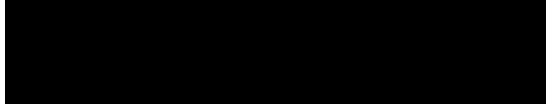


MEMORANDUM FOR RECORD

SUBJECT: Tyndall AFB MILCON Rebuild and Installation Restoration Program (IRP) Sites

1. Tyndall AFB (TAFB) is undergoing a rebuild due to destruction from Hurricane Michael in October 2018. Currently, 120 new facilities are projected to be built over the next five years. The cost of this TAFB MILCON Rebuild effort is estimated at \$2.96 billion. National Defense is the reason to complete this rebuild. Current estimates show the Rebuild effort will be completed by August 2026.
2. TAFB MILCON Rebuild work will be conducted in 12 Zones (Tab 2). These Zones are located all over the base including north and south of Hwy 98. Relevant Installation Restoration Program site documents will be provided to contractors as a record to identify depth to water and the possible contaminants that may be encountered in specific work locations. Each contractor is required to submit a Rebuild Work Plan to be approved by the U.S Army Corps of Engineers (USACE) and the Air Force (AF) before work can begin.
3. Based on the boundaries of the Zones, 29 IRP and per- and polyfluoroalkyl substances (PFAS) sites will be affected to some degree by the MILCON Rebuild activities (Tab 3). Rebuild activities will cause the cutting of soil and dewatering of groundwater to complete certain construction tasks. The estimated total excess of soil from cutting activities is 1.1 million cubic yards (cy). The estimated total recovered water from dewatering activities is estimated to be 167 million gallons.
4. IRP and PFAS Sites in Zones 1, 2, 4, and 6 will be impacted from MILCON Rebuild activities. The Contractor may encounter contaminated soil and/or groundwater during construction activities. Contractors will be provided with Contaminants of Concern (COCs) documented to date at IRP Sites and soil and groundwater sampling results for PFAS conducted at Tyndall AFB, including in areas along the flight line.
5. The TAFB MILCON Rebuild Soil Management Memorandum for Record (Tab 4) directs the management of excavated soil to be held on base, except if it is determined to be a hazardous waste and/or exceeds the agreed upon AF PFOS/PFOA soil screening criteria of 1.3 mg/kg. Based on this MFR, most, if not all, of the excess soil will be held on the base until sometime in the future when the AF can determine its ultimate/final off-base disposal location and/or on-base fill location. Soil that is to remain on the base will be directed to its designated soil borrow storage area (Tab 5) and placed in appropriate piles.
6. Contractor will provide a Completion Report within 14 calendar days of completing work at the site. The final report will be provided to the Tyndall AFB IRP staff for distribution to the applicable regulatory agencies. As part of the Completion Report, environmental samples may be collected and analyzed from in-situ locations and from stored media. Additional samples from soil coming from CERCLA/IRP sites that is now stored in a Soil Storage Site must be collected and analyzed if it is to be removed from these Sites for fill material or for off-base disposal.
7. Flightline sites, and other construction Zone sites, will need confirmatory sampling completed following the completion of MILCON Rebuild activities. Conducting confirmatory sampling at sites heavily affected by the MILCON Rebuild activities will be instrumental, and the site's conceptual site model (CSM) will be re-established to determine the best course of action following the end of the Rebuild activities (Tab 6).



Chief, Eglin Installation Support Section
Air Force Civil Engineer Center



DEPARTMENT OF THE AIR FORCE
WASHINGTON DC

OFFICE OF THE ASSISTANT SECRETARY

3 August 2021

SAF/IEE
1665 Air Force Pentagon
Washington, DC 20330-1665

Dear Interim Secretary Hamilton:

Thank you for the opportunity to speak with you on July 21, 2021 regarding permitting requirements for Tyndall AFB reconstruction. I appreciate your support for this continuing effort as the Air Force remains committed to basing three F-35 squadrons at Tyndall starting in the fall of 2023.

The enclosure provides for your review a Memorandum for Record documenting the agreement we reached in our telephone conversation. If you are comfortable that it accurately reflects the terms of our agreement, please sign and return to me to reflect our mutual understanding. I will then return a record copy back to you with both of our signatures. I look forward to continuing to work with you and your team as the Air Force continues to reconstruct Tyndall into a first Twenty-First Century Installation.

Sincerely,

CORRELL. Digitally signed by
CORRELL.MARK.A.

MARK.A.11 Date: 2021.08.03
13:00:13 -04'00'

MARK A. CORRELL, P.E.
Deputy Assistant Secretary of the Air Force
(Environment, Safety, and Infrastructure)

Attachment:
Memorandum for Record

cc:
SAF/IE

MEMORANDUM FOR RECORD

SUBJECT: Soil Management Pursuant to the Tyndall Rebuild Program

Background

1. Following the devastation of Hurricane Michael in October 2018, the Department of the Air Force (Air Force) is executing a rebuild of Tyndall Air Force Base and the beddown of a new F-35 mission.
2. The Air Force has determined that the rebuild and beddown efforts at Tyndall Air Force Base are vitally important to national security, and that those efforts can be accomplished in a manner protective of Florida's environment. Further, the Florida Department of Environmental Protection (FDEP) recognizes the critical importance of the rebuild at Tyndall Air Force Base, both for our national defense strategy and our communities in Northwest Florida.
3. On 26 February 2021, the Air Force made application to the Florida Department Environmental Protection (FDEP) for an Environmental Resources Permit (Permit) for military construction in Zone 1 of Tyndall Air Force Base.
4. The considerations in this Memorandum for the Record (Memorandum) reflect the desire of FDEP to prevent soil from Tyndall Air Force Base that exceeds FDEP's provisional soil cleanup target levels for Perfluorooctane Sulfonate (PFOS) and Perfluorooctanoic Acid (PFOA) from being placed off-base, including in any state unlined landfill. They similarly reflect the Air Force's requirements to carry out construction activities consistent with any applicable federal, state, and local requirements to which the United States Government is subject, and Office of the Secretary of Defense and Air Force policies.

Considerations. In accordance with our telephone conversation on July 21, 2021, this Memorandum documents our agreement with the following additional considerations for the Permit as well as any other Environmental Resource Permits associated with the rebuild and beddown activities at Tyndall Air Force Base.

1. While the scope of the Air Force's permit application was limited to Zone 1, the site for purposes of this Memorandum will encompass Tyndall Air Force Base.
2. FDEP will incorporate by reference this Memorandum into any approved Environmental Resource Permit associated with the rebuild and beddown activities at Tyndall Air Force Base, including the Air Force's Permit application dated 26 February 2021 for military construction activities in Zone 1. FDEP will process its approval of the Zone 1 application as quickly as possible based on the existing application content and provisions of this Memorandum.

3. The Air Force will screen for PFOA and PFOS in areas of known releases of Aqueous Film Forming Foam in accordance with Department of Defense and Air Force policy using the U.S. Environmental Protection Agency's online calculator using the reference dose (RFd) of 2E-05 mg.kg-day.

4. Consistent with Air Force guidance and U.S. Army Corps of Engineer (USACE) contract language, soil that meets Air Force screening criteria for PFOS and PFOA, but which may not meet Florida Department of Environmental Protection (FDEP) provisional standards, shall remain on site for unrestricted use. Any on-site location, long-term storage, and (re)use of this soil shall be in accordance with Air Force contract provisions, Air Force requirements, and applicable federal, state, and local regulations to which the United States Government is subject.

5. Soil that does not meet Air Force screening criteria for PFOS/PFOA will be handled in accordance with USACE contract requirements and applicable federal and state regulations.

**Shawn
Hamilton**

Digitally signed by
Shawn Hamilton
Date: 2021.08.03
14:04:47 -04'00'

SHAWN HAMILTON
Interim Secretary
Florida Department of Environmental Protection

**CORRELL.MA
RK.A.**

Digitally signed by
CORRELL.MARK.A
Date: 2021.08.03 13:00:34
-04'00'

MARK A. CORRELL, P.E.
Deputy Assistant Secretary of the Air Force
(Environment, Safety, and Infrastructure)

From: [REDACTED] USARMY CESAM (USA) <[REDACTED]>
Sent: Tuesday, August 2, 2022 4:02 PM
To: [REDACTED] USAF AFMC AFCEC/CZOE; [REDACTED] USAF AFMC AFCEC/PMO
Cc: [REDACTED] USARMY CESAM (USA); [REDACTED] USAF AFCEC AFCEC/CZO;
[REDACTED] USAF AFMC AFCEC/CZOE; [REDACTED] USAF AFMC AFCEC/CZOE;
[REDACTED] USAF AFCEC AFCEC/CZO; [REDACTED] USAF AFMC
AFCEC/CZOE; [REDACTED] USAF AFMC AFCEC/CZRE; [REDACTED] USARMY
CESAM (USA); [REDACTED] USARMY CESAM (USA); [REDACTED] USARMY
CESAM (USA); [REDACTED] USARMY CESAM (USA); [REDACTED]
[REDACTED] USAF AFMC AFCEC/CZOE; [REDACTED] USARMY CESAM (USA);
[REDACTED] USARMY CESAM (USA); [REDACTED] USARMY CESAM (USA);
[REDACTED] USARMY CESAM (USA); [REDACTED] USARMY CESAM (USA);
[REDACTED] USARMY CESAM (USA)
Subject: RE: PFAS Phase I RI contract and environmental sampling at Tyndall AFB PFAS sites
Attachments: SAM Tyndall Acquisition Spreadsheet2.pdf

[REDACTED],

Sorry for the delay. We've been working on a map to share, per your request, but realized that all of the AFFF sites have the ability to impact the MILCON program.

Please see below for the USACE MILCON leadership team's responses in red text. Attached is the most recent MILCON schedule. We are about to award the redesign for Zone 6, but we don't yet have those construction dates to share.

If you have any questions or need additional information, please let us know.

v/r,
[REDACTED]

[REDACTED]
USACE, Mobile District
[REDACTED] (Cell)

#MobileDelivers!

-----Original Message-----

From: [REDACTED] USAF AFMC AFCEC/CZOE <[REDACTED]>
Sent: Wednesday, July 13, 2022 3:51 PM
To: [REDACTED] USARMY CESAM (USA) <[REDACTED]>; [REDACTED] USAF AFMC
AFCEC/PMO <[REDACTED]>
Cc: [REDACTED] USARMY CESAM (USA) <[REDACTED]>; [REDACTED] USAF
AFCEC AFCEC/CZO <[REDACTED]>; [REDACTED] USAF AFMC AFCEC/CZOE
<[REDACTED]>; [REDACTED] USAF AFMC AFCEC/CZOE <[REDACTED]>; [REDACTED]
[REDACTED] USAF AFCEC AFCEC/CZO <[REDACTED]>; [REDACTED] USAF AFMC
AFCEC/CZOE <[REDACTED]>; [REDACTED] USAF AFMC AFCEC/CZRE <[REDACTED]>;
[REDACTED] USARMY CESAM (USA) <[REDACTED]>; [REDACTED] USARMY

CESAM (USA) <[redacted]>; [redacted] USARMY CESAM (USA)
<[redacted]>; [redacted] USARMY CESAM (USA)
<[redacted]>; [redacted] >; [redacted]
USAF AFMC AFCEC/CZOE <[redacted]>

Subject: PFAS Phase I RI contract and environmental sampling at Tyndall AFB PFAS sites

Hello [redacted].

I'm contacting you for a written/email response from the U.S. Army Corps of Engineers (USACE) concerning the Tyndall AFB PFAS Phase I RI contract and environmental sampling (i.e. soil and groundwater sampling, etc.) within the boundaries of the PFAS sites.

Particularly, can you explain the sampling limitations to our contract and the requirement to avoid impacts to the MILCON efforts?

Response: As previously agreed upon for MILCON program, limit PFAS sampling to only within the AFFF study area site boundaries.

Additional questions to be answered are:

1. Can USACE and/or NDR provide the exact PFAS site boundaries, a buffer estimation (distance to stay away from site boundary to be sure we don't sample across), etc. that we will be required to stay within?

Response: Limit PFAS sampling to only within the AFFF study area site boundaries.

2. Are we limited to sampling within the PFAS site boundary for all sites, or only those with a MILCON Zone?

Response: Limit sampling within the PFAS site boundary for all sites. All AFFF study area site boundaries have potential impact to a MILCON Zone.

3. Based on the current MILCON schedule, when can we anticipate sampling beyond the PFAS site boundaries will be authorized?

Response: Limited PFAS sampling should be in effect until Beneficial Occupancy Date (BOD) for each MILCON facility. See attached for current schedules for MILCON project impacted by AFFF study areas. Note that these dates are subject to change. We can provide updates periodically, if that's helpful.

Thank you for responses in advance. Please contact me if you have any comments on how to respond to any of the above questions.

Respectfully,

//SIGNED//

[redacted]
AFCEC/CZOE, [redacted]
Tyndall AFB Remedial Project Manager
Email: [redacted]
Cell: [redacted]
Office: [redacted]

Zone	Project Title	AFFF Study Area Present or within 500' (Y/N)	AFFF Comments	NTP	BOD	Status
4.2		Y	Located within 500-ft of sample locations above LHA	23-Sep-21	11-Jan-24	8 Sep 21 - Awarded
12.1		Y		28-Oct-21	27-Dec-23	24 Sep 21 - Awarded
7.1		Y	Radius of 500-ft buffer for sample locations above LHA marginally enters Hams Pad limits	23-Feb-22	1-Aug-24	1 Feb 22 - Awarded
3.1		Y	Located within 500-ft of AFFF study area and sample locations above LHA	15-Mar-22	29-Dec-24	17 Feb 22 - Awarded
4.1		Y	Elec. mini-loop enters Z2 study area otherwise located within 500-ft of AFFF study area and sample locations above LHA	17-May-22	23-Oct-26	29 Apr 22 - Awarded
4.2		Y	Radius of 500-ft buffer for sample locations above LHA marginally enters site	7-Jun-22	13-Nov-24	6 May 22 - Awarded
1		Y	Site intersects AFFF study area and within 500-ft of AFFF study area and sample locations above LHA	1-Jun-22	14-Aug-25	10 May 22 - Awarded
1		Y	Located within 500-ft of AFFF study area and sample locations above LHA	1-Jun-22	12-Dec-25	10 May 22 - Awarded
1		Y	Site intersects AFFF study area and within 500-ft of AFFF study area and sample locations above LHA	1-Jun-22	11-Apr-26	10 May 22 - Awarded
1		Y	Located within 500-ft of sample locations above LHA	1-Jun-22	11-Jan-26	10 May 22 - Awarded
1		Y	Located within 500-ft of sample locations above LHA	1-Jun-22	13-Oct-25	10 May 22 - Awarded
1		Y	Located within 500-ft of sample locations above LHA	1-Jun-22	12-Dec-25	10 May 22 - Awarded
1		Y	Located within 500-ft of sample locations above LHA	1-Jun-22	10-Feb-26	10 May 22 - Awarded
1		Y	Located within 500-ft of sample locations above LHA	1-Jun-22	10-Jun-26	10 May 22 - Awarded
1		Y	Site intersects AFFF Study area and within 500-ft	1-Jun-22	14-Aug-25	10 May 22 - Awarded
2.2		Y	Located within 500-ft of AFFF study area and sample locations above LHA	27-Jun-22	14-Oct-24	25 May 22 - Awarded
2.2		Y	Site intersects AFFF study area and within 500-ft of AFFF study area and sample locations above LHA	27-Jun-22	14-Oct-24	25 May 22 - Awarded
3.2		Y	Located within 500-ft of sample locations above LHA	2-Aug-22	5-Oct-25	12 Jul 22 - Award
3.2		Y	Located within 500-ft of sample locations above LHA	2-Aug-22	5-Oct-25	12 Jul 22 - Award
3.2		Y	Located within 500-ft of sample locations above LHA	2-Aug-22	5-Oct-25	12 Jul 22 - Award
3.2		Y	Located within 500-ft of sample locations above LHA	2-Aug-22	5-Oct-25	12 Jul 22 - Award
2.4		Y	Located within 500-ft of sample locations above LHA	14-Sep-22	14-Aug-24	28 Jun 22 - Proposals received
12.2		Y	Fire R&D intersects AFFF study area and within 500-ft of AFFF study area and sample locations above LHA	8-Jan-23	1-Feb-26	8 Aug 22 - RTA
12.2		Y		15-Mar-23	20-May-25	29 Sep 22 - RTA
2.3		Y	Located within 500-ft of AFFF study area and sample locations above LHA	26-Jun-24	14-Oct-26	Impacted by LOCRF. Awaiting AF direction
6.1		Y	Site intersects AFFF study area and within 500-ft of AFFF study area and sample locations above LHA			Requested P&D funds to award AE contract for redesign effort
6.2		Y	Site intersects AFFF study area and within 500-ft of AFFF study area and sample locations above LHA			On hold awaiting AF direction
		Y	Located within 500-ft of AFFF study areas	30-Sep-20	7-Feb-23	

LHA - Contract Lifetime Health Advisory (70 ppt)

[REDACTED]

From: [REDACTED] USARMY CESAM (USA) <[REDACTED]>
Sent: Thursday, September 15, 2022 1:42 PM
To: [REDACTED] USAF AFMC AFCEC/CZOE
Cc: [REDACTED] USAF AFMC AFCEC/CZOE; [REDACTED] USARMY CESAM (USA)
Subject: Contract Language Regarding IRP & PFAS
Attachments: EM 385-1-1.pdf; USGS Section 01 35 29.13 Zone 1.pdf; DRAWINGS- MEF20032 - OVERALL ENVIRONMENTAL PLAN_Zone 1.pdf; USGS Section 01 57 19_IRP & AFFF Guidance_Zone 1.pdf; Pages from TOC for Zone 1 contract.pdf

[REDACTED],

Sorry for the delay. Per your request regarding contract language regarding safety and coverage of the AFFF sites, below and attached is some key information illustrated as part of the Zone 1 contract for typical requirements.

We provide USGS Section 01 35 29.13 Health, Safety, and Emergency Response Procedures for Contaminated Sites, our EM-385-1-1 USACE Safety and Health Requirements Manual, USGS Section 01 57 19 as well as the IRP and AFFF Guidelines, as well as the reports that are part of the administrative record and the PFAS sampling report as part of the contract. See attached specs and pages from the Table of Contents for details. Per the IRP and AFFF guidelines, we indicate that "For groundwater, the guidelines also apply to dewatering effluent within 500 feet of an IRP/AFFF site boundary and known perfluorooctane Sulfonate (PFOS) and/or perfluorooctanoic Acid (PFOA) contamination."

Attached is the map of the Zone 1 overall area Environmental Plan which shows the coverage of the project limits with IRP and AFFF requirements, extending the additional 500 ft for the buffer zone.

Please let me know if you have any questions about this information. We can send over the entire conformed specs and drawings if you need it.

Thanks,

[REDACTED]

[REDACTED]

Chief, Geotechnical, Environmental, & HTRW Branch

USACE, Mobile District Engineering Division

██████████ (Work)

██████████ (Cell)

#MobileDelivers!

The Safety and Health Requirements Manual (EM 385-1-1) can be found at the following site:

https://www.publications.usace.army.mil/Portals/76/Publications/EngineerManuals/EM_385-1-1.pdf

SECTION 01 35 29.13

HEALTH, SAFETY, AND EMERGENCY RESPONSE PROCEDURES FOR CONTAMINATED SITES
11/15

PART 1 GENERAL

1.1 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to within the text by the basic designation only.

AMERICAN PETROLEUM INSTITUTE (API)

API RP 2219 (2016) Safe Operation of Vacuum Trucks
Handling Flammable and Combustible Liquids
in Petroleum Service

INTERNATIONAL SAFETY EQUIPMENT ASSOCIATION (ISEA)

ANSI/ISEA Z358.1 (2014) American National Standard for
Emergency Eyewash and Shower Equipment

NATIONAL INSTITUTE FOR OCCUPATIONAL SAFETY AND HEALTH (NIOSH)

NIOSH 85-115 (1985) Occupational Safety and Health
Guidance Manual for Hazardous Waste Site
Activities

U.S. ARMY CORPS OF ENGINEERS (USACE)

EM 385-1-1 (2014) Safety and Health Requirements
Manual

U.S. NATIONAL ARCHIVES AND RECORDS ADMINISTRATION (NARA)

29 CFR 1904 Recording and Reporting Occupational
Injuries and Illnesses

29 CFR 1910 Occupational Safety and Health Standards

29 CFR 1910.120 Hazardous Waste Operations and Emergency
Response

29 CFR 1926 Safety and Health Regulations for
Construction

29 CFR 1926.65 Hazardous Waste Operations and Emergency
Response

49 CFR 171 General Information, Regulations, and
Definitions

49 CFR 172 Hazardous Materials Table, Special
Provisions, Hazardous Materials
Communications, Emergency Response

Information, and Training Requirements

1.2 PRECONSTRUCTION SAFETY CONFERENCE

Conduct a preconstruction safety conference prior to the start of site activities and after submission of the Accident Prevention Plan/Site Safety And Health Plan (APP/SSHP). The objective of the meeting is to discuss health and safety concerns related to the impending work, discuss project health and safety organization and expectations, review and answer comments and concerns regarding the APP/SSHP or other health and safety concerns. Ensure that those individuals responsible for health and safety at the project level are available and attend this meeting.

1.3 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for information only. Submit the following in accordance with Section 01 33 00 SUBMITTAL PROCEDURES:

SD-02 Shop Drawings

Work Zones; G

Decontamination Facilities; G

SD-03 Product Data

Amendments to the APP/SSHP

Exposure Monitoring/Air Sampling Program

Site Control Log

SSHO's Daily Inspection Logs

SD-07 Certificates

Certificate Of Worker/Visitor Acknowledgement

SD-11 Closeout Submittals

Safety And Health Phase-Out Report

1.4 ACCIDENT PREVENTION PLAN/SITE SAFETY AND HEALTH PLAN (APP/SSHP)

Develop and implement a Site Safety and Health Plan in accordance with Section 01 35 26 GOVERNMENTAL SAFETY REQUIREMENTS, and attach to the Accident Prevention Plan (APP) as an appendix (APP/SSHP). Address all occupational safety and health hazards (traditional construction as well as contaminant-related hazards) associated with cleanup operations within the APP/SSHP. Cover each SSHP element in sections 28.A.01 and 33.B of EM 385-1-1 and each APP element in Appendix A of EM 385-1-1. There are overlapping elements in Section 28.A.01 and Appendix A of EM 385-1-1. SSHP appendix elements that overlap with APP elements need not be duplicated in the APP/SSHP provided each safety and occupational health (SOH) issue receives adequate attention and is documented in the APP/SSHP. The APP/SSHP is a dynamic document, subject to change as project operations/execution change. Modify the APP/SSHP to address changing and previously unidentified health and safety conditions. Ensure

that the APP/SSHP is updated accordingly. Submit amendments to the APP/SSHP to the Contracting Officer as the APP/SSHP is updated. For long duration projects resubmit the APP/SSHP to the Contracting Officer annually for review. The APP/SSHP must contain all updates.

1.4.1 Acceptance and Modifications

Prior to submittal, the APP/SSHP must be signed and dated by the Safety and Health Manager and the Site Superintendent. Submit for review 15 days prior to the Preconstruction Safety Conference. Deficiencies in the APP/SSHP will be discussed at the preconstruction safety conference, and must be revised to correct the deficiencies and resubmitted for acceptance. Onsite work must not begin until the plan has been accepted. Maintain a copy of the written APP/SSHP onsite. Changes and modifications to the APP/SSHP must be made with the knowledge and concurrence of the Safety and Health Manager, the Site Superintendent, and the Contracting Officer. Bring to the attention of the Safety and Health Manager, the Site Superintendent, and the Contracting Officer any unforeseen hazard that becomes evident during the performance of the work, through the Site Safety and Health Officer (SSHO) for resolution as soon as possible. In the interim, take necessary action to re-establish and maintain safe working conditions in order to safeguard onsite personnel, visitors, the public, and the environment. Disregard for the provisions of this specification or the accepted APP/SSHP is cause for stopping work until the matter has been rectified.

1.4.2 Availability

Make available the APP/SSHP in accordance with 29 CFR 1910.120, (b)(1)(v) and 29 CFR 1926.65, (b)(1)(v).

1.5 STAFF ORGANIZATION, QUALIFICATION AND RESPONSIBILITIES

Provide hazardous waste operations and emergency response organization in accordance with EM 385-1-1, Section 33.

1.5.1 Safety and Health Manager

Safety and Health Manager must be a safety professional certified by the Board of Certified Safety Professionals.

Apply the following in conjunction with the required qualifications and responsibilities stated in EM 385-1-1, Section 33.C.01.

1.5.1.1 Additional Qualifications

The Safety and Health Manager must have the following qualifications:

- a. A minimum of 5 years experience in developing and implementing safety and occupational health programs for projects similar in work scope.
- b. Documented experience in supervising professional and technician level personnel.
- c. Documented experience in developing worker exposure assessment programs and air monitoring programs and techniques.
- d. Documented experience in managing personal protective equipment (PPE) programs and conducting PPE hazard evaluations for the types of

activities and hazards likely to be encountered on the project.

- e. Working knowledge of state and Federal occupational safety and health regulations.

1.5.1.2 Responsibilities and Duties

- a. Development, implementation, oversight, and enforcement of the APP/SSHP.
- b. Provide onsite consultation as needed to ensure the APP/SSHP is fully implemented.
- c. Conduct initial site-specific training.
- d. Be present onsite during the remedial activities and at the startup of each new major phase of work.
- e. Visit the site as needed and at least once per week for the duration of activities, to audit the effectiveness of the APP/SSHP.
- f. Be available for emergencies.
- g. Coordinate any modifications to the APP/SSHP with the Site Superintendent, the SSHO, and the Contracting Officer.
- h. Be responsible for evaluating air monitoring data and recommending changes to engineering controls, work practices, and PPE.
- i. Provide continued support for upgrading/downgrading of the level of personal protection.
- j. Serve as a member of the quality control staff.
- k. Review accident reports and results of daily inspections.
- l. Sign and date the APP/SSHP prior to submittal.

1.5.2 Site Safety and Health Officer

Designate an individual and one alternate as the Site Safety and Health Officer (SSHO). Include the name, qualifications (education and training summary and documentation), and work experience of the Site Safety and Health Officer and alternate in the APP/SSHP.

Apply the following in conjunction with the required qualifications and responsibilities stated in EM 385-1-1, Section 33.C.02.

1.5.2.1 Qualifications

The following requirements are in addition to those in Section 01 35 26 GOVERNMENTAL SAFETY REQUIREMENTS.

- a. A minimum of 1 year experience in implementing SOH programs where personal protective equipment was required.
- b. Meet 29 CFR 1910.120/29 CFR 1926.65 requirements for 40-hour initial and 8-hour supervisor training and, maintain 8-hour refresher training requirements.

- c. Specific training in personal and respiratory protective equipment, confined space entry and in the proper use of air monitoring instruments and air sampling methods including monitoring for ionizing radiation.
- d. Documented experience in construction techniques and construction safety procedures.
- e. Working knowledge of Federal and state occupational SOH regulations.

1.5.2.2 Responsibilities and Duties

The following requirements are in addition to those in Section 01 35 26 GOVERNMENTAL SAFETY REQUIREMENTS.

- a. Assist and represent the Safety and Health Manager in onsite training and the day to day onsite implementation and enforcement of the accepted APP/SSHP.
- b. Be assigned to the site on a full time basis for the duration of field activities. The SSHO can have collateral duties in addition to SOH related duties. If operations are performed during more than 1 work shift per day, a site Safety and Health Officer must be present for each shift and when applicable, act as the radiation safety officer (RSO) as defined in paragraph 06.F.02 of EM 385-1-1 on radioactive waste cleanup projects.
- c. Have authority to stop work if unacceptable health or safety conditions exist, and take necessary action to re-establish and maintain safe working conditions.
- d. Have authority to ensure site compliance with specified SOH requirements, Federal, state and OSHA regulations and all aspects of the APP/SSHP including, but not limited to, activity hazard analyses, air monitoring, monitoring for ionizing radiation, use of PPE, decontamination, site control, standard operating procedures used to minimize hazards, safe use of engineering controls, the emergency response plan, confined space entry procedures, spill containment program, and preparation of records by performing a daily SOH inspection and documenting results on the Daily Safety Inspection Log in accordance with 29 CFR 1904.
- e. In coordination with site management and the Safety and Health Manager, recommend corrective actions for identified deficiencies and oversee the corrective actions.
- f. Consult with and coordinate any modifications to the APP/SSHP with the Safety and Health Manager, the Site Superintendent, and the Contracting Officer.
- g. Conduct daily safety inspection and document SOH findings into the Daily Safety Inspection Log. Track noted SOH deficiencies to ensure that they are corrected.
- h. Conduct accident investigations and prepare accident reports.
- i. Serve as a member of the quality control staff on matters relating to SOH.

1.5.3 Additional Certified Health and Safety Support Personnel

Retain safety support from a safety professional certified by the Board of Certified Safety professionals to develop written occupational safety procedures for the APP/SSHP and, when necessary, visit the site to help implement APP/SSHP requirements.

