

# Waste Isolation Pilot Plant (WIPP)

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## Work Safety and Health Program Description

WP 15-GM.02

Revision 18



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SIGNATURE ON FILE

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Ken Harrawood, Program Manager

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Date

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## List of Acronyms

<b>ACGIH</b>	American Conference of Governmental Industrial Hygienists
<b>ANL</b>	Argonne National Laboratory
<b>ANSI</b>	American National Standards Institute
<b>ASME</b>	American Society of Mechanical Engineers
<b>CBDPP</b>	(DOE) Chronic Beryllium Disease Prevention Program
<b>CBFO</b>	Carlsbad Field Office
<b>CCP</b>	Central Characterization Program
<b>CEMRC</b>	Carlsbad Environmental Monitoring and Research Center
<b>CFR</b>	Code of Federal Regulations
<b>CH</b>	Contact-Handled
<b>DOE</b>	U.S. Department of Energy
<b>EAP</b>	Employee Assistance Program
<b>EDMS</b>	Electronic Document Management System
<b>EPA</b>	(U.S.) Environmental Protection Agency
<b>FHA</b>	Fire Hazards Analysis
<b>FPP</b>	Fire Protection Program
<b>FY</b>	Fiscal Year
<b>GET</b>	General Employee Training
<b>GSA</b>	General Services Administration
<b>HR</b>	Human Resources
<b>ICRP</b>	International Commission on Radiological Protection

<b>INL</b>	Idaho National Laboratory
<b>ISM</b>	Integrated Safety Management
<b>ISMS</b>	Integrated Safety Management System
<b>JHA</b>	Job Hazard Analysis
<b>LANL</b>	Los Alamos National Laboratory
<b>LANS</b>	Los Alamos National Security, LLC
<b>LLNL</b>	Lawrence Livermore National Laboratory
<b>LWA</b>	Land Withdrawal Act
<b>M&amp;O</b>	Management and Operating
<b>MOU</b>	Memorandum of Understanding
<b>MSHA</b>	Mine Safety and Health Administration
<b>NDA</b>	Nondestructive Assay
<b>NDE</b>	Nondestructive Examination
<b>NFPA</b>	National Fire Protection Association
<b>NIOSH</b>	National Institute Occupational Safety and Health
<b>OMP</b>	Occupational Medical Providers
<b>ORNL</b>	Oak Ridge National Laboratory
<b>OSHA</b>	Occupational Safety and Health Administration
<b>PAAA</b>	Price Anderson Amendments Act
<b>PFO</b>	Protective Force Order
<b>PPE</b>	personal protective equipment
<b>RES</b>	Regulatory Environmental Services
<b>RH</b>	Remote-Handled
<b>RTE</b>	Real-Time Examination

<b>SDS</b>	Safety Data Sheets
<b>SIMCO</b>	Salado Isolation Mining Contractors, LLC
<b>SMP</b>	Safety Management Program
<b>SNL</b>	Sandia National Laboratories
<b>SRS</b>	Savannah River Site
<b>STR</b>	Subcontractor Technical Representative
<b>TLV</b>	Threshold Limit Value
<b>TRAMPAC</b>	Transuranic Waste Authorized Methods for Payload Control
<b>TRU</b>	Transuranic
<b>TWPC</b>	Transuranic Waste Processing Center
<b>UVS</b>	Underground Ventilation System
<b>VE</b>	Visual Examination
<b>VOC</b>	Volatile Organic Compound
<b>VPP</b>	Voluntary Protection Program
<b>WHB</b>	Waste Handling Building
<b>WIPP</b>	Waste Isolation Pilot Plant
<b>WSHPD</b>	Worker Safety and Health Program Description

## 1.0 INTRODUCTION

In December 2002, Congress directed the U.S. Department of Energy (DOE) to promulgate regulations on worker safety and health requirements to cover contractors with Price Anderson Amendments Act (PAAA) indemnification agreements in their contracts. The result of that directive is 10 CFR §851, Worker Safety and Health Program (the 851 Rule).

The final rule was built on existing contract practices and processes to achieve safe and healthful workplaces. The rule was intended to be complementary to integrated safety management (ISM). As such, it was expected that contractors would not establish redundant worker protection programs to comply with the rule, but that the final rule established an effective worker safety and health program. The program is expected to reduce or prevent injuries, illnesses, and accidental losses by providing DOE contractors and workers with a safe and healthful workplace that integrates current safety and health programs and processes. Hazards are to be identified, abated, controlled, or otherwise mitigated in a manner that provides reasonable assurance workers are adequately protected.

Salado Isolation Mining Contractors, LLC (SIMCO) is under contract to the DOE Carlsbad Field Office (CBFO) for management and operation of the Waste Isolation Pilot Plant (WIPP). SIMCO systematically integrates safety and environmental stewardship into management and work practices to accomplish the WIPP mission of disposing of defense-generated transuranic (TRU) and TRU mixed waste while protecting the worker, public, and environment. Mission scope includes characterization activities at several generator sites to ensure acceptability of waste shipped for disposal at the WIPP to meet the nation's cleanup goals. Scopes for generator site characterization activities are defined in the CBFO primary contract DE-EM0001971, DOE Carlsbad Field Office WIPP Management and Operations Contract, in generator site memorandum of understanding (MOU) interface agreements, or in subcontracts.

## 2.0 PURPOSE

This SIMCO Worker Safety and Health Program Description (WSHPD) identifies elements, methods, and processes by which SIMCO meets requirements in the 851 Rule while also incorporating requirements of WP 15 GM.03, Integrated Safety Management System Description. This document provides no new safety or health requirements. Instead, it serves as a program description of SIMCO safety programs, associated policies, requirements, processes, methods, and procedures providing compliance with requirements of 10 CFR §851, *Worker Safety and Health Program*. Integrated safety management system (ISMS) Description is the means by which worker safety and health requirements described in this WSHPD are integrated into mission work activities performed by SIMCO per its Safety Commitment to WIPP as stated in MP 1.28, *Integrated Safety Management*.

Annual safety goals are established to ensure continuous improvement as discussed in the ISMS Description and annual Voluntary Protection Program (VPP) reports based on DOE guidance, input from senior management, and employee involvement through safety committees in coordination with CBFO. MP 1.12, *Worker Protection Policy*, is the implementing document for the VPP program. Employee involvement plays a vital role at WIPP in ensuring a strong safety culture for implementation of the WSHPD.

### 3.0 WIPP DESCRIPTION

WIPP is located in southeastern New Mexico in Eddy County, approximately 26 miles east of Carlsbad. The WIPP site is designed to permanently dispose of TRU waste from U.S. nuclear weapons research and production programs. The WIPP mine repository is located 2,150 feet underground in a stable ancient salt formation. Site facilities include structures, buildings, and underground excavations.

WIPP is currently undergoing several critical infrastructure upgrades to ensure the WIPP mission will be completed safely including:

- Updates to the fire water system (new firewater tanks as well as underground piping) are in progress.
- Refurbishment of the Salt Hoist headframe is currently in progress.
- The Central Monitoring Room (CMR) recently completed upgrades that will aid in the safe completion of the WIPP mission.
- In January of 2021 the 700C hot test was successfully completed. Actions are underway for a full restart.
- Construction of the Safety Significant Confinement Ventilation System (SSCVS) is in progress, SSCVS will provide additional ventilation to the existing underground facilities. A new contractor was selected for completion of this project in FY21.
- Modifications to the Air Intake Shaft (AIS) are currently in progress.
- Construction of the Utility Shaft (Shaft 5) is still underway; this was designed to add an additional shaft as well as associated drifts.

### 3.1 FUTURE OPERATIONS

SIMCO is undergoing restart of the Remote-Handled (RH) waste program. Restart of this program includes, but is not limited to: refurbishment of previous RH equipment, evaluating new equipment, and procurement of a RH training facility in Carlsbad.

### 3.2 CORONAVIRUS-19 (COVID-19)

COVID-19 is highly infectious and spreads from person to person through aerosol transmission of particles produced when an infected person exhales, talks, vocalizes, sneezes, or coughs. COVID-19 is highly transmissible and can be spread by people who have no symptoms.

SIMCO has instituted a multitude of COVID-19 controls including:

- Social distancing and face covering requirements.
- Use of engineered barriers in high contact areas.
- Density reduction (teleworking).
- Enhanced daily cleaning of work spaces.

Vaccination is the key element in a multilayered approach to protect workers. Occupational Safety and Health Administration (OSHA) as well as the DOE both emphasize that vaccination is the



most effective way to protect against severe illness or death from COVID-19. As such, for FY22, SIMCO will establish vaccination goals with a reward tied to achievement of the following:

- If 65% or more of SIMCO employees (and embedded subcontractors) receive final vaccine dose by 11/24/2021, an award of \$500 per person will be shared with employees.

**OR**

- If 90% or more of SIMCO employees (and embedded subcontractors) receive final vaccine dose by 11/24/2021, an award of \$1,000 per person will be shared with employees.

All SIMCO employees (and embedded subcontractors) are eligible to participate. Employees with approved medical exemptions and those that present a vaccination card showing completion of the final shot on or before 11/24/21 will be entitled to their share of the award.

## 4.0 COORDINATION WITH HOST SITE CONTRACTORS

10 CFR §851.11, *Development and Approval of Worker Safety and Health Program*, states contractors are to coordinate with other contractors responsible for work at covered workplaces to ensure there are clear roles, responsibilities, and procedures to ensure the safety and health of workers at multiple contractor workplaces. The WSHPD also includes roles and responsibilities of host sites referencing Host Site 851 Plans (Host Site Plan[s]) to serve as a roadmap for specific host site procedures that apply to SIMCO activities.

### 4.1 Central Characterization Project

SIMCO also manages and operates the Central Characterization Program (CCP), which deploys mobile/modular waste characterization units to generator sites, providing a standardized characterization and certification capability to certify TRU waste for disposal at the WIPP, and certifies the waste meets transportation requirements as well as disposal requirements. CCP was established to provide cost effective TRU waste characterization, confirmation, and certification, including generation-level and project level data validation and verification per programmatic compliance documents.

SIMCO addresses safety and health considerations for host site operations through an interface agreement with each host facility. The interface agreement specifies responsibilities of SIMCO and the host facility regarding provision of facilities, utilities, maintenance support, safety support, environmental support, and operational responsibilities. Division of operational responsibilities between SIMCO and host sites is described in the interface agreement for each site. CCP operations conducted at the host site must comply with requirements with the host site and SIMCO. These requirements, as related to 10 CFR §851, *Worker Safety and Health Program*, implementation, are defined in interface documents and are included in the WSHPD by facility. SIMCO provides periodic review of host sites to ensure responsibilities for worker protection are being met.

### 4.2 Other Companies Conducting Work at WIPP

The WSHPD is applicable to SIMCO subcontractors providing services at any covered workplace. DOE laboratories (LANL and SNL), the CBFO Technical Assistance Contractor, and other DOE direct contracts, whether conducting research or performing specific work projects at the WIPP

site, are directly contracted to the DOE and therefore responsible for their own 851 Plans or are covered under their parent company 851 Plan. Additional interfaces and responsibilities for DOE direct contracts as related to safety aspects at WIPP governed by SIMCO are defined further in WP 02-EC.12, *Site Users and Tenants Guide for Organizations, Personnel, or Companies That Perform Work on U.S. Department Of Energy Property or Rights-of-Way on or Around the Waste Isolation Pilot Plant*.

