DEPARTMENT OF THE ARMY
THE ASSISTANT SECRETARY OF THE ARMY
INSTALLATIONS, ENERGY AND ENVIRONMENT
110 ARMY PENTAGON
WASHINGTON DC 20310-0110

SAGC

DEC 12 2024

Mr. Hampton Dellinger
Special Counsel
U.S. Office of Special Counsel
1730 M Street, N.W. Suite 300
Washington, D.C. 20310-0101

RE: Whistleblower Investigation - Alleged violations of law, rule, or regulation and a substantial and specific danger to public health and safety in violation under the Comprehensive Environmental Response, Compensation, and Liability Act committed by United States Army Corps of Engineers employees during a Remedial Investigation at Tyndall Air Force Base, Florida (Office of Special Counsel File Number DI-24-000713)

Dear Mr. Dellinger,

In accordance with Title 5, United States Code, Sections 1213(c) and (d), the enclosed summary and report is submitted in response to your referral of information requesting an investigation of allegations and a report of findings in the above referenced case. The attached report is also submitted to the Special Counsel pursuant to 5 USC §1213(e)(1) and subject to the limitations of §1213(i). **The report and summary are submitted solely to satisfy the requirements in 5 USC §§1213(d)(1)-(5) and shall not inform the basis of, or support, any claim or cause of action under Federal or State laws or regulations against the Department of the Army or any other Federal Agency.**

The Secretary of the Army (SA) has delegated to me her authority, as Agency head, to review, sign, and submit to you the statutorily required report. [Exhibit A].

The Department of the Army (DA) is providing you with two versions of its report. The first version of the report (enclosed) contains the names and duty titles of civilian employees of the DA and Department of the Air Force. This first version is for your official use only, as specified in 5 U.S.C. § 1213(e). We understand that, as required by law, you will provide a copy of this first version of the report to the Whistleblower, the President of the United States, and the Senate and House Armed Services Committees for their review. Other releases of the first version of the report may result in violations of the Privacy Act[1] and breaches of personal privacy interests.

[1] The Privacy Act of 1974, Title 5, United States Code, Section 552a.

The second version of the report will be sent to you separately and will not include privacy-protected information. It is suitable for release to all others. We request that only the second version of the report be made available on your website, in your public library, or in any other forum in which it will be accessible to persons not expressly entitled by law to a copy of the report.

The Department of the Army takes very seriously its responsibility to address, in a timely and thorough fashion, matters referred by the Office of Special Counsel (OSC). In this case, the Army conducted a thorough and comprehensive investigation in response to the OSC's referral of allegations submitted by the Whistleblower, [redacted]. The alleged wrongdoing occurred at Tyndall Air Force Base, Florida by employees of the U.S. Army Corps of Engineers (USACE), Mobile District located in Mobile, Alabama. The OSC referral included allegations that may constitute a violation of law, rule, or regulation and a substantial and specific danger to public health and safety. An IO was appointed to investigate the facts and circumstances surrounding the Whistleblower' s allegations that follows:

The allegations to be investigated include the following:

(1) In violation of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), its regulations, and Department of Defense (DoD) and Environmental Protection Agency (EPA) directives, USACE employees impermissibly restricted the areas to be investigated in a Remedial Investigation (RI) at Tyndall Air Force Base (AFB) that is assessing the nature and extent of Per- and polyfluoroalkyl substance (PFAS) contamination, which include Perfluorooctanoic Acid (PFOA) and Perfluorooctane Sulfonate (PFOS);

(2) By impermissibly restricting the areas to be investigated in the PFAS RI at Tyndall AFB, employees, including USACE, Military Construction (MILCON) employees, MILCON contractor employees, and Tyndall AFB employees working at Tyndall, may be unknowingly working in contaminated areas, and thereby potentially exposed to PFAS; and

(3) Any related allegations of wrongdoing discovered during the investigation of the foregoing allegations.

The purpose of this investigation was to determine the validity of the Whistleblower's allegations and to make findings concerning whether any wrongdoing had occurred, and if wrongdoing had occurred, to identify by whom and whether adequate policies and procedures are in place to preclude any recurrences of improprieties, irregularities, or misconduct. The investigation also was to assess whether any appropriate corrective actions were needed to be taken.

Ultimately, the IO concluded that the Whistleblower's specific allegations **were not substantiated**. Regarding Allegation 1, the IO found that this allegation **was not substantiated** because areas were *not* impermissibly restricted from the investigation and no violation of law or policy had occurred. Consistent with the Tyndall Air Force Base Federal Facility Agreement, USACE coordinated with base personnel and actively engaged with the involved stakeholders that included both federal and state regulators who are responsible for environmental cleanup oversight. The Air Force and DA employees followed the applicable requirements under

CERCLA and incorporated appropriate requirements in the USACE contract documents for the RI and MILCON activities.

Furthermore, the original contract was not intended to produce a final RI; it was intended to be Phase I of the RI. A critical element of a final RI is the baseline risk assessment, and the statement of work (SOW) expressly excluded Human Health and Ecological Risk Assessments from being performed as part of the Phase I RI. Because the original contract would not have produced a final RI, the changes to the sampling and analysis under task order modification 4 did not materially alter the intent of the contract as it relates to the completion of the RI phase of CERCLA. The Air Force's request for the USACE Contracting Officer to modify the contract additionally supports that the contract for the Phase 1 RI was not intended to be the final contract action. The Air Force stated that several of the site's Phase I RI characterizations will require additional work in a future contract and may only be completed when construction activities permit access for conducting full site characterization.[2]

Regarding Allegation 2, the Investigating Officer found that this allegation **was not substantiated** because areas were *not* impermissibly restricted; no violation of law or policy occurred; and safety requirements addressing potential exposure are the same, whether work occurs in "clean", "known" or "unknown" contamination areas. The PFAS RI site safety and health plan states that the exposure via incidental ingestion may exist and exposure via dermal contact is very unlikely. For this reason, personal protective equipment (PPE), personal decontamination procedures, and observing basic hygiene practices (that is, washing face and hands before leaving the site) are the principal methods for preventing exposures from these routes. These practices are the *same* as those required for general fieldwork under Occupational Safety and Health Administration (OSHA), Engineer Manual (EM) 385-1-1, and the construction specifications included in the applicable MILCON contracts, as well as other USACE MILCON contracts. Thus, regardless of the status of site characterization, workers were protected from incidental ingestion and dermal contact because of the general PPE requirements.

I agree with the IO's conclusions detailed above which were also agreed to by the Approving Official.

However, although the allegations were not substantiated, the investigation did reveal some concerns with internal coordination among the USACE teams. It is likely the whistleblower complaint could have been avoided if the proper procedures and communications had been followed. If left unresolved, these coordination challenges could lead to future inadvertent communication lapses that increase the risk of adverse outcomes, project delays, or claims against the USACE and Army. To address those concerns, I agree with the IO's following two recommendations that were also approved by the Approving Official.

First, USACE will ensure a full enterprise understanding of the requirements in the PFAS Daily Tasking Order (DTO) [Exhibit B, 2024 USACE PFAS DTO] across all mission areas, with acknowledgment from all specified USACE offices of not only receipt of the DTO but also acknowledgment that employees understand the requirements. More specifically, prior to accepting or beginning any PFAS-related work, each Commander will obtain work approval

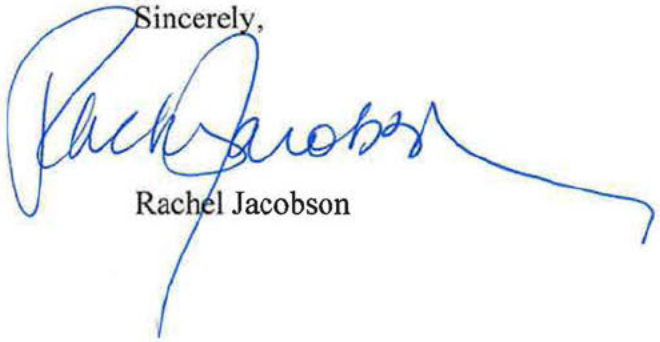
[2] As detailed further in the enclosed summary, the Tyndall AFB military contraction rebuild (MILCON-Rebuild) project valued at $5.3 billion was initiated as a result of the destruction caused by a direct hit on Tyndall AFB on October 10, 2018, by Category-5 Hurricane Michael.

from the aligned Directorates, Military Programs (MP), Civil Works (CW), or Engineering Research and Design Center (ERDC). Also, the Project Delivery Teams (PDTs) in MP and CW will engage the Environmental and Munitions Center of Expertise (EM CX) for review of draft documents describing PFAS-related work for all project phases.

Second, District leadership (when the multiple Corps teams working in the same area are from the same District) or Division leadership (when the teams are from different Districts) will require a communication plan to be developed and approved by the multiple teams and leadership.[3] The USACE Project Delivery Business Process, EM 5-1-11 dated September 1, 2022 (USACE Publications - Engineer Manuals)[4] details project management plan, program management plan, and communication plan requirements. Adding additional reviews and approvals in these multiple team scenarios will ensure sufficient understanding of the different mission objectives; provide an opportunity to address potential impacts from co-located work; and initiate open communication channels among the lateral teams and vertical chain(s) of command.

In summary, I am satisfied that the IO's findings are well founded and that the IO's recommendations will constitute an appropriate resolution of this matter. Accordingly, the Army has made no referral of alleged criminal violations to the Attorney General pursuant to Title 5, United States Code, § 1213(d)(5)(d).

Sincerely,



Encl(s)

Rachel Jacobson

[3] USACE organizational structure generally includes a hierarchy extending from the Headquarters, through regional Division offices, down to local District offices.

[4] Hereinafter, when an Exhibit is readily available on the internet, the website will be hyperlinked.

SUMMARY OF THE REPORT OF INVESTIGATION

INFORMATION INITIATING THE INVESTIGATION

By letter dated April 26, 2024, the Special Counsel referred to the Secretary of the Army for investigation a whistleblower disclosure. The Whistleblower, [redacted], [5] alleged that employees of the U.S. Department of Army, U.S. Army Corps of Engineers (USACE[6]), Mobile, Alabama engaged in conduct that may constitute a violation of law, rule, or regulation and a substantial and specific danger to public health and safety. As was stated in the OSC referral letter, a copy of the letter with its enclosures was provided to the Secretary of the Air Force and the Inspectors General of the Army and the Air Force[7] as the alleged actions occurred at Tyndall Air Force Base.

As reflected in the referral letter, the Whistleblower alleged that USACE employees violated the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), its implementing regulations, and Department of Defense (DoD) and Environmental Protection Agency (EPA) directives. Further, [redacted] claimed that he reported the alleged violations to agency officials, but they remain unresolved. The Whistleblower made the following allegations:

OSC Referred Allegation #1: In violation of CERCLA, its regulations, DoD and EPA directives, USACE employees impermissibly restricted the areas to be investigated in a Remedial Investigation (RI) at Tyndall Air Force Base (Tyndall AFB) that is assessing the nature and extent of Per- and polyfluoroalkyl substance (PFAS) contamination, which include Perfluorooctanoic Acid (PFOA) and Perfluorooctane Sulfonate (PFOS);

OSC Referred Allegation #2: By impermissibly restricting the areas to be investigated in the PFAS RI at Tyndall AFB, employees, including USACE, Military Construction (MILCON employees, MILCON contract employees, and Tyndall AFB employees working at Tyndall, may be unknowingly working in contaminated areas and thereby potentially exposed to PFAS.and

OSC Referred Allegation #3 directed the investigation of any related allegations of wrongdoing discovered during the investigation of the foregoing allegations.

CONDUCT OF THE INVESTIGATION

On May 4, 2024, on behalf of the Secretary of the Army, the Office of the Army General Counsel (OGC) forwarded the OSC's correspondence to the Commanding General (CG), [redacted] U.S. Army Corps of Engineers (USACE), [redacted]

[5] [redacted] is a Project Manager in the Programs and Project Management Division, USACE Installation Restoration Program Support, Interagency and Environmental Branch

[6] Hereinafter, the U.S. Army Corps of Engineers will be referred to as "USACE" or "Corps" in this Report.