1.5.4 Occupational Physician

Utilize the services of a licensed physician, who is certified in occupational medicine by the American Board of Preventative Medicine, or who, by necessary training and experience is Board eligible. The physician must be familiar with the site's hazards and the scope of this project. Include the medical consultant's name, qualifications, and knowledge of the site's conditions and proposed activities in the APP/SSHP. The physician is responsible for the determination of medical surveillance protocols and for review of examination/test results performed in compliance with 29 CFR 1910.120, (f) and 29 CFR 1926.65, (f) and paragraph MEDICAL SURVEILLANCE PROGRAM.

1.5.5 Persons Certified in First Aid and CPR

At least two persons who are currently certified in first aid and CPR by the American Red Cross or other approved agency must be onsite at all times during site operations. They must be trained in universal precautions and the use of PPE as described in the Bloodborne Pathogens Standard of 29 CFR 1910, Section .1030. These persons may perform other duties but must be immediately available to render first aid when needed.

1.5.6 Safety and Health Technicians

For each work crew in the exclusion zone, one person, designated as a Safety and Health technician, must perform activities such as air monitoring, decontamination, and safety oversight on behalf of the SSHO. They must have appropriate training equivalent to the SSHO in each specific area for which they have responsibility and report to and be under the supervision of the SSHO.

1.6 EMERGENCY RESPONSE AND CONTINGENCY PROCEDURES

Develop and implement an Emergency Response Plan, that meets the requirements of EM 385-1-1 Section 33.G, 29 CFR 1910.120 (l) and 29 CFR 1926.65 (l), as a section of the APP/SSHP. In the event of any emergency associated with remedial action, without delay, alert all onsite employees and as necessary offsite emergency responders that there is an emergency situation; take action to remove or otherwise minimize the cause of the emergency; alert the Contracting Officer; and institute measures necessary to prevent repetition of the conditions or actions leading to, or resulting in, the emergency. Train employees that are required to respond to hazardous emergency situations to their level of responsibility according to 29 CFR 1910.120 (q) and 29 CFR 1926.65 (q) requirements. Rehearse the plan regularly as part of the overall training program for site operations. Review the plan periodically and revised as necessary to reflect new or changing site conditions or information. Provide copies of the Emergency Response Portion of the accepted APP/SSHP to the affected local emergency response agencies. Address, as a minimum, the following elements in the plan:

- a. Pre-emergency planning. Coordinate with local emergency response providers during preparation of the Emergency Response Plan. At a minimum, coordinate with local fire, rescue, hazardous materials response teams, police and emergency medical providers to assure all organizations are capable and willing to respond to and provide services for on-site emergencies. Ensure the Emergency Response Plan for the site is compatible and integrated with the local fire, rescue, medical and police security services available from local emergency response planning agencies.
- b. Personnel roles, lines of authority, communications for emergencies.
- c. Emergency recognition and prevention.
- d. Site topography, layout, and prevailing weather conditions.
- e. Criteria and procedures for site evacuation (emergency alerting procedures, employee alarm system, emergency PPE and equipment, safe distances, places of refuge, evacuation routes, site security and control).
- f. Route maps to nearest prenotified medical facility. Site-support vehicles must be equipped with maps. At the beginning of project operations, drivers of the support vehicles must become familiar with the emergency route and the travel time required.
- g. Specific procedures for decontamination and medical treatment of injured personnel.
- h. Emergency alerting and response procedures including posted instructions and a list of names and telephone numbers of emergency contacts (physician, nearby medical facility, fire and police departments, ambulance service, Federal, state, and local environmental agencies; as well as Safety and Health Manager, the Site Superintendent, the Contracting Officer and their alternates).
- i. Criteria for initiating community alert program, contacts, and responsibilities.
- j. Procedures for reporting incidents to appropriate Government agencies. In the event that an incident such as an explosion or fire, or a spill or release of toxic materials occurs during the course of the project, the appropriate Government agencies must be immediately notified. In addition, verbally notify the Contracting Officer and the local district safety office immediately and submit a written notification within 24 hours. Include within the report the following items:
 - (1) Name, organization, telephone number, and location of the Contractor.
 - (2) Name and title of the person(s) reporting.
 - (3) Date and time of the incident.
 - (4) Location of the incident, i.e., site location, facility name.
 - (5) Brief summary of the incident giving pertinent details including type of operation ongoing at the time of the incident.

- (6) Cause of the incident, if known.
- (7) Casualties (fatalities, disabling injuries).
- (8) Details of any existing chemical hazard or contamination.
- (9) Estimated property damage, if applicable.
- (10) Nature of damage, effect on contract schedule.
- (11) Action taken to ensure safety and security.
- (12) Other damage or injuries sustained, public or private.

k. Procedures for critique of emergency responses and follow-up.

1.7 CERTIFICATE OF WORKER/VISITOR ACKNOWLEDGEMENT

A copy of a certificate of worker/visitor acknowledgement must be completed and submitted for each visitor allowed to enter contamination reduction or exclusion zones, and for each employee, following the Example Certificate Of Worker/Visitor Acknowledgement at the end of this section.

1.8 INSPECTIONS

Attach to and submit with the Daily Quality Control reports the SSHO's Daily Inspection Logs. Include with each entry the following: Date, work area checked, employees present in work area, PPE and work equipment being used in each area, special SOH issues and notes, and signature of preparer.

1.9 SAFETY AND HEALTH PHASE-OUT REPORT

Submit a Safety and Health Phase-Out Report in conjunction with the project close out report, prior to final acceptance of the work. Include the following minimum information:

- a. Summary of the overall performance of SOH (e.g., accidents or incidents including near misses, unusual events, lessons learned).
- b. Final decontamination documentation including procedures and techniques used to decontaminate equipment, vehicles, and on site facilities.
- c. Summary of exposure monitoring and air sampling accomplished during the project.
- d. Signatures of Safety and Health Manager and SSHO.

PART 2 PRODUCTS

2.1 REGULATORY REQUIREMENTS

Comply with EM 385-1-1, 29 CFR 1926.65, 29 CFR 1910.120, OSHA requirements in 29 CFR 1910 and 29 CFR 1926 with work performed under this contract, and state specific OSHA requirements where applicable. Submit to the Contracting Officer for resolution matters of interpretation of standards before starting work. The most stringent requirements apply where the requirements of this specification, applicable laws, criteria, ordinances,

regulations, and referenced documents vary.

2.2 PERSONAL PROTECTIVE EQUIPMENT

2.2.1 Site Specific PPE Program

Provide onsite personnel exposed to contaminants with appropriate personal protective equipment. Components of levels of protection (B, C, D and modifications) must be relevant to site-specific conditions, including heat and cold stress potential and safety hazards. Use only respirators approved by NIOSH.

Keep protective equipment and clothing clean and well maintained. Include site-specific procedures to determine PPE program effectiveness and for onsite fit-testing of respirators, cleaning, maintenance, inspection, cartridge change out, and storage of PPE within the PPE section of the APP/SSHP.

2.2.2 Levels of Protection

The Safety and Health Manager must establish and evaluate as the work progresses the levels of protection for each work activity. Also establish action levels for upgrade or downgrade in levels of PPE. Describe in the SSHP the protocols and the communication network for changing the level of protection. Address air monitoring results, potential for exposure, changes in site conditions, work phases, job tasks, weather, temperature extremes, and individual medical considerations within the PPE evaluation protocol.

2.2.3 PPE for Government Personnel

Three clean sets of personal protective equipment and personal dosimeters for work on radioactive waste cleanup sites and clothing (excluding air-purifying negative-pressure respirators and safety shoes, which will be provided by individual visitors), as required for entry into the Exclusion Zone and Contamination Reduction Zone, must be available for use by the Contracting Officer or official visitors. The items must be cleaned, maintained and stored in an uncontaminated area and clearly marked: "FOR USE BY GOVERNMENT ONLY." Provide basic training in the use and limitations of the PPE provided.

2.3 EMERGENCY EQUIPMENT AND FIRST AID REQUIREMENTS

Maintain, as a minimum, the following items onsite and available for immediate use:

- a. First aid equipment and supplies approved by the consulting physician.
- b. Emergency eyewashes and showers that comply with ANSI/ISEA Z358.1.
- c. Emergency-use respirators. For escape purposes, supply three (3) 5- to 15-minute emergency escape masks. For rescue purposes, supply two (2) positive pressure self-contained breathing apparatus (SCBA). Dedicate these for emergency use only and maintained onsite in the Contamination Reduction Zone.
- d. Provide fire extinguishers of sufficient size and type at site facilities and in all vehicles and at any other site locations where flammable or combustible materials present a fire risk.

PART 3 EXECUTION

3.1 TASK SPECIFIC HAZARDS, INITIAL PPE, HAZWOPER MEDICAL SURVEILLANCE AND TRAINING APPLICABILITY

Task specific occupational hazards, task specific HAZWOPER medical surveillance and training applicability and task specific initial PPE requirements for the project are listed on the Task Hazard and Control Sheets at the end of this section. Reevaluate occupational safety and health hazards as the work progresses and to adjust the PPE and onsite operations, if necessary, so that the work is performed safely and in compliance with occupational safety and health regulations.

3.2 TRAINING

In conjunction with EM 385-1-1, Section 33D, meet the training program requirements for workers performing cleanup operations and who will be exposed to contaminants.

3.2.1 General HTRW Operations Training

All Personnel performing duties with potential for exposure to onsite contaminants must meet and maintain the following 29 CFR 1910.120/29 CFR 1926.65 (e) training requirements:

- a. 40 hours of off site HTRW instruction.
- b. 3 days actual on-the-job field experience under the direct supervision of a trained, experienced supervisor.
- c. 8 hours refresher training annually.

Onsite supervisors must have an additional 8 hours management and supervisor training specified in 29 CFR 1910.120/29 CFR 1926.65 (e) (4).

3.2.2 Pre-Entry Briefing

Prior to commencement of onsite field activities, all site employees, including those assigned only to the Support Zone, must attend a site-specific SOH training session. This session will be conducted by the Safety and Health Manager and the Site Safety and Health Officer to ensure that all personnel are familiar with requirements and responsibilities for maintaining a safe and healthful work environment. Thoroughly discuss procedures and contents of the accepted APP/SSHP and Sections 01.B.02 and 28.D.03 of EM 385-1-1. Each employee must sign a training log to acknowledge attendance and understanding of the training. Notify the Contracting Officer at least 5 days prior to the initial site-specific training session so Government personnel involved in the project may attend.

3.2.3 Periodic Sessions

Conduct periodic onsite training by the SSHO at least weekly for personnel assigned to work at the site during the following week. Address SOH procedures, work practices, any changes in the APP/SSHP, activity hazard analyses, work tasks, or schedule; results of previous week's air monitoring, review of safety discrepancies and accidents. Convene a meeting prior to implementation of the change should an operational change

affecting onsite field work be made, to explain SOH procedures. Conduct a site-specific training sessions for new personnel, visitors, and suppliers by the SSHO using the training curriculum outlines developed by the Safety and Health Manager. Each employee must sign a training log to acknowledge attendance and understanding of the training.

3.3 MEDICAL SURVEILLANCE PROGRAM

Meet all requirements of 29 CFR 1910.120/29 CFR 1926.65 medical surveillance program and EM 385-1-1, Section 33.G for workers performing cleanup operations and who will be exposed to contaminants. Ensure the Occupational Physician or the physician's designee performs the physical examinations and reviews examination results. Participation in the medical surveillance program is without cost to the employee, without loss of pay and at a reasonable time and place.

3.4 EXPOSURE MONITORING/AIR SAMPLING PROGRAM

Prepare and implement by the Safety and Health Manager an exposure monitoring/air sampling program to identify and quantify SOH hazards and airborne levels of hazardous substances in order to assure proper selection of engineering controls, work practices and personal protective equipment for affected site personnel. Include action levels for upgrading/downgrading PPE in the program. Submit personnel exposure monitoring/sampling results.

3.5 HEAT STRESS MONITORING AND MANAGEMENT

Document in the APP/SSHP and implement the procedures and practices in section 06.J. in EM 385-1-1 to monitor and manage heat stress.

3.6 SPILL AND DISCHARGE CONTROL

Develop and implement written spill and discharge containment/control procedures. Address radioactive wastes, shock sensitive wastes, laboratory waste packs, material handling equipment, as well as drum and container handling, opening, sampling, shipping and transport. Describe prevention measures, such as building berms or dikes; spill control measures and material to be used (e.g., booms, vermiculite); location of the spill control material; personal protective equipment required to cleanup spills; disposal of contaminated material; and who is responsible to report the spill. Storage of contaminated material or hazardous materials must be appropriately bermed, diked and contained to prevent any spillage of material on uncontaminated soil. If the spill or discharge is reportable, or human health or the environment are threatened, notify the National Response Center, the state, and the Contracting Officer as soon as possible. Provide control as required by Section 01 57 19 TEMPORARY ENVIRONMENT CONTROLS.

3.7 MATERIALS TRANSFER SAFETY

Remove liquids and residues from the tanks using explosion-proof or air-driven pumps. In accordance with EM 385-1-1, Section 9, electrically bond the tank and ground pump motors and suction hoses to prevent electrostatic ignition hazards. Use of a hand pump will be permitted to remove the last of the liquid from the bottom of the tanks. If a vacuum truck is used for removal of liquids or residues, the area of operation for the vacuum truck must be vapor free. Locate the truck upwind from the tank and outside the path of probable vapor travel. Discharge the vacuum

pump exhaust gases through a hose of adequate size and length downwind of the truck and tank area. Vacuum truck operating and safety practices must conform to API RP 2219. Collect tank residues in drums, tanks, or tank trucks labeled according to 49 CFR 171 and 49 CFR 172 and disposed of as specified. Disconnect and drain fittings and lines of their contents after the materials have been transferred and the tanks have been exposed. Do not spill contents into the environment during cutting or disconnecting of tank fittings. Transfer materials drained into DOT-approved drums for storage and transportation. Use only non-sparking or non-heat producing tools to disconnect and drain or to cut through tank fittings. Electrical equipment (e.g., pumps, portable hand tools) used for tank preparation must be explosion-proof. Following cutting or disconnecting of the fittings, plug openings leading to the tanks.

3.8 SITE CONTROL MEASURES

Coordinate site control measures with Section 01 57 19 TEMPORARY ENVIRONMENT CONTROLS.

3.8.1 Work Zones

Initial anticipated work zone boundaries (exclusion zone, contamination reduction zone, support zone, all access points and decontamination areas) are to be clearly delineated on the site drawings. Base delineation of work zone boundaries on the contamination characterization data and the hazard/risk analysis to be performed as described in EM 385-1-1 06.A.02. As work progresses and field conditions are monitored, work zone boundaries may be modified (and site drawings modified) with approval of the Contracting Officer. Clearly identify work zones and mark in the field (using fences, tape, or signs). Submit and post a site map, showing work zone boundaries and locations of decontamination facilities in the onsite office. Work zones must consist of the following:

3.8.1.1 Exclusion Zone (EZ)

The exclusion zone is the area where hazardous contamination is either known or expected to occur and the greatest potential for exposure exists. Control entry into this area and exit may only be made through the Contamination Reduction Zone (CRZ).

3.8.1.2 Contamination Reduction Zone (CRZ)

The CRZ is the transition area between the Exclusion Zone and the Support Zone. The personnel and equipment decontamination areas must be separate and unique areas located in the CRZ.

3.8.1.3 Support Zone (SZ)

The Support Zone is defined as areas of the site, other than exclusion zones and contamination reduction zones, where workers do not have the potential to be exposed to hazardous substances or dangerous conditions resulting from HTRW operations. Secure the Support Zone against active or passive contamination. Site offices, parking areas, and other support facilities must be located in the Support Zone.

3.8.2 Site Control Log

A log of personnel visiting, entering, or working on the site must be maintained. Include the following: Date, name, agency or company, time

entering and exiting site, time entering and exiting the exclusion zone (if applicable). Before visitors are allowed to enter the Contamination Reduction Zone or Exclusion Zone, they must show proof of current training, medical surveillance and respirator fit testing (if respirators are required for the tasks to be performed) and fill out a Certificate of Worker or Visitor Acknowledgment. Record this visitor information, including date, in the log.

3.8.3 Communication

Provide and install an employee alarm system that has adequate means of on and off site communication in accordance with 29 CFR 1910 Section .165. The means of communication must be able to be perceived above ambient noise or light levels by employees in the affected portions of the workplace. The signals must be distinctive and recognizable as messages to evacuate or to perform critical operations.

3.8.4 Site Security

Print signs in bold large letters on contrasting backgrounds. Signs must be visible from all points where entry might occur and at such distances from the restricted area that employees may read the signs and take necessary protective steps before entering.

3.9 PERSONAL HYGIENE AND DECONTAMINATION

Personnel entering the Exclusion or Contamination Reduction Zones or otherwise exposed to hazardous chemical vapors, gases, liquids, or contaminated solids must decontaminate themselves and their equipment prior to exiting the contamination reduction zone (CRZ) and entering the support zone. Consult Chapter 10.0 of NIOSH 85-115 when preparing decontamination procedures. Submit a detailed discussion of personal hygiene and decontamination facilities and procedures to be followed by site workers as part of the APP/SSHP. Train employees in the procedures and enforce the procedures throughout site operations.

3.9.1 Decontamination Facilities

Submit drawings showing the layout of the personnel and equipment decontamination areas.

3.9.2 Personnel Decontamination

Initially set up a decontamination line in the CRZ. Employees must exit the exclusion zone through the CRZ and implement the following decontamination procedures and techniques: Scrub and rinse water proof outer garments, remove all outer garments, wash hands and face, and shower (if determined to be necessary). Showers, if needed, must comply with 29 CFR 1910, Section 141 and EM 385-1-1, 02 F, Washing Facilities. It is the Site Safety and Health Officer's responsibility to recommend techniques to improve personnel decontamination procedures, if necessary.

3.9.3 Equipment Decontamination

Decontaminate the vehicles and equipment used in the EZ in the CRZ prior to leaving the EZ.

3.9.3.1 Facilities for Equipment and Personnel

Provide a vehicle/equipment decontamination station within the CRZ for decontaminating vehicles and equipment leaving the EZ. Provide a high pressure, low volume, water wash area for equipment and vehicles. Perform dry decontamination using a broom to remove dry/loose spilled materials on accessible surfaces. Provide a designated "clean area" in the CRZ for performing equipment maintenance. Use this area when personnel are required by normal practices to come in contact with the ground, i.e., crawling under a vehicle to change engine oil. Equipment within the EZ or CRZ must be decontaminated before maintenance is performed.

3.9.3.2 Procedures

Procedures for equipment decontamination must be developed and utilized to prevent the spread of contamination into the SZ and offsite areas. These procedures must address disposal of contaminated products and spent materials used on the site, including, as a minimum, containers, fluids, and oils. Assume any item taken into the EZ to be contaminated and perform an inspection and decontaminate. Vehicles, equipment, and materials must be cleaned and decontaminated prior to leaving the site. Handle construction material in such a way as to minimize the potential for contaminants being spread or carried offsite. Prior to exiting the site, vehicles and equipment must be monitored to ensure the adequacy of decontamination.

Task Hazard and Control Requirements Sheet	
Task	
Initial Anticipated Hazards	
Initial PPE	
Initial Controls	
Initial Exposure Monitoring	
Yes/No	HAZWOPER Medical Surveillance Required
Yes/No	HAZWOPER Training Required

-- End of Section --

SECTION 01 57 19

TEMPORARY ENVIRONMENTAL CONTROLS - TYNDALL STANDARD
04/2021

PART 1 GENERAL

1.1 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to within the text by the basic designation only.

U.S. ENVIRONMENTAL PROTECTION AGENCY (EPA)

EPA SW-846 (Third Edition; Update IV) Test Methods
for Evaluating Solid Waste:
Physical/Chemical Methods

U.S. NATIONAL ARCHIVES AND RECORDS ADMINISTRATION (NARA)

29 CFR 1910.120 Hazardous Waste Operations and Emergency
Response

40 CFR 112 Oil Pollution Prevention

40 CFR 122.26 Storm Water Discharges (Applicable to
State NPDES Programs, see section 123.25)

40 CFR 241 Guidelines for Disposal of Solid Waste

40 CFR 243 Guidelines for the Storage and Collection
of Residential, Commercial, and
Institutional Solid Waste

40 CFR 258 Subtitle D Landfill Requirements

40 CFR 260 Hazardous Waste Management System: General

40 CFR 261 Identification and Listing of Hazardous
Waste

40 CFR 261.7 Residues of Hazardous Waste in Empty
Containers

40 CFR 262 Standards Applicable to Generators of
Hazardous Waste

40 CFR 262.11 Standards Applicable to Generators of
Hazardous Waste - Hazardous Waste
Determination and Recordkeeping

40 CFR 262.31 Standards Applicable to Generators of
Hazardous Waste-Labeling

40 CFR 263 Standards Applicable to Transporters of
Hazardous Waste

40 CFR 264	Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities
40 CFR 265	Interim Status Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities
40 CFR 266	Standards for the Management of Specific Hazardous Wastes and Specific Types of Hazardous Waste Management Facilities
40 CFR 268	Land Disposal Restrictions
40 CFR 273	Standards For Universal Waste Management
40 CFR 273.2	Standards for Universal Waste Management - Batteries
40 CFR 273.3	Standards for Universal Waste Management - Pesticides
40 CFR 273.4	Standards for Universal Waste Management - Mercury Containing Equipment
40 CFR 273.5	Standards for Universal Waste Management - Lamps
40 CFR 279	Standards for the Management of Used Oil
40 CFR 300	National Oil and Hazardous Substances Pollution Contingency Plan
40 CFR 300.125	National Oil and Hazardous Substances Pollution Contingency Plan - Notification and Communications
40 CFR 355	Emergency Planning and Notification
40 CFR 403	General Pretreatment Regulations for Existing and New Sources of Pollution
40 CFR 50	National Primary and Secondary Ambient Air Quality Standards
40 CFR 60	Standards of Performance for New Stationary Sources
40 CFR 61	National Emission Standards for Hazardous Air Pollutants
40 CFR 63	National Emission Standards for Hazardous Air Pollutants for Source Categories
40 CFR 64	Compliance Assurance Monitoring
40 CFR 745	Lead-Based Paint Poisoning Prevention in Certain Residential Structures

40 CFR 761	Polychlorinated Biphenyls (PCBs) Manufacturing, Processing, Distribution in Commerce, and Use Prohibitions
49 CFR 171	General Information, Regulations, and Definitions
49 CFR 172	Hazardous Materials Table, Special Provisions, Hazardous Materials Communications, Emergency Response Information, and Training Requirements
49 CFR 172.101	Hazardous Material Regulation-Purpose and Use of Hazardous Material Table
49 CFR 173	Shippers - General Requirements for Shipments and Packagings
49 CFR 178	Specifications for Packagings

TYNDALL AFB INSTRUCTIONS AND DIRECTIVES

Tyndall AFB Hazardous Waste Management Plan

Tyndall AFB Asbestos Management Plan

Installation Restoration Program and Aqueous Film Forming Foam Guidelines
For Tyndall MILCON Rebuild

Environmental Supplemental Guidance

General Environmental Requirements For Contracts

Tyndall AFB Guidelines for Non-ERP Soil Management USACE MILCON Buildout

Tyndall Soils Decision Matrix

Location Map for designated Soil Borrow Storage Area

1.2 DEFINITIONS

1.2.1 Class I and II Ozone Depleting Substance (ODS)

Class I ODS is defined in Section 602(a) of The Clean Air Act. A list of
Class I ODS can be found on the EPA website at the following weblink.
<https://www.epa.gov/ozone-layer-protection/ozone-depleting-substances>.

Class II ODS is defined in Section 602(s) of The Clean Air Act. A list of
Class II ODS can be found on the EPA website at the following weblink.
<https://www.epa.gov/ozone-layer-protection/ozone-depleting-substances>.

1.2.2 Contractor Generated Hazardous Waste

Contractor generated hazardous waste is materials that, if abandoned or
disposed of, may meet the definition of a hazardous waste. These waste
streams would typically consist of material brought on site by the
Contractor to execute work, but are not fully consumed during the course
of construction. Examples include, but are not limited to, excess paint
thinners (i.e., methyl ethyl ketone, toluene), waste thinners, excess

paints, excess solvents, waste solvents, excess pesticides, and contaminated pesticide equipment rinse water.

1.2.3 Electronics Waste

Electronics waste is discarded electronic devices intended for salvage, recycling, or disposal.

1.2.4 Environmental Management System (EMS)

Environmental Management System is a framework that establishes environmental quality program compliance and budgeting for the three key pillars of environmental management (compliance, conservation, and pollution prevention) in accordance with AFI 32-7001 Environmental Management.

1.2.5 Environmental Pollution and Damage

Environmental pollution and damage is the presence of chemical, physical, or biological elements or agents which adversely affect human health or welfare; unfavorably alter ecological balances of importance to human life; affect other species of importance to humankind; or degrade the environment aesthetically, culturally or historically.

1.2.6 Environmental Protection

Environmental protection is the prevention/control of pollution and habitat disruption that may occur to the environment during construction. The control of environmental pollution and damage requires consideration of land, water, and air; biological and cultural resources; and includes management of visual aesthetics; noise; solid, chemical, gaseous, and liquid waste; radiant energy and radioactive material as well as other pollutants.

1.2.7 Hazardous Debris

As defined in paragraph SOLID WASTE, debris that contains listed hazardous waste (either on the debris surface, or in its interstices, such as pore structure) in accordance with 40 CFR 261. Hazardous debris also includes debris that exhibits a characteristic of hazardous waste in accordance with 40 CFR 261.

1.2.8 Hazardous Materials

Hazardous materials as defined in 49 CFR 171 and listed in 49 CFR 172.

Hazardous material is any material that: Is regulated as a hazardous material in accordance with 49 CFR 173; or requires a Safety Data Sheet (SDS) in accordance with 29 CFR 1910.120; or during end use, treatment, handling, packaging, storage, transportation, or disposal meets or has components that meet or have potential to meet the definition of a hazardous waste as defined by 40 CFR 261 Subparts A, B, C, or D. Designation of a material by this definition, when separately regulated or controlled by other sections or directives, does not eliminate the need for adherence to that hazard-specific guidance which takes precedence over this section for "control" purposes. Such material includes ammunition, weapons, explosive actuated devices, propellants, pyrotechnics, chemical and biological warfare materials, medical and pharmaceutical supplies, medical waste and infectious materials, bulk fuels, radioactive materials,

and other materials such as asbestos, mercury, and polychlorinated biphenyls (PCBs).

1.2.9 Hazardous Waste

Hazardous Waste is any material that meets the definition of a solid waste and exhibit a hazardous characteristic (ignitability, corrosivity, reactivity, or toxicity) as specified in 40 CFR 261, Subpart C, or contains a listed hazardous waste as identified in 40 CFR 261, Subpart D.

1.2.10 Land Application

Land Application means spreading or spraying discharge water at a rate that allows the water to percolate into the soil. No sheeting action, soil erosion, discharge into storm sewers, discharge into defined drainage areas, or discharge into the "waters of the United States" must occur. Comply with federal, state, and local laws and regulations.

1.2.11 Municipal Separate Storm Sewer System (MS4) Permit

MS4 permits are those held by installations to obtain NPDES permit coverage for their stormwater discharges.

1.2.12 National Pollutant Discharge Elimination System (NPDES)

The NPDES permit program controls water pollution by regulating point sources that discharge pollutants into waters of the United States.

1.2.13 Oily Waste

Oily waste are those materials that are, or were, mixed with Petroleum, Oils, and Lubricants (POLs) and have become separated from that POLs. Oily wastes also means materials, including wastewaters, centrifuge solids, filter residues or sludges, bottom sediments, tank bottoms, and sorbents which have come into contact with and have been contaminated by, POLs and may be appropriately tested and discarded in a manner which is in compliance with other state and local requirements.

This definition includes materials such as oily rags, "kitty litter" sorbent clay and organic sorbent material. These materials may be land filled provided that: It is not prohibited in other state regulations or local ordinances; the amount generated is "de minimus" (a small amount); it is the result of minor leaks or spills resulting from normal process operations; and free-flowing oil has been removed to the practicable extent possible. Large quantities of this material, generated as a result of a major spill or in lieu of proper maintenance of the processing equipment, are a solid waste. As a solid waste, perform a hazardous waste determination prior to disposal. As this can be an expensive process, it is recommended that this type of waste be minimized through good housekeeping practices and employee education.

1.2.14 Regulated Waste

Regulated waste are solid wastes that have specific additional federal, state, or local controls for handling, storage, or disposal.

1.2.15 Sediment

Sediment is soil and other debris that have eroded and have been

transported by runoff water or wind.

1.2.16 Solid Waste

Solid waste is a solid, liquid, semi-solid or contained gaseous waste. A solid waste can be a hazardous waste, non-hazardous waste, or non-Resource Conservation and Recovery Act (RCRA) regulated waste. Types of solid waste typically generated at construction sites may include:

1.2.16.1 Debris

Debris is non-hazardous solid material generated during the construction, demolition, or renovation of a structure that exceeds 2.5-inch particle size that is: a manufactured object; plant or animal matter; or natural geologic material (for example, cobbles and boulders, including aggregates intended, but not used, for on-site mixing of concrete, mortars, and paving), broken or removed concrete, masonry, and rock asphalt paving; ceramics; roofing paper and shingles. Inert materials may be reinforced with or contain ferrous wire, rods, accessories and weldments. A mixture of debris and other material such as soil or sludge is also subject to regulation as debris if the mixture is comprised primarily of debris by volume, based on visual inspection.

