous waste. This waste is disposed of in accordance with all applicable federal regulations governing the disposal of hazardous waste.
- 5.5. Biological resources: The proposed action has the potential to impact biological resources located at FEW. Two threatened or endangered species are currently found at FEW, the Colorado Butterfly Plant (*Gaura neomexicana* ssp. *coloradensis*) and the Preble's Meadow Jumping Mouse (*Zapus hudsonius preblei*). Neither of these species have been observed at the site location of the preferred alternative nor is this area designated as critical habitat for either of these species in the FEW Integrated Cultural Resources Management Plan.
- 5.6. Cultural Resources: The proposed action has the potential to impact Cultural Resources, specifically archaeological resources. FEW is also the home of the Fort D. A. Russell National Historic Landmark District (NHLD) and other properties that are listed in or eligible for listing in the National Register of Historic Places (NRHP).
- 5.7. Geology and Soils: Soil within the vicinity may be contaminated with TCE from an underground plume in the vicinity of the proposed project site. TCE was used in the

United States primarily for industrial degreasing operations. Acute (short-term) and chronic (long-term) inhalation exposure to TEC can affect the human central nervous system (CNS), with symptoms such as dizziness, headaches, confusion, euphoria, facial numbness, and weakness. Liver, kidney, immunological, endocrine, and developmental effects have also been reported in humans. A recent analysis of available epidemiological studies reports TCE exposure to be associated with several types of cancers in humans, especially kidney, liver, cervix, and lymphatic system. Animal studies have reported increases in lung, liver, kidney, and testicular tumors and lymphoma. The Environmental Protection Agency is currently reassessing the cancer classification of TCE.

6. ENVIRONMENTAL IMPACTS.

Consideration of impacts include direct, indirect and cumulative.

6.1. Construction of New WSMF Adjacent to Current Location (Preferred Alternative):

6.1.1. Air Quality: The proposed action includes the addition of one diesel generator. FEW operates under threshold ceilings for air quality established by the Wyoming Department of Environmental Quality (DEQ) and detailed in Permit MD-1287. FEW is currently within the limits established by this permit. If the size of the generator exceeds 650 kilowatts then FEW shall, in accordance with its current permit, consult with the DEQ to obtain approval.

6.1.2. Water Resources: The construction of the WSMF may impact a TCE plume in the vicinity. The concern with impacting the plume is that it TCE vapors could enter the building and pose a threat to occupants. FEW determined that the current footprint will avoid the plume.

6.1.3. Safety & Occupational Health: The USAF, through coordination with the Department of Defense developed numerous standards, protocols and programs to ensure safe handling of assets. One of the most significant of these is the Air Force Mishap Prevention Program. The goal of this program is to minimize the loss of USAF resources and protect USAF personnel from death, injuries or occupational illnesses by managing risks on- and off-duty. This program is aligned and framed using the Air Force Safety Management System (AFSMS) as the core structure and applies to all USAF organizations. For a list of relevant safety standards see Section 8.0 References.

6.1.4. Hazardous Material and Waste: The new facility will continue to comply with all regulations regarding the safe handling and disposal of all hazardous material and waste. For a list of applicable regulations see Section 8.0 References.

6.1.5. Biological Resources: There are a number of species and habitat within the vicinity of the proposed WSMF. FEW consulted with the U.S. Fish and Wildlife Service on the proposed action. The U.S. Fish and Wildlife did not raise any concerns regarding the proposed action (See Appendix B: Correspondence)

6.1.6. Cultural Resources: The proposed action has the potential to impact cultural resources, specifically archaeological resources located at the site and the viewshed of the NHLD. FEW consulted with the Wyoming State Historic Preservation Office (WYSHPO) in accordance with 36 CFR 800 *Protection of Historic Properties*. The

WYSHPO concurred with FEW's determination that the proposed undertaking would have "no adverse effect" to cultural resources on 21 November 2017 (See Appendix B: Correspondence).

6.1.7. Geology and Soils: The building and general site excavation will require approximately 209,000 cubic yards of cut. Although some of the excavated material can be stockpiled, the expected fill requirement is approximately 48,800 cubic yards, so approximately 119,000 cubic yards of excess cut will need to be hauled away or deposited on adjacent site(s). There is the potential that the soil may be contaminated with TCE. The contractor shall test the soil and, if it tests positive for the presence of TCE, they shall dispose of the soil in an approved EPA facility.