[7] Hereinafter, the U.S Air Force will be referred to as "Air Force," "AF," or "USAF."

[redacted] for appropriate action, including the initiation of an investigation into the allegations pursuant to Army Regulation (AR) 15-6, *Procedures for Investigating Officers and Boards of Officers*, and to take appropriate corrective actions. Based on the investigation, an Army report would be prepared for submission to OSC as required by 5 U.S.C. §§ 1213(c) and (d).

On May 20, 2024, after searching for Corps employees with the necessary knowledge and experience to serve as the Investigating Officer (IO) for this investigation, [redacted] appointed [redacted] to serve as the IO pursuant to AR 15-6 to determine the facts and circumstances surrounding the allegations made by the Whistleblower. The appointment letter specified the allegations as stated above to be investigated.

During the interview on May 29, 2024, the Whistleblower raised the additional allegation of reprisal. The IO explained that an allegation of reprisal was outside the scope of her investigation and referred the issue to her legal adviser. The legal adviser informed Army OGC of this reprisal allegation and the IO's response that it was not within the scope of the investigation. OGC verified that that issue was not within the scope of the investigation.

INVESTIGATING OFFICER'S BACKGROUND

[redacted]

[redacted]

[redacted]

Based on her extensive professional experience, she was ideally suited to be the Investigating Officer (IO) for the subject Army investigation into the OSC referred allegations. After conducting a thorough investigation, including interviews with USACE environmental and MILCON staff, interviews with U.S. Air Force (USAF) personnel, and review and evaluation of over 175 exhibits, the IO concluded that the allegations have no merit. However, the IO noted that while the Whistleblower's allegations do not have merit, these projects, similar to all environmental remediation projects, have unique challenges that can be mitigated with thorough planning, methodical execution, adherence to USACE internal requirements, and enhanced, effective communications.

BACKGROUND

The complexity of the allegations and each of their respective multiple sub-elements added to the challenge of ensuring that the allegations were clearly outlined and investigated; a thorough analysis of gathered testimonial and documentary evidence had been conducted; and the appropriate findings and conclusions were developed and captured in the Army's Narrative Report to OSC.

Overall, the investigation went smoothly. Upon receipt of the appointment memorandum on May 20, 2024, the IO spent the initial week developing an investigation strategy; coordinating funding and travel orders; and setting up witness interviews. The Mobile District personnel provided timely logistical support for her to travel within a week of her appointment. On May 28, she traveled to Panama City, Florida and, on May 30, she traveled to Mobile, Alabama. The IO spent that week at Tyndall Air Force Base and then at the Mobile District Office conducting a site visit, interviewing witnesses, and gathering relevant documents. During the next several weeks (through June 24), she interviewed additional witnesses, received supplementary documents, and reviewed documents. The only notable challenge she faced was a delay of almost three weeks (from May 29-June 17) to set up interviews with relevant Air Force personnel who were out of the office for a week, and who then requested being interviewed only after receiving a clearance from their supervisors and the Air Force legal advisor. On June 20, the IO interviewed three Air Force personnel, including from the Tyndall Air Force Base restoration program manager, and obtained relevant information and documents from them. This delay also prevented her from conducting in-person interviews with these individuals when she first visited Tyndall AFB. Although she had to conduct virtual interviews with Air Force personnel, which was not the preference, she was able to gather sufficient facts to support her investigation.

The IO prepared her draft report of investigation (ROI) that included her findings and recommendations. The IO concluded that while the Whistleblower's allegations do not have merit, these projects, similar to all environmental remediation projects, have unique challenges that can be mitigated with thorough planning, methodical execution, adherence to USACE internal requirements, and enhanced, effective communications.

Additionally, the IO coordinated the ROI with her legal advisor and Army OGC, revised and finalized it, and briefed the AR 15-6 Approving Official, [redacted] on October 8, 2024.

[redacted] approved the AR 15-6 ROI on October 16, 2024. On October 16, the ROI was forwarded to the Army OGC for the preparation of the Army's Narrative Report that would be forwarded to the Assistant Secretary of the Army (ASA) (Installations, Energy and the Environment) (ASA (IE&E)) for her approval and signature and that ultimately would be forwarded to OSC in satisfaction of the 5 U.S.C. § 1213 reporting requirement. The ASA (IE&E) is the appropriate official to review and approve the subject Narrative Report as the Secretary of the Army delegated her authority to the ASA (IE&E) to do so given the ASA (IE&E)'s purview over the facts and circumstances relevant to the OSC referred allegations.

To properly analyze the merits of the Whistleblower's allegations and facilitate a better understanding of the facts and circumstances associated with them, it is important to understand the missions and functions of the USACE and the Air Force, as well as their relevant roles and responsibilities. Additionally, a working knowledge of the laws, rules, regulations, and policies that govern the issues in question are provided below.

ORGANIZATIONAL ROLES AND RESPONSIBILITIES

The USACE is a federal agency that provides civil and military engineering and regulatory services, functions, and capabilities in support of National interests.

USACE is the world's premier public engineering organization, responsible for building critical infrastructure and well-known monuments such as the Panama Canal, the Pentagon, NASA's Space Center, and the Washington Monument. USACE's mission is to deliver vital engineering solutions, in collaboration with our partners, to secure our nation, energize our economy, and reduce disaster risk, to include the following:

- Planning, designing, building, and operating water resources and civil works projects impacting navigation, flood control, water supply, recreation, hydroelectricity, environmental restoration, and other civil infrastructure projects;
- Responding to emergencies and natural disasters, such as hurricanes and earthquakes;
- Administering the Army's permitting responsibilities under the Clean Water Act and the Rivers and Harbors Act of 1899 to protect and conserve the nation's water resources;
- Designing and managing the construction of military facilities for the Army and Air Force, as well as infrastructure critical to national security both domestically and overseas — that includes providing technical and construction support to more than 100 countries;
- Acquiring, managing, and disposing of over 24 million acres of property alongside providing real estate services for the Army, Air Force, the Department of Defense, and other Federal agencies; and
- Operating 24% of the U.S. hydropower capacity or 3% of the total U.S. electric capacity.

The Secretary of Army has designated USACE as a Direct Reporting Unit (DRU) within the Department of Army, a military department within the Department of Defense. The Corps is led by its Commanding General, the Chief of Engineers.

USACE MISSION WORK IN SUPPORT OF OTHER MILITARY SERVICES' REQUIREMENTS

Tyndall AFB - Military Construction, Relevant Cleanup Activities, and Potential Exposure Pathways for PFAS

Relevant to this investigation are the activities to investigate contamination on Tyndall AFB and, separately, the military construction activities to rebuild Tyndall AFB after the devastation to the base caused by Hurricane Michael. USACE is executing the MILCON contract, a PFAS investigation contract, and optimized remedial contract (ORC) on behalf of and in support of the Air Force. The Air Force is the lead organization of Tyndall's CERCLA activities, and decisions and approvals are required from the both the Air Force and the environmental regulators overseeing base cleanup actions. USACE, as the service agent, awards contracts, provides technical support, and oversees contractors and daily activities.

Tyndall AFB is in Bay County, Florida and occupies approximately 29,000 acres on a narrow 18-mile-long northwest-southeast trending peninsula. Tyndall AFB was activated in 1941, initially as an Army Air Corps facility. It was re-designated as an Air Force Base in 1947. Tyndall AFB is part of the Air Combat Command and is used for the training of air defense crews and provides combat power for Air Force missions.

Tyndall AFB is a critical asset for the nation's defense strategy. It adjoins the Gulf Range Complex (GRC), comprised of 180,000 square miles of training airspace over the Gulf of Mexico. The GRC is one of the few ranges in the United States capable of supporting large-scale air combat training. Direct access to this range is essential for fifth-generation fighter readiness, fourth-and fifth-generation fighter interoperability and live-fire testing and training.

On October 10, 2018, Tyndall AFB sustained a direct hit from the Category 5 Hurricane Michael. Overall, 484 buildings were damaged, and Tyndall AFB removed 792,450 cubic yards of debris. National leadership has supported and encouraged the redevelopment of Tyndall AFB into the "Installation of the Future," to include resilient construction design that can withstand the impacts of inclement weather. New facilities at Tyndall will be optimized to reduce maintenance costs, increase safety/security, and maximize functionality to enable efficient and effective mission execution. The multi-year rebuild effort includes 44 new MILCON projects that will provide 120 new facilities, and there are 260 facility sustainment, restoration, and modernization (FSRM) projects, valued at $5.3 billion. [Exhibit C; Tyndall Air Force Base > Rebuild (af.mil); and Exhibit D], *Memorandum from Deputy Assistant Secretary of the Air Force (Environment, Safety, and Infrastructure) to Interim Secretary of Florida Department of Environmental Protection (FDEP)*, dated August 3, 2021, regarding support for the Tyndall AFB reconstruction into a first "Twenty-First Century Installation" and Air Force commitment to basing three F-35 squadrons at Tyndall starting in the fall of 2023, which the Air Force determined to be vitally important to national security).

Tyndall AFB was proposed for listing on the Superfund program's National Priorities List (NPL) on June 17, 1996, and its inclusion on the NPL was finalized on April 1, 1997. A Federal

Facility Agreement (FFA)[8] between the United States Environmental Protection Agency (USEPA) Region 4, the Florida Department of Environmental Protection (FDEP), and the USAF was signed on September 20, 2013. The FFA was effective on January 3, 2014. The FFA guides the cleanup activities at the base. Personnel and contractors are required to adhere to CERCLA requirements and the FFA terms.

One of the general purposes of the FFA is to "[e]nsure that the environmental impacts associated with past and present activities at the Site are thoroughly investigated and appropriate remedial action taken as necessary to protect the public health, welfare and the environment." Specific to this report, one of the purposes of the FFA is to "[e]stablish requirements for the performance of a RI to determine fully the nature and extent of the threat to the public health or welfare or the environment caused by the release or threatened release of hazardous substances, pollutants or contaminants at the Site…" [See FFA, pages 6 – 7 at AF Administrative Record)]

The FFA also "[p]rovide[s] for Florida['s] involvement in the initiation, development, selection, and enforcement of remedial actions to be undertaken at Tyndall Air Force Base, including the review of all applicable data as it becomes available, and the development of studies, reports, and action plans; and to identify and integrate state ARARs into the remedial action process." [See FFA, page 8 at AF Administrative Record].

While a general purpose of the FFA is to "[f]acilitate cooperation, exchange of information and participation of the Parties in such actions" [See FFA, page 7 at AF Administrative Record] the Reservation of Rights article states the following:

> EPA and FDEP may initiate any administrative, legal or equitable remedies available to them, including requiring additional response actions by the Air Force in the event that: (a) conditions previously unknown or undetected by EPA or FDEP arise or are discovered at the Site; or (b) EPA or FDEP receives additional information not previously available concerning the premises that they employed in reaching this Agreement; or (c) the implementation of the requirements of this Agreement are no longer protective of public health and the environment; or (d) EPA or FDEP discovers the presence of conditions on the Site that may constitute an imminent and substantial danger to the public health, welfare, or the environment; or (e) the Air Force fails to meet any of its obligations under this Agreement; or (f) the Air Force fails or refuses to comply with any applicable requirements of CERCLA or RCRA or State laws or regulations; or (g) the Air Force, its officers, employees, contractors, or agents falsify information, reports, or data, or make a false representation or statement in a record, report, or document relating to the release of hazardous materials at the Site, and this information affects the determination of whether a remedial action is protective of human health and the environment. [See FFA, page 49 at AF Administrative Record].