1.2.16.2 Green Waste

Green waste is the vegetative matter from landscaping, land clearing and grubbing, including, but not limited to, grass, bushes, scrubs, small trees and saplings, tree stumps and plant roots. Marketable trees, grasses and plants that are indicated to remain, be re-located, or be re-used are not included.

1.2.16.3 Material not regulated as solid waste

Material not regulated as solid waste is nuclear source or byproduct materials regulated under the Federal Atomic Energy Act of 1954 as amended; suspended or dissolved materials in domestic sewage effluent or irrigation return flows, or other regulated point source discharges; regulated air emissions; and fluids or wastes associated with natural gas or crude oil exploration or production.

1.2.16.4 Non-Hazardous Waste

Non-hazardous waste is waste that is excluded from, or does not meet, hazardous waste criteria in accordance with 40 CFR 261.

1.2.16.5 Recyclables

Recyclables are materials, equipment and assemblies such as doors, windows, door and window frames, plumbing fixtures, glazing and mirrors that are recovered and sold as recyclable, wiring, insulated/non-insulated copper wire cable, wire rope, and structural components. It also includes commercial-grade refrigeration equipment with Freon removed, household appliances where the basic material content is metal, clean polyethylene terephthalate bottles, cooking oil, used fuel oil, textiles, high-grade paper products and corrugated cardboard, stackable pallets in good condition, clean crating material, and clean rubber/vehicle tires. Metal meeting the definition of lead contaminated or lead based paint contaminated may not be included as recyclable if sold to a scrap metal company. Paint cans that meet the definition of empty containers in

accordance with 40 CFR 261.7 may be included as recyclable if sold to a scrap metal company.

1.2.16.6 Surplus Soil

Surplus soil is existing soil that is in excess of what is required for this work. Surplus soil must be managed in accordance with attachments Installation Restoration Program and Aqueous Film Forming Foam Guidelines for Tyndall MILCON-Rebuild, Tyndall AFB Guidelines for Non-ERP Soil Management USACE MILCON Build-Out, and UFGS 02 61 13 EXCAVATION AND HANDLING OF CONTAMINATED MATERIAL. Soil meeting the definition of hazardous material, hazardous waste, hazardous substance, or other regulated constituent as identified by concentrations above Florida Department of Environmental Protection's (FDEP) Soil Cleanup Target Level is not included. Contaminated soil must be managed in accordance with the requirements of the regulations associated with the classification of the contamination as indicated in attachment Installation Restoration Program and Aqueous Film Forming Foam Guidelines for Tyndall MILCON-Rebuild and UFGS 02 61 13 EXCAVATION AND HANDLING OF CONTAMINATED MATERIAL.

1.2.16.7 Scrap Metal

This includes scrap and excess ferrous and non-ferrous metals such as reinforcing steel, structural shapes, pipe, and wire that are recovered or collected and disposed of as scrap. Scrap metal meeting the definition of hazardous material or hazardous waste is not included.

1.2.16.8 Wood

Wood is dimension and non-dimension lumber, plywood, chipboard, hardboard. Treated or painted wood that meets the definition of lead contaminated or lead based contaminated paint is not included. Treated wood includes, but is not limited to, lumber, utility poles, crossties, and other wood products with chemical treatment.

1.2.17 Surface Discharge

Surface discharge means discharge of water into drainage ditches, storm sewers, creeks or "waters of the United States". Surface discharges are discrete, identifiable sources and require a permit from the governing agency. Comply with federal, state, and local laws and regulations.

1.2.18 Wastewater

Wastewater is the used water and solids from a community that flow to a treatment plant.

1.2.18.1 Stormwater

Stormwater is any precipitation in an urban or suburban area that does not evaporate or soak into the ground, but instead collects and flows into storm drains, rivers, and streams.

1.2.19 Waters of the United States

Waters of the United States means Federally jurisdictional waters, including wetlands, that are subject to regulation under Section 404 of the Clean Water Act or navigable waters, as defined under the Rivers and Harbors Act.

1.2.20 Wetlands

Wetlands are those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions.

1.2.21 Universal Waste

The universal waste regulations streamline collection requirements for certain hazardous wastes in the following categories: batteries, pesticides, mercury-containing equipment (for example, thermostats), and lamps (for example, fluorescent bulbs), and aerosol cans. The rule is designed to reduce hazardous waste in the municipal solid waste (MSW) stream by making it easier for universal waste handlers to collect these items and send them for recycling or proper disposal. These regulations can be found at 40 CFR 273.

1.3 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for Contractor Quality Control approval. Submit the following in accordance with Section 01 33 00 SUBMITTAL PROCEDURES:

SD-01 Preconstruction Submittals

Preconstruction Survey

Solid Waste Management Permit; G

Regulatory Notifications and Permits
(Water, Air, Waste, Utility, etc); G

Environmental Protection Plan; G

Stormwater Notice of Intent and/or Stormwater Pollution Prevention Plan (SWPPP) (for NPDES coverage under the general permit for construction activities); G

Dirt and Dust Control Plan; G

Employee Training Records; G

Environmental Manager Qualifications

Hazardous Materials Forms(TAFB FORMS 81&82)and Safety Data Sheets;

G

SD-06 Test Reports

Laboratory Analysis

Inspection Reports

Monthly Solid Waste Disposal Report

SD-07 Certificates

Employee Training Records

Certificate of Competency

Erosion and Sediment Control Inspector Qualifications

SD-11 Closeout Submittals

Stormwater Pollution Prevention Plan Compliance Notebook; G

Stormwater Notice of Termination (for NPDES coverage under the general permit for construction activities); G

Waste Determination Documentation; G

Disposal Documentation for Hazardous and Regulated Waste; G

Assembled Employee Training Records; G

Solid Waste Management Permit

Project Solid Waste Disposal Documentation Report; G

Hazardous Waste/Debris Management

Regulatory Notifications; G

Sales Documentation; G

Contractor Certification

As-Built Topographic Survey

Hazardous Material Usage Form (TAFB FORM 83)

1.4 ENVIRONMENTAL PROTECTION REQUIREMENTS

Provide and maintain, during the life of the contract, environmental protection as defined. Plan for and provide environmental protective measures to control pollution that develops during construction practice. Plan for and provide environmental protective measures required to correct conditions that develop during the construction of permanent or temporary environmental features associated with the project. Protect the environmental resources within the project boundaries and those affected outside the limits of permanent work during the entire duration of this Contract. Comply with federal, state, and local regulations pertaining to the environment, including water, air, solid waste, hazardous waste and substances, oily substances, and noise pollution.

Tests and procedures assessing whether construction operations comply with Applicable Environmental Laws may be required. Analytical work must be performed by qualified laboratories; and where required by law, the laboratories must be certified.

1.4.1 Conformance with the Environmental Management System

Perform work under this contract consistent with the policy and objectives identified in the installation's Environmental Management System (EMS) in

accordance with AFI 32-7001, Environmental Management. Perform work in a manner that conforms to objectives and targets of the environmental programs and operational controls identified by the EMS. Support Government personnel when environmental compliance and EMS audits are conducted by escorting auditors at the Project site, answering questions, and providing proof of records being maintained. Provide monitoring and measurement information as necessary to address environmental performance relative to environmental, energy, and transportation management goals. In the event an EMS nonconformance or environmental noncompliance associated with the contracted services, tasks, or actions occurs, take corrective and preventative actions. In addition, employees must be aware of their roles and responsibilities under the installation EMS and of how these EMS roles and responsibilities affect work performed under the contract.

Coordinate with the installation's EMS coordinator to identify training needs associated with environmental aspects and the EMS, and arrange training or take other action to meet these needs. Provide training documentation to the Contracting Officer. The Installation Environmental Office will retain associated environmental compliance records. Make EMS Awareness training completion certificates available to Government auditors during EMS audits and include the certificates in the Employee Training Records. See paragraph EMPLOYEE TRAINING RECORDS.

1.5 QUALITY ASSURANCE

1.5.1 Preconstruction Survey and Protection of Features

This paragraph supplements the Contract Clause PROTECTION OF EXISTING VEGETATION, STRUCTURES, EQUIPMENT, UTILITIES, AND IMPROVEMENTS. Prior to start of any onsite construction activities, perform a Preconstruction Survey of the project site with the Contracting Officer, and take photographs showing existing environmental conditions in and adjacent to the site. Submit a report for the record. Include in the report a plan describing the features requiring protection under the provisions of the Contract Clauses, which are not specifically identified on the drawings as environmental features requiring protection along with the condition of trees, shrubs and grassed areas immediately adjacent to the site of work and adjacent to the Contractor's assigned storage area and access route(s), as applicable. The Contractor and the Contracting Officer will sign this survey report upon mutual agreement regarding its accuracy and completeness. Protect those environmental features included in the survey report and any indicated on the drawings, regardless of interference that their preservation may cause to the work under the Contract.

1.5.2 Regulatory Notifications

Provide regulatory notification requirements in accordance with federal, state and local regulations. In cases where the Government will also provide public notification (such as stormwater permitting), coordinate with the Contracting Officer. Submit copies of regulatory notifications to the Contracting Officer at least 30 days prior to commencement of work activities. Typically, regulatory notifications must be provided for the following (this listing is not all-inclusive): demolition, renovation, NPDES defined site work, construction, removal or use of a permitted air emissions source, and remediation of controlled substances (asbestos, hazardous waste, lead paint). All permit applications must be reviewed by the 325 CES/CEIE and signed by the 325 CES Commander prior to submittal. The 325 CES/CEIE shall be copied on all regulatory correspondence.

1.5.3 Environmental Brief

Attend an environmental brief to be included in the preconstruction meeting. Provide the following information: TAFB Forms 81/82 which includes the types, quantities, and use of hazardous materials that will be brought onto the installation, along with Safety Data Sheets for each material listed on the form 82 and types and quantities of wastes/wastewater that may be generated during the Contract. Discuss the results of the Preconstruction Survey at this time.

Prior to initiating any work on site, meet with the Contracting Officer and installation Environmental Office to discuss the proposed Environmental Protection Plan (EPP). Develop a mutual understanding relative to the details of environmental protection, including measures for protecting natural and cultural resources, required reports, required permits, permit requirements (such as mitigation measures), and other measures to be taken.

1.5.4 Environmental Manager

Appoint in writing an Environmental Manager for the project site. The Environmental Manager is directly responsible for coordinating contractor compliance with federal, state, local, and installation requirements. The Environmental Manager must ensure compliance with Hazardous Waste Program requirements (including hazardous waste handling, storage, manifesting, and disposal); implement the EPP; ensure environmental permits are obtained, maintained, and closed out; ensure compliance with Stormwater Program requirements; ensure compliance with Hazardous Materials (storage, handling, and reporting) requirements; and coordinate any remediation of regulated substances (lead, asbestos, PCB transformers). This can be a collateral position; however, the person in this position must be trained to adequately accomplish the following duties: ensure waste segregation and storage compatibility requirements are met; inspect and manage Satellite Accumulation areas; ensure only authorized personnel add wastes to containers; ensure Contractor personnel are trained in 40 CFR requirements in accordance with their position requirements; coordinate removal of waste containers; and maintain the Environmental Records binder and required documentation, including environmental permits compliance and close-out. Submit Environmental Manager Qualifications to the Contracting Officer.

1.5.5 Employee Training Records

Prepare and maintain Employee Training Records throughout the term of the contract meeting applicable 40 CFR requirements. Provide Employee Training Records in the Environmental Records Binder. Ensure every employee completes a program of classroom instruction or on-the-job training that teaches them to perform their duties in a way that ensures compliance with federal, state and local regulatory requirements for RCRA Large Quantity Generator. Provide a Position Description for each employee, by subcontractor, based on the Davis-Bacon Wage Rate designation or other equivalent method, evaluating the employee's association with hazardous and regulated wastes. This Position Description will include training requirements as defined in 40 CFR 262.17(a)(7) for a Large Quantity Generator facility. Submit these Assembled Employee Training Records to the Contracting Officer at the conclusion of the project, unless otherwise directed.

Train personnel to meet EPA and state requirements. Conduct environmental protection/pollution control meetings for personnel prior to commencing construction activities. Contact additional meetings for new personnel and when site conditions change. Include in the training and meeting agenda: methods of detecting and avoiding pollution; familiarization with statutory and contractual pollution standards; installation and care of devices, vegetative covers, and instruments required for monitoring purposes to ensure adequate and continuous environmental protection/pollution control; anticipated hazardous or toxic chemicals or wastes, and other regulated contaminants; recognition and protection of archaeological sites, artifacts, waters of the United States, and endangered species and their habitat that are known to be in the area. Provide copy of the Erosion and Sediment Control Inspector Qualifications as defined by EPA or Certification as required by state.

1.5.6 Non-Compliance Notifications

The Contracting Officer will notify the Contractor in writing of any observed noncompliance with federal, state or local environmental laws or regulations, permits, and other elements of the Contractor's EPP. After receipt of such notice, inform the Contracting Officer of the proposed corrective action and take such action when approved by the Contracting Officer. The Contracting Officer may issue an order stopping all or part of the work until satisfactory corrective action has been taken. FAR 52.242-14 Suspension of Work provides that a suspension, delay, or interruption of work due to the fault or negligence of the Contractor allows for no adjustments to the contract for time extensions or equitable adjustments. In addition to a suspension of work, the Contracting Officer may use additional authorities under the contract or law. The Prime Contractor will have the sole responsibility to ensure all their subcontractors comply with all environmental protection requirements of this specification section.

1.6 ENVIRONMENTAL PROTECTION PLAN

The purpose of the EPP is to present an overview of known or potential environmental issues that must be considered and addressed during construction. Incorporate construction related objectives and targets from the installation's EMS into the EPP. Include in the EPP measures for protecting natural and cultural resources, required reports, and other measures to be taken. Meet with the Contracting Officer or Contracting Officer Representative to discuss the EPP and develop a mutual understanding relative to the details for environmental protection including measures for protecting natural resources, required reports, and other measures to be taken. Submit the EPP within 15 days after Contract award and not less than 10 days before the preconstruction meeting. Revise the EPP throughout the project to include any reporting requirements, changes in site conditions, or contract modifications that change the project scope of work in a way that could have an environmental impact. No requirement in this section will relieve the Contractor of any applicable federal, state, and local environmental protection laws and regulations. During Construction, identify, implement, and submit for approval any additional requirements to be included in the EPP. Maintain the current version onsite.

The EPP includes, but is not limited to, the following elements:

1.6.1 General Overview and Purpose

1.6.1.1 Descriptions

A brief description of each specific plan required by environmental permit or elsewhere in this Contract such as stormwater pollution prevention plan, spill control plan, solid waste management plan, wastewater management plan, air pollution control plan, contaminant prevention plan, traffic control plan, Non-Hazardous Solid Waste Disposal Plan, and borrowing material plan.

1.6.1.2 Duties

The duties and level of authority assigned to the person(s) on the job site who oversee environmental compliance, such as who is responsible for adherence to the EPP, who is responsible for spill cleanup and training personnel on spill response procedures, who is responsible for manifesting hazardous waste to be removed from the site (if applicable), and who is responsible for training the Contractor's environmental protection personnel.

1.6.1.3 Procedures

A copy of any standard or project-specific operating procedures that will be used to effectively manage and protect the environment on the project site.

1.6.1.4 Communications

Communication and training procedures that will be used to convey environmental management requirements to Contractor employees and subcontractors.

1.6.1.5 Contact Information

Emergency contact information contact information (office phone number, cell phone number, and e-mail address).

1.6.2 General Site Information

1.6.2.1 Drawings

Drawings showing locations of proposed temporary excavations or embankments for haul roads, stream crossings, jurisdictional wetlands, material storage areas, structures, sanitary facilities, storm drains and conveyances, and stockpiles of excess soil.

1.6.2.2 Work Area

Work area plan showing the proposed activity in each portion of the area and identify the areas of limited use or nonuse. Include measures for marking the limits of use areas, including methods for protection of features to be preserved within authorized work areas and methods to control runoff and to contain materials on site, and a traffic control plan.

1.6.2.3 Documentation

A letter signed by an officer of the firm appointing the Environmental

Manager and stating that person is responsible for managing and implementing the Environmental Program as described in this contract. Include in this letter the Environmental Manager's authority to direct the removal and replacement of non-conforming work.

1.6.3 Management of Natural Resources

- a. Land resources.
- b. Tree protection.
- c. Replacement of damaged landscape features.
- d. Temporary construction.
- e. Stream crossings.
- f. Fish and wildlife resources.
- g. Wetland areas.

1.6.4 Protection of Historical and Archaeological Resources

- a. Objectives.
- b. Methods.

1.6.5 Stormwater Management and Control

- a. Ground cover.
- b. Erodible soils.
- c. Temporary measures.
 - (1) Structural Practices.
 - (2) Temporary and permanent stabilization.
- d. Effective selection, implementation and maintenance of Best Management Practices (BMPs).

1.6.6 Protection of the Environment from Waste Derived from Contractor Operations

Control and disposal of solid and sanitary waste. Control and disposal of hazardous waste.

This item consist of the management procedures for hazardous waste to be generated. The elements of those procedures will coincide with the Installation Hazardous Waste Management Plan. The Contracting Officer will provide a copy of the Installation Hazardous Waste Management Plan. As a minimum, include the following:

- a. List of the types of hazardous wastes expected to be generated.
- b. Procedures to ensure a written waste determination is made for appropriate wastes that are to be generated.

- c. Sampling/analysis plan, including laboratory method(s) that will be used for waste determinations and copies of relevant laboratory certifications.
- d. Methods and proposed locations for hazardous waste accumulation/storage (that is, in tanks or containers).
- e. Management procedures for storage, labeling, transportation, and disposal of waste (treatment of waste is not allowed unless specifically noted). The contractor shall provide applicable landfill tipping fee(s) and the projected cost of disposing of all project waste in the landfill(s), where allowed per UFGS 02 61 13 EXCAVATION AND HANDLING OF CONTAMINATED MATERIAL.
- f. Management procedures and regulatory documentation ensuring disposal of hazardous waste complies with Land Disposal Restrictions (40 CFR 268).
- g. Management procedures for recyclable hazardous materials such as lead-acid batteries, used oil, and similar.
- h. Used oil management procedures in accordance with 40 CFR 279; Hazardous waste minimization procedures.
- i. Plans for the disposal of hazardous waste by permitted facilities; and Procedures to be employed to ensure required employee training records are maintained.

1.6.7 Prevention of Releases to the Environment

Procedures to prevent releases to the environment,

Notifications in the event of a release to the environment,

1.6.8 Regulatory Notification and Permits

List what notifications and permit applications must be made. Some permits require up to 180 days to obtain. Demonstrate that those permits have been obtained or applied for by including copies of applicable environmental permits. The EPP will not be approved until the permits have been obtained.

1.6.9 Clean Air Act Compliance

1.6.9.1 Haul Route

Submit truck and material haul routes along with a Dirt and Dust Control Plan for controlling dirt, debris, and dust on Installation roadways. As a minimum, identify in the plan the subcontractor and equipment for cleaning along the haul route and measures to reduce dirt, dust, and debris from roadways.

1.6.9.2 Pollution Generating Equipment

Identify air pollution generating equipment or processes that may require federal, state, or local permits under the Clean Air Act. Determine requirements based on any current installation permits and the impacts of the project. Provide a list of all fixed or mobile equipment, machinery or operations that could generate air emissions during the project to the

Installation Environmental Office (Air Program Manager).

If emergency generators, boilers, or other sources of air pollutants will be associated with this facility, coordinate with the 325 CES/CEIEC Air Quality Program Manager, 283-4341 BEFORE source installation. Ensure generator engines are certified to meet 40 CFR Part 60 Subpart IIII - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines or CFR Part 60 Subpart JJJJ - Standards of Performance for Stationary Spark Ignition Internal Combustion Engines. Any facility having refrigeration equipment, including air conditioning equipment, which uses a Class I or II substance (listed at 40 CFR 82, Subpart A, Appendices A and B), and any facility which maintains, services, or repairs motor vehicles using a Class I or Class II substance as refrigerant must comply with all requirements of 40 CFR 82, Subparts B and F, and with Chapter 62-281, F.A.C. Any refrigerant recycle/recovery equipment must be registered with the Air Quality Program manager (283-4341).

1.6.9.3 Stationary Internal Combustion Engines

Identify portable and stationary internal combustion engines that will be supplied, used or serviced. Comply with 40 CFR 60 Subpart IIII, 40 CFR 60 Subpart JJJJ, 40 CFR 63 Subpart ZZZZ, and local regulations as applicable. At minimum, include the make, model, serial number, manufacture date, size (engine brake horsepower), and EPA emission certification status of each engine. Maintain applicable records and log hours of operation and fuel use. Logs must include reasons for operation and delineate between emergency and non-emergency operation.

1.6.9.4 Refrigerants

Identify management practices to ensure that heating, ventilation, and air conditioning (HVAC) work involving refrigerants complies with 40 CFR 82 requirements. Technicians must be certified, maintain copies of certification on site, use certified equipment and log work that requires the addition or removal of refrigerant. Any refrigerant reclaimed is the property of the Government, coordinate with the Installation Environmental Office to determine the appropriate turn in location.

1.6.9.5 Air Pollution-engineering Processes

Identify planned air pollution-generating processes and management control measures (including, but not limited to, spray painting, abrasive blasting, demolition, material handling, fugitive dust, and fugitive emissions). Log hours of operations and track quantities of materials used.

1.6.9.6 Compliant Materials

Provide the Government a list of and SDSs for all hazardous materials proposed for use on site. Materials must be compliant with all Clean Air Act regulations for emissions including solvent and volatile organic compound contents, and applicable National Emission Standards for Hazardous Air Pollutants requirements. The Government may alter or limit use of specific materials as needed to meet installation permit requirements for emissions.

1.7 LICENSES AND PERMITS

Obtain licenses and permits required for the construction of the project and in accordance with FAR 52.236-7 Permits and Responsibilities. Notify the Government of all general use permitted equipment the Contractor plans to use on site.

1.8 ENVIRONMENTAL RECORDS BINDER

Maintain on-site a separate three-ring Environmental Records Binder and submit at the completion of the project. Make separate parts within the binder that correspond to each submittal listed under paragraph CLOSEOUT SUBMITTALS in this section.

1.9 SOLID WASTE MANAGEMENT PERMIT

Provide the Contracting Officer with written notification of the quantity of anticipated solid waste or debris that is anticipated or estimated to be generated by construction. Include in the report the locations where various types of waste will be disposed or recycled. Include letters of acceptance from the receiving location or as applicable; submit one copy of the receiving location state and local Solid Waste Management Permit or license showing such agency's approval of the disposal plan before transporting wastes off Government property.

1.9.1 Monthly Solid Waste Disposal Report

Monthly, submit a solid waste disposal report to the Contracting Officer. For each waste, the report will state the classification (using the definitions provided in this section), amount, location, and name of the business receiving the solid waste.

1.10 FACILITY HAZARDOUS WASTE GENERATOR STATUS

Tyndall AFB is designated as a Large Quantity Generator. Meet the regulatory requirements of this generator designation for any work conducted within the boundaries of this Installation. Comply with provisions of federal, state, and local regulatory requirements applicable to this generator status regarding training and storage, handling, and disposal of construction derived wastes.

PART 2 PRODUCTS

Not Used.

PART 3 EXECUTION

3.1 ENVIRONMENTAL PERMITS AND COMMITMENTS

The Contractor shall ensure that required environmental permits are obtained prior to start of construction and/or installing or operating any new or modified equipment or processes or disturbing any land area. The contractor shall coordinate all environmental permits with the Contracting Officer and Tyndall AFB Environmental Office. The Contractor shall prepare any required technical documentation for the permit application, and submit to the Contracting Officer and Tyndall AFB Environmental Office for review. The 325 CES/CES will sign and forward applications to the contractor for submittal to the appropriate regulatory authority. The Contractor shall be responsible for operating within permit limits and abiding by all permit conditions. The

Contracting Officer and 325 CES/CEIE shall be notified immediately of any exceedances of permit limits or violation of permit conditions. The Contractor shall immediately notify the Contracting Officer and 325 CES/CEIE of any unforeseen environmental conditions, which may conflict with approved permits. Any certifications required by permits shall be the responsibility of the Contractor. Copies of all permits and certifications shall be submitted to the Contracting Officer and 325 CES/CEIE.

Assurance that subcontractors comply with all environmental protection requirements of this section will be the sole responsibility of the prime Contractor.

3.2 PROTECTION OF NATURAL RESOURCES

Minimize interference with, disturbance to, and damage to fish, wildlife, and plants, including their habitats. Prior to the commencement of activities, consult with the Installation Environmental Office, regarding rare species or sensitive habitats that need to be protected. The protection of rare, threatened, and endangered animal and plant species identified, including their habitats, is the Contractor's responsibility.

Preserve the natural resources within the project boundaries and outside the limits of permanent work. Restore to an equivalent or improved condition upon completion of work that is consistent with the requirements of the Installation Environmental Office or as otherwise specified. Confine construction activities to within the limits of the work indicated or specified.

3.2.1 Flow Ways

Do not alter water flows or otherwise significantly disturb the native habitat adjacent to the project and critical to the survival of fish and wildlife, except as specified and permitted.

3.2.2 Vegetation

Except in areas to be cleared, do not remove, cut, deface, injure, or destroy trees or shrubs without the Contracting Officer's permission. Do not fasten or attach ropes, cables, or guys to existing nearby trees for anchorages unless authorized by the Contracting Officer. Where such use of attached ropes, cables, or guys is authorized, the Contractor is responsible for any resultant damage.

Protect existing trees that are to remain to ensure they are not injured, bruised, defaced, or otherwise damaged by construction operations. Remove displaced rocks from uncleared areas. Coordinate with the Contracting Officer and Installation Environmental Office to determine appropriate action for trees and other landscape features scarred or damaged by equipment operations.

3.2.3 Streams

Stream crossings must allow movement of materials or equipment without violating water pollution control standards of the federal, state, and local governments. Construction of stream crossing structures must be in compliance with any required permits including, but not limited to, Clean Water Act Section 404, and Section 401 Water Quality.

The Contracting Officer's approval and appropriate permits are required

before any equipment will be permitted to ford live streams. In areas where frequent crossings are required, install temporary culverts or bridges. Obtain Contracting Officer's approval prior to installation. Remove temporary culverts or bridges upon completion of work, and repair the area to its original condition unless otherwise required by the Contracting Officer.

3.3 STORMWATER

Do not discharge stormwater from construction sites to the sanitary sewer. Discharge of hazardous substances will not be permitted under any circumstances. Construction site runoff will be prevented from entering any storm drain by the use of best management practices from the Florida Stormwater Erosion and Sedimentation Control Inspector's Manual. Prior to any project that disturbs greater than one acre, the contractor must complete a Notice of Intent with FDEP and have a Stormwater Pollution Prevention Plan approved by the Contracting Officer and 325 CES/CEIE. A notice of termination must also be filed at the conclusion of the project.

3.3.1 Construction General Permit

Comply with State of Florida Department of Environmental Protection Generic Permit for Stormwater Discharge from Large and Small Construction Activities. Under the terms and conditions of the permit, install, inspect, maintain BMPs, prepare stormwater erosion and sediment control inspection reports, and submit SWPPP inspection reports. Maintain construction operations and management in compliance with the terms and conditions of the general permit for stormwater discharges from construction activities.

3.3.1.1 Stormwater Pollution Prevention Plan

Submit a project-specific Stormwater Pollution Prevention Plan (SWPPP) to the Contracting Officer for approval, prior to the commencement of work. The SWPPP must meet the requirements of 40 CFR 122.26 and the EPA General Permit and the State of Florida General Permit for stormwater discharges from construction sites.

Include the following:

- a. Comply with terms of the state general permit for stormwater discharges from large and small construction activities. Prepare SWPPP in accordance with state requirements. Use state guidance located at <https://floridadep.gov/water/stormwater/content/construction-activity-cgp> to prepare the SWPPP.
- b. Select applicable BMPs from EPA Fact Sheets located at <https://www.epa.gov/npdes/national-menu-best-management-practices-bmps-stormwater#constr> or in accordance with applicable state or local requirements.
- c. Include a completed copy of the Notice of Intent, BMP Inspection Report Template, and Stormwater Notice of Termination, except for the effective date.

3.3.1.2 Stormwater Notice of Intent for Construction Activities

Prepare and submit a Stormwater Notice of Intent for NPDES coverage under

the general permit for construction activities to the Contracting Officer for review and approval. Create a Stormwater Pollution Prevention Plan (SWPPP) for the project meeting the Florida General Permit for Stormwater Discharge from Large and Small Construction Activities for stormwater discharges from construction sites.

Prepare and submit a Notice of Intent as a co-permittee to the Contracting Officer, for review and approval.

Submit the approved NOI and appropriate permit fees onto the appropriate federal or state agency for approval. No land disturbing activities may commence without permit coverage. Maintain an approved copy of the SWPPP at the onsite construction office, and continually update as regulations require, reflecting current site conditions.

