1.0 Human Health and Safety

1.1 Introduction

This Technical Memorandum describes human health and safety conditions in the Proposed Action's Region of Influence (ROI) and potential impacts from the Proposed Action (Preferred Alternative) and No Action Alternative. Measures to reduce potential adverse effects to human health and safety from the Proposed Action are identified.

This Technical Memorandum focuses on the health and safety of construction workers, Currency Production Facility (CPF) employees, and people within the ROI during normal activities, potential accidents, and potential intentionally destructive acts, such as acts of terrorism or armed intruders at the proposed CPF.

Treasury received comments related to health and safety from stakeholders during the public scoping period. These comments generally expressed concern about potential human health impacts from vehicle, construction, and operational air emissions associated with the proposed CPF.

Please refer to Treasury's Public Scoping Report for further details on the comments received during the scoping period. Concerns expressed during public scoping regarding human health and safety are considered and addressed in this analysis, where appropriate. Please refer to the ***Air Quality Technical Memorandum*** for potential Proposed Action impacts on human health from air pollutant emissions.

1.2 Affected Environment

1.2.1 Region of Influence

The ROI for this analysis includes the Project Site and areas within 0.25 mile of the Project Site (see **Figure 1**). The ROI includes all areas where human health and safety could reasonably be affected by the Proposed Action.

1.2.2 Applicable Guidance

The Occupational Safety and Health Administration (OSHA) is the primary federal agency overseeing worker safety, protection, and health. OSHA establishes required worker protection standards to prevent and minimize potential safety and health risks. State and federal agencies often establish safety, health, and environmental programs and systems to comply with OSHA requirements.

Occupational safety and health (OSH) programs address the health and safety of people at work. These programs impose regulatory requirements for the benefit of employees and the public, including implementation of engineering and administrative practices that reduce risks of illness, injury, death, and property damage. OSH regulations cover potential exposure to a wide range of chemical, physical, and biological hazards and ergonomic stressors. The regulations are designed to control these hazards by eliminating exposure via administrative or engineering controls, substitution, or use of personal protective equipment (PPE).

Table 1 identifies federal and state guidance and regulations relevant to this analysis. Treasury would comply with these guidelines and requirements under the Proposed Action.