## 5.0 SCOPE AND APPLICABILITY

10 CFR §851.11, *Development and Approval of Worker Safety and Health Program*, states: "If a contractor is responsible for more than one covered workplace at a DOE site, the contractor must establish and maintain a single worker safety and health program for the covered workplaces for which the contractor is responsible." The 851 Rule and WSHPD apply to the conduct of SIMCO activities at WIPP, SRS, LANL, INL, ANL, ORNL, SNL, LLNL, and other small quantity sites.

The WSHPD also describes how SIMCO complies with requirements set forth in Subpart C of 10 CFR §851.11 with referenced policies and procedures providing methods of implementation.

### 5.1 WIPP Site

#### 5.1.1 SIMCO

SIMCO is the management and operating (M&O) contractor for the WIPP site. The WIPP site is located in an area of low population density. There are no industrial, commercial, institutional, recreational, or residential structures within the WIPP site boundary. The WIPP surface structures accommodate personnel, equipment, and support services required for the receipt, preparation, and transfer of TRU waste from the surface to the underground.

The primary surface operations at the WIPP are conducted in the Waste Handling Building (WHB), which is divided into the CH waste handling area, the RH waste handling area, and support areas. The waste disposal area encompasses 100-acres on a horizon located 2,150 feet beneath the surface in a deep, bedded salt formation. Waste is transferred from the surface to the disposal horizon through the waste shaft using a hoist and conveyance.

Waste arrives at the WIPP in shielded containers, drum assemblies, standard waste boxes, ten drum overpacks, standard large boxes, or canisters.

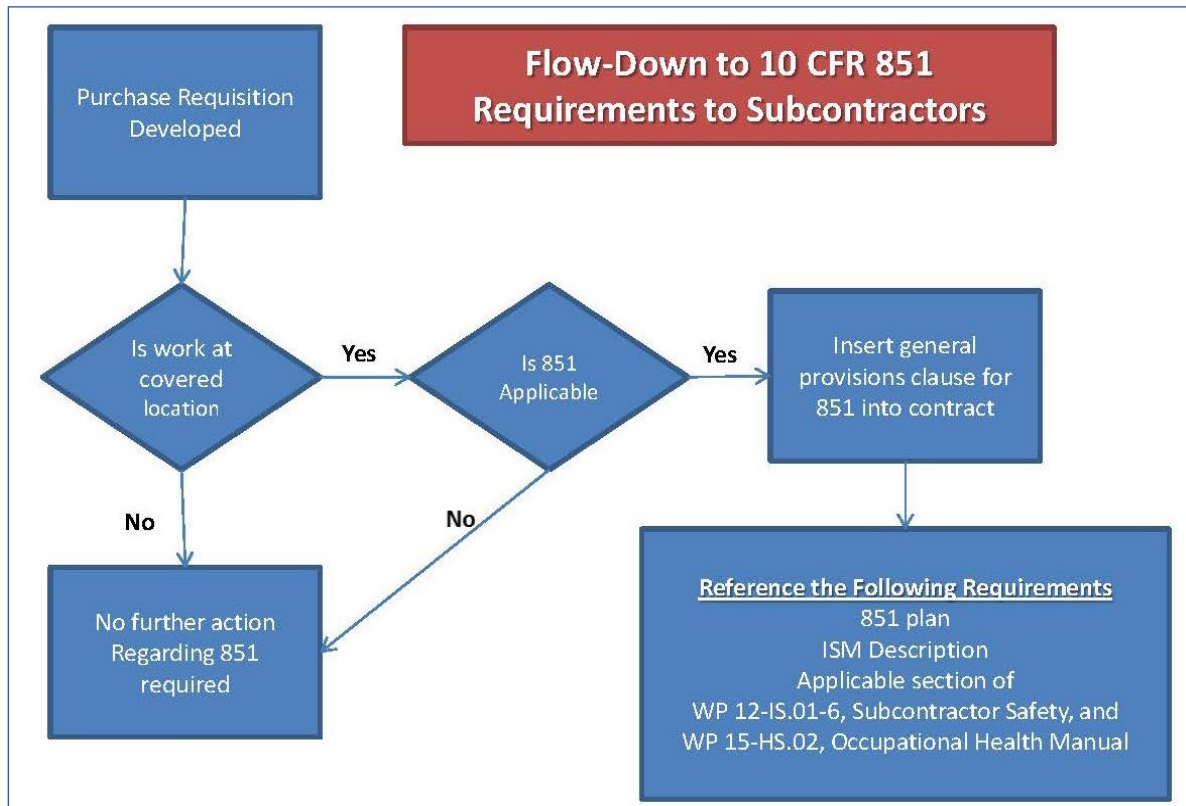
Hazards associated with WIPP operations include mining activities, high voltage, compressed gases, confined spaces, handling of radiological and non-radiological hazardous materials, volatile organic compounds (VOC), ionizing and nonionizing radiation, high noise levels, mechanical and moving equipment, working at heights, construction, heat stress, and other weather extremes such as high winds. Waste handling operations at WIPP do not involve high temperature and pressure systems or electromagnetic fields; however, they may include hazards associated with high temperature and pressure within waste containers, specifically drums. This situation may exist if characterization from generator sites was less than adequate. WIPP has put systems in place such as TRU waste certification requirements that evaluate and ensure that chemical compatibility as well as oxidizing properties meet TRU waste disposal requirements.

Additional hazard controls were implemented as part of the recovery planning. These include aspects of radiological contamination cleanup, assessing equipment function, monitoring filter

impacts, improvement of hazard analysis, emergency drills, work planning, and preventive maintenance.

### 5.1.2 Subcontractors

SIMCO has implemented a process to assure requirements of 10 CFR §851, *Worker Safety and Health Program*, are appropriately flowed down to subcontractors performing work at SIMCO-covered workplaces per the following flowchart. The subcontractor Technical Representative Program has been enhanced to include more emphasis on field presence and oversight.



**Figure 1.** Flow-Down to 10 CFR 851 Requirements to Subcontractors

The process includes specific procurement clauses for subcontractors to work under requirements of the WSHPD, as well as work control requirements, safety reviews, occupational medical requirements, and others to ensure effective implementation of 10 CFR §851. SIMCO is responsible for flowing down worker protection requirements to subcontractors at any tier to ensure compliance. These requirements are included in the terms and conditions of agreement of each subcontract before work at the WIPP or CCP sites may begin. SIMCO and its subcontractors coordinate per WP 12 IS.01 6, *Industrial Safety Program – Visitor, Vendor, User, Tenant, and Subcontractor Safety Controls*, to ensure clear roles, responsibilities, and procedures to achieve an integrated approach to ensuring worker safety and health consistent with 10 CFR §851.11(a)(2)(ii).

## 5.2 Generator Sites

The SIMCO CCP and its subcontractor personnel perform waste characterization and certification work at a number of DOE generator sites where SIMCO has no direct contractual authority for overall site operations. SIMCO has negotiated and established interface agreements with each generator site's contractor. These interface agreements define SIMCO and generator site responsibilities regarding safety oversight and safety support for generator site operations. SIMCO fully expects each generator site's contractor to proactively address its safety commitments to CCP operations at those sites. SIMCO also understands the safety and health of SIMCO and its subcontractor personnel remains the responsibility of SIMCO. SIMCO management commitment for generator site personnel is further delineated in the WSHPD. Specific activities at each site include providing nondestructive examination (NDE) (real-time examination [RTE] or visual examination [VE]) and nondestructive assay (NDA). At each of the sites, some sampling is conducted, such as flammable gas per TRAMPAC requirements.

### 5.2.1 SRS

Interfaces and responsibilities regarding overall scope of work for SIMCO/CCP at SRS are defined in CCP-PO-004, *CCP/SRS Interface Document*. The host site has primary responsibility for assuring requirements for safety are met, including radiological control, emergency management, industrial safety, industrial hygiene, security, safety basis, and environmental permits. The scope of work for SIMCO and its subcontractors at SRS is based on responsibilities for the characterization of CH and RH waste. These same responsibilities apply to the additional scope of work at SRS for transportation of CH and RH TRU waste.

### 5.2.2 LANL

Interfaces and responsibilities regarding overall scope of work for SIMCO/CCP at LANL are defined in CCP PO 012, *CCP/Triad National Security LLC at Los Alamos National Laboratory (LANL) Interface Document* and CCP-PO-051, *CCP/N3B LLC at Los Alamos National Laboratory (LANL) Interface Document*. The host site has primary responsibility for assuring requirements for safety are met, including radiological control, emergency management, industrial safety, industrial hygiene, security, safety basis, and environmental permits. These same responsibilities apply to the additional scope of work at LANL for transportation of CH and RH TRU waste.

### 5.2.3 INL

Interfaces and responsibilities regarding overall scope of work for SIMCO/CCP at INL are defined in CCP-PO-024, *CCP/INL Interface Document*; CCP PO 501, *CCP/INL RH TRU Waste Interface Document*; and CCP PO 505, *CCP Remote-Handled Transuranic Waste Authorized Methods for Payload Control*. The host site has primary responsibility for assuring requirements for safety are met, including radiological control, emergency management, industrial safety, industrial hygiene, security, safety basis, and environmental permits. These same responsibilities apply to the additional scope of work at INL for transportation of CH and RH TRU waste.

### 5.2.4 ANL

Interfaces and responsibilities regarding overall scope of work for SIMCO/CCP at ANL are defined in CCP PO 500, *CCP/ANL Interface Document*. The host site has primary responsibility for assuring requirements for safety are met, including radiological control, emergency management, industrial safety, industrial hygiene, security, safety basis, and environmental permits. These

same responsibilities apply to the additional scope of work at ANL for transportation of CH and RH TRU waste.

### 5.2.5 ORNL (TWPC/REDC/IFEL)

Interfaces and responsibilities regarding overall scope of work for SIMCO/CCP at ORNL are defined in CCP-PO-027, *CCP/TRU Waste Processing Center/ORNL Interface Document* and CCP-PO-504, *CCP/Radiochemical Engineering Development Center (REDC) and the Irradiated Fuels Examination Laboratory (IFEL) – Oak Ridge National Laboratory (ORNL) Interface Document*. The host site has primary responsibility for assuring requirements for safety are met, including radiological control, emergency management, industrial safety, industrial hygiene, security, safety bases, and environmental permits. These same responsibilities apply to the additional scope of work at ORNL for transportation of CH and RH TRU waste.

### 5.2.6 SNL

Interfaces and responsibilities regarding overall scope of work for SIMCO/CCP at SNL is defined in CCP-PO-510, *CCP/SNL Interface Document*. The host site has primary responsibility for assuring requirements for safety are met, including radiological control, emergency management, industrial safety, industrial hygiene, security, safety bases, and environmental permits. These same responsibilities apply to the additional scope of work at SNL for transportation of CH and RH TRU waste.

### 5.2.7 LLNL

Interfaces and responsibilities regarding overall scope of work for SIMCO/CCP at LLNL is defined in CCP-PO-048, *CCP/LLNL Interface Document*. The host site has primary responsibility for assuring requirements for safety are met, including radiological control, emergency management, industrial safety, industrial hygiene, security, safety bases, and environmental permits. These same responsibilities apply to the additional scope of work at LLNL for transportation of CH and RH TRU waste.