3.3.1.3 Inspection Reports

Submit "Inspection Reports" to the Contracting Officer in accordance with the State of Florida Construction General Permit.

3.3.1.4 Stormwater Pollution Prevention Plan Compliance Notebook

Create and maintain a three ring binder of documents that demonstrate compliance with the Construction General Permit. Include a copy of the permit Notice of Intent, proof of permit fee payment, SWPPP and SWPPP update amendments, inspection reports and related corrective action records, copies of correspondence with the State Permitting Agency, and a copy of the permit Notice of Termination in the binder. At project completion, the notebook becomes property of the Government. Provide the compliance notebook to the Contracting Officer.

3.3.1.5 Stormwater Notice of Termination for Construction Activities

Submit a Notice of Termination to the Contracting Officer for approval once construction is complete and final stabilization has been achieved on all portions of the site for which the permittee is responsible. Once approved, submit the Notice of Termination to the appropriate state or federal agency.

3.3.2 Erosion and Sediment Control Measures

Provide erosion and sediment control measures in accordance with state and local laws and regulations. Preserve vegetation to the maximum extent practicable.

Erosion control inspection reports may be compiled as part of a stormwater pollution prevention plan inspection reports.

3.3.2.1 Erosion Control

Prevent erosion by mulching, Compost Blankets, Geotextiles, temporary slope drains, and/or silt fence. Stabilize slopes by sodding, seeding, or such combination of these methods necessary for effective erosion control. Use of hay bales is prohibited.

3.3.2.2 Sediment Control Practices

Implement sediment control practices to divert flows from exposed soils, temporarily store flows, or otherwise limit runoff and the discharge of

pollutants from exposed areas of the site. Implement sediment control practices prior to soil disturbance and prior to creating areas with concentrated flow, during the construction process to minimize erosion and sediment laden runoff. Include the following devices: silt fence, temporary diversion dikes, and/or storm drain inlet protection.

3.3.3 Work Area Limits

Mark the areas that need not be disturbed under this Contract prior to commencing construction activities. Mark or fence isolated areas within the general work area that are not to be disturbed. Protect monuments and markers before construction operations commence. Where construction operations are to be conducted during darkness, any markers must be visible in the dark. Personnel must be knowledgeable of the purpose for marking and protecting particular objects.

3.3.4 Contractor Facilities and Work Areas

Place field offices, staging areas, stockpile storage, and temporary buildings in areas designated on the drawings or as directed by the Contracting Officer. Move or relocate the Contractor facilities only when approved by the Government. Provide erosion and sediment controls for onsite borrow and spoil areas to prevent sediment from entering nearby waters. See UFGS 02 61 13 EXCAVATION AND HANDLING OF CONTAMINATED MATERIAL for additional requirements. Control temporary excavation and embankments for plant or work areas to protect adjacent areas.

3.3.5 Environmental Resource Permit

The Contractor shall comply with all Environmental Resource Permit requirements in accordance with FL Admin Code 62-330.

3.4 SURFACE AND GROUNDWATER

3.4.1 Dewatering

Construction operations for dewatering must be constantly controlled to maintain compliance with existing state water quality standards and designated uses of the surface water body. Comply with the State of Florida water quality standards and anti-degradation provisions. Dewatering fluids removed from areas of AFFF contamination shall be treated prior to discharge. Effluent from the treatment system must achieve reduction to less than or equal to the EPA Lifetime Health Advisory and/or applicable state or local promulgated standards. Do not discharge excavation ground water to the sanitary sewer, storm drains, or to surface waters without prior specific authorization in writing from the Installation Environmental Office. Discharge of hazardous substances will not be permitted under any circumstances. Use sediment control BMPs to prevent construction site runoff from directly entering any storm drain or surface waters.

If the construction dewatering is noted or suspected of being contaminated, it may only be released to the storm drain system if the discharge is specifically permitted. Obtain authorization for any contaminated groundwater release in advance from the Installation Environmental Officer and the federal or state authority, as applicable. Discharge of hazardous substances will not be permitted under any circumstances. See UFGS 02 61 13 EXCAVATION AND HANDLING OF CONTAMINATED MATERIAL for additional

requirements.

3.4.2 Waters of the United States

Do not enter, disturb, destroy, or allow discharge of contaminants into waters of the United States.

3.5 PROTECTION OF CULTURAL RESOURCES

3.5.1 Archaeological Resources

If, during excavation or other construction activities, any previously unidentified or unanticipated historical, archaeological, and cultural resources are discovered or found, activities that may damage or alter such resources will be suspended. Resources covered by this paragraph include, but are not limited to: any human skeletal remains or burials; artifacts; shell, midden, bone, charcoal, or other deposits; rock or coral alignments, pavings, wall, or other constructed features; and any indication of agricultural or other human activities. Upon such discovery or find, immediately notify the Contracting Officer so that the appropriate authorities may be notified and a determination made as to their significance and what, if any, special disposition of the finds should be made. Cease all activities that may result in impact to or the destruction of these resources. Secure the area and prevent employees or other persons from trespassing on, removing, or otherwise disturbing such resources. The Government retains ownership and control over archaeological resources.

3.6 AIR RESOURCES

Equipment operation, activities, or processes will be in accordance with 40 CFR 64 and state air emission and performance laws and standards.

3.6.1 Preconstruction Air Permits

Notify the Air Program Manager, through the Contracting Officer, at least 60 days prior to bringing equipment, assembled or unassembled, onto the Installation, so that air permits can be secured. Necessary permitting time must be considered in regard to construction activities. Clean Air Act (CAA) permits must be obtained prior to bringing equipment, assembled or unassembled, onto the Installation.

Confirm that these permits have been obtained.

3.6.2 Oil or Dual-fuel Boilers and Furnaces

Provide product data and details for new, replacement, or relocated fuel fired boilers, heaters, or furnaces to the Installation Environmental Office (Air Program Manager) through the Contracting Officer. Data to be reported include: equipment purpose (water heater, building heat, process), manufacturer, model number, serial number, fuel type (oil type, gas type) size (MMBTU heat input). Provide in accordance with paragraph PRECONSTRUCTION AIR PERMITS.

3.6.3 Burning

Burning is prohibited on the Government premises.

3.6.4 Class I and II ODS Prohibition

Class I and II ODS are Government property and must be returned to the Government for appropriate management. Coordinate with the Installation Environmental Office to determine the appropriate location for turn in of all reclaimed refrigerant.

3.6.5 Accidental Venting of Refrigerant

Accidental venting of a refrigerant is a release and must be reported immediately to the Contracting Officer.

3.6.6 EPA Certification Requirements

Heating and air conditioning technicians must be certified through an EPA-approved program. Maintain copies of certifications at the employees' places of business; technicians must carry certification wallet cards, as provided by environmental law.

3.6.7 Dust Control

Keep dust down at all times, including during nonworking periods. Sprinkle or treat, with dust suppressants, the soil at the site, haul roads, and other areas disturbed by operations. Dry power brooming will not be permitted. Instead, use vacuuming, wet mopping, wet sweeping, or wet power brooming. Air blowing will be permitted only for cleaning nonparticulate debris such as steel reinforcing bars. Only wet cutting will be permitted for cutting concrete blocks, concrete, and bituminous concrete. Do not unnecessarily shake bags of cement, concrete mortar, or plaster. Since these products contain Crystalline Silica, comply with the applicable OSHA standard, 29 CFR 1910.1053 or 29 CFR 1926.1153 for controlling exposure to Crystalline Silica Dust.

3.6.7.1 Particulates

Dust particles, aerosols and gaseous by-products from construction activities, and processing and preparation of materials (such as from asphaltic batch plants) must be controlled at all times, including weekends, holidays, and hours when work is not in progress. Maintain excavations, stockpiles, haul roads, permanent and temporary access roads, plant sites, spoil areas, borrow areas, and other work areas within or outside the project boundaries free from particulates that would exceed 40 CFR 50, state, and local air pollution standards or that would cause a hazard or a nuisance. Sprinkling, chemical treatment of an approved type, baghouse, scrubbers, electrostatic precipitators, or other methods will be permitted to control particulates in the work area. Sprinkling, to be efficient, must be repeated to keep the disturbed area damp. Provide sufficient, competent equipment available to accomplish these tasks. Perform particulate control as the work proceeds and whenever a particulate nuisance or hazard occurs. Comply with state and local visibility regulations.

3.6.7.2 Abrasive Blasting

Blasting operations cannot be performed without prior approval of the Installation Air Program Manager. The use of silica sand is prohibited in sandblasting.

Provide tarpaulin drop cloths and windscreens to enclose abrasive blasting

operations to confine and collect dust, abrasive agent, paint chips, and other debris. Perform work involving removal of hazardous material in accordance with 29 CFR 1910.

3.6.8 Odors

Control odors from construction activities. The odors must be in compliance with state regulations and local ordinances and may not constitute a health hazard.

3.7 WASTE MINIMIZATION

Minimize the use of hazardous materials and the generation of waste. Include procedures for pollution prevention/ hazardous waste minimization in the Hazardous Waste Management Section of the EPP. Obtain a copy of the installation's Pollution Prevention/Hazardous Waste Minimization Plan for reference material when preparing this part of the EPP. If no written plan exists, obtain information by contacting the Contracting Officer. Describe the anticipated types of the hazardous materials to be used in the construction when requesting information.

3.7.1 Salvage, Reuse and Recycle

Identify anticipated materials and waste for salvage, reuse, and recycling in accordance with AFMAN 32-7002, Environmental Compliance and Pollution Prevention and DODI 4715.23, Integrated Recycling and Solid Waste Management. Describe actions to promote material reuse, resale or recycling. All scrap metal should remain property of the U.S. government. Coordination with the 325 CES/CEIE recycling manager is required.

Include the name, physical address, and telephone number of the hauler, if transported by a franchised solid waste hauler. Include the destination and, unless exempted, provide a copy of the state or local permit (cover) or license for recycling.

3.7.2 Nonhazardous Solid Waste Diversion Report

Maintain an inventory of nonhazardous solid waste diversion and disposal of construction and demolition debris. Submit a report to the Contracting Officer on the first working day after each fiscal year quarter, starting the first quarter that nonhazardous solid waste has been generated. Include the following in the report:

Construction and Demolition (C&D) Debris Disposed	cubic yards or tons as appropriate
C&D Debris Recycled	cubic yards or tons as appropriate
C&D Debris Composted	cubic yards or tons as appropriate
Total C&D Debris Generated	cubic yards or tons as appropriate

Construction and Demolition (C&D) Debris Disposed	cubic yards or tons as appropriate
Waste Sent to Waste-To-Energy Incineration Plant (This amount should not be included in the recycled amount)	cubic yards or tons as appropriate

3.8 WASTE MANAGEMENT AND DISPOSAL

3.8.1 Waste Determination Documentation

Complete a Waste Determination form (provided at the pre-construction conference) for Contractor-derived wastes to be generated. All potentially hazardous solid waste streams that are not subject to a specific exclusion or exemption from the hazardous waste regulations (e.g., scrap metal, domestic sewage) or subject to special rules, (lead-acid batteries and precious metals) must be characterized in accordance with the requirements of 40 CFR 261 or corresponding applicable state or local regulations. Base waste determination on user knowledge of the processes and materials used, and analytical data when necessary. Consult with the Installation environmental staff for guidance on specific requirements. Attach support documentation to the Waste Determination form. As a minimum, provide a Waste Determination form for the following waste (this listing is not inclusive): oil- and latex -based painting and caulking products, solvents, adhesives, aerosols, petroleum products, and containers of the original materials.

3.8.1.1 Sampling and Analysis of Waste

3.8.1.1.1 Waste Sampling

Sample waste in accordance with EPA SW-846. Clearly mark each sampled drum or container with the Contractor's identification number, and cross reference to the chemical analysis performed.

3.8.1.1.2 Laboratory Analysis

Follow the analytical procedure and methods in accordance with the 40 CFR 261. Provide analytical results and reports performed to the Contracting Officer.

3.8.1.1.3 Analysis Type

Identify hazardous waste by analyzing for the following characteristics: ignitability, corrosivity, reactivity, or toxicity based on TCLP results.

3.8.2 Solid Waste Management

3.8.2.1 Project Solid Waste Disposal Documentation Report

Provide copies of the waste handling facilities' weight tickets, receipts, bills of sale, and other sales documentation. In lieu of sales documentation, a statement indicating the disposal location for the solid waste that is signed by an employee authorized to legally obligate or bind the firm may be submitted. The Contractor certification must include the receiver's tax identification number and business, EPA or state

registration number, along with the receiver's delivery and business addresses and telephone numbers. For each solid waste retained for the Contractor's own use, submit the information previously described in this paragraph on the solid waste disposal report. Prices paid or received do not have to be reported to the Contracting Officer unless required by other provisions or specifications of this Contract or public law.

3.8.2.2 Control and Management of Solid Wastes

Perform work under this contract consistent with the policies and objectives identified in Tyndall Integrated Solid Waste Management Plan (ISWMP) and in accordance with AFMAN 32-7002, Environmental Compliance and Pollution Prevention. Pick up solid wastes, and place in covered containers that are regularly emptied. Do not prepare or cook food on the project site. Prevent contamination of the site or other areas when handling and disposing of wastes. At project completion, leave the areas clean. Employ segregation measures so that no hazardous or toxic waste will become co-mingled with non-hazardous solid waste. Transport solid waste off Government property and dispose of it in compliance with 40 CFR 260, state, and local requirements for solid waste disposal. A Subtitle D RCRA permitted landfill is the minimum acceptable offsite solid waste disposal option. Verify that the selected transporters and disposal facilities have the necessary permits and licenses to operate. Segregate and separate treated wood components disposed at a lined landfill approved to accept this waste in accordance with local and state regulations. Solid waste disposal offsite must comply with most stringent local, state, and federal requirements, including 40 CFR 241, 40 CFR 243, and 40 CFR 258.

Manage hazardous material used in construction, including but not limited to, aerosol cans, waste paint, cleaning solvents, contaminated brushes, and used rags, in accordance with 49 CFR 173.

3.8.3 Control and Management of Hazardous Waste

Do not dispose of hazardous waste on Government property. Do not discharge any waste to a sanitary sewer, storm drain, or to surface waters or conduct waste treatment or disposal on Government property without written approval of the Contracting Officer.

3.8.3.1 Hazardous Waste/Debris Management

Identify construction activities that will generate hazardous waste or debris. Provide a documented waste determination for resultant waste streams. Identify, label, handle, store, and dispose of hazardous waste or debris in accordance with federal, state, and local regulations, including 40 CFR 261, 40 CFR 262, 40 CFR 263, 40 CFR 264, 40 CFR 265, 40 CFR 266, and 40 CFR 268.

Manage hazardous waste in accordance with the approved Hazardous Waste Management Section of the EPP. Store hazardous wastes in approved containers in accordance with 49 CFR 173 and 49 CFR 178. Hazardous waste generated within the confines of Government facilities is identified as being generated by the Government. Prior to removal of any hazardous waste from Government property, hazardous waste manifests must be signed by personnel from the Installation Environmental Office. Do not bring hazardous waste onto Government property. Provide the Contracting Officer with a copy of waste determination documentation for any solid waste streams that have any potential to be hazardous waste or contain any chemical constituents listed in 40 CFR 372-SUBPART D.

3.8.3.2 Waste Storage/Satellite Accumulation/90 Day Storage Areas

Accumulate hazardous waste at satellite accumulation points and in compliance with 40 CFR 262.15 and applicable state or local regulations. Individual waste streams will be limited to 55 gallons of accumulation (or 1 quart for acutely hazardous wastes). If the Contractor expects to generate hazardous waste at a rate and quantity that makes satellite accumulation impractical, the Contractor may request a temporary 90 day accumulation point be established. Submit a request in writing to the Contracting Officer and provide the following information (Attach Site Plan to the Request):

Contract Number	
Contractor	
Haz/Waste or Regulated Waste POC	
Phone Number	
Type of Waste	
Source of Waste	
Emergency POC	
Phone Number	
Location of the Site	

Attach a Waste Determination form for the expected waste streams. Allow 10 working days for processing this request. Additional compliance requirements (e.g., training and contingency planning) that may be required are the responsibility of the Contractor. Barricade the designated area where waste is being stored and post a sign identifying as follows:

"DANGER - UNAUTHORIZED PERSONNEL KEEP OUT"

3.8.3.3 Hazardous Waste Disposal

3.8.3.3.1 Responsibilities for Contractor's Disposal

Provide hazardous waste manifest to the Installations Environmental Office for review, approval, and signature prior to shipping waste off Government property.

3.8.3.3.1.1 Services

Provide service necessary for the final treatment or disposal of the hazardous material or waste in accordance with 40 CFR 260, local, and state, laws and regulations, and the terms and conditions of the Contract within 60 days after the materials have been generated. These services include necessary personnel, labor, transportation, packaging, detailed analysis (if required for disposal or transportation, include manifesting or complete waste profile sheets, equipment, and compile documentation).

3.8.3.3.1.2 Samples

Obtain a representative sample of the material generated for each job done to provide waste stream determination.

3.8.3.3.1.3 Analysis

Analyze each sample taken and provide analytical results to the Contracting Officer. See paragraph WASTE DETERMINATION DOCUMENTATION.

3.8.3.3.1.4 Labeling

Determine the Department of Transportation's (DOT's) proper shipping names for waste (each container requiring disposal) and demonstrate to the Contracting Officer how this determination is developed and supported by the sampling and analysis requirements contained herein. Label all containers of hazardous waste with the words "Hazardous Waste" or other words to describe the contents of the container in accordance with 40 CFR 262.31 and applicable state or local regulations.

3.8.3.3.2 Contractor Disposal Turn-In Requirements

Hazardous waste generated must be disposed of in accordance with the following conditions to meet installation requirements:

- a. Drums must be compatible with waste contents and drums must meet DOT requirements for 49 CFR 173 for transportation of materials.
- b. Band drums to wooden pallets.
- c. No more than three 55 gallon drums or two 85 gallon over packs are to be banded to a pallet.
- d. Band using 1-1/4 inch minimum band on upper third of drum.
- e. Provide label in accordance with 49 CFR 172.101.
- f. Leave 3 to 5 inches of empty space above volume of material.

3.8.3.4 Universal Waste Management

Manage the following categories of universal waste in accordance with federal, state, and local requirements and installation instructions:

- a. Batteries as described in 40 CFR 273.2.
- b. Lamps as described in 40 CFR 273.5.
- c. Mercury-containing equipment as described in 40 CFR 273.4.
- d. Pesticides as described in 40 CFR 273.3 and Armed Forces Management Board (AFPMD) standard pesticides list.
- e. Aerosol Cans.

Mercury is prohibited in the construction of this facility, unless specified otherwise, and with the exception of mercury vapor lamps and fluorescent lamps. Dumping of mercury-containing materials and devices

such as mercury vapor lamps, fluorescent lamps, and mercury switches, in rubbish containers is prohibited. Remove without breaking, pack to prevent breakage, and transport out of the activity in an unbroken condition for disposal as directed.

3.8.3.5 Electronics End-of-Life Management

Recycle or dispose of electronics waste, including, but not limited to, used electronic devices such computers, monitors, hard-copy devices, televisions, mobile devices, in accordance with 40 CFR 260-262, state, and local requirements, and installation instructions.

3.8.3.6 Disposal Documentation for Hazardous and Regulated Waste

Contact the Contracting Officer for the facility RCRA identification number that is to be used on each manifest.

3.8.4 Releases/Spills of Oil and Hazardous Substances

3.8.4.1 Response and Notifications

Exercise due diligence to prevent, contain, and respond to spills of hazardous material, hazardous substances, hazardous waste, sewage, regulated gas, petroleum, lubrication oil, and other substances regulated in accordance with 40 CFR 300. Maintain spill cleanup equipment and materials at the work site. In the event of a spill, take prompt, effective action to stop, contain, curtail, or otherwise limit the amount, duration, and severity of the spill/release. In the event of any releases of oil and hazardous substances, chemicals, or gases; immediately (within 15 minutes) notify the Installation Fire Department, the Installation Command Duty Officer, the Installation Environmental Office, the Contracting Officer and the state or local authority.

Submit verbal and written notifications as required by the federal (40 CFR 300.125 and 40 CFR 355), state, local regulations and instructions. Provide copies of the written notification and documentation that a verbal notification was made within 20 days. Spill response must be in accordance with 40 CFR 300 and applicable state and local regulations. Contain and clean up these spills without cost to the Government.

3.8.4.2 Clean Up

Clean up hazardous and non-hazardous waste spills. Reimburse the Government for costs incurred including sample analysis materials, clothing, equipment, and labor if the Government will initiate its own spill cleanup procedures, for Contractor- responsible spills, when: Spill cleanup procedures have not begun within one hour of spill discovery/occurrence; or, in the Government's judgment, spill cleanup is inadequate and the spill remains a threat to human health or the environment.

3.8.5 Mercury Materials

Immediately report to the Environmental Office and the Contracting Officer instances of breakage or mercury spillage. Clean mercury spill area to the satisfaction of the Contracting Officer.

Do not recycle a mercury spill cleanup; manage it as a hazardous waste for

disposal.

3.8.6 Wastewater

3.8.6.1 Disposal of wastewater must be as specified below.

3.8.6.1.1 Treatment

Do not allow wastewater from construction activities, such as onsite material processing, concrete curing, foundation and concrete clean-up, water used in concrete trucks, and forms to enter water ways or to be discharged prior to being treated to remove pollutants. Dispose of the construction-related waste water off-Government property in accordance with 40 CFR 403, state, regional, and local laws and regulations.

3.8.6.1.2 Surface Discharge

For discharge of ground water, obtain a state or federal permit specific for pumping and discharging ground water prior to surface discharging. Surface discharge in accordance with the requirements of the NPDES or state STORMWATER DISCHARGES FROM CONSTRUCTION SITES permit.

3.8.6.1.3 Land Application

Water generated from the flushing of lines after disinfection or disinfection in conjunction with hydrostatic testing must be discharged into the sanitary sewer with prior approval and notification to the Wastewater Treatment Plant's Operator.

3.9 HAZARDOUS MATERIAL MANAGEMENT

Address procedures and proper handling of hazardous materials, including the appropriate transportation requirements. Do not bring hazardous material onto Government property that does not directly relate to requirements for the performance of this contract. Submit an SDS and estimated quantities to be used for each hazardous material to the Contracting Officer and the 325 CES/CEIEC Hazardous Materials Management Office for approval prior to bringing the material on the installation. Typical materials requiring SDS and quantity reporting include, but are not limited to, oil and latex based painting and caulking products, solvents, adhesives, aerosol, and petroleum products. Use hazardous materials in a manner that minimizes the amount of hazardous waste generated. Containers of hazardous materials must have National Fire Protection Association labels or their equivalent. Certify that hazardous materials removed from the site are hazardous materials and do not meet the definition of hazardous waste, in accordance with 40 CFR 261.

3.9.1 Hazardous Material (HM)

For the purposes of the document, Hazardous Materials (HM) are defined as any product, material, chemical or substance listed in 49 CFR 172.101 (revised) and 40 CFR 302-304 (revised). Specifically, a HM is any substance or material, in any quantity or form that has the potential to harm human health or the environment or displays specific characteristics (reactive, corrosive, ignitable, and toxic).

Perform work under this contract consistent with the policies and objectives identified in AFMAN 32-7002, Environmental Compliance and Pollution Prevention. A letter of review from 325 CES/CEIE Must be

accomplished prior to commencement of work on each task order. The Contractor shall submit TAFB Form 81 (Contractor Questionnaire) and TAFB Form 82 (Chemical Inventory) if applicable (within 10 duty days after the Notice to Proceed is issued), for review. The Contractor should note that Tyndall AFB is required to report chemicals used such as (but not limited to) compressed gases, adhesives, aerosol cans, sealants, paints, lubricants, oils, cleaners, degreasers, pesticides, Fuels. Copies of manufacturer-specific Safety Data Sheets (SDS) must be attached to TAFB Form 82. These SDSs shall also be readily accessible at the location of each hazardous material. After submission, 325 CES/CEIE will notify the Project Manager and/or CONS of the reportable chemicals and of any special instructions. As directed by the CO, the Contractor is required to submit TAFB Form 83 (Reporting Entry Form) showing material usage monthly until completion of the task order. A letter from CEIE will be accomplished with each submittal monthly and/or completion. The CO must be notified of any changes from the original submittal (i.e., new chemical is added, size of container or unit of issue changes or if the manufacturer changes), changes must be submitted using TAFB form 82. An up-dated letter of review indicating changes will be sent from CEIE to the Contracting Office before the material can be brought onto the installation.

3.9.2 Hazardous Waste (Includes Special and Universal Waste)

The Contractor shall be considered the primary co-generator for all hazardous wastes generated throughout the duration of the contract. However, all hazardous waste management activities shall be coordinated and approved by the Contracting Officer and Tyndall AFB. The Contractor shall identify what wastes are hazardous using specific and technical knowledge and/or sampling and analysis. This responsibility also includes preparation of waste profile sheets, packaging, marking and labeling of wastes in accordance with 49 CFR Subchapter C.

Hazardous and special waste include, but are not limited to:

1. Fuels and oils of all types
2. Used tires
3. Computer monitors
4. Lighting ballast
5. Exit signs and lighting (batteries)
6. Asbestos (survey required)
7. Lead roof vent flashing
8. All electronic devices
9. Aerosol spray cans (including empties)
10. Paints
11. Adhesives
12. Corrosives
13. Non-flammable and non-corrosive cleaners
14. Fertilizer
15. Hydraulic fluid
16. Antifreeze

Universal waste include, but are not limited to:

1. Spent fluorescent lamps
2. High Intensity Discharge (HID) lamps
3. Batteries (except alkaline)
4. Mercury thermostats
5. Silent switches
6. Mechanical switches

7. Relays and contacts
8. Aerosol spray cans (including empties)

All hazardous, special, and universal waste items mentioned-above shall be managed IAW local, state, federal, and Tyndall AFB Hazardous Waste Management Plan. Under no circumstances shall hazardous, special, or universal waste be disposed of in the dumpster. In addition, the Contractor shall ensure that all employees, including their subs, comply with the rules and procedures outlined in this specification and the Tyndall AFB Hazardous Waste Management Plan.

The Contractor shall be familiar with and have immediate access to the following publications and regulations:

- a. Environmental Protection Agency (EPA): Title 40 Code of Federal Regulations, Parts 260-279
- b. Occupational Safety and Health Administration (OSHA): 29 Code of Federal Regulations Parts 1910 and 1926
- c. Department of Transportation (DOT): Title 49 Code of Federal Regulations, Parts 171-177
- d. Tyndall AFB Hazardous Waste Management Plan

The Contractor shall manage all hazardous waste, special waste, and universal waste IAW the Tyndall Hazardous Waste Management Plan. In addition, the Contractor shall ensure that all employees, including their subs, comply with the rules and procedures outlined in the Tyndall AFB Hazardous Waste Management Plan.

If transportation of Hazardous Wastes is required, the Contractor shall possess or ensure the transportation of hazardous waste has a valid state and federal identification number and provide such identification to the Contracting Officer and Tyndall AFB environmental office prior to any waste movement. The Contractor shall ensure a designated representative from 325 CES/CEIE signs the hazardous waste/non-hazardous waste manifests and profiles.

3.9.3 Toxic Waste

- a. Asbestos: All asbestos work must be accomplished in accordance with federal, state, and local laws and the Tyndall AFB Asbestos Management Plan.
 - (1) Notice of Asbestos Renovation or Demolition, DEP Form 62-257.900(1) must be submitted to Florida Department of Environmental Protection at least 10 working days prior to any demolition and/or renovation regardless of whether asbestos is present or not. A copy of this notification must be provided to the Contracting Officer and 325 CES/CEIE prior to performing any work.
 - (2) A copy of all submittals must be provided to the Contracting Officer and 325 CES/CEIE with adequate time built in for review.
 - (3) The use of materials, products or equipment containing asbestos is not allowed. See sample list below.

(4) Prior to the commencement of construction, the prime Contractor, each subcontractor and material/equipment supplier shall provide the Contracting Officer and 325 CES/CEIE with a Notarized statement that to the best of their knowledge, no asbestos will be used in the construction of this project. Additionally, the Contractor must have available the most current Safety Data Sheet proving the materials contain no asbestos.

(5) Sample list of Asbestos Containing Materials (ACM):

Note: The following list does not include every product/material that may contain asbestos. It is intended as a general guide to show which types of materials may contain asbestos:

- | | |
|---------------------------------|---------------------------------------|
| (1) Cement Pipes | (2) Cement Wallboard |
| (3) Cement Siding | (4) Asphalt Floor Tile |
| (5) Vinyl Floor Tile | (6) Vinyl Sheet Flooring |
| (7) Flooring Backing | (8) Construction Mastics |
| (9) Acoustical Plaster | (10) Decorative Plaster |
| (11) Textured Paints/Coatings | (12) Ceiling Tiles
& Lay-in-Panels |
| (13) Spray-Applied Insulation | (14) Blown-in
Insulation |
| (15) Fireproofing Materials | (16) Taping Compounds |
| (17) Packing Materials | (18) High Temperature Gaskets |
| (19) Laboratory Hoods | (20) Laboratory Gloves |
| (21) Fire Blankets & Table Tops | (22) Fire Curtains |
| (23) Elevator Equipment Panels | (24) Elevator Brake Shoes |
| (25) HVAC Duct Insulation | (26) Boiler Insulation |
| (27) Breeching Insulation | (28) Ductwork Flexible Fabric |
| (29) Cooling Towers | (30) Pipe Insulation |
| (31) Heating and Electrical | (32) Electrical Panel Partitions |
| (33) Electrical Cloth ducts | (34) Spackling compounds |
| (35) Chalkboards | (36) Roofing Shingles |
| (37) Roofing Felt | (38) Base Flashing |
| (39) Thermal Paper Products | (40) Fire doors |
| (41) Caulking/putties | (42) Adhesives |
| (43) Wallboard | (44) Joint Compounds |
| (45) Vinyl Wall Coverings | (46) Electrical Wiring
Insulation |

Caution needs to be taken to ensure materials purchased do not contain one or more % asbestos by volume.