Under the Air Force Installation Restoration Program (IRP) that is conducted in compliance with the CERCLA, Tyndall AFB is investigating releases of hazardous substances associated with the past use of aqueous film forming foam (AFFF) to determine the presence or

[8] The Tyndall Federal Facility Agreement (FFA) is available on the AF Administrative Record (AR).

absence of perfluorooctanoic acid (PFOA) and perfluorooctane sulfonate (PFOS) on the base. This class of compounds is also referred to as per- and polyfluorinated alkyl substances (PFAS). The intersection of the PFAS investigation and MILCON activities within the same areas is a factor in the Whistleblower's concerns. However, while not the primary focus of this investigation, the Tyndall AFB IRP program also includes a military munitions response program (MMRP) and a "non-PFAS" hazardous, toxic, and radioactive wastes (HTRW) program.

USACE is currently executing an ORC that includes work at sites at Tyndall AFB. Several PFAS, "non-PFAS" HTRW, and MMRP sites overlap each other and/or interact with the MILCON rebuild areas. Several are also separate and discrete with no interrelationship between cleanup and MILCON activities. [Exhibit E, Tyndall Reconstruction Zone Book].

In 1970, the Air Force began using AFFF, which are firefighting agents containing PFOS and PFOA. This substance was used to extinguish petroleum fires, and releases of AFFF to the environment occurred during fire training and equipment maintenance, storage, and use. The USAF is also in the process of evaluating other potential non-AFFF source areas that may have used, stored, or disposed of PFAS-containing materials. Other potential PFAS sources that may be evaluated include metal plating processes, storage warehouses, automobile maintenance shops, and car wash facilities. [AR #AFFF_011724 at AF Administrative Record].

PFOA and PFOS have historically been used in a wide range of consumer products, including carpets, clothing, fabrics for furniture, packaging for food and cookware, and firefighting foam, in addition to being used in a wide range of industrial processes. PFAS, including PFOA and PFOS, are human-made chemicals that have been used in industry and consumer products since the 1940s because of their useful properties, including their resistance to water, grease, and stains. PFAS are prevalent in the environment because of their wide application and use in products such as the following: food packaging and preparation; commercial household products, including stain- and water-repellent fabrics, nonstick products, polishes, waxes, paints, and cleaning products; certain firefighting foams; manufacturing and production, including chrome plating, electronics manufacturing, textile manufacturing or oil recovery; insecticides; and certain types of adhesives. [Federal Register :: Designation of Perfluorooctanoic Acid (PFOA) and Perfluorooctanesulfonic Acid (PFOS) as CERCLA Hazardous Substances, and also EPA explains PFAS at https://www.epa.gov/pfas/pfas-explained].

PFAS fate and transport describes the behavior of these compounds following their release into the environment. Given the vast variety of PFAS, they collectively exhibit a wide range of different physical and chemical characteristics that can affect their behavior in the environment. Very limited details on PFAS fate and transport are included in this paragraph. The relatively high solubilities of most PFAS in AFFF contribute to their migration rates in groundwater. Due to high aqueous solubility, PFAS occurrence as a separate phase in the environment (for example, solid PFAS, light non-aqueous phase liquid (LNAPL) PFAS, or dense non-aqueous phase liquid (DNAPL) PFAS) is uncommon. The surfactant properties of PFAS are also what cause collection at interfaces like the air-water interface. In surface water, PFAS may accumulate within the surface microlayer (SML) that is defined as the thin layer (50 μm) of water in contact with the ambient air. Any portion of the released PFAS that is strongly retained within

sediments, or the soil matrix may be more persistent but likely less bioavailable and less subject to migration.

Under certain conditions, particularly within industrial stack emissions, or during fire suppression, incineration, or combustion, PFAS can be emitted and transported through the atmosphere. Transport occurs through the association of anionic PFAS with airborne aerosols and other small particulates rather than direct partitioning to the gas phase. Wet and dry deposition are the major mechanisms of removal of PFAS from the atmosphere and can occur from the scavenging of particle-bound PFAS or partitioning of gaseous PFAS to water droplets. PFAS are commonly found in precipitation (rain and snow), with wet and dry deposition estimated to occur on a time scale of a few days. Site characteristics generally define the nature of the source but also have an effect on PFAS-media interactions, including but not limited to soil type, groundwater flow velocity, and pH.

Inspections of various locations at Tyndall AFB were conducted by a company under contract to USACE and by other companies under contract to the Air Force. The purpose of the inspections was to determine the presence or absence of perfluorooctanoic acid (PFOA) and perfluorooctane sulfonate (PFOS) in these areas. These compounds are a class of synthetic fluorinated chemicals used in industrial and consumer products, including defense-related applications. This class of compounds is also referred to as per- and polyfluorinated alkyl substances (PFAS). [AR #AFFF_091518 at Administrative Record Search, section 1, p. 1].

In September 2018, a final Site Inspection Report of Fire Fighting Foam Usage at Tyndall AFB was completed [AR #AFFF_091518 at Administrative Record Search]. Thirty-two areas were evaluated during the Preliminary Assessment (PA)/Site Inspection (SI) at Tyndall AFB, with 18 areas recommended for inclusion in the RI.

When completing an RI and baseline risk assessment (BRA), the current and potential future exposure routes are evaluated to determine the type and location of investigation samples. Ingestion is the most common exposure route for PFAS. Dermal exposure is currently generally believed to be relatively insignificant compared to ingestion through diet. However, as the scientific understanding of PFAS evolves, arguments are being made that dermal exposure may be more important than currently believed based on skin penetration modeling of PFOS/PFOA and some epidemiology studies. The vapor intrusion pathway has not been a focus of evaluation for PFAS to date due to the relatively low volatility and high solubility of more common PFAS, such as PFOA and PFOS, but the data set is growing with most studies having focused on indoor environments. Inhalation exposure considerations differ for low volatility PFAS (for example, PFOA and PFOS), which would occur primarily as dust, and more volatile PFAS, which tend to occur in the vapor phase. [Interstate Technology Regulatory Council Full Guidance Document at PFAS — Per- and Polyfluoroalkyl Substances].

While both current and future exposure routes are incorporated into a BRA, the reasonably anticipated current and future land use will direct the primary focus of the investigation and evaluation. If an RI and BRA are completed prior to major construction activity, the primary focus of evaluation would be on potential future exposure routes. Completion of an RI and BRA post construction allows the evaluation to focus on current exposure routes with potential future land use expected to remain consistent. For example, demolition of a building could result in new exposure routes with soil if no building was reestablished in the same location, while the

construction of a building where one was not previously located would eliminate those potential soil exposure routes. Potential vapor exposure routes would similarly change due to demolition or construction of buildings. Exposure routes to groundwater are not likely to change post construction unless groundwater extraction locations for drinking water intakes were altered. Sampling of groundwater would be altered post construction if a building was constructed, but groundwater sampling underneath buildings is still possible, if necessary, via directional drilling or other sampling techniques. Indoor air sampling requires a building space to be established for sampling to occur.

CERCLA and the FFA ensure EPA and FDEP involvement in the environmental restoration process at Tyndall; similarly, construction activities are regulated by multiple permitting processes required by FDEP. [Exhibit F, Environmental Mutual Understanding Meeting notes]. Submission of Environmental Resources Permits to FEDP for rebuild and "beddown activities"[9] led to coordination with the state and resulted in a Memorandum for Record between the Deputy Assistant Secretary of the Air Force (Environment, Safety, and Infrastructure) and the Interim Secretary of FDEP, mandating soil management requirements for potentially PFAS-impacted soil during MILCON activities. [Exhibit D, Memorandum from Deputy Assistant Secretary of the Air Force (Environment, Safety, and Infrastructure) to Interim Secretary of FDEP].

DISCUSSION

Investigating Officer's Assessment and Analysis of Relevant & Material Facts for Allegation 1

ALLEGATION 1: USACE employees impermissibly restricted the areas to be investigated in a Remedial Investigation (RI) at Tyndall Air Force Base (Tyndall AFB) that is assessing the nature and extent of Per- and polyfluoroalkyl substance (PFAS) contamination, which includes Perfluorooctanoic Acid (PFOA) and Perfluorooctane Sulfonate (PFOS).

The original contract was not intended to produce a final RI. A critical element of the RI is the baseline risk assessment. The original Statement of Work (SOW) for a PFAS Phase I RI covered activities at Homestead Air Reserve Base and Tyndall AFB. The SOW states, "Human Health and Ecological Risk Assessments will not be performed as part of the Phase I RI." [Exhibit G, SOW PFAS Phase I RI]. The request for modification from the Air Force to the Contracting Officer on December 13, 2022, additionally confirms that the Phase 1 RI for the base was not intended to be the final contract action. In his letter, the base Remedial Project Manager states, "The AF expectation is characterization of nature and extent of PFAS contaminants will be possible at most of the Tyndall AFB sites. However, several of the site's Phase I RI characterizations won't be completed and will require additional work in a future contract and/or the current contractor will have to wait until the Tyndall AFB MILCON-Rebuild is complete before completing site characterization." [Exhibit H, Email: PFAS Phase I RI adjustments].

The initial PFAS Phase I Remedial Investigation for Homestead ARB and Tyndall AFB contract award was made on September 27, 2021. [Exhibit I, PFAS RI task order), containing the

[9] Beddown activities are the provision of expedient facilities for troop support to provide a platform for the projection of force.

SOW dated August 31, 2020. [Exhibit G, SOW PFAS Phase I RI]. This initiated the base award, a Phase I RI at Homestead AFB, with the Phase I RI at Tyndall AFB being an option to be exercised at a later date.

The statement of work includes the performance objectives and states on page 5, "The AE is solely responsible for reviewing all publicly available information and forming their independent, professional conclusions/interpretation of site conditions and requirements to meet the objectives of this contract. The information provided in this SOW is not intended as a substitute for complete analysis of technical data available, nor is it intended to be a guide on how the AE should address achievement of the AF's objectives." While the SOW includes the planned tasks to achieve the objectives, it does not prescribe how it will be accomplished. The SOW states on page 48, "The SOW includes the tasks required to complete a Phase I RI (in accordance with CERCLA) for each installation at the release area sites included in Appendix A .... Details of the actual scope required to fulfill the Phase I RI requirement will be determined in DQO scoping meetings with AF, the USACE, and environmental regulators." [Exhibit G, SOW PFAS Phase I RI].

Modification 2 of Contract W9127820D0026 (DO W9127821F0424) was awarded on March 18, 2022 [Exhibit J, PFAS RI task order modification 2], which exercised Option 16 for Tetra Tech, Inc. to conduct Phase I RI activities at Tyndall AFB. The scope and purpose of this contract is described as follows:

> The Phase I RI will consist of site characterization efforts to include lateral and vertical extent of PFAS contamination in all impacted media resulting from past aqueous film-forming foam (AFFF) releases and the update or development of a Conceptual Site Model (CSM). Based on the CSM resulting from Phase I, subsequent RI efforts will consist of any additional tasks such as but not limited to quantifying human health and ecological risks, preparing the corresponding baseline risk assessment reports, and evaluating remedial alternatives. The Phase I RI shall be designed to minimize future work in subsequent phases.
>
> This SOW includes base work to delineate nature and extent, and options for additional tasks that might be required to complete full lateral and vertical delineation. The baseline Human Health and Ecological Risk Assessments components of the RI's will be performed under a separate contract...
>
> Develop a comprehensive understanding of the vertical and lateral extent of PFAS contamination in soil, groundwater, sediment, and surface water, as applicable, resulting from past PFAS use. Determine the source-strength of residual soil contamination within unsaturated source zones, and update or develop a comprehensive CSM to include identifying potential exposure pathways and recommend sample requirements for follow-on RI efforts. [Exhibit G, SOW PFAS Phase I RI, page 1].