## 6.0 COVERED WORKPLACES/ACTIVITIES

10 CFR §851.3, *Definitions*, defines a covered workplace as a place at a DOE site where a contractor is responsible for performing work in furtherance of a DOE mission. Covered workplaces/activities applicable to this WSHPD are described below.

### 6.1 WIPP Site

The WIPP site includes the Land Withdrawal Act (LWA) defined area, surface operations, and the underground.

Under the overall WIPP safety program, per the ISMS Description, everyone that enters the WIPP site is provided a level of protection per VPP Star status. As stated in DOE guidance on who must comply with the 851 Rule, although they are afforded safety protection through ISM, the following entities are specifically excluded from the WSHPD.

- Emergency response groups such as offsite municipal fire departments, local law enforcement, and mine rescue teams from area mines.

- Various university groups, laboratories and other research entities conducting research, if the research being conducted is not funded by or within the scope of the DOE.
- State and municipal departments that may be maintaining highways, conducting audits, etc.
- General public or companies passing through the land withdrawal area for recreational purposes or to conduct work that is not funded by the DOE.

## 6.2 Carlsbad Buildings

### Skeen-Whitlock Building and Cascade Building

These are covered workplaces for SIMCO and its subcontractor personnel. The Skeen-Whitlock Building is a GSA building. GSA services provided are not covered in the WSHPD. SIMCO's subcontractor RES occupies a portion of the Cascade Building's second floor which is leased from a private entity. This is also a covered workplace for SIMCO and its subcontractors but the landlord services are the responsibility of the building owners.

### Rotary Warehouse

This is also a covered workplace for SIMCO and its subcontractors, however the landlord services are the responsibility of the building owners.

### WIPP Records Center

This is a covered workplace for SIMCO subcontractors. Landlord services provided by Iron Mountain Management are not covered in the WSHPD.

### RH Restart Facility

This facility is in Carlsbad and is also a covered workplace for SIMCO and its subcontractors, however the landlord services are the responsibility of the building owners.

## 6.3 CCP Sites

Waste characterization activities conducted at host sites by SIMCO/CCP and its subcontractors are considered covered work scope. Therefore, if CCP activities are taking place at a DOE site, it is also a covered workplace. The following sites are current covered workplaces/activities:

### 6.3.1 SRS

Characterization activities conducted at SRS by SIMCO/CCP and its subcontractors are addressed in interface agreements, contract scopes of work, the SRS 851 Plan, and SRNS-RP-2008-00001.

### 6.3.2 LANL

Characterization activities conducted at LANL by SIMCO/CCP and its subcontractors are addressed in interface agreements, contract scopes of work, and host sites 851 Plan.



### 6.3.3 INL

Characterization activities conducted at INL by SIMCO/CCP and its subcontractors will be addressed in interface agreements, contract scopes of work, Host Site 851 Plans, and this WSHPD. At INL, different work scopes are described in actual statements of work related to CH and RH waste and transportation activities.

### 6.3.4 ANL

Characterization activities conducted at ANL by SIMCO/CCP and its subcontractors are addressed in interface agreements, contract scopes of work, and the UChicago Argonne, LLC 851 Plan.

### 6.3.5 ORNL (TWPC/REDC/IFEL)

Characterization activities conducted at ORNL by SIMCO/CCP and its subcontractors are addressed in interface agreements, contract scopes of work, and the ORNL 851 Plans.

### 6.3.6 SNL

Characterization activities conducted at SNL by SIMCO/CCP and its subcontractors are addressed in interface agreements, contract scopes of work, and the SNL 851 Plan.

### 6.3.7 LLNL

Characterization activities conducted at LLNL by SIMCO/CCP and its subcontractors are addressed in interface agreements, contract scopes of work, and the LLNL 851 Plan.

### 6.3.8 Small Quantity Sites – Characterization Activities

Characterization activities conducted at small quantity sites by SIMCO/CCP and its subcontractors are addressed in Section 10.0, *New Work Scope*. As the time frame for each is limited, they are not listed individually in this plan, which is updated annually unless there is a specific unique component that is not per Section 10.0. This section is specifically for small quantity sites that are not covered by any site host plans listed in this document.

## 7.0 EXCLUSIONS

### 7.1 Scopes Not Covered

Per 10 CFR §851.2(c), the WSHPD does not apply to transportation to or from a DOE site. Therefore, the WSHPD is not applicable to transportation subcontracts such as the WIPP bus subcontract, nor is it applicable to incidents/accidents off the DOE site premises involving employees or GSA vehicles. While incidents will be investigated and Occurrence Reporting requirements will be met, the 851 Rule will not be considered applicable to transportation issues.

Per 10 CFR §851.2(b), the WSHPD does not apply to radiological hazards or nuclear explosives operations to the extent regulated by 10 CFR §20, 820, 830, or 835. Though related components may be referenced due to inclusion in the overall ISMS or VPP, they are not applicable to 10 CFR §851, *Worker Safety and Health Program*.

Specific non-applicable areas (based on the fact that the scope of work, though located on the WIPP site, is not DOE-funded) include research by university groups, laboratories, and other research entities conducting activities in the WIPP underground research/experimental areas. This exclusion also applies to any public use of the land withdrawal area on the basis that it is not DOE-funded work. Personnel performing research within the property protection area are still protected by the ISMS and VPP. Personnel conducting non-DOE-funded work within the land withdrawal area are also protected. They are required to implement WP 02-EC.12, *Site Users and Tenants Guide for Organizations, Personnel, or Companies That Perform Work on U.S. Department of Energy Property or Rights-of-Way on or Around the Waste Isolation Pilot Plant*, with preapprovals of JHAs, safety plans, and implementing documentation which ensures appropriate risks have been identified.

Additionally, DOE guidance and language in the rule states that merely providing supplies does not fall within the scope of 10 CFR, §851. Such services will not be tracked for OSHA reporting. This WSHPD does not apply to companies and agencies providing supply services to WIPP, such as the following:

- Vending machine suppliers.
- Copy machine maintenance personnel.
- Delivery personnel (i.e., UPS or office supply companies).
- Utilities personnel servicing (e.g., power and communication lines).

The occupational medicine portion of this WSHPD does not apply to subcontractors that (1) work at one of the covered workplaces/activities for less than 30 days in a 12-month period, and (2) are not required to be enrolled in a medical or exposure monitoring program due to lack of potential for exposure.

## 7.2 Locations Not Covered

The WSHPD is not applicable to the following:

- Office workers who are not located at DOE sites. Though conducting DOE work, office personnel at, e.g., Albuquerque, New Mexico; Denver, Colorado; and Tacoma, Washington, are not working at DOE sites and thus do not fall under the auspices of the WSHPD.
- Work conducted in the field not on a DOE site (i.e., emergency response training on shipping routes, emergency response at a non-DOE site (such as mine rescue), and competitions and conferences held offsite).
- Generator site work conducted at a civilian site, a Department of Defense site, or a naval site such as Bettis Atomic Power Laboratory.
- Any other entity (i.e., commercial, private) contracted to SIMCO to serve as a location to temporarily store/stage TRU waste (e.g., Waste Control Specialists LLC).

## 8.0 GENERAL REQUIREMENTS

The SIMCO overall safety program is based on the ISMS, the VPP, and this WSHPD providing an integrated forum for safe and compliant operations, a focus on continuous improvement, and the expectations for a proactive safety culture. This foundation meets the requirements of 10 CFR



§851.10 (a) and (b), providing a place of employment that is free from recognized hazards that are causing or have the potential to cause death or serious physical harm to workers, ensuring that work is performed per requirements of 10 CFR §851, Worker Safety and Health Program, and with the worker safety and health program for SIMCO-covered workplaces. The written worker safety and health program consists of the WSHPD and the referenced programs, policies, and procedures. The WSHPD describes how SIMCO complies with requirements set forth in Subpart C of 10 CFR §851, applicable to hazards associated with SIMCO scope of work and how SIMCO complies with any compliance orders issued by the Secretary pursuant to 10 CFR §851.4.

The only direct VPP program inclusion for purposes of meeting 851 Rule expectations through this WSHPD is MP 1.12, *Worker Protection Policy*.

## 9.0 ADMINISTRATION OF THE WORKER SAFETY & HEALTH PROGRAM

The WSHPD is maintained by the SIMCO Environmental, Safety and Health Department Manager with updates submitted for approval to the CBFO Manager as the Head of DOE Field Element. A copy of the approved program is maintained in Documentum and in the CCP controlled document system to ensure access by affected workers and their designated representatives.

An annual review is conducted and either an updated worker safety and health program or a letter stating no changes are necessary in the currently approved worker safety and health program is submitted to DOE/CBFO for approval.

Revisions/updates include incorporation in the worker safety and health program any changes, conditions, or workplace safety and health standards directed by the DOE consistent with requirements of the 851 Rule; 48 CFR 970.5204 2, *Laws, regulations, and DOE directives*; and associated contract clauses. Updates go through the SIMCO review process, with concurrence by the CBFO before subsequent implementation. The WIPP Bargaining Units are also notified of any updates upon receipt of CBFO approval of those updates pursuant to §851.11(d). SIMCO Human Resources ensures that WSHPD requirement changes that affect the labor agreement are addressed with the Bargaining Unit consistent with federal labor laws. There are no affected bargaining units with SIMCO characterization activities. Subcontractors employing Bargaining Unit personnel are responsible for conducting their own notifications.

## 10.0 NEW WORK SCOPE

New work scope at WIPP will continue to be incorporated under the current WSHPD. New work scope involving CCP activities at generator sites and related 10 CFR §851, *Worker Safety and Health Program*, responsibilities will be aligned in interface agreements as follows:

- Management Responsibilities and Worker Rights and Responsibilities – Joint responsibilities under the Host Site Plan and WSHPD.
- Hazard Identification and Assessment – Host Site responsibility under its Host Site Plan.
- Hazard Prevention and Abatement – Joint responsibilities under the Host Site Plan and the WSHPD.
- Compliance with Safety and Health Standards – Host Site responsibility under its Host Site

Plan for beryllium program per 10 CFR §850, *Chronic Beryllium Disease Prevention Program*, including beryllium medical surveillance, 29 CFR §1910, *Occupational Safety and Health Standards*, and NFPA standards. Joint responsibility for 29 CFR §1904, *Recording and Reporting Occupational Injuries and Illnesses*, and the remaining sections of the beryllium program per 10 CFR §850 is anticipated to not be applicable.

- Construction Safety – Host site responsibility under its Host Site Plan. Though construction will not be part of the work scope, if construction is being conducted in close proximity, hazards will be identified and controls placed to ensure appropriate worker protection.
- Explosives Safety – Host Site and its subcontractors must follow the requirements of the most recent version of DOE STD 1212-2019, *Explosive Safety*.
- Firearms Safety – is applicable to the WIPP Protective Force as needed in Section 16.5.
- Biological Safety – Anticipated to not be applicable.
- Fire Protection, Pressure Safety, and Industrial Hygiene – Host Site responsibility under its Host Site Plan.
- Occupational Medical – WSHPD responsibility, with local facility emergency response per the Host Site Plan.

If the interface agreement for the new work scope aligns with the above responsibilities, the new work scope can be added to the WSHPD with the next scheduled annual update. If the responsibilities vary from the above list, the WSHPD must be changed accordingly.