- b. Lighting Ballast: When fluorescent and mercury vapor fixtures are removed, the ballast shall be examined for PCB labeling. Ballast is presumed to contain PCBs unless they are clearly labeled "NO PCBs". Suspected ballasts shall be removed and disposed of IAW Tyndall AFB Hazardous Waste Management Plan.
- c. Lead Based Paint: No paint containing lead shall be used during the course of this contract. The Occupational Health and Safety Act (OSHA) Lead Construction Standard, 29 CFR 1926.62 is in effect whenever materials are disturbed that contain any amount of lead. This will require contractors disturbing lead-based paint to institute medical surveillance, training, engineering controls, worker protection measures and employee monitoring until monitoring results per the lead paint standard demonstrate that employee exposure is below the action level and permissible exposure limit. The Contractor

on site must maintain all documentation regarding lead exposure by either historical data or project data. This data shall also be made available to the Contracting Officer and 325 CES/CEIE.

- (1) Prior to the commencement of construction, the prime Contractor, each subcontractor and material/equipment supplier shall provide to the Contracting Officer and 325 CES/CEIE with a Notarized statement that to the best of their knowledge, no lead based paint will be used in the construction of this project. Additionally, the Contractor must have available the most current Safety Data Sheet proving that the paint does not have any lead content.
- (2) The Contractor shall be responsible for collection and disposal of all lead paint chips and lead paint-contaminated materials, and for accumulation of these chips/materials on site. The Contractor shall test the paint materials, provide containers for proper disposal, and transport any resulting hazardous waste to an appropriate hazardous waste accumulation area should it test positive as hazardous waste. All necessary accumulation, disposal activities and documentation shall be coordinated with the Contracting Officer and 325 CES/CEIE.
- (3) A copy of Contractor's exposure assessment data shall be provided to the Contracting Officer and 325 CES/CEIE.
- (4) Copies of all lead paint-related documentation generated from this project, including lead testing, air monitoring and hazardous waste manifests, shall be provided by the the Contractor to the Contracting Officer. A copy shall be forwarded to 325 CES/CEIE within 10 working days of test completion.

3.10 PREVIOUSLY USED EQUIPMENT

Clean previously used construction equipment prior to bringing it onto the project site. Equipment must be free from soil residuals, egg deposits from plant pests, noxious weeds, and plant seeds. Consult with the U.S. Department of Agriculture jurisdictional office for additional cleaning requirements.

3.11 CONTROL AND MANAGEMENT OF ASBESTOS-CONTAINING MATERIAL (ACM)

Manage and dispose of asbestos- containing waste in accordance with 40 CFR 61. Manifest asbestos-containing waste and provide the manifest to the Contracting Officer. Notifications to the state and Installation Air Program Manager are required before starting any asbestos work.

3.12 CONTROL AND MANAGEMENT OF LEAD-BASED PAINT (LBP)

Manage and dispose of lead-contaminated waste in accordance with 40 CFR 745. Manifest any lead-contaminated waste and provide the manifest to the Contracting Officer.

3.13 CONTROL AND MANAGEMENT OF LIGHTING BALLAST AND LAMPS CONTAINING PCBS

Manage and dispose of contaminated waste in accordance with 40 CFR 761.

3.14 PETROLEUM, OIL, LUBRICANT (POL) STORAGE AND FUELING

POL products include flammable or combustible liquids, such as gasoline,

diesel, lubricating oil, used engine oil, hydraulic oil, mineral oil, and cooking oil. Store POL products and fuel equipment and motor vehicles in a manner that affords the maximum protection against spills into the environment. Manage and store POL products in accordance with EPA 40 CFR 112, and other federal, state, regional, and local laws and regulations. Use secondary containments, dikes, curbs, and other barriers, to prevent POL products from spilling and entering the ground, storm or sewer drains, stormwater ditches or canals, or navigable waters of the United States. Describe in the EPP (see paragraph ENVIRONMENTAL PROTECTION PLAN) how POL tanks and containers must be stored, managed, and inspected and what protections must be provided. Storage of fuel on the project site must be in accordance with EPA, state, and local laws and regulations and paragraph OIL STORAGE INCLUDING FUEL TANKS. The COR and Tyndall AFB Environmental Office must approve the use of fuel storage tanks on base, and the contractor must ensure adequate spill containment (spill kits) for any tanks approved for use on Tyndall AFB. The contractor must have written spill procedures for tanks and heavy equipment that they use on base.

POL/Storage Tanks: Storage tanks and POL can be a source of contamination if not managed appropriately. Contractor personnel obtaining fuels from Storage Tanks agrees to follow all 62-761 FAC and the following list of Air Force Technical Order's to ensure compliance: 37-1-1, 37A-1-101, 42B-1-1, 42B-1-1S-2, 42B-1-16, 42B-1-22, 42B-1-23, and 42C-1-12.

All fuel, oil, and chemical spills that occur on Tyndall AFB (regardless of amount) must be immediately reported to the base Fire and Emergency Services (911).

3.14.1 Used Oil Management

Manage used oil generated on site in accordance with 40 CFR 279. Determine if any used oil generated while onsite exhibits a characteristic of hazardous waste. Used oil containing 1,000 parts per million of solvents is considered a hazardous waste and disposed of at the Contractor's expense. Used oil mixed with a hazardous waste is also considered a hazardous waste. Dispose in accordance with paragraph HAZARDOUS WASTE DISPOSAL.

3.14.2 Oil Storage Including Fuel Tanks

Provide secondary containment and overflow protection for oil storage tanks. A berm used to provide secondary containment must be of sufficient size and strength to contain the contents of the tanks plus 5 inches freeboard for precipitation. Construct the berm to be impervious to oil for 72 hours that no discharge will permeate, drain, infiltrate, or otherwise escape before cleanup occurs. Use drip pans during oil transfer operations; adequate absorbent material must be onsite to clean up any spills and prevent releases to the environment. Cover tanks and drip pans during inclement weather. Provide procedures and equipment to prevent overflowing of tanks. If tanks and containers with an aggregate aboveground capacity greater than 1320 gallons will be used onsite (only containers with a capacity of 55 gallons or greater are counted), provide and implement a SPCC plan meeting the requirements of 40 CFR 112. Do not bring underground storage tanks to the installation for Contractor use during a project. Submit the SPCC plan to the Contracting Officer for approval.

Monitor and remove any rainwater that accumulates in open containment

dikes or berms. Inspect the accumulated rainwater prior to draining from a containment dike to the environment, to determine there is no oil sheen present.

3.15 INADVERTENT DISCOVERY OF PETROLEUM-CONTAMINATED SOIL OR HAZARDOUS WASTES

If petroleum-contaminated soil, or suspected hazardous waste is found during construction that was not identified in the Contract documents, immediately notify the Contracting Officer. Do not disturb this material until authorized by the Contracting Officer.

3.16 CHLORDANE

Evaluate excess soils and concrete foundation debris generated during the demolition of housing units or other wooden structures for the presence of chlordane or other pesticides prior to reuse or final disposal.

3.17 SOUND INTRUSION

Make the maximum use of low-noise emission products, as certified by the EPA. Blasting or use of explosives are not permitted without written permission from the Contracting Officer, and then only during the designated times. Confine pile-driving operations to the period between 8 a.m. and 4 p.m., Monday through Friday, exclusive of holidays, unless otherwise specified.

Keep construction activities under surveillance and control to minimize environment damage by noise. Comply with the provisions of the State of Florida rules.

3.18 POST CONSTRUCTION CLEANUP

Clean up areas used for construction in accordance with Contract Clause: "Cleaning Up". Unless otherwise instructed in writing by the Contracting Officer, remove traces of temporary construction facilities such as haul roads, work area, structures, foundations of temporary structures, stockpiles of excess or waste materials, and other vestiges of construction prior to final acceptance of the work. Grade parking area and similar temporarily used areas to conform with surrounding contours.

3.19 INSTALLATION RESTORATION PROGRAM (IRP)

Contractor must follow these guidances:

- a. Installation Restoration Program and Aqueous Film Forming Foam Guidelines for Tyndall MILCON Rebuild (dated 25 April 2021, Attached);
- b. Environmental Supplemental Guidance (Version 8, Attached);
- c. General Environmental Requirements For Contracts (Version 2, Attached);
- d. Tyndall AFB Guidelines for Non-ERP Soil Management USACE MILCON Buildout (Attached);
- e. Tyndall AFB Hazardous Waste Management Plan (Attached);
- f. Tyndall Soils Decision Matrix (Attached)

- g. Location Map for designated Soil Borrow Storage Area (Attached)
- h. Tyndall AFB Asbestos Management Plan;
- i. 40 CFR 262.11
- j. 40 CFR 273.6

-- End of Section --

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**Installation Restoration Program and Aqueous Film Forming Foam Guidelines
for Tyndall MILCON-Rebuild
25 August 2021**

Overview: The contractor shall be responsible for performing characterization work, as required, and be responsible for the final disposition of soils and groundwater from construction projects at Tyndall Air Force Base. Characterization efforts shall include a combination of generator knowledge and analytical testing. Soil and groundwater within Installation Restoration Program (IRP) site boundaries and/or Aqueous Film Forming Foam (AFFF) site boundaries and any soil outside of IRP and AFFF site boundaries that shows evidence of contamination shall be managed in accordance with applicable RCRA and CERCLA requirements and with applicable guidelines herein. For groundwater, the guidelines also apply to dewatering effluent within 500 feet of an IRP/AFFF site boundary and known perfluorooctane Sulfonate (PFOS) and/or perfluorooctanoic Acid (PFOA) contamination.

All excavated soil within the MILCON Rebuild program shall be managed in accordance with these requirements. The Contractor shall not dispose of characterized soils off-base that screen within Air Force (AF) and regulatory levels required herein, but shall move excess soil to designated on base soils borrow storage area for final disposition. Contractor shall dispose of soil with contaminant levels that exceed Air Force (AF) and regulatory screening levels at an authorized off-base disposal facility. Soil outside of IRP and AFFF site boundaries are considered clean/non-contaminated (unless soil shows evidence of contamination), does not require characterization, and shall be moved to designated soils borrow storage area for final disposition. All designated soils borrow storage areas are anticipated to be within 15 miles of the project site. Soil management outside of these areas and soils brought on-site from off-base for backfill shall follow “Tyndall AFB Guidelines for Non-ERP Soil Management”, except as noted here.

Where PFOA/PFOS is the sole “chemical of concern” when assessing soil/water media, the contractor is instructed to follow Air Force guidance. This guidance requires removal and/or treatment of any soil/water media that tests above the EPA lifetime health advisory (LHA)/Air Force approved reference dose (RfD) standard of 2E-05 milligrams per kilograms-day (e.g., 70 ppt water or 1.30 mg/kg soil). Soil should be sampled and tested for PFOA/PFOS in areas of known AFFF releases; soil need not be tested for PFOA/PFOS in other areas unless the soil will be moved outside the boundaries of Tyndall AFB. Untested soil and soil/water media that tests below the Air Force approved reference dose shall be available for unrestricted use/reuse within the boundaries of Tyndall AFB. If the Contracting Officer deems necessary for either previously untested soil or soil below the Air Force approved reference dose to leave the boundaries of Tyndall AFB, the contractor shall first sample and test the soil following testing guidance herein, and then follow applicable state and local requirements for soil disposition. Payment for Contracting Officer required additional soil testing and off-base disposal will be handled under the changes clause of this contract. In no instance should the contractor dispose of this type of soil in a Subpart C Landfill without first coordinating plans through USACE C.O.R. Further,

consistent with Air Force policy, PFOA/PFOS is not a contaminant with a defined maximum contaminate level. Therefore any liquid concentration of PFOA/PFOS below the EPA lifetime health advisory concentration may be reinserted into the ground within the boundaries of Tyndall AFB.

1. OSHA Compliance: The contractor has the responsibility to fulfill its obligation under 29 CFR 1910.120, Occupational Safety and Health Administration Standards (OSHA), Hazardous Waste Operations and Emergency Response (HAZWOPER), and address the health and safety of its employees associated with construction activities relative to this project.

2. Analytical testing shall be conducted at a Department of Defense Environmental Laboratory Accreditation Program (DoD ELAP)-certified laboratory. The contractor is required to utilize the services of a qualified environmental professional for sampling and a DoD ELAP-certified laboratory for testing. The Contractor may establish an on-site laboratory at the project site if determined necessary by the Contractor. However, on-site test laboratories shall also be accredited under the DoD ELAP and meet all state and federal requirements, including state certification, where appropriate.

3. The Contractor shall comply with applicable federal, state, and local requirements for any task involving the transportation and disposal of solid or hazardous wastes in a manner compliant with 40 Code of Federal Regulations (CFR) 260-265 and 268, and 49 CFR 171, 172, 173, 178, 179, and other applicable regulations.

4. The Contractor shall obtain and comply with all FDEP approved/issued wastewater permits which generally contain requirements for, depending on the type of facility and disposal means, the treatment of the wastewater, disposal to surface water (NPDES), discharge to ground water, and land-application of reclaimed water.

5. The Contractor is responsible for developing and obtaining AF approval of soil and groundwater management work plans through USACE C.O.R. Work plans shall detail means and methods to ensure proper management of waste soil and water, ensuring contamination is not spread during construction, dewatering, and containerizing activities. Work plans shall be submitted a minimum of 30 days prior to start of work at the site.

6. If any contamination is encountered or suspected (e.g., suspicious odors, fuel smells, soil staining, odd soil colors, unfamiliar liquids, buried materials, etc.) at the site, contact USACE and 325 CES HWPM. These soils are to be separated, stockpiled on-site and covered with polyethylene plastic sheeting at least 10 mil thick until properly tested and disposed.

7. Documentation of any sampling and testing results, and reuse or disposal actions shall be provided in a summary report prepared by the contractor in accordance with UFGS section 01 57 19 TEMPORARY ENVIRONMENTAL CONTROLS, section 02 61 13, EXCAVATION AND

HANDLING OF CONTAMINATED MATERIAL and section 02 81 00 TRANSPORTATION AND DISPOSAL OF HAZARDOUS MATERIALS.

8. Construction activities shall avoid damaging or disturbing any monitoring wells and shall protect wells from the introduction of contaminants (mud/dirt or PVC glue introduced/caps or plugs removed/risers compromised) that may be located in the construction area. Cost to sample, repair, and/or replace damaged wells, as a result of construction, shall be incurred by the contractor. No wells may be abandoned without prior approval of the USACE C.O.R who will coordinate this action with the Tyndall RPM. If wells must be abandoned, repaired, or replaced, the action shall be in accordance with FDEP regulations, and the well shall be surveyed by a Florida licensed water well driller. Monitoring well abandonment, repair, or installation documentation and applicable GIS files shall be provided to the Tyndall RPM through the USACE C.O.R. Placement of replacement wells will require coordination with Environmental Protection Agency (EPA), FDEP, and the Tyndall RPM.

9. Proper decontamination is required for any equipment which contacts contaminated soils or groundwater prior to mobilization outside IRP/construction site boundaries. Decontamination fluids are to be collected and stored in 55-gallon drums, properly labeled and stored on pallets in an on-base waste accumulation area in a manner not to exceed the time requirements of a RCRA Central Accumulation Point (usually 90 days for a LQG) and applicable laws until sampled, characterized, and disposed of at a proper disposal facility.

10. Baseline sampling at all temporary on-base waste accumulation and/or treatment areas shall be completed prior to storage of soil piles. Soil piles must be constructed to prevent effluent from migrating to clean areas by using bottom and top polyethylene plastic liners, and stockpile covers shall be appropriately secured and weighed down. When PFOA/PFOS are the sole chemicals of concern, ground barrier cover need not be employed. Soil piles must be regularly inspected and maintained to ensure the cover remains intact, excessive water does not accumulate, wattles remain in place, signs are legible and in place, and safety warning devices are present and upright. The contractor shall complete final cleanup in locations used for treatment and/or stockpiling waste materials and collect and analyze confirmation samples to verify cleanup success.

11. The Government will prepare soil borrow storage areas for final disposition and will direct and oversee all contractor disposal activities, unless contract requirements note otherwise. Contractor shall provide all testing and reporting documentation to C.O.R. for waste management following completion of all disposal activities. For contractor prepared and managed soil borrow storage areas, the following applies. Requirements from #10. above shall apply for soil borrow storage area(s), except where noted that stockpile bottom liners are not required. All aspects of grading, site and stockpile preparation, site fencing, handling, placement, and maintenance, including stockpile cover materials and liner materials and all other items incidental to construction of stockpiles. Soil shall be managed in accordance with "Stockpile Erosion Protection" section of the Florida Storm water erosion and Sedimentation Control

Inspectors Manual. Contractor shall obtain a Construction General Permit and prepare a Storm water Pollution Prevention Plan (SWPPP) to address any runoff from the soil stockpile, but must be submitted to Tyndall AFB Environmental Office through C.O.R. for review and approval. Per the SWPPP, additional soil storage site maintenance shall include weekly stockpile and SWPPP inspections and reporting; performing periodic and emergency maintenance as required; and preparing a draft and final stockpile Inspection & Maintenance and SWPPP inspection report. The report shall include all inspection records and shall note the repairs performed during the year. The Contractor will maintain these long-term stockpiles until the project's Beneficial Occupancy Date (BOD), unless earlier BOD for soils management is approved by Contracting Officer. See contract plans and specifications for additional requirements.

12. Soil management - within IRP site boundaries:

a. Soil inside IRP site boundaries is believed to be contaminated but has not historically been shown to be hazardous. See AF provided Remedial Investigation (RI) reports for constituents of concern (COCs) within project limits for use in characterization efforts.

b. Excavated soil within these areas that is suitable for reuse as defined by geotechnical requirements shall be redeposited back within the point of excavation. Soil may be temporarily moved within the IRP study area as long as it is subsequently redeposited in the same excavated area. Soils should be staged on polyethylene plastic liner, properly covered and labeled, and shall not leave that IRP site boundary until redeposited or tested as described below. Best management practices shall be utilized to prevent spreading contamination into previously uncontaminated or less contaminated areas within the IRP site boundary.

c. If soils are to be removed for disposal from the site, they shall be tested prior to disposal or reuse. Soils shall be properly characterized and classified as either hazardous or non-hazardous wastes in accordance with the U.S. Air Force Hazardous Waste Management Plan 325th Fighter Wing Tyndall AFB (specifically Appendix A Waste Analysis Plan) dated 10/23/2020; tested utilizing the Toxic Characteristic Leaching Procedure (TCLP), analyzed for characteristic hazardous chemicals (40 CFR 261, Subpart C) and/or as required by the authorized disposal facility. Results are to be provided to the United States Army Corps Engineers (USACE) and the 325 Civil Engineer Squadron (CES) Hazardous Waste Program Manager (HWPM) prior to any transportation for proper disposal at an authorized disposal facility. Additionally, soils that exhibit a hazardous waste characteristic are to be further sampled, consistent with Paragraph 12.d. to determine applicability of Land Disposal Restrictions (LDR) and any Underlying Hazardous Constituents (40 CFR 268). Copies of transportation and disposal documents (profiles, manifests, bills of lading) are to be provided to USACE and the 325 CES HWPM. An AF representative will sign all profiles and hazardous waste manifests. The government anticipates that soil will not be classified as hazardous waste; if the soil is classified as hazardous waste, payment for disposal will be handled under the changes clause of this contract.

d. Soil from excavation or construction activities that is contaminated with a Resource Conservation Recovery Act (RCRA) characteristic or listed waste or contains a waste for which a LDR exists must be assessed to determine if it requires transport and final disposition off-base. Such waste may be moved to an appropriate staging area within the IRP/construction site pending results before determining final disposition so long as it is properly covered and labeled. Once characterized, it can be subsequently redeposited at the point of generation upon meeting the requirements below. If the soil is determined to have listed waste contained within the testing sample, absent exemption or exclusion (e.g., application of the RCRA ICR rule) such media must remain within the IRP/construction site boundary until final disposition. Listed waste shall not be redeposited at the point of generation –absent ability to apply a RCRA exclusion or exemption. If the soil is not hazardous, it may be moved outside the IRP/construction site boundary to an approved on-base waste accumulation area (if designated available) for storage until final disposition or to soils borrow storage area for final disposition. All excess non-hazardous IRP soil shall be stockpiled in a dedicated IRP stockpile at designed soils borrow storage area.

e. For reuse at a location other than the point of generation shall be tested for COCs per following methods. Soils are to be staged in soil piles of 400 CY within the IRP/construction site or approved on-base waste accumulation area (if designated available), sampled, and analyzed in accordance with the parameters identified below. One composite sample of eight aliquots is to be collected from each 400 CY stockpile. The 400-CY soil stockpile shall be divided into eight equal sections of 50 CY each (e.g., spokes dividing a wagon wheel). The “A” sample is to be always collected on the north side of the stockpile, and the subsequent samples are to be collected in a clockwise manner. In lieu of site defined COCs, contractor shall test for following constituents:

- Volatile Organic Compounds (VOCs) per Method 8260
- Semi-volatile Organic Compounds (SVOCs) [Base/Neutrals (e.g., PAHs, Pesticides, PCBs) and Acid Extractables (e.g., Phenols)] per Methods 8270/8081/8082
- RCRA metals by Method 6020
- Petroleum Residual Organics (by FL-PRO)

Analytical results will be compared to the FDEP industrial/commercial and residential Soil Cleanup Target Levels (SCTLs) to determine acceptability of the proposed material as clean fill. Results of every analyte must be below the FDEP appropriate Soil Cleanup Target Levels in order to be used as backfill on TAFB.

13. Soil management – generally

a. Soil in areas of known AFFF-releases should be tested for PFOA/PFOS levels pursuant to AF policy. Soil outside of known AFFF-releases need not be tested for PFOA/PFOS levels unless directed by the Contracting Officer as noted above. Soil containing PFOA and/or PFOS may be tested on-site, next to the point of generation, within the MILCON-rebuild Zone, and/or within

an approved on-base waste accumulation area. Analytical results are to be compared to the EPA RSL/Air Force policy standard (for PFOS and/or PFOA) to determine acceptability of the proposed material for reuse anywhere within the boundaries of Tyndall AFB. Notify USACE and 325 CES regarding PFOA and/or PFOS soil samples above the EPA RSL and treat soil as required herein. If other COCs exceeding regulatory standards are identified in the soil, then the soil will be managed to address the regulated COC(s) in the manner prescribed herein. PFOA/PFOS, without other identifiable contaminants of concern present, is not considered hazardous. See AF provided AFFF site investigation reports for use in characterization efforts. To the extent PFOA/PFOS is the sole COC, the contractor is instructed to follow Air Force guidance in the Overview above.

b. Soils are to be staged in soil piles of 400 CY within the AFFF/construction site or approved on-base waste accumulation area (if designated available), sampled, and analyzed in accordance with the parameters identified below. One composite sample of eight aliquots is to be collected from each 400 CY stockpile. The 400-CY soil stockpile shall be divided into eight equal sections of 50 CY each (e.g., spokes dividing a wagon wheel). The “A” sample is to be always collected on the north side of the stockpile, and the subsequent samples are to be collected in a clockwise manner. Analytical results are to be compared to the EPA RSL/Air Force policy standard (for PFOS and/or PFOA) to determine acceptability of the proposed material for reuse within the point of excavation, within the project limits, and anywhere within the boundaries of Tyndall AFB.

c. Excavated soil that either need not be tested or that tests below EPA RSL/AF policy standard and is suitable for reuse as defined by geotechnical requirements shall be reused within the project limits or within the boundaries of Tyndall AFB as allowed by the AF. Soil excess to project needs with PFOS/PFOA detected below 1.30 mg/kg shall be moved to designated on-base soils borrow storage area for final disposition. Notify USACE and 325 CES regarding PFOA and/or PFOS soil samples above 1.30 mg/kg and handle soil as required below in 13.d. If other COCs exceeding regulatory standards are identified in the soil, then the soil shall also be managed to address the regulated COC(s) as prescribed in paragraph 12 above. Soils should be staged on polyethylene plastic liner, properly covered and labeled, and shall not leave testing area until tested. Best management practices shall be utilized to prevent spreading contamination into previously uncontaminated or less contaminated areas within the AFFF site boundary.

d. Excess soil which exceeds 1.30 mg/kg for PFOS and/or PFOA may be treated to below 1.3 mg/kg or be disposed of at an authorized off-base disposal facility. For all excess PFOA/PFOS soil destined for off-base disposal, soil shall be tested and documented prior to disposal as described in part 1. above. AFFF-related solid waste with PFOS/PFOA is not considered hazardous waste. The government anticipates that soil will not have PFOS and/or PFOA above 1.3 mg/kg; if detected above this EPA RSL screening level, payment for disposal will be handled under the changes clause of this contract. Excess soil moved to the soils borrow storage area for final disposition will require separate stockpiles for: 1) AFFF: excess soil with sole COCs of PFOS/PFOA, which tests below EPA RSL/AF policy standard; 2) IRP: excess soil with

comingled COCs not required to be disposed at an authorized off base facility (i.e. not hazardous waste); and 3) excess soil that shows no evidence of contamination outside of IRP and AFFF site boundaries.

14. Groundwater management - generally

a. Groundwater inside IRP site boundaries and within 500 feet of IRP site boundaries or areas of known AFFF releases is believed to be contaminated but has not historically been shown to be hazardous. See AF provided Remedial Investigation (RI) reports for constituents of concern (COCs) within project limits for use in characterization efforts. PFOA/PFOS, without other identifiable contaminants of concern present, is not considered hazardous. See AF provided AFFF site investigation reports for use in characterization efforts. To the extent PFOA/PFOS is the sole COC, the contractor is instructed to follow Air Force guidance. This guidance states that if groundwater meets the EPA lifetime health advisory (LHA)/Air Force approved reference dose (RfD) standard of 2E-05 milligram per kilogram (mg/kg) -day (e.g., 70 ppt water), the groundwater media may be reinserted into the ground within the boundaries of Tyndall AFB. If sample results exceed EPA LHA of 70 parts per trillion (ppt) for PFOS and/or PFOA, then filtration will be required until groundwater effluent meets the EPA LHA before reinserting into the ground.

b. Dewatering within a contaminated groundwater plume or an area with known contamination is allowed as long as effluent percolates back into the known plume areas (FDEP to approve infiltration plan), other approved on-site method(s) of disposition are used (e.g., discharge to stormwater system/surface water discharge or reinjection using “connector wells” under Rule 62-528.600 under permitted conditions), and/or the dewatering liquid is disposed of off-site.

c. Dewatering effluent destined for disposal at an authorized disposal facility requires analysis for characteristic hazardous chemicals and the potential presence of listed hazardous waste and other constituents as required by treatment/disposal facilities. Sample recovered groundwater from dewatering activities at a frequency of 10,000 gallons or less and analyze samples at a DoD ELAP-certified laboratory. Results are to be provided to the USACE and the 325 CES HWPM prior to any transportation for proper disposal at an authorized disposal facility or may be conservatively handled as hazardous waste in accordance with appropriate hazardous waste laws and regulations if approved by USACE and the 325 CES HWPM or required by the contract or statement of work. Copies of transportation and disposal documents (profiles, manifests, bills of lading) are to be provided to USACE and the 325 CES HWPM. An AF representative will sign all hazardous waste manifests.

d. Sample recovered groundwater from dewatering activities at the influent and effluent locations of the dewatering and /or treatment systems at a frequency of 10,000 gallons or less and analyze samples at a certified laboratory.

(a) If quantities of liquid PFOS/PFOA waste must be treated, contractor will use either Granular Activated Carbon (GAC), ion exchange, or other approved treatment technology to bring chemical concentrations below the LHA, before returning it to its source location at the point of generation in accordance with Air Force (AF) requirements.

(b) Alternative on-site (next to the point of generation, within the MILCON-rebuild Zone, or within an approved accumulation area) final disposition options may be approved for use. Contractor is responsible for coordinating with the AF through the C.O.R. Treated and/or non-treated dewatering effluent may be discharged to storm water system/surface water discharge under permitted conditions (including compliance with surface water standards). This action would be considered an on-site disposal option.