The SOW describes an RI, as defined in 40 C.F.R. 300.430(d), as follows:

> The AF has developed an approach to characterize the nature and extent of PFAS contamination generally following the CERCLA Remedial Investigation process. The Phase I RI consist of 5 major components: 1) Site Characterization, 2) Conceptual Site Model (CSM), 3) Human Health Risk Assessment, 4) Ecological Risk Assessment, and 5) Final Report. The AF plans to utilize a phased RI approach as the PFAS science emerges and regulations are updated. The first phase will consist of Site Characterization, CSM, and a Phase I RI report. Work plans, reports, and other document requirements are presented in Section 7. The Phase II RI will include the HHRA, ERA, and a Phase II RI report. The Phase II RI will be executed under a separate contract. Although the scope of work for this contract does not include completion of the HHRA or ERA, the AE is responsible for collecting data of sufficient quantity and quality in order to minimize or eliminate any future data gap sampling to address HHRA and ERA needs. [Exhibit G, SOW PFAS Phase I RI, page 7].

The general intent of the task order is described in the following.

> This task order includes the PFAS RI at HARB and TAFB. All sites within each installation shall be fully delineated both horizontally and vertically, and any un-allocated resources required for delineation at an installation can be moved to other sites within that Installation as needed to achieve the final Phase-I RI requirements.
>
> The initial plan presented in this SOW includes the approach, methods, and quantities the Government deems necessary to fully delineate each location/site; the AE shall plan, initiate, and conduct planning sessions with the Government to refine the allocation of resources to complete the location/site-specific requirements. The AE shall document all planning sessions including resources used and/or reallocated, as well as Government concurrence to ensure work remains within the existing scope and quantities of this task order. [Exhibit G, SOW PFAS Phase I RI, page 42].

Project planning is described to include the following:

> It is expected that the Phase I RI for each site will be an iterative process where data is collected and presented to the AF and USACE for planning/confirmation of subsequent investigation elements. This iterative process will continue until all sites are fully delineated and required information for the Phase I RI has been collected. [Exhibit G, SOW PFAS Phase I RI, page 43].

Modification 3 was awarded on September 28, 2022. "The purpose of this modification is to change the scope of work per PFAS testing, reporting and guideline changes, and to exercise option 2.12-Optional Site 1 Delineation in accordance with attached Revised SOW and contractor's revised proposal dated September 2, 2022." Updates included updating guidance, changing the required PFAS analytical methodology to EPA method 1633, adding PFAS compounds to the ASD screening values table, and removing optional tasks. [Exhibit K, PFAS RI modification 3].

During the planning of the scope modification detailed below, it was made clear in an email that the AF did not intend the boundaries to be restricted permanently but to allow for adjustments as investigation and MILCON projects progress: "Largest issue: how can we introduce language to alleviate future mods as the MILCON footprint changes over the years. All this current RFP does is limit boundaries given the current snapshot in time. We want to make sure that we are using the contract to its full potential with 'living boundaries' as MILCON and ERA projects evolve." [Exhibit L, Email: PFAS site boundaries].

Official direction from the USAF to USACE was provided on December 13, 2022 [Exhibit H, Email: PFAS Phase I RI adjustments] to modify the contract with the boundaries of the PFAS sites, as follows:

> The AF expectation is characterization of nature and extent of PFAS contaminants will be possible at most of the Tyndall AFB sites. However, several of the site's Phase I RI characterizations won't be completed and will require additional work in a future contract and/or the current contractor will have to wait until the Tyndall AFB MILCON-Rebuild is complete before completing site characterization. Air Force Civil Engineer Center Environmental Directorate Operations Division East Region Eglin Installation Support Section, USACE Mobile personnel working on contracts for the Tyndall AFB MILCON-Rebuild, and the regulators for Environmental Protection Agency and Florida Department of Environmental Protection have all agreed to this course of action (COA). AFCEC Restoration Division (CZR) concurred with this COA in an email on November 4, 2022.

Modification 4 was awarded on February 15, 2023, to update Points of Contact and revise the SOW for TAFB. The language adjusted the scope and purpose, acknowledging the limitation of investigation boundaries and adding emphasis to the iterative process identified in the original SOW:

> For Remedial Investigation (RI) efforts at Tyndall AFB, lateral extent of investigations shall be completed in a progressive manner to accommodate Tyndall rebuild efforts. The initial stage of this progression shall limit the lateral extent of investigation for specific sites to the MILCON approved PFAS site boundaries that are located in Appendix E of this SOW. Changes to the investigative limits will be determined during subsequent stages by receiving official documentation from the authorized MILCON representative and the approval of the COR. Any resources not utilized for this task order will be de-obligated during task order closeout. [Exhibit M, PFAS RI task order modification 4, page 2].

The remedial investigation definition section within the SOW was modified to highlight potential limitation to full site characterization. "However, some sites at TAFB may not be fully delineated due to MILCON rebuild efforts as stated in section 1.0 of this SOW." [Exhibit M, PFAS RI task order modification 4, page 2].

The general intent section was modified to clarify and add transparency that completion of the base performance objective at Tyndall AFB may have some caveats by stating, "However, some sites at TAFB may not be fully delineated due to MILCON rebuild efforts as stated in section 1.0 of this SOW." The CLIN structure section was likewise modified to state, "However, some sites at TAFB may not be fully delineated due to MILCON rebuild efforts as stated in section 1.0 of this SOW." Lastly Appendix E was modified (added) to include shape file(s) to identify the AFFF site boundaries. [Exhibit M, PFAS RI task order modification 4, page 3].

Page 2 of Enclosure 2 to the IO appointment letter (DA OSC letter dated April 26, 2024) states that the Whistleblower "alleged that restricting the areas to be investigated in the RI for PFAS violates the primary requirements of a U.S. CERCLA RI, which is to define the full extent of the contamination." During the interview, the Whistleblower stated that because of the sampling boundary restriction that occurred in modification 4, the PDT would not have a complete RI. [Exhibit N, Statement of [redacted]. This is inaccurate, since the original contract would not have produced a final RI, the changes to the sampling and analysis under modification 4 did not change the intent of the contract as it relates to the completion of the RI phase of CERCLA. The regulations and documents described below further confirm the purpose of a CERCLA RI, that the intent of the Tyndall PFAS contract was not materially changed, and that regulations were not violated.

The NCP states, "The purpose of the remedial investigation/feasibility study (RI/FS) is to assess site conditions and evaluate alternatives to the extent necessary to select a remedy. Developing and conducting an RI/FS generally includes the following activities: project scoping, data collection, risk assessment, treatability studies, and analysis of alternatives. The scope and timing of these activities should be tailored to the nature and complexity of the problem and the response alternatives being considered." [40 CFR 300.430 (a)(2) at eCFR :: 40 CFR 300.430 -- Remedial investigation/feasibility study and selection of remedy.].

The NCP also states, "The purpose of the remedial investigation (RI) is to collect data necessary to adequately characterize the site for the purpose of developing and evaluating effective remedial alternatives. To characterize the site, the lead agency shall, as appropriate, conduct field investigations, including treatability studies, and conduct a baseline risk assessment." [40 CFR 300.430 (d)(1) at eCFR :: 40 CFR 300.430 -- Remedial investigation/feasibility study and selection of remedy.].

The NCP further states, "Using the data developed under paragraphs (d)(1) and (2) of this section, the lead agency shall conduct a site-specific baseline risk assessment to characterize the current and potential threats to human health and the environment that may be posed by contaminants migrating to ground water or surface water, releasing to air, leaching through soil, remaining in the soil, and bioaccumulating in the food chain. The results of the baseline risk assessment will help establish acceptable exposure levels for use in developing remedial

alternatives in the FS, as described in paragraph (e) of this section." [40 CFR 300.430 (d)(4)) at eCFR :: 40 CFR 300.430 -- Remedial investigation/feasibility study and selection of remedy.].

The Tyndall AFB FFA states, "RIs shall be conducted in accordance with the requirements and Schedules set forth in the approved RI/FS Work Plan(s) and Site Management Plan. RIs shall meet the purposes set forth in Section IV - PURPOSE, of this Agreement. A Baseline Risk Assessment shall be a component of the RIs. Final Site clean-up level criteria will only be determined following completion of the Baseline Risk Assessment." [See FFA, page 15].

The DERP Manual states "During the RI, the DoD Component shall collect detailed information to characterize site conditions, determine the nature and extent of the contamination, and evaluate risks to human health and the environment posed by the site conditions by conducting a baseline ecological and human health risk assessment." [DoDM 4715.20 (4.)(b)(5), DERP Manual, DoDM 4715.20 at Defense Environmental Restoration Program].

After modification of the PFAS Phase I RI contract, the Uniform Federal Policy Quality Assurance Project Plan (UFP-QAPP) was developed in January 2024. [AR #AFFF_011724 at AF Administrative Record]. It was reviewed and approved by EPA Region 4 and FDEP with the final version completed in January 2024. It states the following on page 1:

> The USAF plans to use a phased RI approach as the PFAS science emerges and regulations are updated. The first phase will consist of site characterization, a Conceptual Site Model (CSM), and a Phase I Report. The Phase II RI will include Human Health and Ecological Risk Assessments (HHRA and ERA), as applicable, and a Phase II Report. The Phase II RI will be executed under a separate contract; therefore, Phase II activities are not included in this document.
>
> The Phase I RI will consist of site characterization efforts to determine the lateral and vertical extent of PFAS contamination in all media resulting from past AFFF releases, and updates to or development of CSMs. For RI efforts at TAFB, the lateral extent of investigations will be completed in a progressive manner in order to accommodate Tyndall rebuild efforts. The initial state of this progression will limit the lateral extent of the investigation for specific sites to the military construction (MILCON)-approved PFAS RI site boundaries. Changes to the investigative limits will be determined during subsequent stages by receiving official documentation from the authorized MILCON representative and approval from the USACE Contracting Officer Representative (COR). The Project Team will continue to seek approval to collect samples outside of the designated MILCON PFAS RI site boundaries in order to achieve Phase I RI objectives. If approval is not granted, additional sampling will be deferred until MILCON efforts are complete and/or approval is obtained.
>
> The goal of the Phase I RI will be to conduct a focused investigation of PFAS source areas from AFFF releases, as identified from Preliminary Assessment (PA) and Site Inspection (SI) Reports. The Phase I RI is designed to minimize future work in subsequent phases, understanding that the ongoing MILCON

may limit the ability to achieve lateral extent of investigations until MILCON efforts are complete and/or approval is obtained to sample outside of designated MILCON PFAS RI site boundaries. To the extent practicable, Phase I sampling will also focus to collect data of sufficient quantity and quality in order to minimize or eliminate any future data gap sampling to address HHRA and ERA needs.

The UFP-QAPP detailed a regulatory scoping session in which the MILCON boundary discussions were initially presented to EPA and FDEP on December 6, 2022. The following are highlights from Worksheet 9, pages 26-27, [AR #AFFF_011724 at AF Administrative Record)]

"The USAF has indicated that PFAS delineation efforts must remain within the AFFF site boundaries due to ongoing MILCON reconstruction projects. Official direction from the Air Force to USACE will be required to modify the contract."

"**General Sampling/Delineation Process:** The general sampling process and step out/step down sampling was presented and discussed with the team. Initial sampling efforts will be focused on confirming previously identified PFAS exceedances and step outs/downs within the MILCON PFAS RI site boundaries. Step out locations will be presented to the team for discussion/agreement in advance."

"[redacted] indicated that the USEPA would not accept an RI for a site that wasn't fully delineated due to the MILCON construction effort. [redacted] also noted that some sites may need to be revisited if construction activities disturb soil and/or groundwater after the RI sampling is complete.

At the time of this meeting, Tetra Tech received direction that permanent monitoring wells or direct push points (DPTs) could not be installed and sampled in MILCON construction zones outside of the site MILCON PFAS RI site boundaries. Since this time, it has been clarified that if MILCON construction activities are complete within a MILCON construction zone for a Phase I RI investigation area, then investigative work, including DPTs and monitoring well installation and sampling, may proceed after USACE provides official documentation from the authorized MILCON representative and approval from the USACE COR is given to change the PFAS site investigation limits."

The next scoping session, on March 7, 2023, was detailed in the UFP-QAPP and further refined the path forward, discussing the scope changes to the contract, as follows:

The lateral extent of the investigation shall be completed in a progressive manner to accommodate Tyndall AFB rebuild efforts.