No compliance orders have been issued by the Secretary to WIPP per 10 CFR §851.4. If a compliance order is received, the resultant CBFO approved corrective action plan will become an attachment to this plan as an editorial change until the corrective actions have all been completed.

## 11.0 MANAGEMENT RESPONSIBILITIES

SIMCO is committed to the safety and health of its workforce. This section is applicable to SIMCO facilities and work scopes, including subcontractors working at the covered workplaces per their statement of work. This commitment is specifically demonstrated in the following documents reflecting appropriate 10 CFR §851, *Worker Safety and Health Program, implementation*.

1. Written policy, goals, and objectives for the worker safety and health program are established in WP 15-GM.03, *Integrated Safety Management System Description*, the SIMCO ISMS Description, CBFO interface and budget/contract process, and through MP 1.29, Establishment of Annual Goals.
2. As reflected in MP 1.12, *Worker Protection Policy*, SIMCO uses qualified worker safety and health staff to direct and manage the safety program, provide subcontractor safety oversight, and interface with host site worker safety and health staff to ensure appropriate safety oversight of characterization.
3. SIMCO assigns worker safety and health program responsibilities, evaluates personnel performance, and holds personnel accountable for worker safety and health performance. These activities are formally established in MP 1.7, *Employee Performance Appraisal and Development*, and MP 1.12. Safety assessments of subcontractors working at SIMCO-covered workplaces are conducted per the Contractor Assurance Program.

4. SIMCO provides mechanisms to involve workers and their elected representatives in the development of worker safety and health program goals, objectives, and performance measures, and in the identification and control of hazards in the workplace. At the WIPP site, this is done through a variety of mechanisms as described in MP 1.12 including the use of safety committees. Subcontractors are invited to participate in safety committees and other safety activities at WIPP (i.e., safety fairs and awareness activities). For characterization activities, SIMCO personnel and subcontractors are encouraged to volunteer and join various host site safety committees and activities, as well as being involved in the development of CCP-specific goals, and participating in tasks to identify and control hazards in their work areas. SIMCO workplace activities include participation in WIPP Safety Campaigns (e.g., contests, submission of ideas for safety goals, receiving periodic packages of wellness information, home safety campaign handouts). CCP personnel and subcontractors have the additional benefit of participating in the host site employee involvement program activities.
5. SIMCO provides workers and subcontractors at covered workplaces with access to information relevant to the worker safety and health program including Lessons Learned, Porcelain Press, Daily Safety Sheets, Safety Alerts, Mentoring Moments, pre-job briefings, and other activities as committed to in MP 1.12.
6. SIMCO establishes procedures for workers to report without reprisal job-related safety hazards and occurrences and to make recommendations about ways to control those hazards. These processes include MP 1.12; WP 12 IS.01, *Industrial Safety Program – Structure and Management*; and WP 15-GM1002, *Integrated Issues Management*. WP 12-IS.01 provides a method for prompt response to hazard reports and recommendations.
7. MP 1.12 provides for regular communication with workers about workplace safety and health matters.
8. WP 15-GM1003, *Graded Approach to Stop Work*, establishes the process to permit workers including subcontractors to take a time out, stop work, or decline to perform an assigned task because of a reasonable belief that the task poses an imminent risk of death, serious physical harm, or other serious hazard to workers in circumstances where workers believe there is insufficient time to use normal hazard reporting and abatement procedures.
9. MP 1.12 and WP 12-IS.01 contain methods used to inform workers of their rights and responsibilities by appropriate means, including posting the DOE designated worker protection poster in the workplace where it is accessible to workers including subcontractors.
10. SIMCO has established many employee recognition programs such as: Safety Bucks, Safety Connect Cards, Everyday Hero Awards, and Salt of the Earth Awards. These programs are established to reward employees who exhibit the SIMCO Core Values and Expectations.

## 12.0 WORKER RIGHTS AND RESPONSIBILITIES

This section is applicable to SIMCO-covered workplaces and work scopes. Knowledge and support of Worker Rights and Responsibilities are central to the SIMCO safety culture. These rights and responsibilities are unique in several respects. For example, the Federal Mine Safety

& Health Act of 1977 (Mine Act) formally requires a “miner's representative” to ensure miners feel free to present issues to mine inspectors. Very early in the WIPP project, management supported the position of allowing each person to be his or her own “miner's representative.” In later years, a Bargaining Unit formed but remained committed to individual rights and responsibilities for safety as the tradition had already been established in Mine Act implementation and the VPP through open door policies, WIPP Forms, and other such forums that demonstrated expectations key to our safety culture.

Employees are made aware of their rights and responsibilities as workers starting with New Employee Orientation and GET. The rights and responsibilities specified in 10 CFR §851, *Worker Safety and Health Program*, are implemented through posting of the DOE VPP Rights on SIMCO Human Resource Bulletin Boards at covered workplaces, and through implementation of WP 12-IS.01, Industrial Safety Program – Structure and Management; WP 12-IH.02, *WIPP Industrial Hygiene Program Manual*; WP 15-GM1003, *Graded Approach to Stop Work* ; MP 1.12, *Worker Protection Policy*; and MP 1.28, *Integrated Safety Management*.

These rights and responsibilities include:

1. The right to participate in activities described in this section on official time.
2. The right to have access to DOE safety and health publications; worker safety and health program for the covered workplace; standards, controls, and procedures applicable to the covered workplace; safety and health poster that informs the worker of relevant rights and responsibilities; and limited information on any recordkeeping log (OSHA Form 300). Access is subject to Freedom of Information Act requirements and restrictions, and DOE Form 5484.3, *Individual Accident/Incident Report* (the DOE equivalent to OSHA Form 301), that contains the employee's name as the injured or ill worker.
3. The right to be notified when monitoring results indicate the worker was exposed to hazardous materials.
4. The right to observe monitoring or measuring of hazardous agents and have results of their own exposure monitoring.
5. Any employee is allowed to accompany any management, auditors, inspectors, etc., during physical inspections of the workplace for the purpose of aiding the inspection. Employees are consulted on matters of worker safety and health.
6. The DOE VPP rights posted on the HR bulletin board areas state employees may request and receive results of inspections and accident investigations.
7. The right to express concerns related to worker safety and health.
8. The right to decline to perform an assigned task because of a reasonable belief that, under the circumstances, the task poses an imminent risk of death or serious physical harm to the worker coupled with a reasonable belief that there is insufficient time to seek effective redress through normal hazard reporting and abatement procedures.
9. WP 15-GM1003 implements the worker right and responsibility to take a time out or stop work when the worker has a concern for employee safety, the safety of the environment, or the quality of the activity being performed.

## 13.0 HAZARD IDENTIFICATION AND ASSESSMENT

SIMCO has established procedures to identify existing and potential workplace hazards and assess the risk of associated worker injury and illness. Procedures include methods to:

1. Assess worker exposure to chemical, physical, biological, or safety workplace hazards through appropriate workplace monitoring.

### WIPP

At the WIPP site, per WP 12 IH.02, *WIPP Industrial Hygiene Program Manual*, and WP 12 IH.02-1, *WIPP Industrial Hygiene Program – Health Hazard Assessment*, initial or baseline surveys of work areas or operations are conducted to identify and evaluate potential worker health risks. Baseline hazard analysis and the emergency management hazards surveys are conducted as part of hazard assessments. Safety monitoring is conducted per WP 12-IS.01, *Industrial Safety Program – Structure and Management*. Hazard identification methods used also support the WIPP FHA program. Continuous workplace monitoring includes analysis of potential hazards such as heat stress in WP 12-IH1200, *Heat Stress*. Monitoring and controls include work within the LWA area, such as chemical exposures for vegetation-related work through the SDS program. Continued monitoring results are used to prioritize funding for hazard correction and the design of future controls.

### Characterization Sites

Per interface documents, workplace monitoring is conducted by the host site under the Host Site Plan.

2. Document assessment for chemical, physical, biological, and safety workplace hazards using recognized exposure assessment, and testing methodologies and using accredited and certified laboratories.

### WIPP

At the WIPP site, documentation of exposure assessments for chemical, physical, and biological agents and ergonomic stressors is conducted using NIOSH or OSHA exposure assessment methodologies and use of American Industrial Hygiene Association accredited industrial hygiene laboratories is mandated per WP 12-IH.02-1.

### Characterization Sites

Per interface documents, selection of exposure assessment and testing methodologies and laboratories is conducted per the Host Site Plan.

3. Record observations, testing, and monitoring results.

### WIPP

Observations, testing, and monitoring results are recorded per requirements listed in WP 13-1, *SIMCO Quality Assurance Program Description*.

### Characterization Sites

Per interface documents, recording of observations, testing, and monitoring results are conducted per the Host Site Plan.

4. Analyze designs of new facilities and modifications and repairs to existing facilities and equipment for potential workplace hazards.

WIPP

At the WIPP site, this requirement is implemented through WP 09, *Conduct of Engineering*.

Characterization Sites

The host facility is responsible for new facilities and modifications and repairs to existing facilities which are not part of the SIMCO characterization scope. Any modification to SIMCO equipment is controlled through CCP-CM-001, *CCP Equipment Change Authorization and Documentation*. Plans for installation of new equipment or modification of existing equipment are submitted to the host site for safety review.

5. Evaluate operations, procedures, and facilities to identify workplace hazards.

WIPP

At the WIPP site, this requirement is implemented through integrated assessments such as the Emergency Planning Hazards Survey conducted per DOE O 151.1D, *Comprehensive Emergency Management System*, the Operations Safety Team walkdowns. Daily workplace evaluations by workers and management include pre-use inspections of tools and equipment (forklifts, cranes, slings, and PPE), as well as overall workplace conditions, per WP 15-GM.03, *Integrated Safety Management System Description*. Hazard identification processes used at WIPP is defined in WP 12-IS3002, *Job Hazard Analysis and Electrical Risk Assessment Development and Performance*. Heavy loads, rigging, and hoisting are addressed in WP 10 AD3007, *Use and Control of Rigging Components*; WP 12 IS.01-3, *Industrial Safety Program – Power and Hand Tools*; WP 12 IS.01 12, *Industrial Safety Program – Hoisting and Rigging*. Fall protection, scaffolding, and ladders are addressed in WP 12-IS.01-10, *Industrial Safety Program – Fall Protection*; WP 12-IS.01-15, *Industrial Safety Program – Scaffolds*; and WP 12-IS.01-5, *Industrial Safety Program – Walking and Working Surfaces and Ladders*. Subcontractor controls for each of the above areas are contained in WP 12 IS.01-6, *Industrial Safety Program – Visitor, Vendor, User, Tenant, and Subcontractor Safety Controls*. Evaluation of hazards includes chemical and particulate hazards addressed in WP 12 IH.02-12, *WIPP Industrial Hygiene Program - Cryogenics, Refrigerants, and Process Gases*; WP 12-IH.02-11, *WIPP Industrial Hygiene Program - Polychlorinated Biphenyls (PCBs)*; WP 12 IH.02-1, for diesel emissions; WP 12 IH1022, *Sampling for Waste Generated VOCs*, and WP 12 IH.02 4, *WIPP Industrial Hygiene Program – Hazard Communication and Hazardous Materials Management Plan*, which includes the SDS program. Confined spaces are addressed in WP 12 IH.02-2, *WIPP Industrial Hygiene Program – Confined Spaces*.