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APPENDIX AC-3	SS015 APPENDIX B
APPENDIX AC-4	SS015 APPENDIX C
APPENDIX AC-5	SS015 APPENDIX D
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APPENDIX AD-5	SS026 APPENDIX D
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-- End of Project Table of Contents --

[REDACTED]

From: [REDACTED] USAF AFMC AFCEC/CZOE <[REDACTED]>
Sent: Wednesday, October 26, 2022 12:45 PM
To: [REDACTED] USAF AFMC AFCEC/CZRE
Cc: [REDACTED] USAF AFMC AFCEC/CZOE
Subject: FW: Tyndall PFAS/MILCON
Attachments: Tab 1_MEMORANDUM FOR RECORD.pdf; Tab 4_MOR Tyndall Construction with FDEP 3 Aug 21-signed.pdf; RE: PFAS Phase I RI contract and environmental sampling at Tyndall AFB PF... (127 KB); Contract Language Regarding IRP & PFAS (5.62 MB)
Signed By: [REDACTED]

[REDACTED], see below perspective from USACE - Mobile MILCON. Let me know your thoughts?

-----Original Message-----

From: [REDACTED] USARMY CESAM (USA)
<[REDACTED]>
Sent: Tuesday, October 25, 2022 4:14 PM
To: [REDACTED] USAF AFMC AFCEC/CZOE <[REDACTED]>
Cc: [REDACTED] USAF AFMC AFCEC/CZOE <[REDACTED]>
Subject: RE: Tyndall PFAS/MILCON

[REDACTED],

This concern, from what I gather, stems from previous conversations between FDEP and EPA regulators with the AF regarding potential human health risks of limiting this investigation before construction and any resulting lack of information regarding exposure.

In communicating with [REDACTED] and others, I understand that any worker safety concerns expressed by the regulators early on were alleviated through your discussions many months ago. My understanding is also that subsequent conversations between FDEP and EPA with the AF were more in regards to holding off on investigation work until after the MILCON completion, but that you have alleviated those concerns with the regulators in this current plan to continue limited investigation work (concurrent with the MILCON) within the AFFF site boundaries where known contamination exists with completion of the investigation to occur after the MILCON.

I would just add that the attached memorandum of agreement (MOA) between SAF/IEE and the Interim Secretary of FDEP sets forth these conditions for the MILCON rebuild effort: "Soil should be sampled and tested for PFOA/PFOS in areas of known AFFF releases; soil need not be tested for PFOA/PFOS in

other areas unless the soil will be moved outside the boundaries of Tyndall AFB. Untested soil and soil/water media that tests below the Air Force-approved reference dose shall be available for unrestricted use/reuse within the boundaries of Tyndall AFB." Your attached memorandum for record (MFR) provided to the regulators documents that agreement; details how the MILCON contracts are informing the contractors and how USACE and the AF are reviewing work plans before work begins; and notes that the restoration program will finalize delineation after the MILCON activities are completed. This MOA and MFR are in alignment with the AF's agreement with USACE to limit schedule impacts to the MILCON efforts with the PFAS RI task order, which was documented in my attached PFAS Phase I RI email response to [REDACTED] in early August.

The MFR is also in alignment with my attached email (Contract Language Regarding IRP & PFAS) sent last month regarding contract documentation that informs exposure to construction workers from chemicals in media (soil, sediment, GW, SW). We give the contractor all of the information we have about known concentration of chemicals in media provided in the IRP and AFFF investigation reports, including the additional Arcadis PFAS characterization work completed across the flightline within the MILCON project limits. The contractor is responsible for assessing the risk to workers and designing the worker protection/personal protective equipment (PPE) based on the information, as well as continually assessing the protectiveness of the PPE by conducting exposure monitoring and inspections.

Additionally, USACE, the 325th CES Environmental, and AFCEC/CZ work collaboratively in supporting any environmental requests for information or reviews needed to ensure the MILCON contractors fully understand the contract and regulatory requirements and are in compliance throughout the construction effort. USACE's MILCON team consists of on-site Safety and Health Specialist with significant construction and environmental safety experience across USACE, on-site environmental subject matter expert (SME), and geotechnical SME, as well as extensive environmental reachback support at Mobile District. The team is involved and keeps open communication with the AF throughout construction, from initial Environmental Mutual Understanding Meetings (MUM), reviewing work plans and permit applications, to participating in preparatory meetings and conducting on-site inspections.

USACE is not tracking any lingering concerns regarding phasing the PFAS RI work to allow the MILCON to complete on schedule. I apologize for the confusion. We will do a better job in the future communicating across the programs. Please let me know if you, [REDACTED], or your leadership have any additional questions or concerns.

V/r,

[REDACTED]

[REDACTED]

[REDACTED]

USACE, Mobile District Engineering Division

[REDACTED]

[REDACTED]

#MobileDelivers!

-----Original Message-----

From: [REDACTED] USAF AFMC AFCEC/CZOE [REDACTED]
<mailto:[REDACTED]>
Sent: Thursday, October 13, 2022 8:23 AM
To: [REDACTED] USARMY CESAM (USA) [REDACTED]
<mailto:Antonia.S.Ortiz@usace.army.mil>
Cc: [REDACTED] USAF AFMC AFCEC/CZOE [REDACTED]
<mailto:[REDACTED]>
Subject: FW: Tyndall PFAS/MILCON
Importance: High

[REDACTED], what is your take on the below from [REDACTED]? I would like to be able to address any leadership concerns. The below concerns line up with my request from you a few weeks ago for contract language included in the MILCON projects that protect human health and safety. If you would like to discuss over the phone let me know.

-----Original Message-----

From: [REDACTED] USAF AFMC AFCEC/CZOE <[REDACTED]>
<mailto:[REDACTED]> >>

Sent: Wednesday, October 12, 2022 5:15 PM

To: [REDACTED] <[REDACTED]>
<mailto:[REDACTED]> >>; [REDACTED]

[REDACTED] USAF AFMC AFCEC/CZRE <[REDACTED]>
<mailto:[REDACTED]> >>

Cc: [REDACTED] USAF AFMC AFCEC/CZOE <[REDACTED]>
<mailto:[REDACTED]> >>

Subject: RE: Tyndall PFAS/MILCON

Hey [REDACTED].

These concerns was discussed today with [REDACTED].

[REDACTED]

-----Original Message-----

From: [REDACTED] USARMY CESAM (USA)
<[REDACTED]> <mailto:[REDACTED]> >>

Sent: Thursday, October 6, 2022 2:37 PM

To: [REDACTED] USAF AFMC AFCEC/CZRE <[REDACTED]>
<mailto:[REDACTED]> >>;

[REDACTED] USAF AFMC AFCEC/CZOE <[REDACTED]>
<mailto:[REDACTED]> >>

Subject: RE: Tyndall PFAS/MILCON

Ok.. I also wanted to discuss some of the concerns raised last week in an

internal meeting here. In addition to the MILCON conflict issue, the concern has been raised by our engineering that they do not want us to look for or find PFAS in areas where construction personnel are working. There is a concern here that this may be accepting liability for future claims by workers who were not notified of the presence or potential presence of PFAS contamination. Please make sure that any discussion with AF leadership includes all aspects of the issue, including IRP/MILCON work zone conflicts and not investigating for PFAS to avoid construction worker concerns.

We can discuss this with [REDACTED] when you have firm direction to confirm what he will agree to.

Thanks,

[REDACTED]

-----Original Message-----

From: [REDACTED] USAF AFMC AFCEC/CZRE

<[REDACTED] <mailto:[REDACTED]>>

Sent: Thursday, October 6, 2022 1:42 PM

To: [REDACTED] USARMY CESAM (USA)

<[REDACTED] <mailto:[REDACTED]>>;
[REDACTED] USAF AFMC

AFCEC/CZOE <[REDACTED] <mailto:[REDACTED]>>

Subject: RE: Tyndall PFAS/MILCON

I am not in the office tomorrow. We are having an internal AF call

Wednesday on this topic and can brief you on potential path forwards we

discuss after that.

[REDACTED]

//SIGNED//

[REDACTED]

[REDACTED]

Air Force Civil Engineering Center

Environmental Restoration, Eastern Branch (CZRE)

3515 S General McMullen Dr

San Antonio, TX 78226

[REDACTED]

Email: [REDACTED] <mailto:[REDACTED]>

Physical mail services not provided to my unit. Request electronic mail only.

-----Original Message-----

From: [REDACTED] USARMY CESAM (USA)

<[REDACTED]> <mailto:[REDACTED]>

Sent: Thursday, October 06, 2022 10:52 AM

To: [REDACTED] USAF AFMC AFCEC/CZRE <[REDACTED]>
<mailto:[REDACTED]> >;

[REDACTED] USAF AFMC AFCEC/CZOE <[REDACTED]>
<mailto:[REDACTED]> >

Subject: Tyndall PFAS/MILCON

[REDACTED],

What is your availability today or tomorrow for a short discussion on the Tyndall PFAS/MILCON issue?

*Please note the new cell phone number

V/R,

[REDACTED]

[REDACTED]

Programs and Project Management

USACE AF IRP Support

Interagency and Environmental Branch

PO Box 2288, Mobile, AL 36628

109 Saint Joseph St. Mobile, AL 36602

[REDACTED] <mailto:[REDACTED]>
<mailto:[REDACTED]>
<mailto:[REDACTED]> >>

[REDACTED]

[REDACTED]

From: [REDACTED] USARMY CESAM (USA)
Sent: Tuesday, May 28, 2024 1:02 PM
To: [REDACTED] (USA)
Subject: [REDACTED] 4 of 4 re 15-6 Investigation - [REDACTED] FW: Tyndall PFAS/MILCON
Attachments: FW: Tyndall PFAS/MILCON (6.13 MB)

Re/ We will also discuss the allegation that through this restriction of the RI USACE and Tyndall AFB employees may be unknowingly working in contaminated areas and thereby potentially exposed to PFAS.

See you soon
[REDACTED]

-----Original Message-----

From: [REDACTED] USAF AFMC AFCEC/CZRE
<[REDACTED]>
Sent: Wednesday, October 26, 2022 3:30 PM
To: [REDACTED] USARMY CESAM (USA) <[REDACTED]>;
[REDACTED] USARMY CESAM (USA) <[REDACTED]>
Cc: [REDACTED] USARMY CESAM (USA)
<[REDACTED]>; [REDACTED] USARMY CESAM
(USA) <[REDACTED]>; [REDACTED] USAF AFMC
AFCEC/CZOE <[REDACTED]>; [REDACTED] USAF AFMC
AFCEC/CZOE <[REDACTED]>
Subject: RE: Tyndall PFAS/MILCON

[REDACTED]

See response from Mobile District regarding your concerns. After reading the response, from our perspective, we don't have any reason to believe that present and future health and safety considerations are not being covered appropriately.

Thanks,
[REDACTED]

-----Original Message-----

From: [REDACTED] USARMY CESAM (USA)
<[REDACTED]> <mailto:[REDACTED]>
Sent: Thursday, October 6, 2022 2:37 PM

To: [REDACTED] USAF AFMC AFCEC/CZRE <[REDACTED]>
<mailto:[REDACTED]> > >;

[REDACTED] USAF AFMC AFCEC/CZOE <[REDACTED]>
<mailto:[REDACTED]> > >

Subject: RE: Tyndall PFAS/MILCON

Ok.. I also wanted to discuss some of the concerns raised last week in an internal meeting here. In addition to the MILCON conflict issue, the concern has been raised by our engineering that they do not want us to look for or find PFAS in areas where construction personnel are working. There is a concern here that this may be accepting liability for future claims by workers who were not notified of the presence or potential presence of PFAS contamination. Please make sure that any discussion with AF leadership includes all aspects of the issue, including IRP/MILCON work zone conflicts and not investigating for PFAS to avoid construction worker concerns.

We can discuss this with [REDACTED] when you have firm direction to confirm what he will agree to.

Thanks,
[REDACTED]

-----Original Message-----

From: [REDACTED] USAF AFMC AFCEC/CZRE
<[REDACTED]> <mailto:[REDACTED]> > >

Sent: Thursday, October 6, 2022 1:42 PM

To: [REDACTED] USARMY CESAM (USA)
[REDACTED] <mailto:[REDACTED]> > >;
[REDACTED] USAF AFMC

AFCEC/CZOE <[REDACTED]> <mailto:[REDACTED]> >

Subject: RE: Tyndall PFAS/MILCON

I am not in the office tomorrow. We are having an internal AF call
Wednesday on this topic and can brief you on potential path forwards we
discuss after that.

[REDACTED]

//SIGNED//

[REDACTED]

Restoration Program Manager
Air Force Civil Engineering Center
Environmental Restoration, Eastern Branch (CZRE)
3515 S General McMullen Dr
San Antonio, TX 78226

[REDACTED]

Email: [REDACTED] <mailto:[REDACTED]>

***Physical mail services not provided to my unit. Request electronic mail
only.***

-----Original Message-----

From: [REDACTED] USARMY CESAM (USA)

<[REDACTED]> <mailto:[REDACTED]> > >

Sent: Thursday, October 06, 2022 10:52 AM

To: [REDACTED] USAF AFMC AFCEC/CZRE <[REDACTED]>
<mailto:[REDACTED]> >;

[REDACTED] USAF AFMC AFCEC/CZOE <[REDACTED]>
<mailto:[REDACTED]> >

Subject: Tyndall PFAS/MILCON

[REDACTED],

What is your availability today or tomorrow for a short discussion on the Tyndall PFAS/MILCON issue?

*Please note the new cell phone number

V/R,

[REDACTED]

Project Manager PM-I(C)

Programs and Project Management

USACE AF IRP Support

Interagency and Environmental Branch

PO Box 2288, Mobile, AL 36628

109 Saint Joseph St. Mobile, AL 36602

[REDACTED] <mailto:[REDACTED]>
<mailto:[REDACTED]>
<mailto:[REDACTED]> >>

Cell - [REDACTED]



DEPARTMENT OF THE AIR FORCE
WASHINGTON DC

OFFICE OF THE ASSISTANT SECRETARY

3 August 2021

SAF/IEE
1665 Air Force Pentagon
Washington, DC 20330-1665

Dear Interim Secretary Hamilton:

Thank you for the opportunity to speak with you on July 21, 2021 regarding permitting requirements for Tyndall AFB reconstruction. I appreciate your support for this continuing effort as the Air Force remains committed to basing three F-35 squadrons at Tyndall starting in the fall of 2023.

The enclosure provides for your review a Memorandum for Record documenting the agreement we reached in our telephone conversation. If you are comfortable that it accurately reflects the terms of our agreement, please sign and return to me to reflect our mutual understanding. I will then return a record copy back to you with both of our signatures. I look forward to continuing to work with you and your team as the Air Force continues to reconstruct Tyndall into a first Twenty-First Century Installation.

Sincerely,

CORRELL. Digitally signed by
CORRELL.MARK.A.

MARK.A.11 Date: 2021.08.03
13:00:13 -04'00'

MARK A. CORRELL, P.E.
Deputy Assistant Secretary of the Air Force
(Environment, Safety, and Infrastructure)

Attachment:
Memorandum for Record

cc:
SAF/IE

MEMORANDUM FOR RECORD

SUBJECT: Soil Management Pursuant to the Tyndall Rebuild Program

Background

1. Following the devastation of Hurricane Michael in October 2018, the Department of the Air Force (Air Force) is executing a rebuild of Tyndall Air Force Base and the beddown of a new F-35 mission.
2. The Air Force has determined that the rebuild and beddown efforts at Tyndall Air Force Base are vitally important to national security, and that those efforts can be accomplished in a manner protective of Florida's environment. Further, the Florida Department of Environmental Protection (FDEP) recognizes the critical importance of the rebuild at Tyndall Air Force Base, both for our national defense strategy and our communities in Northwest Florida.
3. On 26 February 2021, the Air Force made application to the Florida Department Environmental Protection (FDEP) for an Environmental Resources Permit (Permit) for military construction in Zone 1 of Tyndall Air Force Base.
4. The considerations in this Memorandum for the Record (Memorandum) reflect the desire of FDEP to prevent soil from Tyndall Air Force Base that exceeds FDEP's provisional soil cleanup target levels for Perfluorooctane Sulfonate (PFOS) and Perfluorooctanoic Acid (PFOA) from being placed off-base, including in any state unlined landfill. They similarly reflect the Air Force's requirements to carry out construction activities consistent with any applicable federal, state, and local requirements to which the United States Government is subject, and Office of the Secretary of Defense and Air Force policies.

Considerations. In accordance with our telephone conversation on July 21, 2021, this Memorandum documents our agreement with the following additional considerations for the Permit as well as any other Environmental Resource Permits associated with the rebuild and beddown activities at Tyndall Air Force Base.

1. While the scope of the Air Force's permit application was limited to Zone 1, the site for purposes of this Memorandum will encompass Tyndall Air Force Base.
2. FDEP will incorporate by reference this Memorandum into any approved Environmental Resource Permit associated with the rebuild and beddown activities at Tyndall Air Force Base, including the Air Force's Permit application dated 26 February 2021 for military construction activities in Zone 1. FDEP will process its approval of the Zone 1 application as quickly as possible based on the existing application content and provisions of this Memorandum.

3. The Air Force will screen for PFOA and PFOS in areas of known releases of Aqueous Film Forming Foam in accordance with Department of Defense and Air Force policy using the U.S. Environmental Protection Agency's online calculator using the reference dose (RFd) of 2E-05 mg.kg-day.

4. Consistent with Air Force guidance and U.S. Army Corps of Engineer (USACE) contract language, soil that meets Air Force screening criteria for PFOS and PFOA, but which may not meet Florida Department of Environmental Protection (FDEP) provisional standards, shall remain on site for unrestricted use. Any on-site location, long-term storage, and (re)use of this soil shall be in accordance with Air Force contract provisions, Air Force requirements, and applicable federal, state, and local regulations to which the United States Government is subject.

5. Soil that does not meet Air Force screening criteria for PFOS/PFOA will be handled in accordance with USACE contract requirements and applicable federal and state regulations.

**Shawn
Hamilton**

Digitally signed by
Shawn Hamilton
Date: 2021.08.03
14:04:47 -04'00'

SHAWN HAMILTON
Interim Secretary
Florida Department of Environmental Protection

**CORRELL.MA
RK.A.1157490
385**

Digitally signed by
CORRELL.MARK.A.1157
490385
Date: 2021.08.03 13:00:34
-04'00'

MARK A. CORRELL, P.E.
Deputy Assistant Secretary of the Air Force
(Environment, Safety, and Infrastructure)

SWORN STATEMENT

For use of this form, see AR 190-45; the proponent agency is PMG.

PRIVACY ACT STATEMENT

AUTHORITY: Title 10, USC Section 301; Title 5, USC Section 2951; E.O. 9397 Social Security Number (SSN).
PRINCIPAL PURPOSE: To document potential criminal activity involving the U.S. Army, and to allow Army officials to maintain discipline, law and order through investigation of complaints and incidents.
ROUTINE USES: Information provided may be further disclosed to federal, state, local, and foreign government law enforcement agencies, prosecutors, courts, child protective services, victims, witnesses, the Department of Veterans Affairs, and the Office of Personnel Management. Information provided may be used for determinations regarding judicial or non-judicial punishment, other administrative disciplinary actions, security clearances, recruitment, retention, placement, and other personnel actions.
DISCLOSURE: Disclosure of your SSN and other information is voluntary.

1. LOCATION <i>Tyndall AFB OSACE AREA OFFICE</i>	2. DATE (YYYYMMDD) <i>20240530</i>	3. TIME <i>800-1000</i>	4. FILE NUMBER
5. LAST NAME, FIRST NAME, MIDDLE NAME [REDACTED]	6. SSN [REDACTED]	7. GRADE/STATUS [REDACTED]	

8. ORGANIZATION OR ADDRESS
[REDACTED]

9. I, [REDACTED], WANT TO MAKE THE FOLLOWING STATEMENT UNDER OATH:

[REDACTED STATEMENT]

10. EXHIBIT	1	PERSON MAKING STATEMENT	Page 1 of 3
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ADDITIONAL PAGES MUST CONTAIN THE HEADING "STATEMENT OF _____ TAKEN AT _____ DATED _____"
THE BOTTOM OF EACH ADDITIONAL PAGE MUST BEAR THE INITIALS OF THE PERSON MAKING THE STATEMENT, AND PAGE NUMBER MUST BE INDICATED.

USE THIS PAGE IF NEEDED. IF THIS PAGE IS NOT NEEDED, PLEASE PROCEED TO FINAL PAGE OF THIS FORM.

STATEMENT OF



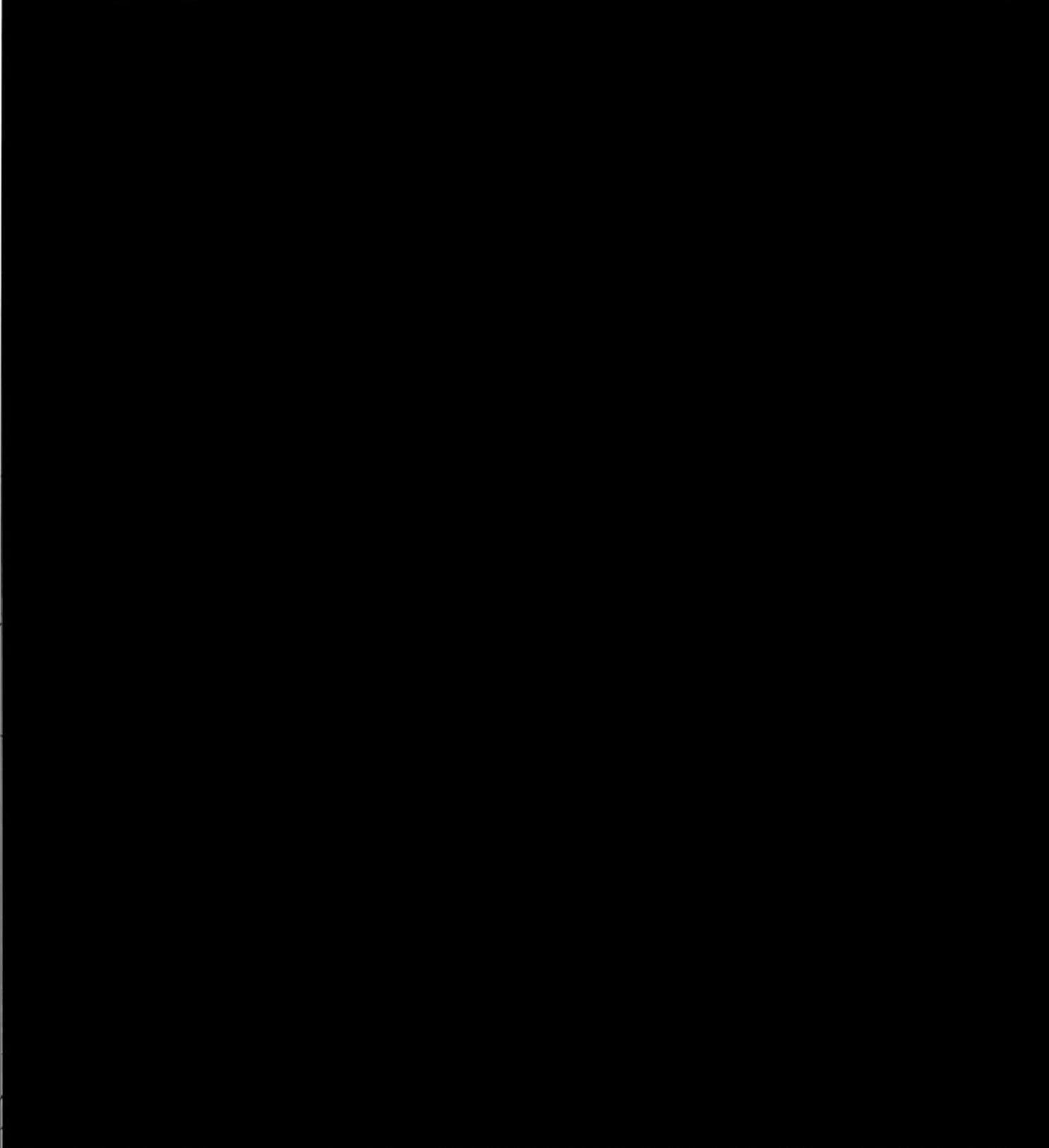
TAKEN AT

Tyndall AFB

DATED

5/30/24

9. STATEMENT (Continued)



INITIALS OF PERSON MAKING STATEMENT



STATEMENT OF [REDACTED]

TAKEN AT Tyndall AFB

DATED 5/30/24

AFFIDAVIT

I, [REDACTED], HAVE READ OR HAVE HAD READ TO ME THIS STATEMENT WHICH BEGINS ON PAGE 1, AND ENDS ON PAGE 3. I FULLY UNDERSTAND THE CONTENTS OF THE ENTIRE STATEMENT MADE BY ME. THE STATEMENT IS TRUE. I HAVE INITIALED ALL CORRECTIONS AND HAVE INITIALED THE BOTTOM OF EACH PAGE CONTAINING THE STATEMENT. I HAVE MADE THIS STATEMENT FREELY WITHOUT HOPE OF BENEFIT OR REWARD, WITHOUT THREAT OF PUNISHMENT, AND WITHOUT COERCION, UNLAWFUL INFLUENCE,

WITNESSES:

ORGANIZATION OR ADDRESS

ORGANIZATION OR ADDRESS

[REDACTED]

Subscribed and sworn to before me, a person authorized by law to administer oaths, this 30 day of MAY, 2024

at [REDACTED]

(Signature of Person Administering Oath)

[REDACTED]

(Typed Name of Person Administering Oath)

5 USC 303

(Authority To Administer Oaths)

INITIALS OF PERSON MAKING STATEMENT

1:7,000

Zone 1 AFFF Area	Validated ERP Site	Parameter	Maximum Detected Concentration	Screening Value	Units	*Number of Samples / Number of Exceedances	Exceeds Screening Value
AFFF Area 5 F-15 Jet Fuel Fire Response	SS042P	Groundwater					
		PFOA	0.17 J	0.07	µg/L	3 / 2	Yes
		PFOS	4.1	0.07	µg/L	2 / 3	Yes
		PFOA + PFOS	4.25 J	0.07	µg/L	3 / 3	Yes



Cooperative Agreement Number:
W9128G-14-2-0018 -
W9128G-20-2-0004

Map created for presentation purposes only. Although efforts have been made to verify data, accuracy cannot be guaranteed.

- ZONE 1
- PFAS
- ↓ → ↑ GW FLOW SHALLOW
- IRP Open
- IRP Closed
- MMRP Open
- MMRP Closed

Tyndall AFB

Reconstruction Zone Projects

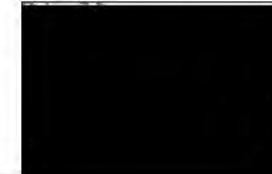
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Coordinate System: WGS 1984 World Mercator
Imagery Date: April 15, 2019



Reconstruction ZONE 1
MMRP, IRP and PFAS/OA
For Planning Purposes
Only

Locator Map



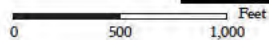
Prepared By:

CSU-CEMML GIS Analyst

Last Save Date: 12/10/2020

DRAFT

Page:
1 of 12





AFFF Area	Associated Existing ERP Site	Parameter	Maximum Detected Concentration	Screening Value	Units	*Number of Samples / Number of Exceedances	Exceeds Screening Value
AFFF Area 1 Fire Station #1 (Building 214)	Not Validated	Groundwater					
		PFBS	0.64 J	40	µg/L	6 / 0	No
		PFOA	6.0	0.07	µg/L	6 / 6	Yes
		PFOS	32	0.07	µg/L	6 / 6	Yes
		PFOA + PFOS	36.3	0.07	µg/L	6 / 6	Yes
		Surface Water					
		PFBS	0.045	40	µg/L	2 / 0	No
		PFOA	0.12	0.07	µg/L	2 / 2	Yes
		PFOS	1.0	0.07	µg/L	2 / 2	Yes
		PFOA + PFOS	1.12	0.07	µg/L	2 / 2	Yes



Cooperative Agreement Number:
W9128G-14-2-0018 -
W9128G-20-2-0004

- ZONE 2
- PFAS VALIDATED
- ↔ GW FLOW SHALLOW
- IRP Open
- IRP Closed
- MMRP Open
- MMRP Closed

Map created for presentation purposes only. Although efforts have been made to verify data, accuracy cannot be guaranteed.