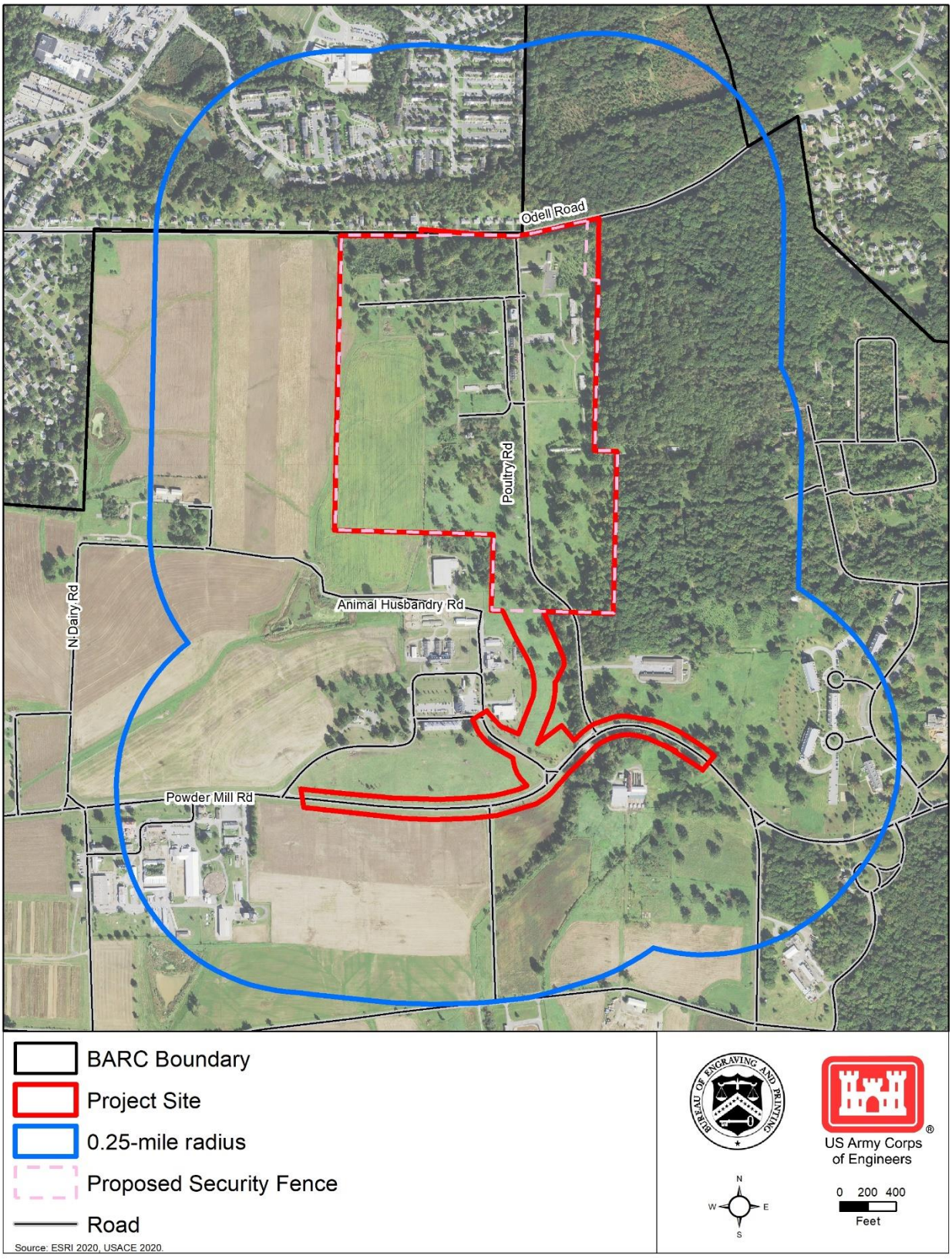

Figure 1: Human Health and Safety ROI

Table 1: Human Health and Safety Applicable Guidance and Regulations

Guidance/Regulation	Description/Applicability to Proposed Action
Occupational Safety and Health Act of 1970 (29 United States Code [USC] 651 *et seq.*)	Establishes standards for safe and healthful working conditions for working people in the United States and authorizes enforcement of those standards.
OSH Standards for General Industry (29 Code of Federal Regulations [CFR] 1910)	Governs day-to-day safety in the workplace and general industry where specific standards applicable to the agricultural, construction, and maritime industries do not apply.
OSH Standards for Construction (29 CFR 1926)	Governs construction industry workplace safety.
Basic Program Elements for Federal Employees (29 CFR 1960)	Sets forth basic provisions to assure safe and healthful working conditions for federal employees.
Executive Order (EO) 12196, *Occupational Safety and Health Programs for Federal Employees* (1980)	Provides additional provisions to assure safe and healthful working conditions for federal employees.
Maryland Occupational Safety and Health (MOSH) (Code of Maryland Regulations [COMAR] 09.12.20)	Enforces state and federal laws and regulations pertaining to worker health and safety. Establishes Maryland OSH regulations for all non-federal, public and private sector workplaces in the state (MOSH, 2019).
US Department of Agriculture (USDA) Manual for Safety, Health, and Environmental Management Program (Manual 160.0)	Establishes the regulatory procedures for forming a Safety, Health, and Environmental Management program. Aims to achieve accident-free task performance between employees, machines, and the environment.
Beltsville Agricultural Research Center (BARC) Construction Safety Manual	Outlines safety procedures for construction projects and activities at BARC.