- The initial stage of this progression shall limit the lateral extent of the investigation to the MILCON-approved PFAS RI site boundaries.

- Changes to the lateral extent will be determined on a site-by-site basis in subsequent stages by receiving official documentation from the authorized MILCON representative and approval of the COR.
- Some sites may not be fully delineated during the Phase I RI due to MILCON rebuild efforts.
  [AR #AFFF_011724, page 27 at AF Administrative Record].

The approval of the UFP-QAPP by EPA and FDEP indicates that, through the project planning phases and the FFA consultation process, any previous concerns that regulators may have had were addressed satisfactorily. [AR #AFFF_011724, page 9 at AF Administrative Record].

The UFP-QAPP defines the progressive sampling plan as "Using the results from the SI and previous sampling events, and the updated CSMs, the following sampling design and rationale has been prepared. The Phase I RI sampling plan is divided into three stages. Each stage includes an iterative sampling approach, which will occur at one or multiple sites. Following each stage of work, analytical and field data will be assessed, evaluated, and discussed with the TAFB PFAS project team. The proposed field activities and associated stages are outlined in Worksheet 17, [AR #AFFF_011724, pages 85, 88-89, and 90, respectively, at AF Administrative Record] containing the following highlights:

> "Stage 1 sampling is anticipated to occur between August 2023 and June 2024. The data collected in Stage 1 will guide the step-out DPT sampling (if any), installation of lysimeters, and groundwater monitoring wells in Stage 2. Stage 1 sampling includes a base-wide synoptic groundwater gauging event, surface water and sediment sampling, and soil and groundwater grab sampling."
>
> "The Stage 2 sampling plans predominantly consist of installation and sampling of permanent groundwater monitoring wells to laterally and vertically delineate PFAS impacts, and installation of lysimeters to sample porewater. If additional delineation is required for groundwater, soil, sediment, or surface water from the Stage 1 sampling plan, additional sampling will be conducted during Stage 2. These changes will be considered a minor design change and added through the completion of the UFP-QAPP update form. Due to the ongoing MILCON rebuild activities, step-out locations and monitoring well placement is limited to within the current site MILCON boundaries, unless written approval is provided by USACE and AFCEC representatives. If MILCON work is complete within a Phase I RI investigation area, then Tetra Tech will obtain written approval from USACE and AFCEC ahead of proposed step-out work outside of current site boundaries. Additional DPT sampling may be conducted post-MILCON in order to delineate PFAS constituents and/or confirm PFAS data results ahead of monitoring well placement."
>
> "Following the completion of Stage 2, analytical results will be evaluated. If additional sampling locations for delineation or further characterization are required, they will be added to the Stage 3 field activities through a modification to the sampling design. Otherwise, Stage 3 will consist of

sampling the newly-installed groundwater monitoring wells and lysimeters as described in the sampling and installation methods section."

The IO's interview with the AF Restoration Program Manager (RPM), [redacted] confirmed the Air Force's intent to award a follow-on contract to complete the characterization of the site and finalize the RI with a baseline risk assessment [Exhibit O, Statement of [redacted] as does the Memorandum for Record signed by the AF in 2021. [Exhibit P, Memorandum For Record, Tyndall AFB MILCON Rebuild and Installation Restoration Program (IRP) Sites].

As field sites are controlled by the contractor once a project has been awarded, a communication plan to request PFAS RI contractor site access has been developed that includes request location, coordination with USACE, AFCEC, NDR, MILCON Contractor for areas both within and outside MILCON zones. [Exhibit Q, Communication Plan]. Examples of access requests and approval were provided showing a successful process and documentation. [Exhibits R, S, and T – Emails with their respective attachments: Requesting Site Access for PFAS Sampling Activities].

The DERP Manual acknowledges that construction at or near DERP sites on DOD installations may occur but does not dictate how coordination or completion of either activity should occur. The DERP Manual states, "Constructing facilities on or near a contaminated site may have ramifications affecting human health and the environment. Accordingly, the DoD Component should work with the appropriate organizations (e.g., installation planners) to consider a compatible land use based on current site conditions and the selected or projected remedial action alternatives."

Additionally, the DERP Manual states that "DERP is a prioritized environmental restoration program based on risk to health, including safety, and the environment. To the extent that a construction project (MILCON or non-MILCON) generates actions to address contamination, or a need to change DERP-generated timing actions to address contamination, the costs of such actions are not ERA-eligible and shall be funded as part of the construction project. This includes the handling, mitigation, and disposal or other disposition of contamination discovered before or during the construction activity."

The DERP Manual further states that "[a]ny construction, development, conversion, or extension of a structure, or installation of equipment, in support of a response for a DERP project shall not be considered MILCON, pursuant to section 2707 of Reference (n)." [DoDM 4715.20, 6.0, a, DERB Manual, DoDM 4715.20 at Defense Environmental Restoration Program].

Investigating Officer's Assessment and Analysis of Relevant & Material Facts for Allegation 2

ALLEGATION 2: By impermissibly restricting the areas to be investigated in the PFAS RI at Tyndall AFB, employees, including USACE, Military Construction (MILCON) employees, MILCON contract employees, and Tyndall AFB employees working at Tyndall, may be unknowingly working in contaminated areas and thereby potentially exposed to PFAS.

While workers may be unknowingly working in contaminated areas and thereby potentially exposed, that is not necessarily due to the alleged impermissible restrictions of the areas to be investigated. Because of the timing of the Tyndall rebuild effort, the current phase of the PFAS investigation, and the ORC investigation at several IRP sites, the potential to be unknowingly exposed to contamination exists as a matter of understanding of environmental contamination. The potential to be unknowingly exposed to contamination exists at any contaminated site when the full nature and extent of the contamination has not been delineated, including those areas at Tyndall AFB that are not affected by MILCON activities.

To reduce the unknowns of PFAS contamination locations, USACE MILCON executed a sampling effort within and outside the PFAS SI defined areas, to "be used by others to estimate the need for, and cost of, treatment and/or disposal of soil and groundwater waste generated during construction in the areas where soil and groundwater samples were collected." [Exhibit U, AFFF Soil and Groundwater Sampling report]. While not specifically stated as a purpose, this data was also available to the MILCON contractors for their use in designing the required safety programs. In addition to the MILCON-performed sampling activities, all contractors were provided reports and data from all previous environmental investigations to utilize in project planning and development of safety programs. [Exhibit V, pages from table of contents for MILCON Zone 1 contract]. The regulations, specifications, and project planning documents detailed below contain extensive safety requirements to ensure the health and safety of employees on work sites at Tyndall AFB.

The FFA addresses potential safety concerns stating, "If an imminent health hazard or an activity conducted pursuant to this Agreement that is creating a danger to the public health or welfare or the environment is discovered by any Party, the discovering Party will notify the other Parties and the Air Force will take immediate action to promptly notify all appropriate State and local agencies, potentially affected persons and officials in accordance with 10 U.S.C. Section 2705(a). The Air Force will expeditiously take appropriate measures to protect all persons affected." [See FFA, page 42 at AF Administrative Record].

In addition to the FFA requirements, health and safety requirements imposed by the federal government on contract actions are detailed in the Federal Acquisition Regulation (FAR). FAR 36.513 [eCFR :: 48 CFR 36.513 -- Accident prevention. (FAR 36.513] requires that contracting officers shall insert FAR clause 52.236-13, Accident Prevention, [eCFR :: 48 CFR 52.236-13 -- Accident Prevention. (FAR 52.236-13)] when services are to be performed at a government facility. Additionally, FAR clause 52.536-13 requires that the Contractor shall provide and maintain work environments and procedures which will safeguard the public and Government personnel, property, materials, supplies, and equipment exposed to Contractor operations and activities. The FAR requires that contracts for construction or dismantling, demolition, or removal of improvements, the Contractor shall comply with the standards issued by the Secretary of Labor at 29 C.F.R. Part 1926 and 29 C.F.R. Part 1910. If the contract is for construction with any Department of Defense agency or component, the Contractor shall comply with all pertinent provisions of the latest version of U.S. Army Corps of Engineers Safety and Health Requirements Manual, EM 385-1-1, in effect on the date of the solicitation. Specific safety and health requirements are detailed below.

The Occupational Safety and Health Administration regulations at 29 C.F.R. Part 1926 [eCFR :: 29 CFR 1926.65 -- Hazardous waste operations and emergency response] require the following:

> Section 1926.65(c)(5) states: "Personal protective equipment (PPE) shall be provided and used during initial site entry in accordance with the following requirements:
>
> > (i) Based upon the results of the preliminary site evaluation, an ensemble of PPE shall be selected and used during initial site entry which will provide protection to a level of exposure below permissible exposure limits and published exposure levels for known or suspected hazardous substances and health hazards, and which will provide protection against other known and suspected hazards identified during the preliminary site evaluation. If there is no permissible exposure limit or published exposure level, the employer may use other published studies and information as a guide to appropriate personal protective equipment."
>
> Section 1926.65(g) states: "***Engineering controls, work practices, and personal protective equipment for employee protection***. Engineering controls, work practices, personal protective equipment, or a combination of these shall be implemented in accordance with this paragraph to protect employees from exposure to hazardous substances and safety and health hazards."
>
> Section 1926.65(g)(2) states: "***Engineering controls, work practices, and PPE for substances not regulated either in § 1926.55, elsewhere in subpart D, or in other pertinent sections of this part***. An appropriate combination of engineering controls, work practices, and personal protective equipment shall be used to reduce and maintain employee exposure to or below published exposure levels for hazardous substances and health hazards not regulated either in § 1926.55, elsewhere in subpart D, or in other pertinent sections of this part. The employer may use the published literature and Safety Data Sheets (SDS) as a guide in making the employer's determination as to what level of protection the employer believes is appropriate for hazardous substances and health hazards for which there is no permissible exposure limit or published exposure limit."
>
> Section 1926.65(p)(1) states: "***Safety and health program***. The employer shall develop and implement a written safety and health program for employees involved in hazardous waste operations that shall be available for inspection by employees, their representatives and OSHA personnel. The program shall be designed to identify, evaluate and control safety and health hazards in their facilities for the purpose of employee protection, to provide for emergency response meeting the requirements of paragraph (p)(8) of this section and to address as appropriate site analysis, engineering controls, maximum exposure limits, hazardous waste handling procedures and uses of new technologies."

> Section 1926.65(p)(2) states: "***Hazard communication program***. The employer shall implement a hazard communication program meeting the requirements of 29 CFR 1926.59 as part of the employer's safety and program."

The regulations at 29 C.F.R. 1910.120 [eCFR :: 29 CFR 1910.120 -- Hazardous waste operations and emergency response] require the following:

> Section 1910.120(c)(5)(i) states that: "Based upon the results of the preliminary site evaluation, an ensemble of PPE shall be selected and used during initial site entry which will provide protection to a level of exposure below permissible exposure limits and published exposure levels for known or suspected hazardous substances and health hazards, and which will provide protection against other known and suspected hazards identified during the preliminary site evaluation. If there is no permissible exposure limit or published exposure level, the employer may use other published studies and information as a guide to appropriate personal protective equipment."
>
> Section 1910.120(g)(2) states that: "***Engineering controls, work practices, and PPE for substances not regulated in subparts G and Z***. An appropriate combination of engineering controls, work practices and personal protective equipment shall be used to reduce and maintain employee exposure to or below published exposure levels for hazardous substances and health hazards not regulated by 29 CFR part 1910, subparts G and Z. The employer may use the published literature and SDS as a guide in making the employer's determination as to what level of protection the employer believes is appropriate for hazardous substances and health hazards for which there is no permissible exposure limit or published exposure limit."

Appendix B to Section 1910.120 sets forth information about PPE protection levels which may be used to assist employers in complying with the PPE requirements of this section. Part A of the appendix divides PPE into four categories based on the degree of protection afforded. Level A is to be selected when the greatest level of skin, respiratory, and eye protection is required. Level B is when the highest level of respiratory protection is necessary but a lesser level of skin protection is needed. Level C is applicable when the concentration(s) and type(s) of airborne substance(s) is known and the criteria for using air purifying respirators are met.