Characterization Sites

This is a shared responsibility with the host facility. The host facility is responsible for facility hazards, though SIMCO holds employees and subcontractors responsible for identifying workplace hazards, including facility hazards per WP 15-GM.03. SIMCO operating procedures are evaluated for workplace hazards as part of the formal document review process per CCP-QP-010, *CCP Document Preparation, Approval, and Control*.

6. Perform routine job activity level hazard analyses.

WIPP

At the WIPP site, job activity level hazard analyses are developed per WP 12 IS3002 which includes program updates with subcontractor requirements in WP 12-IS.01-6.

Characterization Sites

JHAs are fully incorporated in specific CCP Health & Safety Plans as delineated in CCP-QP-002, *CCP Training and Qualification Plan*. In most cases, the JHAs are developed by the Host Site Plan.

7. Review site safety and health experience information.

WIPP

At the WIPP site, safety and health experience information is reviewed in site safety statistical reports, through WP 13-1 trending; WP 15-CA1012, *Operating Experience/Lessons Learned Program*; and the qualitative safety performance measures from WP 15-GM.03. Lessons learned are developed, screened, distributed, and implemented with feedback provided as part of the Operating Experience Program per DOE O 210.2A, *DOE Corporate Operating Experience Program*. The program analyzes events, occurrences, issue trends, causal factors, and related areas to identify SIMCO learning organization needs to ensure continuous improvement.

Characterization Sites

This is a shared responsibility with the host site and is done through the Host Site Plan and CCP-QP-014, *CCP Quality Assurance Trend Analysis and Reporting*.

8. Consider interaction between workplace hazards and other hazards such as radiological hazards.

WIPP

Workplace hazards and other hazards such as radiological hazards are analyzed in DOE/WIPP-07-3372, *Waste Isolation Pilot Plant Documented Safety Analysis*, SMP Chapters 6 through 17, as well as the implementation direction provided in WP 12-IS.01 procedures.

Characterization Sites

Since radiological programs are under cognizance of the host site, this function is accomplished by the host site per the Host Site Plan.

SIMCO does not have oversight of any closure facilities at this time; therefore, the section of 10 CFR §851 pertinent to that area is not part of the WSHPD.



## 14.0 HAZARD PREVENTION AND ABATEMENT

SIMCO establishes and implements a hazard prevention and abatement process to ensure that identified and potential hazards are prevented or abated in a timely manner. That process is applicable to SIMCO work scope and is incorporated in WIPP documents: WP 12 FP.01, WIPP Fire Protection Program; MP 1.12, *Worker Protection Policy*; WP 12-IS3002, *Job Hazard Analysis and Electrical Risk Assessment Development and Performance*; WP 12 IS.01, *Industrial Safety Program – Structure and Management*; WP 15-GM1003, *Graded Approach to Stop Work*; WP 15-PC3609, *Preparation of Purchase Requisitions*; and WP 12 IS.01 6, *Industrial Safety Program – Visitor, Vendor, User, Tenant, and Subcontractor Safety Controls*.

1. For hazards identified either in facility design or during development of procedures, controls must be incorporated.
2. For existing hazards identified in the workplace, contractors must:
  - (i) Prioritize and implement abatement actions according to risk to workers;
  - (ii) Implement interim protective measures pending final abatement; and
  - (iii) Protect workers from dangerous safety and health conditions.

SIMCO selects hazard controls described in WP 15-GM.03 based on the following hierarchy:

1. Elimination or substitution of hazards where feasible and appropriate.
2. Engineered controls where feasible and appropriate.
3. Work practices and administrative controls that limit worker exposures.
4. PPE (as the last option).

SIMCO addresses hazards when selecting or purchasing equipment, products, and services using a graded approach at the WIPP site per WP 09 CN3005, *Graded Approach to Application of QA Controls*, and WP 12-IS0301, *Nationally Recognized Testing Laboratory Process*, and for the characterization activities at host sites per CCP-QP-001, *CCP Graded Approach*. The process of using a graded approach applies controls to items and activities that affect quality and safety at the WIPP, based on the importance of the item or activity and the impact should it fail. Controls for safety include required safety reviews and approvals of related work orders, training requirements, and implementation of codes, standards, and other requirements.

Current SIMCO programs provide controls that must be used (e.g., qualification and training, work control, or calibration).



## 15.0 SAFETY AND HEALTH STANDARDS

SIMCO complies with the following safety and health standards, which are applicable to the hazards at the WIPP site and the characterization activities host sites per WP 12 IS.01, *Industrial Safety Program – Structure and Management*, and the Host Site Plans.

1. 10 CFR §850, *Chronic Beryllium Disease Prevention Program*, operations at WIPP, LANL, SRS, INL, and ANL are potentially within the scope of

10 CFR §850. Each host site maintains individual responsibility. There is some possibility that beryllium exposure might occur at WIPP. Accordingly, CBDPP programs are in place at WIPP and at host sites (per Host Site Plan) to address potential exposures. WIPP has developed and implemented a CBFO reviewed and approved beryllium exposure prevention program in conformance with 10 CFR §850, WP 12 IH.02-9, *WIPP Industrial Hygiene Program - Beryllium Exposure Prevention Program*.

TRU waste containing beryllium is received at WIPP but is packaged in containers meeting U.S. Department of Transportation specifications that are sealed, vented, and filtered per the WIPP Waste Acceptance Criteria. Personnel trained in hazardous waste, emergency response, and contamination control operations that may involve TRU waste, receive periodic training on beryllium hazards and requirements of the WIPP beryllium exposure prevention program.

SIMCO has personnel performing oversight duties at generator sites where there may be a potential for beryllium exposure. Those personnel are enrolled in and work under the requirements of the host site's beryllium exposure prevention program.

The possibility of beryllium exposure at WIPP during an event such as a drum breach is also addressed in WP 12-IH.02-9. WP 12-IH.02, *WIPP Industrial Hygiene Program Manual*, provides requirements for compliance with the 10 CFR §850 worker protection and surveillance requirements for recovery from such an event. WIPP-007, *Hazard Identification Summary Report for WIPP Operations*, includes further discussion of potential hazards

2. 29 CFR §§1904.4 1904.11, *Recordkeeping Forms and Recording Criteria*; 29 CFR §§1904.29 1904.33, *Retention and Updating*; 29 CFR §1904.44, *Retention and Updating of Old Forms*; and 29 CFR §1904.46, *Definitions*, are applicable to SIMCO-covered workplaces and are covered under the WSHPD for SIMCO employees. Subcontractors at the WIPP site report through SIMCO and subcontractors at host sites do dual reporting, although host site is responsible for total site reporting.
3. 29 CFR §1910, *Occupational Safety and Health Standards*, excluding 29 CFR §1910.1096, *Ionizing Radiation*, is applicable to the WIPP site surface areas; it is not applicable to the mine, which is covered by MSHA standards. This responsibility falls to each host site as the cognizant operator of the facility and based on the interface agreements for safety responsibilities.
4. 29 CFR §1926, *Safety and Health Regulations for Construction*, is applicable only to the WIPP site, as the characterization activities work scopes do not involve any construction activities. This requirement is implemented at the WIPP in the industrial safety program as referenced above in conjunction with WP 09 DC.01, *Construction Management Program*. Relevant subcontractor controls are contained in WP 12-IS.01-6, *Industrial Safety Program – Visitor, Vendor, User, Tenant, and Subcontractor Safety Controls*.

5. 30 CFR Chapter 1, *Mine Safety and Health Administration*, including §47, 48, 49, 57, and 62, *Safety and Health Standards-Underground Metal and Nonmetal Mines*, is applied for worker protection and consistency throughout the WIPP site for purposes of 10 CFR §851. This includes worker protection programs required by MSHA, such as diesel particulate personal air sampling and other occupational exposure assessments conducted per WP 12-IH.02-1, *WIPP Industrial Hygiene Program—Health Hazard Assessment*. Whereas the more protective 2016 ACGIH Threshold Limit Values are incorporated by reference specifically in 10 CFR §851 for application at the WIPP site, the 1973 ACGIH Threshold Limit Values invoked by MSHA 30 CFR §57.5001 are stipulated to be satisfied through compliance with the current, more protective standard in keeping with DOE guidance on ACGIH TLV progressive annual editions. The additional paragraphs of the 30 CFR §57.5001 are likewise incorporated into OSHA 29 CFR §1910.1000 and §1910.1001 with current, more protective requirements.
6. ACGIH, Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices (2016), is applied when the ACGIH TLVs are lower (more protective) than permissible exposure limits in 29 CFR §1910, and include specific applicability to 10 CFR §1926 for construction. When the ACGIH TLVs are used as exposure limits, contractors must nonetheless comply with other provisions of expanded health standard found in 29 CFR §1910. WP 12-IH.02, *WIPP Industrial Hygiene Program Manual*, is compliant with this requirement.
7. ANSI Z88.2, *American National Standard for Respiratory Protection*, is fully implemented in WP 12 IH.02 6, *WIPP Industrial Hygiene Program – Respiratory Protection*. Characterization activities at host site fall under direction of host site's respiratory protection program per its Host Site Plan. This standard was cancelled due to the OSHA 29 CFR §1910.134 update to the OSHA Respiratory Protection Standard. SIMCO continued to meet this standard at the WIPP site, as well as the OSHA update; however, the host sites may or may not. Characterization activities at the host sites will continue to fall under the direction of the host site's respiratory protection program.
8. The ANSI Z136.1, *Safe Use of Lasers*, standard is applicable; however, Class 3b or Class 4 laser or laser systems are not in use at WIPP nor are they in use in characterization activities at the host sites. WP 12-IH.02-7, *WIPP Industrial Hygiene Program – Lasers, Lighting, Pest Control, and Sanitation*, defines control mechanisms for introduction of new laser or laser systems to implement requirements if a Class 3b or Class 4 laser is purchased.
9. ANSI Z49.1, *Safety in Welding, Cutting and Allied Processes*, Sections 4.3 and E4.3 (1999), *Safety in Welding, Cutting, and Allied Processes*, is only applicable at the WIPP site because offsite characterization activities work scope does not include any welding, cutting, or allied processes. For WIPP, this portion of the standard on PPE is implemented through WP 12-IS.01-4, *Industrial Safety Program - Personal Protective Equipment*.
10. The standard NFPA 70, *National Electrical Code*, is applicable to new facilities and modifications and repairs to existing facilities. As such, it is incorporated for new facilities or modifications to existing facilities based on WP 12 IS.03, *Electrical Safety Program Manual*, and WP 09, *Conduct of Engineering*, requirements for the identification of applicable standards. This standard is applicable to SIMCO work scope for characterization activities if performed at the host sites. However, SIMCO does not do any electrical work at the host sites as electrical services are provided by the host sites.

11. NFPA 70E, *Standard for Electrical Safety in the Workplace*, is currently applicable. At host sites, the electrical safety program, including lockout/tagout, is under cognizance of host site per its Host Site Plan. For the WIPP and Carlsbad covered locations, this standard is implemented through WP 12-IS.03. For the WIPP, it is applicable per the standard, which states that it is not applicable to underground mines. MSHA electrical requirements are implemented underground as required by the LWA and as it affords increased worker protection. For example, the MSHA requirements for electrical cables are specific in addressing corrosive atmospheres. Some requirements in NFPA 70E have been voluntarily implemented in the underground as defense-in-depth worker protection but are not required and are not applicable under 10 CFR §851, *Worker Safety and Health Program*.
12. NFPA 122, *Fire Prevention and Control in Metal/Nonmetal Mining and Metal Mineral Processing Facilities*, includes fire risk assessment and reduction, detections and suppression equipment, fire protection for diesel powered equipment in underground mines, fire protection of surface mining equipment, and surface metal mineral processing plants.