1.2.3 Existing Conditions

Treasury

Treasury's Office of Environment, Health, and Safety (OEHS) manages worker health and safety at Treasury's Washington, DC Facility (DC Facility). OEHS has established an Environmental Management System (EMS) to improve worker health and safety programs. OEHS' health and safety goals include maintaining a downward trend in occupational injury and illness rates and engaging personnel at all levels to implement health and safety improvements (BEP, 2017).

While Treasury's currency production process is highly automated with minimal physical labor, OEHS works to minimize exertion and worker fatigue to the extent possible. Supervisory and health and safety personnel are present during all shifts to monitor tasks being performed, worker safety, and the potential for accidents. Treasury personnel also receive periodic training on ergonomics and other safe work practices; OEHS provides readily available safety guidance.

Treasury workers use, handle, and store hazardous materials required for the currency production process in accordance with manufacturer directions, applicable federal and state regulations, and established Treasury procedures. Treasury personnel receive periodic training on the use of hazardous materials and

wear appropriate PPE when handling such materials. When not in use, Treasury stores hazardous materials in appropriate cabinets and lockers that are only accessible to authorized personnel. Cleanup kits are placed strategically in Treasury facilities for use in the event of an accidental hazardous material spill. Trained Treasury workers dispose of hazardous waste in appropriate receptacles. A licensed contractor periodically collects and properly disposes of these wastes at a permitted landfill or facility. Treasury workers who use, handle, and store hazardous materials adhere to applicable requirements and procedures that greatly reduce or remove risks to human health and safety. Please refer to the ***Hazardous and Toxic Materials and Waste Technical Memorandum*** for additional information on hazardous materials and hazardous waste.

Treasury restricts access to its facilities to authorized personnel and visitors. Authorized personnel have identification badges with magnetic card readers to facilitate their access; visitors are escorted by authorized personnel. Treasury maintains an on-site police force to provide security for its facilities and currency shipments. The Treasury police force also screens vehicles entering and exiting the facilities for unauthorized cargo and passengers.

Potential threats to Treasury facilities include vehicle-borne improvised explosive devices (i.e., “car bombs”), workplace shootings, and unauthorized access by intruders or trespassers. To date, no detonations of intentional harmful explosives or workplace shootings have occurred at any Bureau of Engraving and Printing (BEP) facility over its more than 100-year history. The Treasury police force typically resolves unauthorized access situations within seconds or minutes and intruders and trespassers are infrequent; BEP personnel and property have never experienced injury or damage from such violations.

The Treasury police force identifies and deters potential threats through rigorous screening of vehicles and visitors entering Treasury facilities, as well as other active and passive security measures. The Treasury police force follows established procedures to deter or neutralize perceived threats. Treasury constantly reviews potential threats and updates its training and procedures to respond to such threats.

While Treasury sufficiently manages employee and visitor safety and security to the extent practicable, the DC Facility’s age and physical configuration limit opportunities for improvements and upgrades. In the DC Facility, production functions are spread across multiple floors and wings of the building, resulting in manufacturing processes that are inefficient and pose safety risks to staff. Fragmented storage across multiple floors, present additional risks to workers.

The DC Facility is more accident-prone than the more modern Western Currency Facility. In 2015, 19 of the 23 “lost time” workplace injuries across all BEP facilities were sustained at the DC Facility (BEP, 2018). Further, the DC Facility’s location does not allow Treasury to comply with modern physical security standards (e.g., security setback distances) in accordance with Interagency Security Committee standards (ISC, 2016).

Beltsville Agricultural Research Center (BARC)

The USDA restricts BARC access to authorized personnel and visitors. Existing safety and security measures include fencing around portions of BARC and security personnel posted at entrances to specific buildings. The USDA provides regular health and safety training for BARC personnel (USDA, 2018).

The USDA handles, stores, and disposes of hazardous materials and wastes in accordance with applicable federal and state regulatory requirements; they do not pose a risk to human health. Please refer to the ***Hazardous and Toxic Materials and Waste Technical Memorandum*** for additional information on hazardous materials and hazardous waste.