6.2. Rehabilitation of the Existing WSA Alternative:

6.2.1. Air Quality:

6.2.1.1. Non-Radiological Emissions: This alternative would represent no change to the existing conditions.

6.2.1.2. Radiological Emissions: This alternative would represent no change to the existing condition.

6.2.2. Water Resources: This alternative would represent no change to the existing conditions.

6.2.3. Safety & Occupational Health: This alternative would represent no change to the existing conditions.

6.2.4. Hazardous Material and Waste: This alternative would represent no change to the existing conditions.

6.2.5. Biological Resources: This alternative would likely have no impact to any biological resources as the current facility is not within any areas that are critical habitat.

6.2.6. Cultural Resources: The current WSA contains properties that are eligible for listing in the NRHP. These properties include those that are eligible for their association with the development of the Peacekeeper Missile. Rehabilitation of these buildings would require consultation with the WYSHPO to ensure compliance with Section 106 of the NHPA. The modifications required to bring the current facility up to modern standards may constitute an adverse effect to historic properties

6.2.7. Geology and Soils: There are no anticipated impacts to geology and soils from rehabilitating the existing WSA.

6.2.8. Socioeconomic: This alternative would represent no change to the existing conditions.

6.2.9. Accidents or Events: This alternative would certainly improve some aspects of the handling of USAF assets as it would address some of the design deficiencies of the current facility. However, this alternative would still have deficiencies that the preferred alternative would address.

6.3. No Action Alternative:

6.3.1. Air Quality: Non-Radiological Emissions: This alternative would represent no change to the existing conditions.

6.3.2. Water Resources: This alternative would represent no change to the existing conditions.

- 6.3.3. Safety & Occupational Health: This alternative would represent no change to the existing conditions.
- 6.3.4. Hazardous Material and Waste: This alternative would represent no change to the existing conditions.
- 6.3.5. Biological Resources: This alternative would represent no change to the existing conditions.
- 6.3.6. Cultural Resources: This alternative would represent no change to the existing conditions.
- 6.3.7. Geology and Soils: This alternative would present no threats to or arising from geology and soils.

7. PERSONS AND AGENCIES CONSULTED.

The following agencies/individuals were contacted and/or provided a copy of the EA during its original preparation in order to afford an opportunity for comment on the content of the document. Agency consultations are required per 32 CFR 989.14(d).

Mrs. Mary Hopkins
Wyoming State Historic Preservation Officer
2301 Central Avenue
Cheyenne WY 82002

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Ecological Services
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Cheyenne, WY 82009

WY Department of Environmental Quality

8. REFERENCES.

32 CFR §989, Department of the Air Force Environmental Impact Analysis Process (EIAP)

36 CFR §800, Protection of Historic Properties

Air Force Manual (AFM) 31-108, *Nuclear Weapon Security Manual*, Volumes 1-3 dated 1 Feb 2010 with Air Force Global Strike Command Supplement dated 23 Jan 2012

AFI 10-2501, *Air Force Emergency Management (EM) Program Planning and Operations*, 24 January 2007

AFI 32-7001, *Environmental Management*, 4 November 2011

AFI 32-7042, *Waste Management*, April 2009

AFI 32-7065, *Cultural Resources Management Program*

AFI 32-7086, *Hazardous Materials Management*, 1 November 2004

AFI 48-145, *Occupational and Environmental Health Program*, 22 July 2014

AFI 63-125, Nuclear Certification Program, dated 15 Mar 2004, Incorporating Change 1 dated 9 Nov 2009

AFI 90-801, *Environment, Safety, and Occupational Health Councils*, 25 March 2005

AFI 90-802, *Risk Management*, 11 February 2013

AFI 90-821, *Hazard Communication (HAZCOM) Program*, 27 January 2014

AFI 91-101, AIR FORCE NUCLEAR WEAPONS SURETY PROGRAM dated 15 August 2014

AFI 91-102, *Nuclear Weapon System Safety Studies, Operational Safety Reviews, and Safety Rules*, 25 February 2014

AFI 91-103, Air Force Nuclear Safety Design Certification Program, dated 17 Nov 2010 with AFGSC Supplement dated 28 Sep 2011

AFI 91-110, *Nuclear Safety Review and Launch Approval for Space or Missile Use of Radioactive Material and Nuclear Systems*, 28 June 2002

AFM 91-118, Safety Design and Evaluation Criteria/or Nuclear Weapon Systems, dated 4 Aug 2010, Incorporating Change 2 dated 19 Oct 2011

AFM 91-201, Explosive Safety Standards, dated 12 Jan 2011 with AFGSC Supplement dated 20 Oct 2011

AFI 91-202, The U.S. Air Force Mishap Prevention Program, dated 24 June 2015.