Tyndall AFB

Reconstruction Zone Projects

Scale: 1:13,000

Coordinate System: WGS 1984 World Mercator
Imagery Date: April 15, 2019



Locator Map



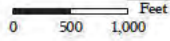
Prepared By:

CSU-CEMIL GIS Analyst

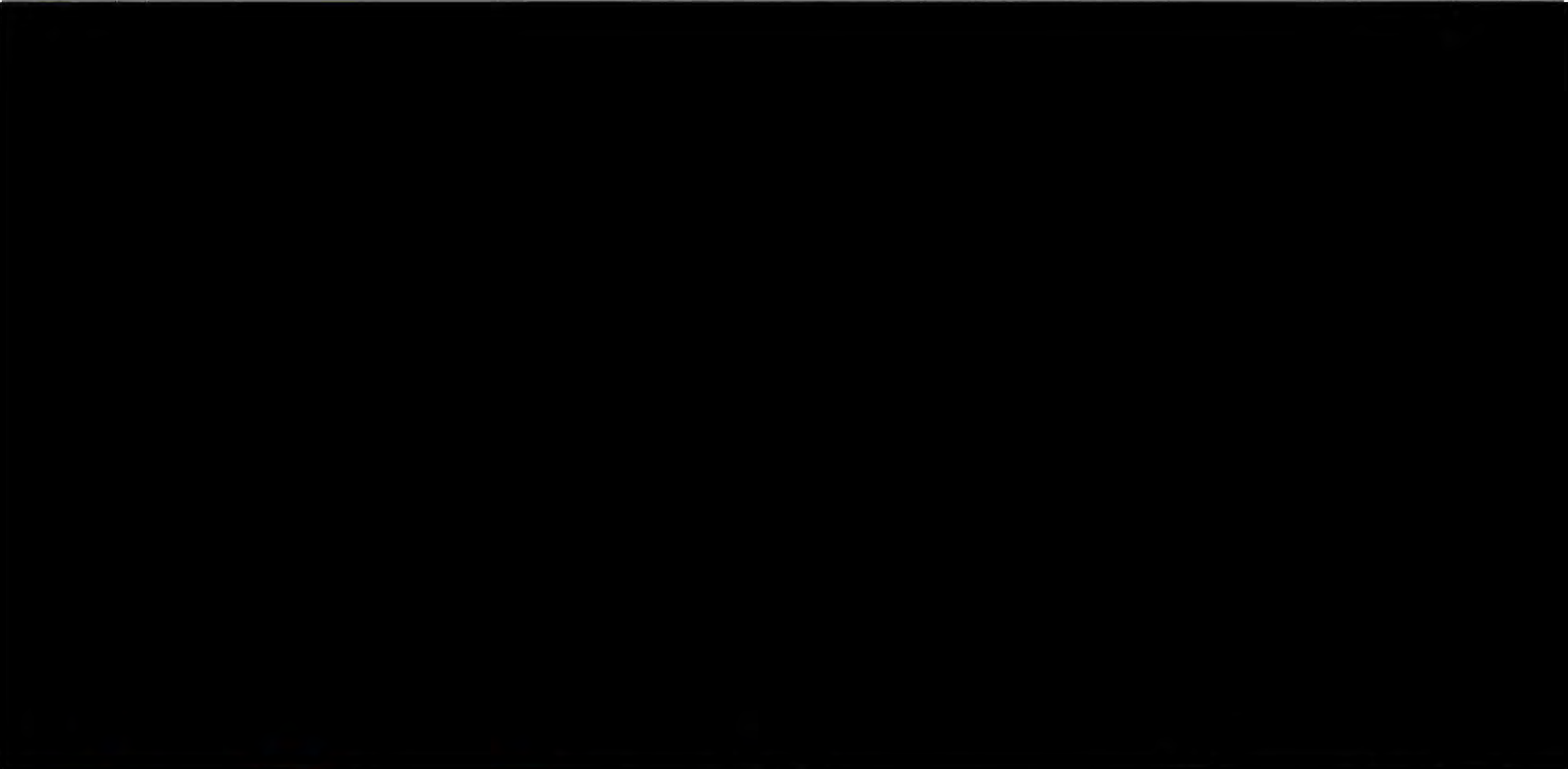
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DRAFT

Page:
2 of 12

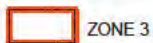


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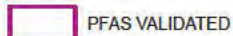


Cooperative Agreement Number:
W0128G-14-2-0018 -
W0128G-20-2-0004

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ZONE 3



PFAS VALIDATED



GW FLOW SHALLOW



IRP Open



IRP Closed



MMRP Open



MMRP Closed

Tyndall AFB

Reconstruction Zone Projects

Scale: 1:2,000

Coordinate System: WGS 1984 World Mercator
Imagery Date: April 15, 2019



**Reconstruction ZONE 3
MMRP, IRP and PFAS/OA
For Planning Purposes
Only**

Locator Map



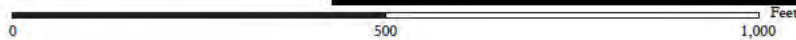
Prepared By:

CSU-CEMML GIS Analyst

Last Save Date: 12/9/2020

DRAFT

Page:
3 of 12





AFFF Area	Validated ERP Site	Parameter	Maximum Detected Concentration	Screening Value	Units	*Number of Samples / Number of Exceedances	Exceeds Screening Value
Fire Training Area FT-017	FT-017P-Sub	Groundwater					
		PFOA	0.018 J	0.07	µg/L	2 / 1	Yes
		PFOS	0.58	0.07	µg/L	2 / 1	Yes
		PFOA + PFOS	0.598 J	0.07	µg/L	2 / 1	Yes



Cooperative Agreement Number:
W9128G-14-2-0018 -
W9128G-20-2-0004

- ZONE 4 UTILITIES
- PFAS VALIDATED
- GW FLOW SHALLOW

Map created for presentation purposes only. Although efforts have been made to verify data, accuracy cannot be guaranteed.

- IRP Open
- IRP Closed
- MMRP Open
- MMRP Closed

Tyndall AFB

Reconstruction Zone Projects

Scale: 1:17,000

Coordinate System: WGS 1984 World Mercator
Imagery Date: April 15, 2019



Reconstruction ZONE 4
MMRP, IRP and PFAS/OA
For Planning Purposes
Only

Locator Map



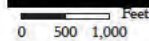
Prepared By:

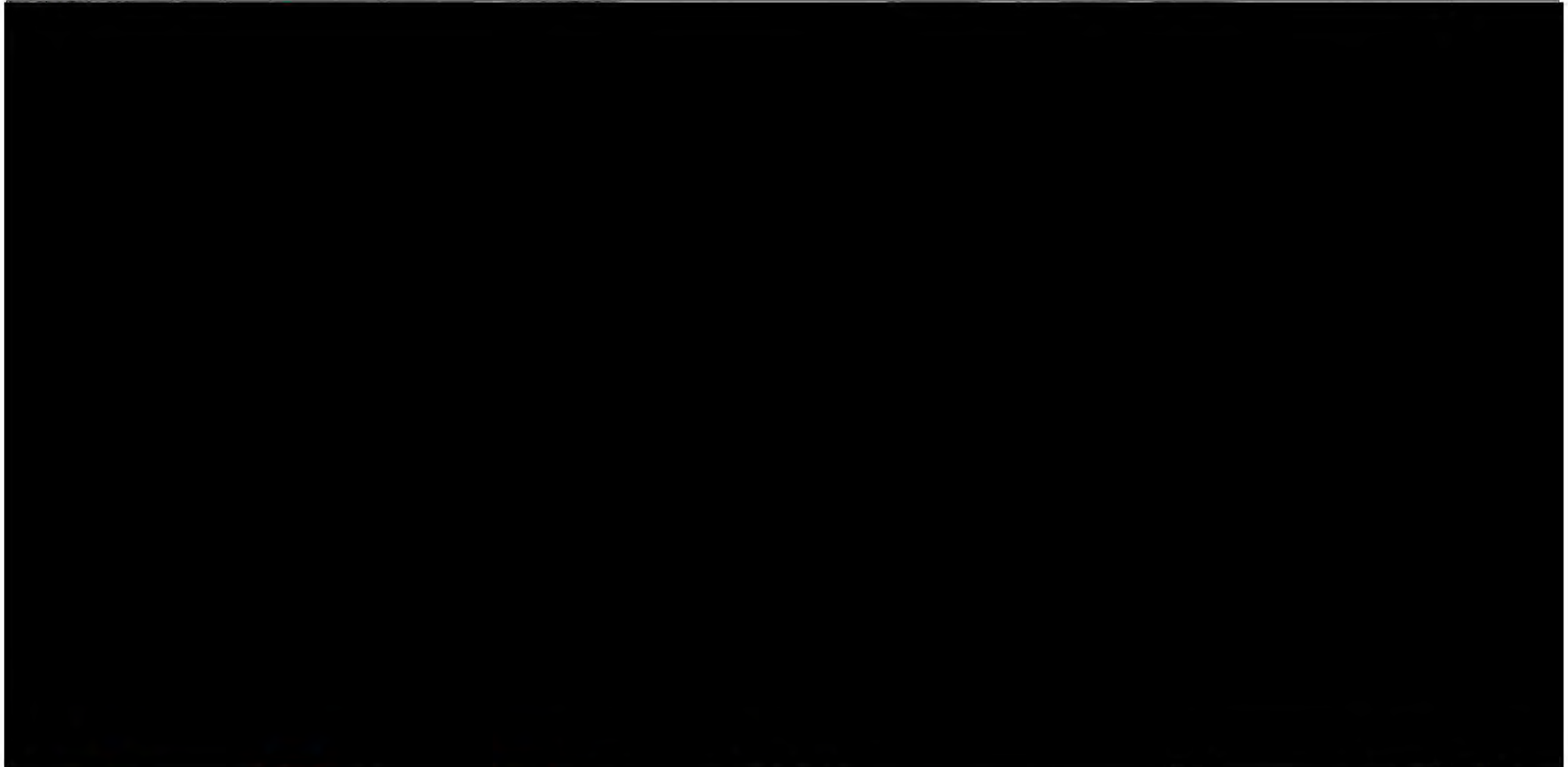
CSU-CEMML GIS Analyst

Last Save Date: 12/10/2020

DRAFT

Page:
4 of 12



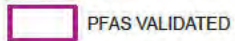


Cooperative Agreement Number:
W0128G-14-2-0018 -
W0128G-20-2-0004

Map created for presentation purposes only. Although efforts have been made to verify data, accuracy cannot be guaranteed.



ZONE 5



PFAS VALIDATED



GW FLOW SHALLOW



IRP Open



IRP Closed



MMRP Open



MMRP Closed

Tyndall AFB

Reconstruction Zone Projects

Scale: 1:24,000

Coordinate System: WGS 1984 World Mercator
Imagery Date: April 15, 2019



**Reconstruction ZONE 5
MMRP, IRP and PFAS/OA
For Planning Purposes
Only**

Locator Map



Prepared By:

CSU-CEMML GIS Analyst

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AFFF Area	Validated ERP Site	Parameter	Maximum Detected Concentration	Screening Value	Units	*Number of Samples / Number of Exceedances	Exceeds Screening Value
		Surface Soil (0 to 6 inches)					
		PFOA	520 J	126	µg/kg	14 / 2	Yes
		Shallow Subsurface Soil (0.5 to 2 feet)					
		PFOA	530 J	126	µg/kg	14 / 4	Yes
		Deep Subsurface Soil (4 to 6 feet)					
		PFOA	180	126	µg/kg	2 / 1	Yes
Fire Training Area FT-016	FT-016P-Sub	Groundwater					
		PFOA	12	0.07	µg/L	23 / 14	Yes
		PFOA	870 J	0.07	µg/L	23 / 19	Yes
		PFOA + PFOA	877 J	0.07	µg/L	23 / 19	Yes
		Surface Water					
		PFOA	0.61 J	0.07	µg/L	4 / 1	Yes
		PFOA	2.3 J	0.07	µg/L	4 / 1	Yes
		PFOA + PFOA	2.91 J	0.07	µg/L	4 / 1	Yes



AFFF Area	Validated ERP Site	Parameter	Maximum Detected Concentration	Screening Value	Units	*Number of Samples / Number of Exceedances	Exceeds Screening Value
		Groundwater					
FFA Area 6 15 Fire Tire Response	SSO43P	PFOA	0.089	0.07	µg/L	6 / 1**	Yes
		PFOA	6.4	0.07	µg/L	6 / 1**	Yes
		PFOA + PFOA	6.489	0.07	µg/L	6 / 1**	Yes
		Groundwater					
FFA Area 9 F-106 Crash Site Emergency Response	SSO44P	PFOA	0.18 J	0.07	µg/L	3 / 1	Yes
		PFOA + PFOA	0.18 J	0.07	µg/L	3 / 1	Yes
		Groundwater					
AFFF Area 2 AFFF Nozzle Spray Test Area Not Validated	TS183	PFOA	0.32	0.07	µg/L	4 / 1**	Yes
		PFOA	0.42	0.07	µg/L	4 / 2**	Yes
		PFOA + PFOA	0.74	0.07	µg/L	4 / 2**	Yes

AFFF Area	Validated ERP Site	Parameter	Maximum Detected Concentration	Screening Value	Units	*Number of Samples / Number of Exceedances	Exceeds Screening Value
		Groundwater					
Fire Training Area FT-017	FT-017P-Sub	PFOA	0.018 J	0.07	µg/L	2 / 1	Yes
		PFOA	0.58	0.07	µg/L	2 / 1	Yes
		PFOA + PFOA	0.598 J	0.07	µg/L	2 / 1	Yes

AFFF Area	Validated ERP Site	Parameter	Maximum Detected Concentration	Screening Value	Units	*Number of Samples / Number of Exceedances	Exceeds Screening Value
		Shallow Subsurface Soil (0.5 to 2 feet)					
		PFOA	1,500 J	126	µg/kg	4 / 3	Yes
		Groundwater					
		PFOA	64 J	0.07	µg/L	14 / 12	Yes
		PFOA	200 J	0.07	µg/L	14 / 11**	Yes
		PFOA + PFOA	264 J	0.07	µg/L	14 / 13	Yes
Fire Training Area FT-023	FT-023P-Sub	Sediment					
		PFOA	150	126	µg/kg	7 / 2	Yes
		Surface Water					
		PFOA	0.25 J	0.07	µg/L	7 / 3	Yes
		PFOA	4.2 J	0.07	µg/L	7 / 6	Yes
		PFOA + PFOA	4.45 J	0.07	µg/L	7 / 6	Yes



Cooperative Agreement Number:
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W9128G-20-2-0004

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- ZONE 6
- PFAS VALIDATED
- ↕ ↕ GW FLOW SHALLOW
- IRP Open
- IRP Closed
- MMRP Open
- MMRP Closed

Tyndall AFB

Reconstruction Zone Projects

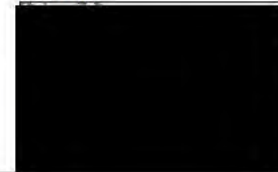
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Reconstruction ZONE 6
MMRP, IRP and PFAS/OA
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Only

Locator Map



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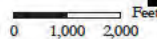
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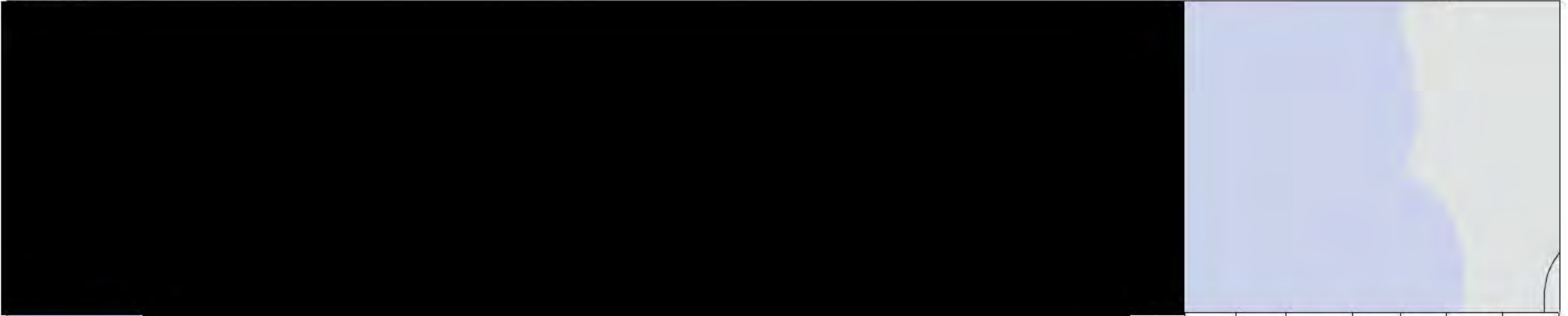
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AFFF Area	Validated ERP Site	Parameter	Maximum Detected Concentration	Screening Value	Units	*Number of Samples / Number of Exceedances	Exceeds Screening Value
Groundwater							
AFFF Area 3 QF-4 Drone Crash Site Response #1	SS516P-Sub	PFOA+PFOS	0.095	0.07	µg/L	6 / 1	Yes

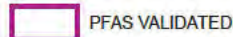
AFFF Area	Validated ERP Site	Parameter	Maximum Detected Concentration	Screening Value	Units	*Number of Samples / Number of Exceedances	Exceeds Screening Value
Groundwater							
AFFF Area 8 F-22 Raptor Crash Site SSO22P-Sub Validated Site	SSO22P-Sub	PFOA	12	0.07	µg/L	3 / 3	Yes
		PFOS	8.9	0.07	µg/L	3 / 3	Yes
		PFOA + PFOS	20.9	0.07	µg/L	3 / 3	Yes



Cooperative Agreement Number:
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ZONE 7



PFAS VALIDATED



GW FLOW SHALLOW



IRP Open



IRP Closed



MMRP Open



MMRP Closed

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Tyndall AFB

Reconstruction Zone Projects

Scale: 1:36,000

Coordinate System: WGS 1984 World Mercator
Imagery Date: April 15, 2019



Reconstruction Zone 7
MMRP, IRP and PFAS/OA
For Planning Purposes
Only

Locator Map



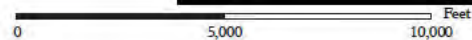
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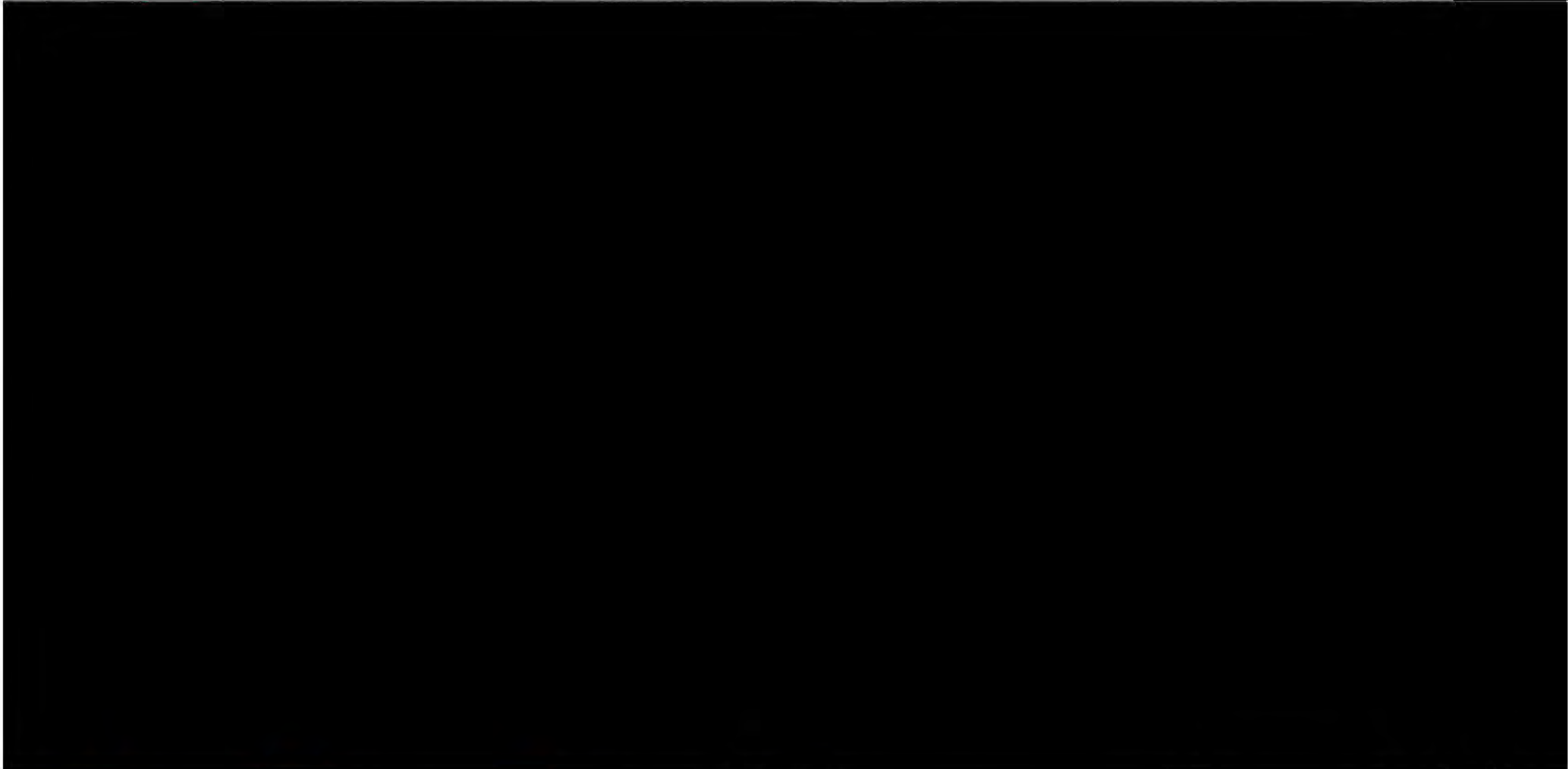
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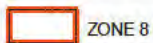


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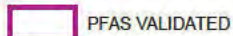


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ZONE 8



PFAS VALIDATED



GW FLOW SHALLOW



IRP Open



IRP Closed



MMRP Open



MMRP Closed

Tyndall AFB

Reconstruction Zone Projects

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Reconstruction ZONE 8
MMRP, IRP and PFAS/OA
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Locator Map



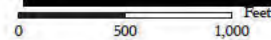
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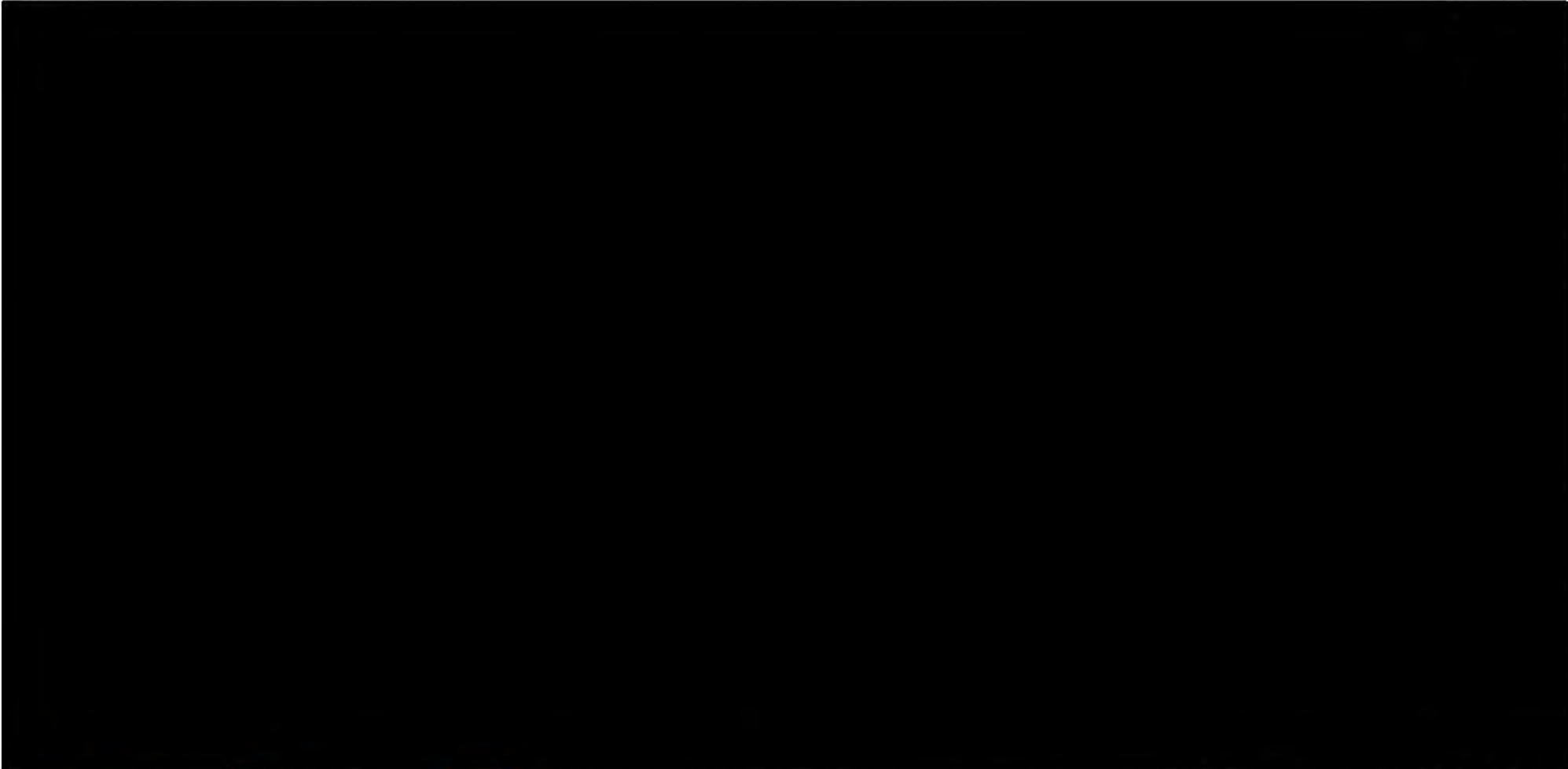
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-  ZONE 9 AREAS
-  PFAS
-  GW FLOW CONTOURS
-  IRP Open
-  IRP Closed
-  MMRP Open
-  MMRP Closed

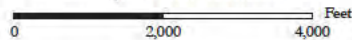
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Reconstruction Zone Projects

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Reconstruction Zone 9
MMRP, IRP and PFAS

Locator Map



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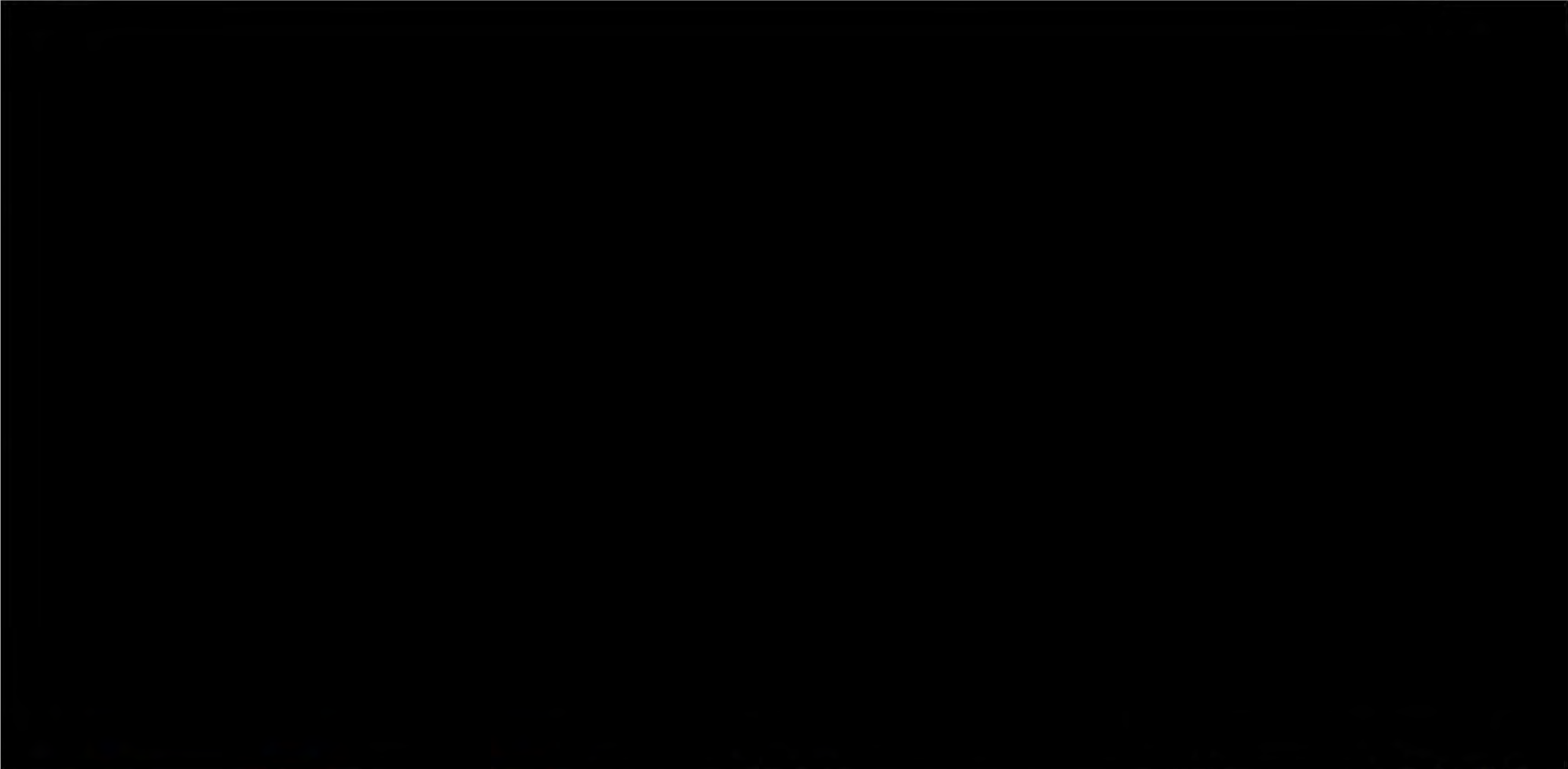
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 ZONE 10