Project Site

The Project Site currently has a chain-link security fence parallel to Odell Road. This fence contains one locked, unstaffed gate at the northern end of Poultry Road. No additional fencing separates the Project Site from adjacent land within BARC.

As discussed further in the ***Hazardous and Toxic Materials and Waste Technical Memorandum***, five Areas of Concern (AOCs) were previously identified in the ROI in accordance with the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA). Following cleanup actions at these AOCs in the late 1990s, the AOCs no longer pose an elevated or unacceptable risk to human health. The AOCs received regulatory closure between 2009 and 2010 (USDA, 2009a; USDA, 2009b; USDA, 2009c; USDA, 2009d; USDA, 2010).

There are medical and first responder services within a 3-mile radius of the Project Site:

- The University of Maryland Laurel Medical Center is approximately 3 miles north from the Project Site. The hospital includes an emergency department and critical care facilities (UMD, 2019).
- A Patient First urgent care clinic is approximately 2 miles southwest of the Project Site. The facility is open daily from 8:00 am to 10:00 pm and provides primary care treatment for common illnesses and injuries (Patient First, 2020).
- The Beltsville Volunteer Fire Department Station 31 is approximately 1 mile west of the Project Site. Station 31 is staffed continuously and services approximately 21 square miles, including the Project Site (BVFD, 2020).
- The Beltsville Police Department, District 6 Station, is approximately 2 miles west of the Project Site. District 6 encompasses the northernmost region of Prince George's County, including the Project Site, and covers the communities of Beltsville, Calverton, Greenbelt, and unincorporated Laurel (Prince George's County, 2020).

1.3 Environmental Effects

This section analyzes the potential impacts on human health and safety within the ROI that could occur under the Proposed Action (i.e., Preferred Alternative) and the No Action Alternative. Measures to reduce potential adverse impacts on human health and safety form the Proposed Action are also identified.

1.3.1 Approach to the Analysis

Treasury made the following assumptions in conducting this analysis:

- Construction activities would adhere to applicable federal and state OSH regulations, as well as established industry and trade-specific procedures, to minimize the potential for construction-related accidents.
- Treasury would continue to adhere to all federal and state OSH regulations and practices applicable to the workplace in general and to the currency production process specifically, particularly regarding the use, storage, handling, and disposal of hazardous materials and hazardous waste associated with such processes.
- Safety and security measures at the proposed CPF (e.g., building setbacks, vehicle access control points [ACPs], personnel access measures, Treasury police force staffing and presence) would be implemented in accordance with all current and future federal regulations, state regulations, and Treasury practices and procedures. These measures would be sufficient to prevent, deter, or

neutralize potential intentionally destructive acts occurring at the proposed CPF or ensure their potential effects are contained within the boundaries of the proposed CPF.

For this analysis, Treasury defined a significant adverse impact as one that would:

- Violate applicable federal and/or state safety regulations.
- Directly result in the permanent disability or death of one or more persons within the ROI due to an accident or intentionally destructive act during construction or operation of the Proposed Action.

1.3.2 No Action Alternative

Under the No Action Alternative, Treasury would not construct or operate the Proposed Action at BARC. Treasury would continue to operate the existing DC Facility in accordance with existing safety and security practices and regulations. The majority of all BEP "lost time" workplace injuries, however, currently occur at the DC Facility (BEP, 2018). Future opportunities to reconfigure the aging DC Facility to address evolving safety and security risks would continue to be limited, potentially increasing Treasury's susceptibility to workplace accidents or security incidents (see **Section 1.2.3**). Therefore, the No Action Alternative would result in a continued ***less-than-significant adverse impact*** to human health and safety, specifically for Treasury staff.

1.3.3 Preferred Alternative

Construction

Normal Activities

Qualified, trained contractors with applicable licenses/certifications would perform construction activities. Construction would not require any specialized construction practices and would be consistent with federal construction process requirements.

Outdoor construction activities would be performed during daytime working hours in conditions with ample lighting and appropriate weather. Indoor construction, once the proposed CPF's exterior shell in completed, would be performed in the same manner. Further, all construction activities would be performed within a secured perimeter at the Project Site and would only be accessible to authorized personnel.