Further, Level D PPE includes a work uniform affording minimal protection, used for nuisance contamination only. If appropriate, Level D may also include coveralls, gloves, boots or shoes with a chemical-resistant steel toe and shank, outer disposable boot covers, safety glasses or chemical splash goggles, a hard hat, an escape mask, and a face shield. Level D protection should be used when the atmosphere contains no known hazard; and work functions preclude splashes, immersion, or the potential for unexpected inhalation of or contact with hazardous levels of any chemicals.

Finally, Appendix B to Section 1910.120 highlights, "As stated before, combinations of personal protective equipment other than those described for Levels A, B, C, and D protection may be more appropriate and may be used to provide the proper level of protection."

USACE contracts require adherence to the above regulations and also to EM 385-1-1, paragraph 05.A.06 of the 2014 EM 385-1-1. (Note: At contract award, the 2014 version was in effect. Currently, this same provision is captured in paragraph 5-8 of the 2024 EM 385-1-1.) Paragraph 05.A.06 of the 2014 EM 385-1-1 provides for PPE minimum requirements, stating that employees must wear clothing suitable for the weather and work conditions. For fieldwork (e.g., construction sites, industrial operations and maintenance activities, emergency operations, regulatory inspections, etc.), at a minimum, this shall be short sleeve shirt; long pants (excessively long or baggy pants are prohibited); and leather or other protective work shoes or boots; open-toed shoes are prohibited. [2014 EM 385-1-1 at U.S. Army Corps of Engineers Headquarters > Missions > Safety and Occupational Health > Safety and Health Requirements Manual and 2024 EM 385-1-1 at USACE Publications - Engineer Manuals].

Additionally, MILCON contracts are provided with specifications to describe the materials and methods required for each component of the project; provide clear instruction on intent and performance; and define quality standards, materials, regulations, and requirements. The specifications utilized are unified facilities guide specifications, a standardized set of requirements between USACE, Naval Facilities Engineering Command (NAVFAC), and Air Force Civil Engineering Center (AFCEC). Specifications include references that are included in their entirety as part of the government contract. The MILCON contract has several specifications that include safety requirements.

First, *Specification 01 35 26, Governmental Safety Requirements,* has specific requirements in multiple sections.

(a) Section 1.6.2.1 requires the Contractor Site Safety and Health Officer (SSHO) to review, approve, sign, implement, and enforce the Contractor Accident Prevention Plan (APP) and Activity Hazard Analysis (AHA); ensure subcontractor compliance with safety and health requirements; and provide and keep a record of site safety orientation and indoctrination for Contractor employees, subcontractor employees and site visitors.

(b) Section 1.6.3.2 requires the Contractor to conduct safety meetings for all trade workers at least weekly.

(c) Section 1.7 requires the Contractor to prepare a written site-specific APP that covers all paragraph and subparagraph elements in EM 385-1-1 Appendix A; is job-specific; addresses any unusual or unique aspects of the project; interfaces with the Contractor's overall safety and health program; requires sub-contractor compliance; and provides plans in accordance with the requirements outlined in Appendix A of EM 385-1-1.

(d) Section 1.7.2.9 requires the Contractor to identify the safety and health aspects of excavation; and provide and prepare an excavation plan in accordance with EM 385-1-1 section 25.A and UFGS Specification 31 00 00 Earthwork" [Exhibit W, List of worker safety specification references from MILCON contracts and contractor documents summarized by the Tyndall Site Safety and Health Officer].

(e) Section 3.1 requires that, "PPE is governed in all areas by the nature of the work the employee is performing. Use personal hearing protection at all times in designated

noise hazardous areas or when performing noise hazardous tasks. Safety glasses must be worn or carried/available on each person. Mandatory PPE includes, head Protection that meets ANSI/ISEA Z89.1, long pants, appropriate safety footwear, and appropriate Class Reflective Vests" [Exhibit X, Specification 01 35 26].

A second operative specification in MILCON contracts that includes safety requirements is *Specification 31 00 00 Earthwork.* Section 3.7 states that the Contractor will encounter contaminated soil and/or groundwater during construction activities. It requires the Contractor to conduct handling and moving of contaminated soil and/or groundwater to comply with specifications 02 61 13 and 01 57 19. [Exhibit W, List of worker safety specification references from MILCON contracts and contractor documents summarized by the Tyndall Site Safety and Health Officer].

A third specification in MILCON contracts that includes safety requirements is *Specification 02 61 13 (Tyndall) excavation and Handling of Contaminated Material.* Section 1.2.2 Requires the Contractor to fulfill its obligation under 29 CFR 1910.120 Hazardous Waste Operations and Emergency Response (HAZWOPER) and address health and Safety of its employees under this standard. [Exhibit W, List of worker safety specification references from MILCON contracts and contractor documents summarized by the Tyndall Site Safety and Health Officer].

A fourth specification in MILCON contracts that includes safety requirements is *Specification 01 57 19 (Tyndall) Temporary Environmental Controls – Tyndall Standard.* Section 1.5.5 requires Contractors to ensure and document 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 requirements. Section 3.6.7 requires Contractor to keep dust down at all times, including during nonworking periods. Section 3.6.7 requires Contractor to sprinkle or treat soil with dust suppressants. Section 3.6.7 prohibits dry power brooming. Section 3.6.7 restricts air-blowing to cleaning nonparticulate debris. [Exhibit Y, Conformed specifications].

A fifth and final specification relevant to IRP and AFFF sites at Tyndall AFB that was included in the MILCON contracts requires that the Contractor has the responsibility to fulfill its obligation under 29 C.F.R. 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. [Exhibit Y, Conformed specifications].

A project document relative to this investigation includes the *Site Safety and Health Plan* for the PFAS RI that discussed potential exposure to contaminants, prevention, and PPE for planned site activities. Specific paragraphs referenced in the *Site Safety and Health Plan* are quoted below:

> "Some limited potential for exposure to COCs may exist through incidental ingestion of contaminated water or soil or hand-to-mouth contact during sampling activities. For this reason, PPE, personal decontamination procedures and observing basic hygiene practices (washing face and hands before leaving the site) will be the principal methods for preventing exposures from this route.

Potential exposure to the COCs may also occur by coming into direct skin contact with contaminated soils or water. Worker exposure concerns through this route are considered to be very unlikely, provided that workers follow good personal hygiene, good work practices (e.g., sample collection/sample handling, handling of drill cuttings), and wear appropriate PPE as specified in the task-specific AHAs. Examples of onsite practices that are to be observed that will protect workers from exposure via ingestion or skin contact include the following:

- No hand-to-mouth activities on site (eating, drinking, smoking, etc.).
- Washing hands upon leaving the work area or using disposable hand wipes prior to performing any hand to mouth activities. If disposable hand wipes are used, hands and face are washed as soon as possible after the end of the shift.
- Wearing 6 mil nitrile rubber gloves whenever handling potentially-contaminated media, including hand tools and sample containers.
- Wearing safety glasses and disposable coveralls to prevent splashes to the eyes and soiling/saturation of work clothing. See Standard Operating Procedure (SOP) SA-1.8 Sample Acquisition for Perfluoroalkyl and Polyfluoroalkyl Substances Analysis if using disposable coveralls provided in the UFP-QAPP." [AR #AFFF_011724 at AF Administrative Record].

"Specific PPE selected for this project is listed by task, in the AHAs located in Section 10.0 and Attachment III of the APP. The items listed below are to be recognized as minimum PPE for all site work:

- Safety glasses with side shields
- Appropriate field attire - sleeved shirt and long pants
- Safety shoe/boots with slip-resistant soles and six-inch ankle support
- Hard hats
- Hearing protection in high noise areas (e.g., DPT/Sonic rig operations)
- High visibility vests (minimum ANSI Type 2) where traffic or mobile heavy equipment may be encountered. Vest should not be worn during groundwater
- Sampling Optional Items:
  - Work gloves
  - Nitrile gloves when contaminant contact could reasonably occur
  - Disposable coverall type suits (see SOP SA-1.8 Sample Acquisition for Perfluoroalkyl and Polyfluoroalkyl Substances Analysis in the UFP-QAPP) (well-worn cotton, not washed in fabric softeners or where dryer sheets have been used during drying if there is a chance of soiling clothing." (AR# AFFF_011724 at AF Administrative Record).

In the OSC referral, the Whistleblower asserted that the requirements of the OSHA regulations regarding hazardous waste apply. However, this is not a true statement. It is critically important to understand the distinction between a CERCLA **hazardous substance**, a Resource Conservation and Recovery Act (RCRA) **hazardous waste,** and an OSHA **health hazard**. The

characteristics of each of these designations are highlighted below to aid in the understanding of what each term means and which designation is applicable to our facts and circumstances.

At the time of the awards for both the PFAS RI (awarded in 2021) and the MILCON contracts (awarded in 2021 after the hurricane hit in 2018), PFAS was *not* designated as a **CERCLA hazardous substance** and did not have any regulatory cleanup levels. However, since then, EPA changed this designation on May 8, 2024, when PFOS and PFOA were designated as hazardous substances, with the final rule becoming effective on July 8, 2024 (89 FR 39124).[10] Relevant quotes from the final rule [Federal Register :: Designation of Perfluorooctanoic Acid (PFOA) and Perfluorooctanesulfonic Acid (PFOS) as CERCLA Hazardous Substances] are below:

> "The Agency evaluated the available scientific and technical information about those substances and concluded that designation of each substance is warranted under the criteria in section 102(a) because both PFOA and PFOS, and their salts and isomers, may present substantial danger to public health or welfare or the environment." [89 FR at 39125]
>
> "EPA also disagrees with commenters that EPA should identify a bright-line risk threshold at which a substance poses ''substantial danger'' for the purposes of section 102(a). The plain language of CERCLA section 102(a) does not require a ''bright-line'' risk threshold applicable to any and all substances. . . ."Moreover, EPA also finds that a bright-line test is not appropriate because the plain language of CERCLA section 102(a) (''may present a substantial danger'') does not require certainty that a release of a substance in fact presents a substantial danger in any given location it is found." [89 FR at 39166]
>
> "...[T]he analysis of whether a substance "may present a substantial danger" for the purposes of designation as a CERCLA hazardous substance does not require certainty and is not site-specific. It would be inconsistent with the plain language of section 102(a) for EPA, at this stage and for the purpose of designating hazardous substances, to evaluate the specific releases in which exposure to PFOA and PFOS pose actual risk. Those determinations are left for later stages in the CERCLA process and evaluated on a site-by-site basis." [89 FR at 39166]
>
> "The designation of PFOA and PFOS, including their salts and structural isomers, as hazardous substances, can trigger the applicability of release reporting requirements under CERCLA sections 103 and 111(g), and accompanying regulations, and section 304 of the Emergency Planning and Community Right-to-Know Act (EPCRA). Facilities must report releases of hazardous substances at or above the reportable quantity (RQ) within a 24-hour period." [89 FR at 39131]

[10] EPA issued the final rule after the OSC referral of April 26, 2024. This final rule provides the first designation of PFOS and PFOA as hazardous substances. Additionally, the proposed rule was issued for comment on September 6, 2022.