 PFAS VALIDATED

 GW FLOW SHALLOW

 IRP Open

 IRP Closed

 MMRP Open

 MMRP Closed

Tyndall AFB

Reconstruction Zone Projects

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**Reconstruction ZONE 10
MMRP, IRP and PFAS/OA
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Locator Map



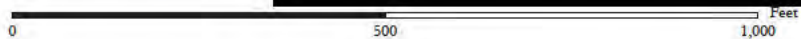
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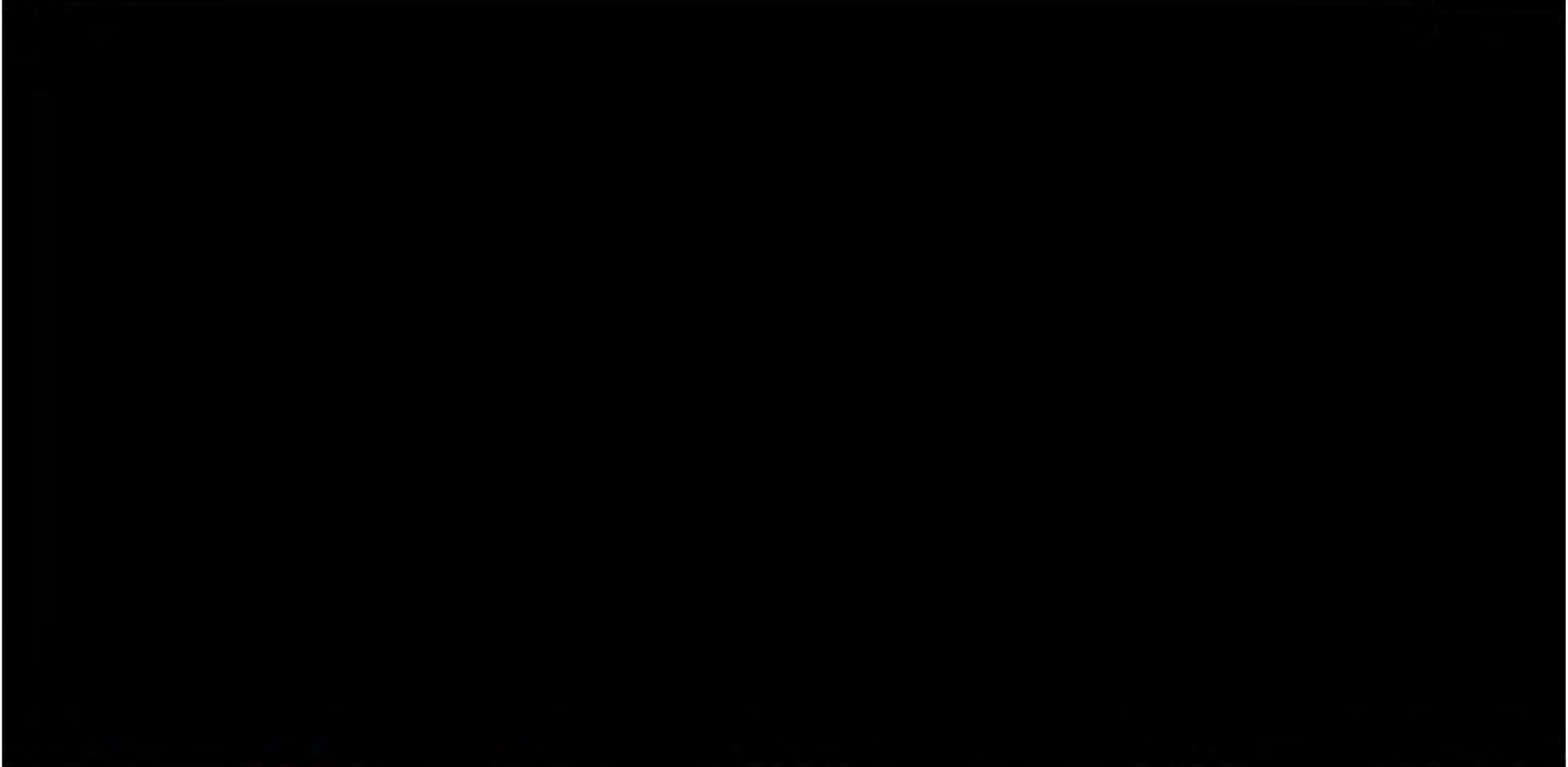
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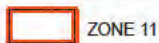


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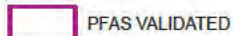


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ZONE 11



PFAS VALIDATED



GW FLOW SHALLOW



IRP Open



IRP Closed



MMRP Open



MMRP Closed

Tyndall AFB

Reconstruction Zone Projects

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**Reconstruction ZONE 11
MMRP, IRP and PFAS/OA
For Planning Purposes
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Locator Map



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SWORN STATEMENT

For use of this form, see AR 190-45; the proponent agency is PMG.

PRIVACY ACT STATEMENT

AUTHORITY: Title 10, USC Section 301; Title 5, USC Section 2951; E.O. 9397 Social Security Number (SSN).
PRINCIPAL PURPOSE: To document potential criminal activity involving the U.S. Army, and to allow Army officials to maintain discipline, law and order through investigation of complaints and incidents.
ROUTINE USES: Information provided may be further disclosed to federal, state, local, and foreign government law enforcement agencies, prosecutors, courts, child protective services, victims, witnesses, the Department of Veterans Affairs, and the Office of Personnel Management. Information provided may be used for determinations regarding judicial or non-judicial punishment, other administrative disciplinary actions, security clearances, recruitment, retention, placement, and other personnel actions.
DISCLOSURE: Disclosure of your SSN and other information is voluntary.

1. LOCATION Tyndall AFB / Teams meeting	2. DATE (YYYYMMDD) 20240620	3. TIME 1430	4. FILE NUMBER
5. LAST NAME, FIRST NAME, MIDDLE NAME [REDACTED]	6. SSN [REDACTED]	7. GRADE/STATUS [REDACTED]	
8. ORGANIZATION OR ADDRESS U.S Air Force			

9. I, [REDACTED], WANT TO MAKE THE FOLLOWING STATEMENT UNDER OATH:

[REDACTED STATEMENT]

10. EXHIBIT	11. INITIALS OF PERSON MAKING STATEMENT [REDACTED]	Page 1 of 3
-------------	---	-------------

ADDITIONAL PAGES MUST CONTAIN THE HEADING "STATEMENT OF _____ TAKEN AT _____ DATED _____"
THE BOTTOM OF EACH ADDITIONAL PAGE MUST BEAR THE INITIALS OF THE PERSON MAKING THE STATEMENT, AND PAGE NUMBER MUST BE INDICATED.

STATEMENT OF _____ TAKEN AT Tyndall AFB / Teams meeting DATED 20240620

9. STATEMENT (Continued)

[Redacted content]

INITIALS OF PERSON MAKING STATEMENT

[Redacted initials]

AFFIDAVIT

I, _____, HAVE READ OR HAVE HAD READ TO ME THIS STATEMENT WHICH BEGINS ON PAGE 1, AND ENDS ON PAGE 3 . I FULLY UNDERSTAND THE CONTENTS OF THE ENTIRE STATEMENT MADE BY ME. THE STATEMENT IS TRUE. I HAVE INITIALED ALL CORRECTIONS AND HAVE INITIALED THE BOTTOM OF EACH PAGE CONTAINING THE STATEMENT. I HAVE MADE THIS STATEMENT FREELY WITHOUT HOPE OF BENEFIT OR REWARD, WITHOUT THREAT OF PUNISHMENT, AND WITHOUT COERCION, UNLAWFUL INFLUENCE, OR UNLAWFUL INDUCEMENT.

(Signature of Person Making Statement)

WITNESSES:

Subscribed and sworn to before me, a person authorized by law to administer oaths, this 20 day of June, 2024 at Tyndall AFB / Teams meeting.

(Signature of Person Administering Oath)

(Typed Name of Person Administering Oath)

5 USC 303

(Authority To Administer Oaths)

ORGANIZATION OR ADDRESS

ORGANIZATION OR ADDRESS



**US Army Corps
of Engineers**
Mobile District



**F-35 FLIGHTLINE FACILITIES (ZONE 3)
WEG Headquarters/Maintenance Hangar and
Apron Facilities**

**Environmental Mutual Understanding
Meeting**

28 Sept, 2022

CONTRACT NUMBER: F-35 Flightline Facilities
Tyndall AFB, Florida

CONTRACT TITLE:

CONTRACT AMOUNT:

CONTRACTOR: BL Harbert

AWARD DATE:

NTP DATE:

CONTRACT DURATION:



**US Army Corps
of Engineers**
Mobile District



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PERTINENT SPECIFICATION REFERENCES

1. Section 01 10 10 Section 19
2. Section 01 57 19 TEMPORARY ENVIRONMENTAL CONTROLS (& Appendices)
3. Section 01 74 19 CONSTRUCTION WASTE MANAGEMENT & DISPOSAL
4. Section 02 41 00 DEMOLITION
5. Section 02 61 13 EXCAVATION & HANDLING OF CONTAMINATED MATERIAL
6. Section 02 81 00 TRANSPORT & DISPOSAL OF HAZARDOUS MATERIALS



**US Army Corps
of Engineers**
Mobile District



1. PURPOSE

To discuss environmental compliance, conservation, and pollution prevention during performance of work associated with this contract.

2. ENVIRONMENTAL SUBMITTAL REQUIREMENTS

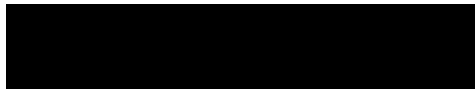
Government review is required for all submittals listed below. The following submittals will be required during the performance of this contract:

Pre-construction Submittals:

- Preconstruction Survey
- Solid Waste Management Permit
- Regulatory Notifications and Permits
- Environmental Protection Plan
- Stormwater Notice of Intent and/or Stormwater Pollution Prevention Plan (SWPPP)
- Hazardous & Non-hazardous Soil & Groundwater Work Plan
- Demolition Plan
- Dirt and Dust Control Plan
- Employee Training Records
- Environmental Manager Qualifications
- Hazardous Material Forms (TAFB FORMS 81 & 82) and Safety Data Sheets

Closeout Submittals:

- Stormwater Pollution Prevention Plan Compliance Notebook
- Stormwater Notice of Termination
- Waste Determination Documentation
- Disposal Documentation for Hazardous and Regulated Waste
- Assembled Employee Training Records
- Solid Waste Management Permit
- Hazardous Waste/Debris Management
- Regulatory Notifications
- Sales Documentation
- Contractor Certification
- As-Built Topographic Survey
- Hazardous Material Usage Form (TAFB FORM 83)



3. APPLICABLE FEDERAL, STATE, AND LOCAL LAWS, REGULATIONS, AND PERMIT REQUIREMENTS, ERP, 404/401, INDUSTRIAL WASTEWATER

FEDERAL

Are Federal Regulatory requirements anticipated for the current scope of work?

NO

YES,

Tyndall AFB is regulated under EPA as a CERCLA Site

STATE (FDEP)

Are State Regulatory requirements anticipated for the current scope of work?

NO

YES, Classify the coordination required and point of contact person below:

CTR will need to complete an ERP application that gets approved by USACE, Base Envl, And FDEP.
Dewatering plans are reviewed/approved by USACE, Base Envl and FDEP

- GENERIC PERMIT FOR STORMWATER DISCHARGE FROM LARGE AND SMALL CONSTRUCTION ACTIVITIES (CGP), DEP Form 62-621.300(4)(b)/NOI
- GENERIC PERMIT FOR DISCHARGE OF GROUND WATER FROM DEWATERING OPERATIONS (subsection 62-621.300(2), F.A.C.) Dewatering Plan is required, approval by USACE/BASE/FDEP
- ENVIRONMENTAL RESOURCE PROGRAM (ERP) PERMIT
- WETLANDS 404 APPLICATION (If required)
- WASTEWATER APPLICATION FORM 2EG - PERMIT TO DISCHARGE NON-PROCESS WASTEWATER FROM NEW OR EXISTING INDUSTRIAL WASTEWATER FACILITIES TO GROUND WATERS Form 62-620.910(6) (Form 2EG) (If required)
- WASTEWATER APPLICATION FORM 2ES - PERMIT TO DISCHARGE NON-PROCESS WASTEWATER FROM NEW OR EXISTING INDUSTRIAL WASTEWATER FACILITIES TO SURFACE WATERS Form 62-620.910(7) (Form 2ES)

LOCAL

Are Local Regulatory requirements anticipated for the current scope of work?

NO

YES, Classify the coordination required and point of contact person below:

<i>Discuss TAFB Requirements: Forms 81, 82 and 83; Dig Permits; Stormwater Pollution Prevention Plan (SWPPP); Any chemical sprays (herbicide, pesticide, fertilizer)</i>



4. PROTECTION OF FEATURES PLAN & HISTORICAL, ARCHAEOLOGICAL, CULTURAL/BIOLOGICAL RESOURCES & WETLANDS PLAN

Are any known Historical, Archaeological, Cultural/Biological Resources & Wetlands plan requirements anticipated for the current scope of work?

NO

YES, Include Protection of Features Plan required and point of contact person below:

Review the AF 813 form and the findings for the project site/No items of concern that I saw
Discuss the Cultural Findings Tips Pamphlet
Appendix M for the AF 813. Environmental Assessment (EA) in Appendix T.

5. SITE IDENTIFICATION AND PLANNED ENVIRONMENTAL CONTROLS – SWPPP

The minimum required site documentation for environmental controls (layout and details) with supporting specification(s) are shown below. Need to have a dig permit before the base will approve a SWPPP:

- A – Vicinity Map and Site Plan with disturbance boundary and known or potential contamination boundary
- B – Notice of Intent Form/Construction General Permit
- C – Hydrologic and Hydraulic Design Drawings, Analysis and Flood Prevention Program
- D – BMP Materials Details and Data Sheets
- E – Inspections Forms

Existing AF/USACE Site Identification

- IRP**
- AFFF**
- NON-IRP/NON-AFFFF (CLEAN)**
- SOILS DISTURBANCE**
 - Project site net Fill / Project site net Cut
- DEWATERING**
 - Dewater Plan Required



6. SEDIMENT AND EROSION CONTROL, DEWATERING MEASURES

Is the SWPPP Plan available for the current scope of work?

NO

YES

SWPPP plan is required, not submitted yet
Base has a preferred SWPPP Template, not required to use

6.1 Hauling/Tracking Soils

Don't overload trucks spillage on roads

Be prepared with sweeper to clean up tracked soil on roads

Be prepared to control dust with water truck

Clean sides of truck after loading and dumping

Being so close to the airfield, should be extra vigilant to keep roads cleaned and control dust

Excess contaminated material will be hauled to Site C, currently under construction

7. Permit Submittal and Review Sequence

SWPPP submission requiring USACE/Base Approval >Dig Permit> NOI > Construction General Permit>ERP Application (USACE review at 100% Unreviewed Design Submission)

NOTE: Contractor is encouraged to keep the SWPPP simple, direct and relevant to your project only. The FDEP NOI is available as a simple on-line application. Construction General Permits are issued 48 hours after completion of NOI application

Soils Management:

- What type of soils do you have? IRP, AFFF, Clean, Combination Sites
- Project soil mass balance (excess or deficit)
- Where will your project haul excess soils? Which stockpile? Site C Stockpile Area
- Does Survey support the IRP shape files, do the boundaries make sense
 - Show Maps that have different boundaries for OW217 and TU205
- All soil movement needs to be tracked (IRP soils need load ticket)-USACE to Elaborate
- Reuse soil on site possible?
- Stockpile management or by Others? CTR Hauls to Site C, they'll be directed where to dump, once dumped, CTR is done, they don't manage the stockpile area.

Is the Dewatering Plan available for the current scope of work?

NO

YES, If dewatering plan required:



Dewatering plan will be required. USACE/BASE/FDEP review and approval. Consider discharge points and multiple plans to address different zones (i.e. non-contaminated, IRP, AFFF, AFFF & IRP, etc.)
Guidance is for re-infiltration of contaminated water into plume, very little available area for infiltration on flightline
Address the sampling that will be required with dewatering in contaminated sites. (Storage, Sampling, Waiting Period, Discharge) Only use DOD ELAP certified lab

Existing AF/USACE Site Groundwater Identification:

- IRP**
- AFFF**
- NON-IRP/AFFFF (CLEAN)**
- IS GROUNDWATER (GW) SAMPLING AND ANALYSIS REQUIRED?**
- DO ANALYTICAL LIMITS EXCEED 70 PPT?**
- IS ONSITE TREATMENT ANTICIPATED?**
-

Dewatering plan guidance available for Contractor to review

8. ENVIRONMENTAL MONITORING

8.1 Tracking Soil Movement

1. Track IRP/AFFF soils with a load ticket. Each load will need to be tied to a 400 CY batch of soil and associated analytical
2. Track Clean soils in daily report
3. Clean soils may be hauled to other project sites with proper coordination
4. On site reuse of soils don't require tracking
5. Select a DOD ELAP certified lab for water and soils analytical if required
 - a. Recommendation: for analytical testing, have your lab evaluate the data (best equipped to do it); For example, if hauling IRP soils to your stockpile area, need to run TCLP analysis, have the lab evaluate the data to determine the soil does not exhibit any hazardous characteristics. That evaluation of the data is required, and it will make USACE/Base review so much quicker if the lab evaluates the data



6. All suspected IRP soils not intended for reuse at the point of excavation must be hauled to designated IRP stockpile location-Site C/need to run Toxic Characteristics Leaching Procedure (TCLP)
7. If suspected contaminated soils are identified in a clean area of the site, sampling is required to determine soil type (IRP, AFFF)
8. Sampling frequency for soil analysis is 1 sample/400 CY of the planned excavation

8.2 Soil/Water/Permits General Guidance

- Clean soils excavated on project site can be used elsewhere within project site boundary
- Clean soils excavated on project site can be hauled to dedicated clean soil stockpiles with coordination
- Clean soils excavated on site can be brought to other sites with prior coordination
- **No soil is to be removed from Tyndall AFB property, clean or contaminated**
- Clean soils are clean unless show visible signs (or smell) of contamination
- Any contaminated equipment must be decontaminated prior to transporting equipment
- Soils of undetermined contamination must be temporarily staged on 10-mil poly containment barrier
- All imported soils must be certified clean with proper documentation provided by DoD approved lab
- Clean and contaminated soils may not be stockpiled together (comingled)
- All materials approved to leave the site (by Base Environmental CES/USACE) must have complete tracking documentation: Bill of Lading and/or Waste Manifest
- Never haul saturated soils with free water that may potentially escape from truck or vessel
- Potentially contaminated materials sampling must be performed by a qualified consultant
- Off-site soil disposal
 - Must stay on site until approved for off-site disposal
 - Must be covered, do not haul to an off-site stockpile location
 - Only material that tests as hazardous waste allowed to leave site

8.3 PFOA/PFOS Guidance

- All disturbed soil and water must be tested
 - Soil: if tests above 1.3 ppm, must be removed or treated
 - Water: if tests above 70 ppt, must be removed or treated
- In area of known AFFF release, must test soil and groundwater (if dewatering)
- Water that tests below the 70 ppt concentration may be percolated into the existing known plume per the approved dewatering plan.
- Any soils pending analytical results shall be staged and contained on poly sheeting and covered with poly sheeting

*****Hazardous soils/water are not expected*****



- Groundwater (GW) greater than 70 ppt concentration must be treated, then returned to the existing plume boundary, Docs also say you can infiltrate anywhere on the base
 - Dewatering sampling frequency: SEE Installation Restoration Program and Aqueous Film Forming Foam Guidelines for Tyndall MILCON-Rebuild 8 November 2021—This contract has the latest GW sampling requirements
- Use a flow meter to track pumped volume
- Groundwater return requirements-re-infiltrate back into the plume
- 30 day notification required prior to starting excavation of contaminated material
- Must comply with OSHA 1910.120 Hazardous Waste Workers

9. SPILL PREVENTION AND CONTAINMENT PLAN

Is the Spill and Contamination Prevention available for the current scope of work?

NO

YES, include submittal number and point of contact person below:

<i>Typically SPCC required if storing greater than 1320 gallons of fuel</i>
Otherwise can address spill management in the EPP

Spill Plan must be available, maintained and updated when necessary, at project site.

10. MAINTENANCE OF HAZARDOUS MATERIAL SDS

Is the Hazardous and Non-Hazardous Materials List available for the current scope of work?

NO

YES, Include submittal number and point of contact person below:

<i>HP will need to provide AF Forms 81, 82, and 83 as needed</i>
Submitted directly to this Inbox: 325CES.Hazmat@us.af.mil

Create and Maintain a Chemical Inventory List. Chemical Inventory List must be available, maintained and updated when necessary at project site. See AF forms 81, 82, and 83

11. DESCRIPTION OF CONTRACTOR’S ENVIRONMENTAL TRAINING PROGRAM

Reference the applicable safety and material handling documentation or protocols below:

The information shared in the ENVL MUM needs to be conveyed to the personnel in the field. They are the
People who will be handling soil and pumping water



12. NON-HAZARDOUS SOLID WASTE DISPOSAL PLAN

Is a Non-Hazardous Solid Waste Disposal Plan available for the current scope of work?

NO

YES, Include submittal number and point of contact person below:

NO SOIL LEAVES TYNDALL, DON'T MIX SOIL WITH VEGETATION, CONCRETE, WOOD, ASPHALT

- Any off-site disposal of non-soil material anticipated?**
- Any Recycled materials anticipated?**
- Steel** **Concrete** **Other C&D**
- Any off-site disposal shall be completely free of soils, contaminated or non-contaminated**
- Maintain all disposal records for all types of material**
- Submittal required for all anticipated disposal facilities**

13. REVIEW OF EPP, DEMOLITION, WASTE MANAGEMENT, HAZARDOUS & NON-HAZARDOUS WORK PLAN SUBMITTALS

- Environmental Protection Plan (01 57 19-3)
- Hazardous/Non-Hazardous Soil & Groundwater Work Plan (02 61 13-1)
- Demolition Plan (02 41 00-1.2)
- Waste Management Plan (01 74 19-1.1)

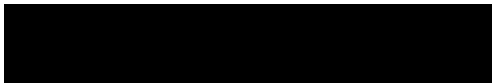
14. COC's: available from shared spreadsheet

15. Geotech/Drilling: Need to discuss the drums from the Geotech investigation. Was there sampling, need analytical, need hazardous waste determination

16. ACTION ITEMS



**US Army Corps
of Engineers**
Mobile District



17. ACKNOWLEDGEMENTS AND EXCEPTIONS

- **Signatures of Representatives**

NOTE: "Applicable Contract Provisions" and discussions were not intended to be all-inclusive. The provisions and discussions were intended only to highlight important points only, and do not alter or modify any Contract requirement.

Contractor Representative

Signature: _____

Name/Position: _____

Date: _____

Exceptions taken (x): Yes () No ()
Please explain any exceptions taken on an attached sheet.

Signature of U.S. Army Corps of Engineers Representative

Signature: _____

Name/Position: _____

Date: _____

LEGEND

-  OWZ17 ERP Site Boundary
-  SS026/SS020 ERP Site Boundary
-  SS015 ERP Site Boundary
-  TU205 ERP Site Boundary



SOURCE:
Tyndall AFB, 2016
Coordinate System: NAD 1983 StatePlane Florida
North FIPS 8503 Foot
Vertical Coordinate System: North American Vertical
Datum: 1988 Feet



FIGURE 1-2
FLIGHTLINE AREA MAP
TYNDALL AFB, FLORIDA

DATE	PROJECT NO	SCALE
JANUARY 2019	2017-401-000	AS SHOWN

LEGEND

-  Active Use Areas and Existing Buildings
-  Former Buildings and Use Areas Site Areas
-  OW217 ERP Site Boundary
-  SSO/26/020 ERP Site Boundary
-  SSO/15 ERP Site Boundary
-  TU205 ERP Site Boundary

NOTE:
1. Site boundaries are approximate and shown for reference only.



SOURCE:
Tyndall AFB, 2018
Coordinates System: NAD 83 Standard Florida
North FIPS 5003 Feet
Vertical Coordinate System: North American Vertical
Datum 1988 feet



FIGURE 2-2
SURROUNDING FEATURES MAP
FLIGHTLINE AREA
TYNDALL AFB, FLORIDA

DATE	PROJECT NO	SCALE
JUNE 2019	20077-69-100	AS SHOWN

LEGEND

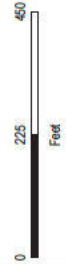
-  Shallow Zone Monitoring Well
-  Intermediate Zone Monitoring Well
-  Deep Zone or Base Monitoring Well
-  Multi-chamber Monitoring Well
-  Former Building 264
-  OW217 ERP Site Boundary
-  SS20/SS026 ERP Site Boundary
-  TU205 ERP Site Boundary
-  Extent of Petroleum VOC Plume
-  Extent of Chlorinated VOC Plume

VOC - Volatile Organic Compound
GCTL - Groundwater Cleanup Target Levels

NOTE:

1. Plume extent based on total VOCs, where one or more compounds exceeded the GCTL during 2010 sampling events.
2. Plume extent considers contamination in all three aquifers zones.
3. Plume boundary is approximate.

Approximate Screen Depth
Shallow (S) - 5-16 BLS
Intermediate (I) - 30-37 BLS
Deep (D) - 50-67 BLS
Base (B) - 75-85 BLS



SOURCE
1) Tyndall AFB, 2016
Coordinates: Spheroid: NAD 83; Spheroid: Florida
North FIPS 9803 Feet
Vertical Coordinate System: North American Vertical
Datum: 1988 Feet



FIGURE 8-1
HISTORICAL EXTENT OF VOC PLUME
SURFICIAL AQUIFER
SITES OW217 AND TU205
TYNDALL AFB, FLORIDA

DATE	PROJECT NO	SCALE
MARCH 2016	2017-108-130	AS SHOWN
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It's the Law!

Archaeological sites on Tyndall Air Force Base are protected from damage and destruction by the Archaeological Resources Protection Act, the American Antiquities Act, and many other laws and regulations. Failure to stop work and report an inadvertent discovery is illegal, and can lead to a ban on base access, contract loss, fines, and jail time.



Cultural Resources Program

The Tyndall Cultural Resources Program helps the base comply with the numerous laws and regulations that govern the preservation and management of archaeological sites, historic buildings, and historic cemeteries located on the base. The program reviews all construction projects conducted for Tyndall, and consults with six Native American tribes and the State of Florida on the effects of these undertakings. The program also surveys and documents the location of historic resources, monitors the condition of these properties, and provides training and educational outreach about their management and preservation.

TYNDALL AIR FORCE BASE

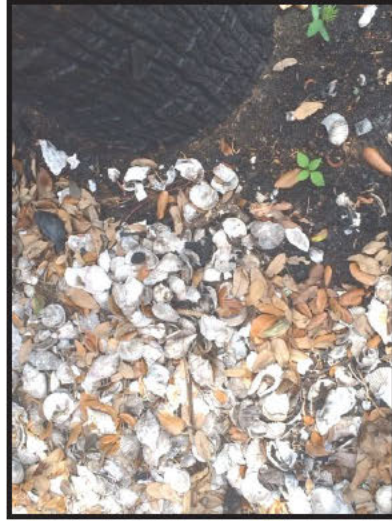
TRAINING FOR THE INADVERTENT DISCOVERY OF CULTURAL RESOURCES



CULTURAL RESOURCES PROGRAM
325th CIVIL ENGINEER SQUADRON

What is an INADVERTENT DISCOVERY?

An **INADVERTENT DISCOVERY** occurs when a project unearths evidence of past people or extinct animals. This evidence is called an **ARCHAEOLOGICAL SITE**. Archaeological sites can be found anywhere on base, above and below the ground.



A thick layer of shells may indicate an archaeological site.

Will I discover an ARCHAEOLOGICAL SITE?

Tyndall is required by law to search for and document archaeological sites before any projects occur. Projects are planned to avoid archaeological sites so discoveries are **RARE**.

How do I RECOGNIZE an inadvertent discovery?

Discovered materials are often thousands of years old, and can be hard to recognize. Signs that you may have encountered an archaeological site include

- ◆ Unusual or abrupt changes in soil color, especially to rich black soil.
- ◆ Thick layers or scatters of seashells, angular rocks, or flat rock-like objects.
- ◆ Layers or scatters of broken dishes, old bottles, or bricks.
- ◆ Burned soil or ash.
- ◆ Large timbers or cut wood.
- ◆ Bones or teeth

What should I do if I FIND something?

STOP all ground-disturbance and **REPORT** the discovery to your supervisor, contract representative, or unit commander. Your contact should immediately notify the Cultural Resources Program of the discovery.



An example of an abrupt change in soil color.

When can I RESUME work?

The Cultural Resources Program will send an archaeologist to view the discovery, and determine if it requires documentation.

Work can often resume **QUICKLY** outside of a perimeter set by the archaeologist.

Need to report a discovery?

Tyndall Cultural Resources
Program Phone: 850-283-2713
Email: jose.cintron.1@us.af.mil

Need more information?

Inadvertent Discovery Training
(website link pending)