Treasury would require construction contractors to perform activities in accordance with all applicable federal and state OSH regulations and requirements, as well as established, trade-specific procedures. Treasury would require construction contractors to handle, store, and dispose of hazardous materials and wastes in accordance with applicable federal and state regulatory requirements. Additionally, construction contractors would adhere to site-specific health and safety plans and safe work practices. Therefore, normal construction activities under the Preferred Alternative would have ***no or negligible adverse impacts*** on construction worker health and safety.

Accidents

While adherence to applicable health and safety regulations and requirements during construction would substantially minimize the potential for accidents and resultant human injury, some inherent risk would remain due to the nature of the work (e.g., physical exertion and strain, use of power and hand tools, presence of open excavations, work near vehicles and heavy equipment).

In the event of an accident involving any injury, on-site first aid-certified personnel would administer first aid immediately and emergency responder services would be summoned if necessary. Construction contractors experiencing minor injuries would be transported to the nearest urgent care center for treatment (see **Section 1.2.3**). The Project Site's proximity to medical and first responder services would ensure potential injuries are addressed quickly. Effects of potential construction-related accidents would be

contained within the Project Site and limited to construction personnel in the immediate vicinity of the accident. BARC employees and the general public would not be affected by construction accidents.

Construction contractors in appropriate PPE would immediately respond to accidental spills or releases of hazardous materials (e.g., a fuel leak from a piece of construction equipment) and would clean-up those accidental events in accordance with site-safety plans and applicable federal and state regulatory requirements. Treasury anticipates that any effects from accidental spills or leaks would remain within the Project Site. Please refer to the ***Hazardous and Toxic Materials and Waste Technical Memorandum*** for more information on hazardous materials and waste during construction.

Overall, potential construction accidents would have ***less-than-significant adverse impacts*** on construction worker health and safety, and be commensurate with other federal construction projects.

Security and Intentionally Destructive Acts

Intentionally destructive acts could occur during the Proposed Action's construction phase. These acts would likely be limited to vandalism, theft of tools or equipment, and similar types of crime. The Project Site would be fenced throughout the construction phase; access would be limited to construction personnel and others with a demonstrated need for site access and appropriate authorization. During non-working hours, vehicle and pedestrian access gates would be locked and a private security service would patrol the Project Site to further deter unauthorized access and intentionally destructive acts. Should intentionally destructive acts at the Project Site occur, potential effects would likely be contained to within the Project Site. Construction of the Proposed Action would be unlikely to induce or increase crime in the ROI. Thus, potential intentionally destructive acts during construction would have ***no or negligible adverse impacts*** on human health and safety.

Operation

Normal Activities

Except for the entry and exit of vehicles associated with the proposed CPF, no operations would occur outside Treasury's proposed security fence (see **Figure 1**). Administrative/office and currency production activities at the proposed CPF would be conducted in accordance with all applicable federal and state OSH regulations and requirements as they currently are at the DC Facility, including for hazardous materials and wastes (see **Section 1.2.3**).

The proposed CPF, however, would have efficiency improvements compared to the DC Facility, including the placement of equipment and storage on one floor. Staff in the proposed CPF would no longer have to operate across multiple floors and wings of the DC Facility, thereby increasing the safety of their day-to-day activities. Efficient work production flows in the proposed CPF would be flexible and could be easily reconfigured, thereby placing less strain and risk on production staff. Therefore, the proposed CPF would have *a* ***beneficial impact*** on human health and safety, specifically for Treasury staff.

Accidents

Treasury employs a highly skilled, knowledgeable, and well-trained workforce. Treasury expects this staff to adhere to training requirements, work practices, and applicable federal and state regulatory requirements that would prevent or substantially minimize the potential for accidents. Treasury anticipates that the potential for accidents at the proposed CPF, including but not limited to fires, worker and/or visitor injuries, accidental spills or releases of hazardous substances, and vehicle accidents, would remain small, localized, and contained within Treasury's proposed security fence.