Nothing in this section must be construed as relieving SIMCO from complying with specific safety and health requirements to protect safety and health of workers.

The following standards, listed in §851.23, are not applicable to the WSHPD because they are not applicable to any work scopes currently being conducted at any of the covered workplaces:

- 29 CFR §1915, *Occupational Safety and Health Standards for Shipyard Employment*
- 29 CFR §1917, *Marine Terminals*
- 29 CFR §1918, *Safety and Health Regulations for Longshoring*
- 29 CFR §1928, *Occupational Safety and Health Standards for Agriculture*

Additional standards in use at the WIPP, though not applicable to the WSHPD, include ICRP 60, *C-reactive Protein 60*; ICRP 68, *C-reactive Protein 68*; and ICRP 74, *C-reactive Protein 74*, which are incorporated by reference in the DOE/WIPP-95-2054, *WIPP Radiation Protection Program*.

## 16.0 FUNCTIONAL AREAS

SIMCO has a structured approach to the worker safety and health program, which includes provisions for the following functional areas at applicable locations.

### 1. Construction Safety (Appendix A.1)

The construction safety functional area is applicable at the WIPP site, including its subcontracts construction work scope. SIMCO subcontractors are required to comply with local, state, and federal safety, health, and environmental regulations. Each subcontract has a designated STR to monitor work practices. The implementing procedures for construction safety are WP 15-PC3609, *Preparation of Purchase Requisitions*; WP 15-PC3605, *Proposal, Competition, Identification, Selection, Evaluation, and Award*; WP 12-IS.01-6, *Industrial Safety Program – Visitor, Vendor, User, Tenant, and Subcontractor Safety Controls*; and WP 09-DC.01, *Construction Management Program*. These documents include the following requirements:

- a. For each definable construction activity:
  1. Prepare and have approved by the construction manager an activity hazard analysis prior to commencement of affected work. Such analyses must:
    - (i) Identify foreseeable hazards and planned protective measures.
    - (ii) Address further hazards revealed by supplemental site information (e.g., site characterization data, as built drawings) provided by construction manager.
    - (iii) Provide drawings and/or other documentation of protective measures for which applicable OSHA standards require preparation by a Professional Engineer or other qualified professional.
    - (iv) Identify competent persons required for workplace inspections of the construction activity where required by OSHA standards.
  2. Ensure workers are aware of foreseeable hazards and protective measures described within activity analysis prior to beginning work on affected activity.
  3. Require workers acknowledge being informed of hazards and protective measures associated with assigned work activities. Those workers failing to use appropriate protective measures must be subject to construction contractor's disciplinary process.
- b. During periods of active construction (i.e., excluding weekends, weather delays, or other periods of work inactivity), construction contractor must have a designated representative on construction worksite who is knowledgeable of project's hazards and has full authority to act on behalf of construction contractor. Contractor's designated representative must make frequent and regular inspections of construction worksite to identify and correct any instances of noncompliance with project safety and health requirements.
- c. Workers are instructed to report hazards not previously identified or evaluated to the STR or CMR. If immediate corrective action is not possible or hazard falls outside of project scope, construction worker must immediately notify affected workers, post appropriate warning signs, implement needed interim control measures, and notify

construction manager of the action taken. Contractor or designated representative must stop work in affected area until appropriate protective measures are established.

Construction contractors must prepare a written construction project safety and health plan. The Plan must reflect implementation of this section of the WSHPD construction requirements and the specifics required in WP 12-IS.01-6. The safety and health plan must be approved by the SIMCO STR and SIMCO Environmental, Safety and Health prior to beginning work. In contractor's safety and health plan, contractor must designate individual(s) responsible for onsite implementation of the WSHPD, specify qualifications for those individuals, and provide a list of those project activities for which subsequent hazard analyses are to be performed. The level of detail within construction project safety and health plan should be commensurate with size, complexity, and risk level of construction project.

## 2. Fire Protection (Appendix A.2)

Fire Protection functional area is applicable at the WIPP site and the host organization is responsible for fire protection functions at the other SIMCO work sites, though some pieces of equipment used in characterization activities at host sites include fire suppression related designs, which undergo WIPP reviews. Final equipment is signed off per host site's FPP.

The WIPP FPP, as described in WP 12-FP.01, *WIPP Fire Protection Program*, meets requirements of DOE O 420.1C Chg 2, *Facility Safety*, and other DOE orders, directives, and guidance documents related to fire safety, for programmatic and design criteria. SIMCO implements a comprehensive fire safety and emergency response program to protect workers commensurate with the nature of the work that is performed. WP 12-FP.01 identifies the various activities, regulations, and personnel responsibilities necessary for assuring fire safety. WP 12-FP.01 incorporates other applicable NFPA codes, standards, and fire protection requirements. Those fire protection needs are addressed with related MSHA requirements implementation.

The FHAs (see WIPP-023, *Fire Hazards Analysis for the Waste Isolation Pilot Plant*) and building fire assessments periodically review the building fire protection infrastructure and procedures, and evaluate any risk to property and life. Deficiencies are noted and corrective action initiated.

SIMCO has implemented a comprehensive fire safety and emergency response program that minimizes impact of emergency events on health and safety of workers. The WIPP emergency response organizational structure is defined in DOE/WIPP-17-3573, *Waste Isolation Pilot Plant Emergency Management Plan*.

- a. SIMCO has implemented a comprehensive fire and emergency response program described in DOE/WIPP-17-3573 to protect workers commensurate with nature of work that is performed. This includes facility and site-wide fire protection, fire alarm notification and egress features, and access to a fully staffed, trained, and equipped emergency response organization that is capable of responding in a timely and effective manner to site emergencies. Improvement initiatives are in progress to strengthen this commitment. Those actions include changes to the FHA, update to WP 12-FP.23, *WIPP Baseline Needs Assessment*, and related changes focused on underground fire protection and response program components.
- b. SIMCO has implemented a comprehensive FPP in WP 12-FP.01. The FPP includes those fire protection criteria and procedures, analyses, hardware and systems, apparatus and equipment, and personnel which ensure the objective in (A) of this

section is met. The FPP includes meeting building codes and NFPA codes and standards.

### 3. Explosives Safety

SIMCO and its subcontractors must follow the requirements of the most recent version of DOE STD 1212-2019, *Explosives Safety*.

### 4. Pressure Safety (Appendix A.4)

Portions of the standards referenced are applicable at WIPP. This section is not applicable to the characterization work scopes.

- a. Contractors must establish safety policies and procedures to ensure pressure systems are designed, fabricated, tested, inspected, maintained, repaired, and operated by trained and qualified personnel per applicable and sound engineering principles. The implementing language of this requirement is in WP 09, *Conduct of Engineering*, and WP 13-1, *SIMCO Quality Assurance Program Description*.
- b. Contractors must ensure pressure vessels, boilers, air receivers, and supporting piping systems conform to:
  1. The applicable ASME Boiler and Pressure Vessel Code (2004), Sections I through XII, including applicable Code Cases (incorporated by reference, see 10 CFR §851.27).
  2. The WIPP facility design was based on federal and state codes in effect at the time of the site's construction as documented in SDD GPDD, *General Plant Design Description*. However, modifications to the facility should be made using current edition of applicable codes and/or standards as determined by approved engineering change. Use of ASME B31, *Code for Pressure Piping*, standards at the WIPP is indicated below per the pressure vessels section of SDD GPDD and/or as indicated in paragraph (b)(3) of this section:
    - (i) B31.1-2001, *Power Piping*, and B31.1a-2002, Addenda to ASME B31.1-2001 (incorporated by reference, see 10 CFR §851.27); is not applicable.
    - (ii) B31.2-1968, *Fuel Gas Piping* (incorporated by reference, see 10 CFR §851.27); is not applicable.
    - (iii) B31.3-2002, *Process Piping* (incorporated by reference, see 10 CFR §851.27); is applicable.
    - (iv) B31.4-2002, *Pipeline Transportation, Systems for Liquid Hydrocarbons and Other Liquids* (incorporated by reference, see 10 CFR §851.27); is not applicable.
    - (v) B31.5-2001, *Refrigeration Piping and Heat Transfer Components*, and B31.5a; is not applicable.
    - (vi) 2004, Addenda to ASME B31.5-2001 (incorporated by reference, see 10 CFR §851.27); is not applicable.
    - (vii) B31.8-2003, *Gas Transmission and Distribution Piping Systems* (incorporated by reference, see 10 CFR §851.27); is not applicable.

- (viii) B31.8S-2001, *Managing System Integrity of Gas Pipelines* (incorporated by reference, see 10 CFR §851.27); is not applicable.
- (ix) B31.9-1996, *Building Services Piping* (incorporated by reference, see 10 CFR §851.27); is applicable.
- (x) B31.11-2002, *Slurry Transportation Piping Systems* (incorporated by reference, see 10 CFR §851.27); is not applicable.
- (xi) B31G-1991, *Manual for Determining Remaining Strength of Corroded Pipelines* (incorporated by reference, see 10 CFR §851.27); is not applicable.

**3. The strictest applicable state and local codes.**

When national consensus codes are not applicable (because of pressure range, vessel geometry, use of special materials, etc.), contractors must implement measures to provide equivalent protection and ensure a level of safety greater than or equal to the level of protection afforded by the ASME or applicable state or local code. Measures must include the following:

- (i) Design drawings, sketches, and calculations must be reviewed and approved materials, in process fabrications, nondestructive tests, and acceptance test.
- (ii) Qualified personnel must be used to perform examinations and inspections of materials, in process fabrications, nondestructive tests, and acceptance tests per WP 13-1.
- (iii) Documentation, traceability, and accountability must be maintained for each pressure vessel or system, including descriptions of design, pressure conditions, testing, inspection, operation, repair, and maintenance.

Requirements for this section are implemented through WP 09 and SDD GPDD.

**5. Firearms Safety (Appendix A.5)**

This section is only applicable to the WIPP as security services are not part of the SIMCO work scope at host sites. Security services at the Skeen-Whitlock Building do not fall under SIMCO 851, they are a Department of Homeland Security direct contractor. The SIMCO security services at the WIPP does involve the use of firearms. Therefore, firearms safety policies, procedures for security operations, and training to ensure proper accident prevention controls are in place. These are part of the WIPP Protective Force Procedures which address safety and storage of DOE weapons, firearms cleaning, armory operations, firearms safety, weapons qualification, live fire range administrative safety requirements, and other applicable areas. Written procedures address firearms safety, engineering, administrative controls, and PPE requirements.

**a. Protective Force Orders are established for:**

1. Storage, handling, cleaning, inventory, and maintenance of firearms and associated ammunition.
2. Activities such as loading, unloading, and exchanging firearms.
3. Use and storage of pyrotechnics, explosives, and/or explosive projectiles. This portion is not applicable. WIPP does not allow such devices onsite.