> "CERCLA section 120(h) requires Federal agencies that sell or transfer real property to provide notice of the presence of hazardous substances in certain circumstances...As provided by CERCLA section 306, the Department of Transportation (DOT) is required to regulate any substance added to the CERCLA list as hazardous materials in accordance with the Hazardous Materials Transportation Act (HMTA)." [89 FR at 39131]
>
> Designating PFOA and PFOS as CERCLA hazardous substances eliminates barriers to timely cleanup of contaminated sites, enables EPA to shift responsibility for cleaning up certain sites from the Fund to PRPs, and allows EPA to compel PRPs to address additional contaminated sites. Ensuring the timely cleanup of sites, and that the parties responsible for significant contamination bear the costs of cleaning it up, are the primary objectives of CERCLA. [89 FR at 39150]
>
> Designation also makes CERCLA's enforcement and cost recovery authorities available for PFOA and PFOS. [89 FR at 39151]
>
> EPA is designating PFOA and PFOS as CERCLA hazardous substances. No PFAS are currently listed, or being proposed to be listed, as hazardous wastes under RCRA[;] However, PFOA- and PFOS-containing waste is and will likely continue to consume a fraction of hazardous waste treatment and disposal capacity. Although waste containing PFOA and PFOS is not necessarily hazardous waste (unless the particular wastes are hazardous for some other reason), some waste generators, perhaps to be cautious, have been sending PFAS containing wastes to hazardous waste facilities. [89 FR at 39179] (Underlined for emphasis).

While PFOS and PFOA have recently been classified as hazardous substances, no PFAS are defined as RCRA hazardous wastes or as health hazards in accordance with OSHA requirements. OSHA has not established immediately dangerous to life or health values, permissible exposure levels, or published exposure levels for PFAS. The definitions of these are described below.

RCRA hazardous waste means a waste or combination of wastes as defined in 40 C.F.R. 261.3, or those substances defined as hazardous wastes in 49 C.F.R. 171.8. A solid waste is a hazardous waste if the regulation does not specifically exclude its or it exhibits any of the characteristics as defined in the regulation.

> "Simply defined, a hazardous waste is a waste with properties that make it dangerous or capable of having a harmful effect on human health or the environment. Hazardous waste is generated from many sources, ranging from industrial manufacturing process wastes to batteries and may come in many forms, including liquids, solids gases, and sludges.
>
> EPA developed a regulatory definition and process that identifies specific substances known to be hazardous and provides objective criteria for including other materials in the regulated hazardous waste universe. This identification process can be very complex, so EPA encourages generators of wastes to

approach the issue using the series of questions." (Learn the Basics of Hazardous Waste | US EPA)

OSHA health hazard means a chemical or a pathogen where acute or chronic health effects may occur in exposed employees. It also includes stress due to temperature extremes. The term "health hazard" includes chemicals that are classified in accordance with the Hazard Communication Standard at 29 C.F.R. 1910.1200 and pose one of the following hazardous effects: acute toxicity (any route of exposure); skin corrosion or irritation; serious eye damage or eye irritation; respiratory or skin sensitization; germ cell mutagenicity; carcinogenicity; reproductive toxicity; specific target organ toxicity (single or repeated exposure); aspiration toxicity or simple asphyxiant. [See Appendix A to eCFR :: 29 CFR 1910.1200 -- Hazard communication.] —Health Hazard Criteria (Mandatory) for the criteria for determining whether a chemical is classified as a health hazard.) OSHA has developed exposure limits/levels for different health hazards within the defined categories below:

> "IDLH or Immediately dangerous to life or health means an atmospheric concentration of any toxic, corrosive or asphyxiant substance that poses an immediate threat to life or would cause irreversible or delayed adverse health effects or would interfere with an individual's ability to escape from a dangerous atmosphere."
>
> "Permissible exposure limit means the exposure, inhalation or dermal permissible exposure limit specified in 29 CFR Part 1910, subparts G and Z."
>
> "Published exposure level means the exposure limits published in "NIOSH Recommendations for Occupational Health Standards" dated 1986, which is incorporated by reference as specified in § 1910.6 or if none is specified, the exposure limits published in the standards specified by the American Conference of Governmental Industrial Hygienists in their publication "Threshold Limit Values and Biological exposure Indices for 1987-88" dated 1987, which is incorporated by reference as specified in § 1910.6." [eCFR :: 29 CFR Part 1910 -- Occupational Safety and Health Standards].

Since PFAS are *not* defined as RCRA hazardous wastes or as health hazards per OSHA requirements; nor have "immediately dangerous to life or health" values, permissible exposure levels, or published exposure levels as per OSHA; those requirements do not apply. The requirements that do apply in selecting appropriate safety considerations are those listed in 29 C.F.R. Part 1926 and 29 C.F.R. Part 1910 stating, "The employer may use the published literature and Safety Data Sheets (SDS) as a guide in making the employer's determination as to what level of protection the employer believes is appropriate for hazardous substances and health hazards for which there is no permissible exposure limit or published exposure limit." [1926.65(g)(2) at eCFR :: 29 CFR 1926.65 -- Hazardous waste operations and emergency response.].

In accordance with the above definitions, since PFAS are not RCRA hazardous wastes or OSHA health hazards, the employer defines the appropriate level of protection. USACE uses the previously discussed regulations, manuals, and applicable specifications to define the required minimum level of protection required in every construction contract. The defined protection is

summarized again below to highlight that the requirements in the PFAS RI and the MILCON contracts provide the workers with the same level of protection whether they are within "clean", "known", or "unknown" areas of contamination.

To reiterate, EM 385-1-1 has minimum safety and PPE requirements for fieldwork to include short sleeve shirt, long pants, and leather or other protective work shoes or boots. MILCON Specification 01 35 26 requires PPE in *all areas* by the nature of the work the employee is performing, including personal hearing protection at all times in designated noise hazardous areas or when performing noise hazardous tasks; safety glasses must be worn or carried/available on each person; and mandatory PPE includes head protection, long pants, appropriate safety footwear, and appropriate class reflective vests.

The PFAS RI states the exposure via incidental ingestion may exist and exposure via dermal contact is very unlikely. For this reason, PPE, personal decontamination procedures, and observing basic hygiene practices (washing face and hands before leaving the site) will be the principal methods for preventing exposures from this route. The PFAS RI requires minimum PPE for all site work to include safety glasses with side shields, appropriate field attire - sleeved shirt and long pants, safety shoe/boots with slip-resistant soles and six-inch ankle support, hard hats, hearing protection in high noise areas, and high visibility vests where traffic or mobile heavy equipment may be encountered noting vest should not be worn during groundwater Sampling. These practices are the same as those required for general fieldwork in OSHA regulations and EM 385-1-1. Additional Optional PPE Items include work gloves, nitrile gloves when contaminant contact could reasonably occur, and disposable coverall type suits (See SOP SA-1.8 Sample Acquisition for Perfluoroalkyl and Polyfluoroalkyl Substances Analysis in the UFP-QAPP) (well-worn cotton, not washed in fabric softeners or where dryer sheets have been used during drying if there is a chance of soiling clothing).

Therefore, as explained above, all requirements for both the MILCON and PFAS RI contracts regarding safety are similar and provide the same level of protection whether workers are within "clean", "known", or "unknown" areas of contamination.

PROCESS IMPROVEMENTS TO ENHANCE USACE'S ABILITY TO SUCESSFULLY EXECUTE TYNDALL AFB PFA AND MILCON PROJECTS

USACE PFAS APPROVAL PROCESS AND REVIEW REQUIREMENTS IN PLACE WERE NOT WORKING

Each USACE project involving PFAS is required to implement the following in accordance with USACE Daily Tasking Order 21-04-26 (CG's policy of Per and Polyfluoroalkyl Substances (PFAS) work acceptance requirements) dated 28 April 2021, Appendix C:

> "1. Project Delivery Teams (PDT) will obtain work approval from its aligned MP, CW, or ERDC Program Director. As soon as the PDT is aware of the request or potential need, the PDT lead (study, program, or project manager) will provide key information to their business line point of contact (POC) as

shown in Table 1 for review of the proposed PFAS actions and through the SharePoint form shown in Appendix D.

2. The business line POC will provide approval or disapproval for work acceptance of the activity and provide clear guidance in response to the request after review of the information provided by the PDT. The POC may also coordinate with Office of Counsel and other POCs listed in Table 1, the requesting USACE activity, the relevant chain of command, subject matter experts, other functional division(s), and/or the stakeholder depending on the complexity of the proposed work, to make the determination. The POC will prioritize the request to ensure that the PDT receives the decision in the shortest amount of time possible, given the above review.

3. If approved to conduct the proposed work, PDTs in MP and CW will engage the Environmental and Munitions Center of expertise (EM CX) for review of draft performance work statements, draft quality assurance project plans, and draft reports for pre-investigation, investigation, removal, and remedial phases. The EM CX will ensure technical consistency and the use of up-to-date approaches to address PFAS. PDTs will provide project funding unless program funding has already been made available to the EM CX and account for review times, including any required comment resolution, for these document reviews. PDTs may request expedited reviews if needed to meet critical stakeholder timelines. CW Navigation PDTs will also ensure that project plans are provided to the ERDC POC for review. PDTs will refer to the latest PFAS information by leveraging the sources cited in Appendix A, the USACE PFAS working group, and other resources, as needed throughout the work.

4. To catalog current PFAS-related projects, PDTs already conducting PFAS work will complete the work request form via the SharePoint site link in Appendix D. The PFAS Coordination team will use this information to stay informed and recommend consistency of operations where applicable." [Exhibit Z, 2021 USACE PFAS DTO].

This requirement applies to all USACE activities. A review of the PFAS Work Acceptance SharePoint (Military Programs Environmental Division Data Collection (army.mil)) was completed by the IO. No entries were found for Tyndall AFB. USACE internal business processes were not followed in this regard for both the PFAS environmental project and the MILCON project.

The initial *PFAS Phase I Remedial Investigation For Homestead ARB and Tyndall AFB* contract award was made on September 27, 2021. Exhibit I, PFAS RI task order], containing the statement of work (SOW) dated August 31, 2020. [Exhibit G, SOW PFAS Phase I RI]. This SOW predates the PFAS Work acceptance DTO. [Exhibit Z, 2021 USACE PFAS DTO].

Modification 3 was awarded on September 28, 2022. The date of this SOW is post-release of the PFAS DTO, and no review was completed by the EM CX, as required by Exhibit Z, 2021 USACE PFAS DTO.

Modification 4 was awarded on February 15, 2023 to update POCs and adjust language related to TAFB. The language adjusting the scope and purpose stated, "For Remedial Investigation (RI) efforts at Tyndall AFB, lateral extent of investigations shall be completed in a progressive manner to accommodate Tyndall rebuild efforts. The initial stage of this progression shall limit the lateral extent of investigation for specific sites to the MILCON approved PFAS site boundaries that are located in Appendix E of this SOW. Changes to the investigative limits will be determined during subsequent stages by receiving official documentation from the authorized MILCON representative and the approval of the COR. Any resources not utilized for this task order will be de-obligated during task order closeout." [Exhibit M, PFAS RI task order modification 4]. The date of this SOW was post-release of the PFAS DTO, and no review was completed by the EM CX, as required by Exhibit Z, 2021 USACE PFAS DTO.

After modification 4 of the PFAS Phase I RI contract, the UFP-QAPP was developed. It was reviewed by the EM CX, following the PFAS DTO process; it was also reviewed and approved by EPA Region 4 and FDEP with the final version completed in January 2024.

If the PFAS DTO approval process and review requirements were followed, concerns between the district USACE MILCON and environmental groups would have been coordinated with appropriate USACE PFAS Coordination Team members for resolution. The required independent technical reviews would have confirmed correct processes were followed or identified any issues if present.

ADEQUATE AND APPROPRIATE STEPS NOT IN PLACE TO FACILITATE COMMUNICATIONS AND REPORTING OF ALLEGED VIOLATIONS

Enclosure 2 to the IO appointment letter alleges that the Whistleblower reported alleged violations to agency officials but that they remain unresolved. (Encl 2) During his interview with the IO, the Whistleblower again alleged that the Air Force and MILCON would not consider his concerns. [Exhibit N, Statement of [redacted]. The exhibits provided by the Whistleblower include notifications of concerns to various parties [Exhibit AA, Email stating concerns], but do not include responses provided to address their concerns from USACE MILCON ([Exhibit BBa, Email and attachments addressing concerns] or from AF with their consideration and conclusion included. [Exhibit CC, Email and attachments addressing concerns].