Due to the efficiency and work-flow improvements relative to the DC Facility, accident potential in the proposed CPF would decrease. There would likely be a substantial decrease in the number of workplace injuries as the DC Facility is phased out and the proposed CPF becomes operational. In the event of staff

or visitor injury, qualified personnel would administer first aid immediately and summon first responder services if necessary. Workers or visitors experiencing minor injuries would be transported to the nearest urgent care facility for treatment (see **Section 1.2.3**).

Therefore, in the long term, the reduction in the potential for accidents would have a ***beneficial impact*** on human health and safety, specifically for Treasury staff.

Security and Intentionally Destructive Acts

Treasury's police force would monitor and maintain security at the proposed CPF 24 hours a day, seven days a week. Similar to the DC Facility, Treasury's police force would restrict access to the facility to badged employees and authorized visitors and would inspect vehicles entering and exiting the proposed CPF. New security technologies to manage vehicle and staff access and monitor the proposed CPF, however, would also be installed. The Proposed Action would include a multi-component security system, employing both active (e.g., surveillance cameras and notification systems) and passive (e.g., well-defined and controlled entry and exit areas) deterrents. Treasury's police force would inspect vehicles at a new ACP to be located along the proposed entrance road. This ACP would be equipped with all required vehicle inspection and life safety equipment.

Entry to the proposed CPF from Odell Road would not be permitted; this access road would be used as an emergency exit only. The proposed security fence would comply with current anti-terrorism/force protection barriers.

The proposed CPF would be equipped with all required passive and active security measures to deter, prevent, and neutralize current and future security threats, including measures to respond to acts of terrorism and armed intruders. Based on incidents at the DC Facility (see **Section 1.2.3**), security situations would primarily involve unauthorized access, intruders, or trespassers. Treasury's police force would typically resolve unauthorized access situations within seconds or minutes, and intruders and trespassers would likely be infrequent.

Treasury police force presence and security measures would be expected to contain security incidents within the boundaries of Treasury's proposed parcel. Further, natural barriers, such as trees and topography retained on-site, would augment physical barriers and provide additional levels of protection. The design of the Proposed Action would meet all applicable federal facility security requirements, including site setbacks for security structures, vehicle inspection areas, parking areas, maintenance and storage sheds, and fencing. Field-of-view security requirements would be met. Treasury would continue to assess potential security threats to the proposed CPF over time and improve security measures accordingly.

Therefore, the Proposed Action would have a ***beneficial impact*** to Treasury security and a ***less-than-significant adverse impact*** on human safety from the potential for intentionally destructive acts.

1.4 Impact-Reduction Measures

As part of the Proposed Action, Treasury would implement the following impact-reduction measures to minimize potential adverse impacts to human health and safety:

- Ensure that first aid-qualified personnel and appropriate supervisory personnel are always present on the Project Site during construction.
- Conduct regular safety meetings during construction activities to identify potential hazards.

- Prepare and adhere to a site- and project-specific health and safety plan identifying the location and travel routes to the nearest hospital/emergency room (for significant/major injuries) and urgent care center (for minor injuries) during construction and operation.
- Require all supervisory personnel to review and familiarize themselves with the project health and safety plan. This plan would be maintained on-site throughout construction and operation.
- Require supervisory personnel, including qualified safety professionals, to be present on-site each workday to monitor work protocol, worker safety, and the potential for accidents during construction and operation.
- Place cleanup kits strategically throughout the Project Site for use in the event of an accidental spill or release, particularly of a hazardous material such as fuel, to ensure that spilled materials and their potential impacts are contained to a small area and do not have the opportunity to migrate off-site.
- Continue to provide applicable health and safety training to Treasury personnel, particularly personnel using and handling hazardous materials and hazardous waste.
- Continue to review and assess potential security threats and adjust security measures accordingly.

1.5 Mitigation Measures

No project-specific mitigation measures are recommended.

1.6 References

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