4. Handling misfires, duds, and unauthorized discharges is addressed with specific instruction provided for each failure condition.
  5. Live fire training, qualification, and evaluation activities that are conducted.
  6. Training and exercises using engagement simulation systems at the WIPP are conducted as force-on-force exercises. Each annual force-on-force exercise is based on an individual approved plan in compliance with DOE directives. Approval for implementation is given by signature approval from CBFO, SIMCO, and Security prior to any implementation.
  7. Medical response at firearms training facilities.
  8. SIMCO, through mutual agreement, uses Eddy County Sheriff's range. No control or provisions are made to exercise control over use of firing range by personnel other than DOE or DOE contractor protective forces personnel. The range has been evaluated to ensure compliance with DOE requirements. A Hazard Analysis showing mitigation for areas not in compliance has been signed and approved by CBFO. As added personnel protection, the WIPP protective forces personnel will not co-occupy range with anyone other than DOE WIPP personnel, unless a separate approval is received from CBFO (such as the addition of personnel from the Safeguards and Security National Training Center or DOE Headquarters oversight personnel).
- b. Personnel responsible for direction and operation of firearms safety program are professionally qualified and have sufficient time and authority to implement related procedures. This is demonstrated in the Live Fire Range Operations procedure contained in the PFOs, which defines minimum staffing along with qualification for both instructors and range safety officers for firearms range operations.
- c. Firearms instructors and armorers have been certified by Safeguards and Security National Training Center to conduct level of activity provided. Personnel are not allowed to conduct activities for which they have not been certified. The Site Security plan and PFOs define and ensure qualified personnel are used and certifications are met.
- Formal appraisals assessing implementation of procedures, personnel responsibilities, and duty assignments to ensure overall policy objectives and performance criteria are conducted by qualified personnel. These activities are ensured per WP 17-SS1006, Safeguards and Security Evaluation Program.
- d. Implement procedures related to firearms training, live fire range safety, qualification, and evaluation activities, including procedures requiring that:
- Personnel must successfully complete initial firearms safety training before being issued any firearms. Authorization to remain in armed status will continue only if employee demonstrates technical and practical knowledge of firearms safety semiannually per Protective Force Training Requirements and in Section 7.0, *Exclusions*.
1. Authorized armed personnel must demonstrate through documented limited scope performance tests both technical and practical knowledge of firearms handling and safety on a semiannual basis per PFO.



2. Firearms training lesson plans must incorporate safety for aspects of firearms training task performance standards. Lesson plans must follow standards set forth by Safeguards and Security Central Training Academy's standard training programs per PFO.
  3. Firearms safety briefings must immediately precede training, qualifications, and evaluation activities involving live fire or engagement simulation systems per PFO.
  4. A safety analysis was approved by CBFO and developed for facilities and operation of the live fire range prior to the re arming of the guard initiative, meeting the 851 initial analysis requirement. In the future, it will be reviewed, updated, and approved before implementation of new training, qualification, or evaluation activity. Results of these analyses are incorporated into procedures, lesson plans, exercise plans, and limited scope performance tests per PFO.
  5. Firing range safety procedures are conspicuously posted at range facilities per PFO.
  6. Live fire ranges, approved by the Head of DOE Field Element, must be properly sited to protect personnel on the range, as well as personnel and property not associated with the range. SIMCO/Security uses Eddy County Sheriff's range by agreement with the county. A hazards assessment was conducted to ensure compliance. The CBFO Security manager signed and approved the hazard analysis along with any mitigation activities prior to use of range.
- e. SIMCO ensures transportation, handling, placarding, and storage of munitions conform to the applicable DOE requirements per PFO. This includes small arms ammunition storage per DOE O 473.3A Chg 1, *Protection Program Operations*, which requires bulk ammunition be stored per DOE O 440.1B – Chg 2, Admin Chg, *Worker Protection Program for DOE* (including the National Nuclear Security Administration) Federal Employees. SIMCO ensures handling, storage, and placarding of small arms ammunition meets these fire protection requirements.

## 6. Industrial Hygiene (Appendix A.6)

Based on interface agreements, Industrial Hygiene at the host sites is under the Host Site Plans with hosts providing the Industrial Hygiene program and services in support of characterization activities at their site. SIMCO provides oversight of baseline surveys and other host-provided services per WP 15-CA1002, *Management Self-Assessments*, to assure that SIMCO employees and subcontractors are appropriately protected. SIMCO has implemented a comprehensive Industrial Hygiene Program for the WIPP site that includes the following elements:

- a. Initial or baseline surveys and periodic resurveys and exposure monitoring as appropriate of work areas or operations to identify and evaluate potential worker health risks:
  - WP 12-IH.02, *WIPP Industrial Hygiene Program Manual*, addresses WIPP facility SIMCO employees and subcontracts.
  - Exposure monitoring for carbon tetrachloride is conducted per WP 12-IH1022, *Sampling for Waste Generated VOCs*.

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- b. Coordination with planning and design personnel to anticipate and control health hazards that proposed facilities and operations would introduce:
- WP 09 CN3018, *Design Verification*, implements the process for this at the WIPP site.
  - For characterization activities, CCP-CM-001, *Equipment Change Authorization and Documentation*, ensures appropriate host support services are incorporated.
- c. Coordination with cognizant occupational medical, environmental, health physics, and work planning professionals is implemented at the WIPP in conjunction with the WP 12-IH series of procedures. Coordination at host sites for characterization activities is defined in the interface agreements.
- d. Requirements for policies and procedures to mitigate the risk from identified and potential occupational carcinogens are implemented. WP 12-IH.02 1, *WIPP Industrial Hygiene Program – Health Hazard Assessment*, addresses how chemical hazards are addressed for WIPP operations. The characterization activities are conducted under the host site's carcinogen program as part of its Host Site Plan.
- e. Professionally and technically qualified industrial hygienists manage and implement the Industrial Hygiene Program implemented through WP 12-IH.02. Industrial Hygiene programs for host sites are implemented through Host Site Plans whereby hosts provide the Industrial Hygiene program and qualified industrial hygienists.
- f. The requirement related to use of respiratory protection equipment tested under DOE STD-1167-2003, *The Department Of Energy Respirator Acceptance Program for Supplied Air Suits*, is not applicable to any SIMCO work scope. National Institute for Occupational Safety and Health approved respiratory protection exists for the applicable DOE assigned, SIMCO related tasks. For security operations conducted by WIPP security or by other agencies based on MOUs, conducted per Presidential Decision Directive 39, *U.S. Policy on Counterterrorism*, use of Department of Defense military type masks for respiratory protection by security personnel is acceptable.

#### 7. **Biological Safety (Appendix A.7)**

SIMCO work scope does not include biological etiologic agents. Therefore, this section of the rule is not applicable.

#### 8. **Occupational Medicine (Appendix A.8)**

The occupational medicine program is implemented through WP 15 HS.02, *Occupational Health Program*, for SIMCO activities. Management of subcontractors per this requirement is done on a case-by-case basis as coordinated with SIMCO Occupational Health Services and may include direct participation by subcontractors in the SIMCO occupational medicine program, participation in host sites' occupational medical program or requirement for subcontractor companies to meet the occupational medical requirements in 10 CFR §851, *Worker Safety and Health Program*, as part of their contracts with SIMCO. Previously, subcontractors did not participate in the occupational medical program. With the changes in expectations related to 10 CFR §851, determinations of an effective path forward involved interpretation of potentially ambiguous requirements.

The occupational medical program includes oversight by a physician licensed in the State of New Mexico. Though SIMCO has employees and subcontractors in several states based on characterization activities, the primary medical director will be licensed in New Mexico

where the primary facility is located. The SIMCO wellness program, as shared with subcontractors, will consist primarily of educational materials as the subcontractors are working multiple locations across the country.

- a. WP 15-HS.02 is the implementing document establishing how SIMCO provides or requires comprehensive occupational medical services to workers employed at a covered workplace who:
  1. Work on a DOE site for more than 30 days in a 12-month period; or
  2. Are enrolled for any length of time in a medical or exposure monitoring program required by 10 CFR §851 or any other applicable federal, state, or local regulation, or other obligation.
- b. SIMCO Occupational Medical Services are under direction of a graduate of a school of medicine or osteopathy who is licensed for practice of medicine in the State of New Mexico which is the home office for SIMCO and where the WIPP is located.
- c. Occupational Medical Providers (OMP) include: occupational medical physicians, occupational health nurses, physician's assistants, nurse practitioners, psychologists, employee assistance counselors, and other occupational health personnel providing occupational medical services are licensed, registered, or certified as required by federal or state law.
- d. SIMCO provides OMP access to hazard information by communication, coordination, and sharing among operating and environment, safety, and health protection organizations.
  1. SIMCO and subcontractors provide OMP with access to information on the following:
    - (i) Current information about actual or potential work-related site hazards (chemical, radiological, physical, biological, or ergonomic).
    - (ii) Employee job task and hazard analysis information, including essential job functions.
    - (iii) Actual or potential work site exposures of each employee.
    - (iv) Personnel actions resulting in a change of job functions, hazards or exposures.
  2. SIMCO managers complete EA12SA3130-2-0, *Injury/Illness Report*, for Human Resources who will notify SIMCO Health Services when an employee has been or will be away from work due to illness or injury (including pregnancy) for the earlier of three or more consecutive workdays or seven or more calendar days; or has been hospitalized for any length of time.
  3. SIMCO provides occupational medical provider information on, and the opportunity to participate in, worker safety and health team meetings and committees.
  4. SIMCO provides OMP access to the workplace for evaluation of job conditions and issues relating to workers' health.

- e. SIMCO designates an occupational medical provider who is required per WP 15-HS.02 and 10 CFR §851 to:
  - 1. Plan and implement occupation medical services.
  - 2. Participate in worker protection teams to build and maintain necessary partnerships among workers, their representatives, managers, and safety and health protection specialists in establishing and maintaining a safe and healthful workplace.
- f. A record containing any medical, health history, exposure history, and demographic data collected for occupational medical purposes is developed and maintained by SIMCO Occupational Health Services for each employee for whom medical services are provided.
  - 1. Employee medical, psychological, and EAP records are kept confidential, protected from unauthorized access, and stored under conditions that ensure their long-term preservation. Psychological records are maintained separately from medical records and in the custody of the designated psychologist per 10 CFR §712.38(b)(2), *Maintenance of Medical Records-Psychological Records of Human Resource Professionals*. These must be stored in a secure location in the custody of the Designated Psychologist.
  - 2. Access to these records is provided per DOE regulations implementing the Privacy Act and the Energy Employees Occupational Illness Compensation Program Act.
- g. Occupational medical services provider determines content of worker health evaluations.
  - 1. Workers are informed of the purpose and nature of medical evaluations and tests offered by the occupational medical provider.
    - (i) The purpose, nature, and results of evaluations and tests are clearly communicated to workers and records of their test results are available upon request.
    - (ii) The communication is documented in the worker's medical record.
  - 2. The following health evaluations are conducted when determined necessary by the occupational medical services provider for the purpose of providing initial and continuing assessment of employee fitness for duty.
    - (i) At the time of hire or transfer to a job with new functions and hazards, a medical placement evaluation of an employee's general health and physical and psychological capacity to perform work, to establish a baseline record of physical condition, and assure fitness for duty.
    - (ii) Periodic, hazard-based medical monitoring or qualification-based fitness for duty evaluations required by regulations and standards or as recommended by the occupational medical services provider.
    - (iii) Diagnostic examinations to evaluate an employee's injuries and illnesses to determine work-relatedness, the applicability of medical restrictions, and referral for definitive care, as appropriate.