Additional review of the communication provided to the Whistleblower indicates that the issues raised may originally have been concerns of the regulators, but that the issues had been discussed and resolved to the regulators' satisfaction prior to being raised by the Whistleblower. [Exhibit CC, Email and attachments addressing concerns] The Whistleblower's interview and provided documents indicate there was not any response to his concerns. In contrast, statements and documents provided by others indicate otherwise.

Interviews with other involved personnel confirm that, during the planning phases, there "was pushback for sampling in MILCON boundaries due to schedule and cost risks" [Exhibit DD, Statement by [redacted], and "USACE/NDR wanted to ERP to suspend ERA funded Installation Restoration Program (IRP), Military Munitions Restoration Program (MMRP),

PFAS, and petroleum site investigations/remedial actions. [Exhibit EE, Statement by [redacted]. Yet, contrary to the Whistleblower's statements, others indicate "it eventually progressed well with effective collaboration from all parties" [Exhibit FF, Statement of [redacted]. Interviewees indicate that a communication plan and process for approvals were developed and agreed to that would present sites, locations, and schedules of RI sampling to be coordinated with MILCON contractors. [Exhibits GG, Statement by [redacted] Exhibit EE, Statement by [redacted] Exhibit DD, Statement by [redacted] and Exhibit Q, PFAS Site Access Request Coordination]. The AF RPM states that the "PFAS Phase I RI contractor conducting sampling events outside of MILCON-Rebuild Zones is provided access almost immediately from USACE/NDR with no sampling restrictions as explained in Mod 04. Also, MILCON-Rebuild sites that have a Beneficial Occupancy Date (BOD) that has already passed before PFAS Phase I RI contractor requests access permission gets access to our site almost immediately and with no sampling restrictions" and "This coordination process is working so well that gaining access to our sites has been easy. The Zone contractors have been responsive to our access requests as well. ERP and PFAS Phase I RI contractor are flexible enough with our dates and times to conduct sampling events within MILCON-Rebuild Zones so that we don't disrupt their contract projects schedules and costs." [Exhibit EE, Statement by [redacted].

COMPLETE SITE REMEDIATION IS AIR FORCE GOAL AND PROCESSES ARE IN PLACE TO MINIMIZE RISK OF NOT ACHIEVING CLEANUP GOALS POST MILCON ACTIVITIES

The Whistleblower stated that by "restricting the RI area to be investigated will restrict the area to be remediated, and as such, will not address the full scope of the contamination or the public health and environmental threat." (Enc 2) Construction zones were identified as potentially impacted by IRP, MMRP, and AFFF contamination, the identified areas for AFFF and construction interaction are Zone 1, 2, 4, and 12, the Zone 6 contract was canceled. [Exhibit E, Reconstruction Zone Book]. There are potential concerns with not having a complete understanding of contamination prior to construction activities.

One potential concern with this strategy is potentially contaminated soil leaving base. This concern was addressed in a Memorandum for Record between the Deputy Assistant Secretary of the Air Force (Environment, Safety, and Infrastructure) and the Interim Secretary of FDEP, dated August 3, 2021, which detailed "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."

> The AF agreed, "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-05mg.kg-day.
>
> 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.

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." [Exhibit D, Memorandum from Deputy Assistant Secretary of the Air Force (Environment, Safety, and Infrastructure) to Interim Secretary of FDEP].

A second potential concern is that potentially contaminated soil is moved around the base. This is addressed by the Memorandum for Record, signed by the Chief, Eglin Installation Support Section Air Force Civil Engineer Center, on November 9, 2021, detailing, "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)." [Exhibit P, Memorandum For Record, Tyndall AFB MILCON Rebuild and Installation Restoration Program (IRP) Sites].

Additionally, USACE Mobile District MILCON conducted an AFFF soil and groundwater sampling event both within and outside of the PFAS Site Inspection (SI) identified areas, with the purpose stated as, "The results of this sampling project will be used by others to estimate the need for, and cost of, treatment and/or disposal of soil and groundwater waste generated during construction in the areas where soil and groundwater samples were collected. The results will also be used by others to design waste management procedures to be implemented during construction in order to be compliant with State and Federal waste management regulations. The results are not intended for submittal to state or federal regulatory agencies, nor are the documents generated under this delivery order intended for use in a Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) investigation." "This includes nine AFFF sites identified during a previous Site Inspection (Aerostar SES, 2018) as well as areas where future construction is planned. A site location map showing the locations of the areas that were sampled on Tyndall AFB is provided as Figure 1." [Exhibit U, AFFF Soil and Groundwater Sampling report]
. These results were provided to each MILCON bidder/contractor.

Additional measures in place to address the second concerns included specifications pertaining to environmental controls were provided to the MILCON contractors as part of the bid packages. They include references to 29 C.F.R. 1910.120, 40 C.F.R. 260, 40 C.F.R. 261, 40 C.F.R. 262, 40 C.F.R. 300 requiring compliance with these policies. *Specification 01 57 19, Temporary Environmental Controls – Tyndall Standard* includes requirements to prepare an 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."

Included are requirements for dewatering, soil management, hazardous waste management, and guidance pertaining to soil and water management at IRP and AFF impacted areas. The requirements provide that:

> "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."
>
> "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." "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."
>
> "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."
>
> "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."
>
> "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."
>
> "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."

"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." "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."

"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."

"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)," "Soil outside ERP study areas is not believed to be contaminated." [Exhibit Y, Conformed specifications].

After award of the MILCON contracts, environmental Mutual Understanding Meetings (MUMs) were held to discuss environmental compliance, conservation, and pollution prevention during performance of work associated with this contract. Each included requirement for soil management, permitting, additional guidance for PFAS areas, and applicable groundwater requirements. Requirements include the development and FDEP approval of environmental resource program permits and dewatering plans. [Exhibit HH, Environmental Mutual Understanding meeting notes].

It identifies options for soil movement to assist in future understanding of "clean" and "contaminated" soil disposition, as follows:

"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" [Exhibit II, Environmental Mutual Understanding Meeting]

Dewatering and PFAS contaminated treatment requirement are also detailed during the MUMs with additional information outline in the dewatering plans [See Exhibits JJ, KK, LL, and MM, Dewatering plans].

- Water that tests below the 70 ppt concentration may be percolated into the existing known plume per the approved dewatering plan.
- Groundwater (GW) greater than 70 ppt concentration must be treated, then returned to the existing plume boundary.

The AF confirmed that obtaining RI data during MILCON construction activities was critical to understanding the current site conditions, that it was understood that the MILCON activities would affect the IRP CSM, and that confirmatory sampling would be required to post MILCON to reacquire a full conceptual site model including the potential to add new IRP sites based on rebuild activities of moving soil and groundwater. [Exhibit EE, Statement by [redacted]).

The Memorandum for Record signed by the AF in 2021 additionally states, "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" [Exhibit P, Memorandum For Record, Tyndall AFB MILCON Rebuild and Installation Restoration Program (IRP) Sites].

INVESTIGATING OFFICER'S FINDINGS AND CONCLUSIONS

The allegation that USACE employees impermissibly restricted the areas to be investigated in an RI at Tyndall AFB that is assessing the nature and extent of PFAS contamination, which includes PFOA and PFOS, in violation of CERCLA, its regulations, DoD and EPA directives, is **not substantiated** because areas were not impermissibly restricted from the investigation and no violation of law or policy occurred. The original contract was not intended to produce a final RI. A critical element of the RI is the baseline risk assessment, and the SOW specifically excluded Human Health and Ecological Risk Assessments from being performed as part of the Phase I RI. Since the original contract would not have produced a final RI, the changes to the sampling and analysis under modification 4 did not change the intent of the contract as it relates to the completion of the RI phase of CERCLA. The request for modification from the Air Force to the Contracting Officer additionally confirms that the Phase 1 RI was not intended to be the final contract action. The USAF stated that several of the site's Phase I RI characterizations will not be completed and will require additional work in a future contract and/or the current contractor will have to wait until the Tyndall AFB MILCON-Rebuild is complete before completing site characterization.

The allegation that by impermissibly restricting the areas to be investigated in the PFAS RI at Tyndall AFB, employees, including USACE, Military Construction (MILCON) employees, MILCON contract employees, and Tyndall AFB employees working at Tyndall, may be

unknowingly working in contaminated areas and thereby potentially exposed to PFAS, is **not substantiated** because areas were not impermissibly restricted; no violation of law or policy occurred; and the potential for exposure during work and the safety requirements for the PFAS RI and the MILCON contracts are the same whether in, "clean", "known" or "unknown" contamination areas. The PFAS RI site safety and health plan states that the exposure via incidental ingestion may exist and exposure via dermal contact is very unlikely. For this reason, PPE, personal decontamination procedures, and observing basic hygiene practices (that is, washing face and hands before leaving the site) will be the principal methods for preventing exposures from these routes. These practices are the same as those required for general fieldwork under OSHA, EM 385-1-1, and the construction specifications included in the MILCON contracts.

INVESTIGATING OFFICER'S RECOMMENDATIONS

Based upon her findings and conclusions, the IO made the following recommendations to the Investigating Appointing/Approving Authority in her AR 15-6 Record of Investigation:

> "a. While the allegations concerning violations of CERCLA and OSHA were not substantiated, both the PFAS RI and the MILCON project teams failed to follow the requirements of the Daily Task Order (DTO) 21-04-26 ("CG's Policy on Per and Polyflouroalkyl Substances (PFAS) Work Acceptance Requirements), dated April 26, 2021. This failure is not unique to this investigation and, given the need to emphasize USACE's work acceptance requirements, the USACE PFAS Coordination team and HQUSACE initiated an update to the DTO in April 2024. My initial draft report in July 2024 included a recommendation for USACE to reissue the PFAS DTO to clarify its applicability and ensure Corps employees knew about the requirements because information obtained during the investigation indicated that the whistleblower complaint may have been avoidable if the proper procedures were followed. On August 9, 2024, USACE released the revised PFAS DTO, 24-08-09b ("U.S. Army Corps of Engineers Per- and Polyfluoroalkyl Substances Work Acceptance Requirement") [Exhibit B, 2024 USACE PFAS DTO] that was signed on July 22, 2024. This revised DTO highlights that the policy applies to all USACE activities including, but not limited to, environmental, navigation, operations, military construction, interagency and international services, and research and development. The policy added clarification on the work acceptance process, to include required coordination and updates to key information as the work is implemented. The updated DTO also emphasizes that the EM CX review requirement applies to a broad range of document types during acquisition, planning, and reporting phases. USACE should ensure a full enterprise understanding of the requirements in the PFAS DTO across all mission areas, with acknowledgment from all specified USACE offices of not only receipt of the DTO but also understanding of the requirements. The delivery of the DTO to the field requested

acknowledgement of receipt but does not specify a requirement to acknowledge understanding.

b. My investigation highlighted a lack of sufficient and clear communications within and between the different USACE teams performing separate mission work, with interrelated activities, at co-located areas of Tyndall AFB (that is, environmental cleanup and MILCON teams). When similar scenarios exist, I recommend that applicable District leadership (when the multiple teams are from the same District) or Division leadership (when the teams are from different Districts) require a communication plan to be developed and approved by the multiple teams and leadership. The USACE Project Delivery Business Process, EM 5-1-11 dated September 1, 2022, (USACE Publications - Engineer Manuals) details project management plan, program management plan, and communication plan requirements to follow. Adding additional review and approvals in these scenarios will ensure sufficient understanding of the different mission objectives; provide an opportunity to address potential impacts from co-located work; and initiate open communication channels among the lateral teams and vertical chain(s) of command.

c. The investigation did reveal concerns with internal coordination among the USACE teams. If left unresolved, these coordination challenges could lead to future inadvertent communication lapses leading to problematic outcomes, delaying projects or exposing the USACE to other claims."

APPOINTING/APPROVAL AUTHORITY'S ACTIONS

By memorandum dated October 16, 2024, the Investigation Appointing/Approving Authority concurred and approved the recommendations in the Investigating Officer's report in conjunction with his approval of the ROI.