AFI 91-203, *Air Force Consolidated Occupational Safety Instruction*, 15 June 2012 AFI 91-204, *Safety Investigations and Reports*, 12 February 2014

AFPD 90-8, *Environment, Safety, and Occupational Health Management and Risk Management*, 2 February 2012

Clean Water Act

Department of Defense S-521 0.41-M. Nuclear Weapons Security Manual: DoD Nuclear Weapon Environment-Specific Requirements, Volumes I, II and III dated 13 Jul 2009

Energy Independence and Security Act of 2007

Endangered Species Act of 1973, as amended, 16 USC 1531 *et seq.*

ETL 11-7, Nuclear Weapons-Capable Maintenance and Storage Facilities, dated 1 Sep 2011

ETL 11-28, Mandatory Review and Update of Record Drawings for Nuclear-Capable Weapons and Munitions Storage and Maintenance Facilities, dated 7 Dec 2011

FEW Engineering Specification Section 01010 Environmental Protection

FEW Installation Development Plan, January 2013

FEW Integrated Cultural Resources Management Plan, August 2009

FEW Natural Resources Management Plan, as updated.

The National Environmental Policy Act, as amended 42 USC 4321 *et seq.*

U.S. Code Title 42, Chapter 85, Air Pollution Prevention and Control (as amended)

Wyoming Water Quality Rules and Regulations, Chapter 2

29 CFR §1910 Occupational Safety and Health Standards

29 CFR §1926.1101 Safety and Health Regulations for Construction

32 CFR §989, Department of the Air Force Environmental Impact Analysis Process (EIAP)

40 CFR §61.140, Subpart M – National Emission Standards for Asbestos

90 MW Plan 32-2, 90th Missile Wing Hazardous Waste Management Plan, January 2011

FEW Integrated Cultural Resources Management Plan, August 2009

FEW General Plan, April 2005

Toxic Substances Control Act (TSCA) Title II

9. LIST OF PREPARERS AND REVIEWERS

9.1. Preparers

Name	Background	Title
Andy McKinley	B.S. Environmental Engineering; M.S. Environmental Engineering	Environmental Element Chief
Travis Beckwith	B.A. History; M.A. History	NEPA Coordinator/Cultural Resources Manager

9.2. Reviewers

Name	Agency	Title
Kurt Warmbier	USAF, 90 MW/JA	Attorney Advisor, Environmental Law
Travis Beckwith	90 MW/CEIEC	NEPA Coordinator/Cultural Resources Manager

TABLE 1: COMPARISON OF PREDICTED ENVIRONMENTAL IMPACTS.

Impacts	Alternative A: Preferred	Alternative B:	Alternative D:
Air Quality	Positive Impacts.	Potential Negative Impacts.	Potential Negative Impacts.
Water Resources	No Impacts.	No Impacts.	No Impacts.
Safety and Occupational Health	Positive Impacts. Proposed facility will increase safety standards and represents a positive change to occupational health standards.	Positive Impacts. Rehabilitation would increase safety and occupational health standards but not likely to the extent as the Preferred Alternative.	Negative Impacts.
Hazardous Waste, Hazardous Materials, Solid Waste	Positive Impact.	No Impact.	No Impact.
Biological Resources	No Impact.	No Impact.	No Impact.

Impacts	Alternative A: Preferred	Alternative B:	Alternative D:
Cultural Resources	No Impacts. FEW consulted with the WYSHPO in accordance with Section 106 of the NHPA. The WYSHPO concurred with FEW's determination of No Adverse Effect to Historic Properties.	Potential impacts. Coordination with the WYSHPO in accordance with Section 106 of the NHPA ensures impacts are avoided or mitigated	No Impacts.
Geology and Soils	Potential Impacts. This alternative may disturb TCE contaminated soils. The contractor shall test soils and, if found to contain TCE, dispose of at an approved EPA facility.	No Impacts.	No Impacts.
Socioeconomic	No Impacts.	No Impacts.	No Impacts.
Accidents, Events and Threats	Positive Impacts.	Negative Impacts.	Negative Impacts.

APPENDIX 1: AGENCY CORRESPONDENCE