- (iv) After a work-related injury, illness, or absence due to injury or illness lasting five or more consecutive workdays (or equivalent time period for those on an alternative work schedule), EA15HS02-2-0, *Provider's Release to Return to Work Form*, to determine individual's physical and psychological capacity to perform work and return to duty.
  - (v) At time of separation from employment, individuals are offered an option to receive a general health evaluation to establish a record of physical condition.
- h. Occupational medical services provider monitors ill and injured workers to facilitate their rehabilitation and safe return to work and to minimize lost time and its associated costs.
  - 1. Per WP 12-HS.02, the OMP are required to place an individual under medical restrictions when health evaluations indicate worker should not perform certain job tasks. Occupational medical services provider must notify worker and contractor management when employee work restrictions are imposed or removed.
- i. Occupational medical services provider physician and medical staff promptly communicate results of health evaluations to management and safety and health protection specialists to facilitate mitigation of worksite hazards.
- j. Occupational medical services provider includes measures to identify and manage principal preventable causes of premature morbidity and mortality affecting worker health and productivity.
  - 1. SIMCO includes programs to prevent and manage these causes of morbidity when evaluations demonstrate their cost effectiveness.
  - 2. SIMCO makes available to occupational medical provider appropriate access to information from health, disability, and other insurance plans (with individual personal information removed to protect employee privacy) in order to facilitate this process.
- k. Occupational medical services provider reviews and approves medical and behavioral aspects of employee counseling and health promotional programs including the following types:
  - 1. SIMCO sponsored or supported EAPs.
  - 2. SIMCO sponsored or supported alcohol and other substance abuse rehabilitation programs.
  - 3. SIMCO sponsored or supported wellness programs.
- l. Occupational medical services provider reviews medical aspects of immunization programs, blood borne pathogens programs, and biohazardous waste programs to evaluate their conformance to applicable guidelines.
- m. Occupational medical services provider periodically reviews medical emergency response procedures included in site emergency and disaster preparedness plans. The medical emergency responses integrate with nearby community emergency and disaster plans.

## 9. Motor Vehicle Safety (Appendix A.9)

This section is applicable to the WIPP site and is implemented by WP 12-IS.01-8, *Industrial Safety Program – Vehicle Safety*. It is also applicable to subcontractors who drive WIPP-provided vehicles. For characterization activities at host facilities, portions related to powered industrial equipment fall within programmatic oversight of host facility in providing programmatic aspects such as training requirements, road signs, and site speed limits. Safe driving awareness campaigns are conducted.

- a. SIMCO implements a motor vehicle safety program to protect safety and health of drivers and passengers in government owned or -leased motor vehicles and powered industrial equipment (i.e., fork trucks, tractors, platform lift trucks, and other similar specialized equipment powered by an electric motor or an internal combustion engine, including electric carts).
- b. The SIMCO motor vehicle safety program is tailored to individual DOE site or facility based on an analysis of the needs of that particular site or facility.
- c. The motor vehicle safety program addresses the following as applicable to that portion of the SIMCO work scope or operations.
  1. Minimum licensing requirements (including appropriate testing and medical qualification) for personnel operating motor vehicles and powered industrial equipment.
  2. Qualifications for electric cart drivers will include manufacturer's recommendations and ANSI/ITSDF B56.8-2006, *Safety Standard for Personnel and Burden Carriers*.
  3. Requirements for the use of seat belts and provisions of other safety devices.
  4. Training for specialty vehicle operators.
  5. Requirements for motor vehicle maintenance and inspection for electric carts at the WIPP site. This includes preventive maintenance items performed according to the manufacturer's recommendations.
  6. Uniform traffic and pedestrian control devices and road signs.
  7. Site speed limits and other traffic rules including parking lot safety.
  8. Awareness campaigns and incentive programs to encourage safe driving.
  9. Enforcement provisions.
  10. Electrical Safety (Appendix A.10)

This section is applicable only to the WIPP site, including SIMCO employees and subcontractors at the WIPP site. Characterization activities at other locations fall under the electrical safety programmatic direction of the host site. SIMCO implements a comprehensive electrical safety program initiated through

WP 12-IS.03, *Electrical Safety Program Manual*, at the WIPP site. The program meets the applicable electrical safety codes and standards referenced in 10 CFR §851.23.

11. Nanotechnology Safety—Reserved (Appendix A.11)

The DOE reserved this section in the 10 CFR §851 since policy and procedures for nanotechnology safety are currently being developed. Once these policies and procedures have been approved, the rule will be amended to include them through a rulemaking consistent with the Administrative Procedure Act. In the interim, any research conducted at the WIPP site related to nanotechnology will undergo thorough safety review with preplanned controls to ensure meeting the SIMCO commitment for defense-in-depth protection for workers.

## 12. Workplace Violence Prevention — (Appendix A.12)

SIMCO has identified implementing actions and documents through 15-GM.12, *Workplace Violence Policy and Response Manual*. SIMCO recognizes the need for workplace violence prevention and has provided training for personnel on actions to take if a workplace violence incident occurs and encourages use of the SIMCO EAP when personal stress becomes overwhelming to individuals as a prevention measure.

## 17.0 TRAINING AND INFORMATION

The requirements in this section are applicable to SIMCO work scope, including joint responsibility related to characterization activities and subcontracts per WP 14 TR.01, *WIPP Training Program*, and CCP-QP 002, *CCP Training and Qualification Plan*. In addition, characterization personnel also meet training requirements of the applicable host site based on its Host Site 851 Plan.

1. SIMCO has developed and implemented a worker safety and health training and information program to ensure workers exposed or potentially exposed to hazards are provided with training and information on that hazard in order to perform their duties in a safe and healthful manner.
2. SIMCO ensures the following are provided:
  - (i) Training and information for new workers before or at the time of initial assignment to a job involving exposure to a hazard, including information per the hazard communication program as described in WP 12-IH.02-4, *WIPP Industrial Hygiene Program – Hazard Communication and Hazardous Materials Management Plan*.
  - (ii) Periodic training as often as necessary to ensure workers are adequately trained and informed.
  - (iii) Additional training when safety and health information or a change in workplace conditions indicates a new or increased hazard exists.
3. SIMCO provides training and information to workers who have worker safety and health program responsibilities as necessary for them to carry out those responsibilities.

## 18.0 RECORDKEEPING AND REPORTING

For characterization activities, recordkeeping and reporting responsibilities are shared with the host sites as described below.

1. Recordkeeping

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- (i) SIMCO has established and maintains complete and accurate records of hazard inventory information, hazard assessments, exposure measurements, and exposure controls. For the WIPP site, records are maintained per the WP 12-IH series of procedures and WP 13-1, *SIMCO Quality Assurance Program Description*. For the characterization activities involving SIMCO and SIMCO subcontractors per the interface agreements, records are maintained per CCP-QP-008, *CCP Records Management*. The majority of hazard and exposure records (including IH and Radiological Program records) are maintained by host site according to the requirements of their 851 Plan.
  - (ii) SIMCO ensures work-related injuries and illnesses of its workers and subcontractor workers are recorded and reported accurately and consistent with DOE O 231.1B, Admin Chg 1, *Environmental, Safety and Health Reporting*. This is a joint function performed using systems such as the Computerized Accident/Incident Reporting System, Occurrence Reporting Processing System, and Noncompliance Tracking System. The host facility M&O has the primary responsibility for reporting for that facility. However, SIMCO maintains additional records for work scope at host facilities based on management commitment to ensure reporting is accurate and timely. Work-related injuries and illnesses of workers and subcontractor workers are recorded and reported per DOE O 231.1B, Admin Chg 1, as implemented in WP 12 SA3131, *Occupational Injuries and Illnesses Recordkeeping*.
  - (iii) Host sites shall comply with occupational injury and illness recordkeeping and reporting workplace safety and health standards in 10 CFR §851.23 at their sites, unless otherwise directed in DOE O 231.1B, Admin Chg 1. As discussed in 10 CFR §851.23, these standards are applicable to SIMCO-covered workplaces.
  - (iv) Host sites shall not conceal nor destroy any information concerning noncompliance or potential noncompliance with requirements of this part. This requirement is implemented through WP 13-1.

## 2. Reporting and Investigation

- (i) SIMCO reports and investigates accidents, injuries, and illnesses. This is a shared function, with the host site taking the lead for any investigations occurring at that site, per interface agreements. For the WIPP, this requirement is implemented through WP 12 SA3130, *Occupational Injuries and Illnesses*, and WP 15 CA1007, *Event Learning Review*, which includes investigation, determining violations, root cause analysis, and determining corrective actions to prevent recurrence.
- (ii) SIMCO analyzes data for trends and lessons learned. At the WIPP site, safety and health experience information is reviewed in monthly site safety statistical reports through WP 13-1 trending requirements. Qualitative safety performance measures are monitored per WP 15-GM.03, *Integrated Safety Management System Description*.
- (iii) The DOE has established reporting thresholds for reporting worker safety and health noncompliance above a certain level of significance into the Noncompliance Tracking System. SIMCO uses an internal tracking system to track applicable noncompliance issues that do not meet the reporting threshold. Determinations as to whether a violation of a requirement has occurred, the nature and extent of any such violation, and for the imposition of an appropriate remedy is addressed through the WIPP Form



process as defined by WP 15-GM1002, *Integrated Issues Management*, and WP 15-RA.01, *Nuclear Safety & Worker Safety and Health Compliance Program*.

## 19.0 VARIANCES

Variations provide relief from safety and health standards for worker safety. Variations are submitted to CBFO for review and, if the CBFO concurs, the variance is forwarded to the Cognizant Secretarial Officer for approval. Deviations from standards and codes applicable to property protection are reviewed and approved by the authority having jurisdiction process as provided in DOE O 420.1C Chg 2, *Facility Safety*. One NFPA equivalency remains in effect for the Central Monitoring System.

## 20.0 PROGRAM REVIEW AND CONTINUOUS IMPROVEMENT

The WSHPD will be reviewed annually as discussed in Section 9.0, *Administration of The Worker Safety & Health Program*. In addition, an evaluation of effectiveness of the WSHPD will be conducted during the annual ISM assessment. This is in keeping with the SIMCO ISMS Description requirements for feedback and continuous improvement in safety.

## 21.0 REFERENCES

This is the list of documents that effectively implement 10 CFR §851 as referenced throughout the plan.

- 10 CFR §712.38(b)(2), *Maintenance of Medical Records - Psychological Records of Human Resource Professionals*
- 10 CFR §850, *Chronic Beryllium Disease Prevention Program*
- 10 CFR §851, *Worker Safety and Health Program*
- 29 CFR §1904, *Recording and Reporting Occupational Injuries and Illnesses*
- 29 CFR §1910, *Occupational Safety and Health Standards*
- 29 CFR §1910.1096, *Ionizing Radiation*
- 29 CFR §1926, *Safety and Health Regulations for Construction*
- 30 CFR Chapter I, *Mine Safety and Health Administration*, Department of Labor
- 30 CFR §47, *Hazard Communication*
- 30 CFR §48, *Training and Retraining of Miners*
- 30 CFR §49, *Mine Rescue Teams*
- 30 CFR §57, *Safety and Health Standards-Underground Metal and Nonmetal Mines*
- 30 CFR §62.150, *Hearing Conservation Program*
- 48 CFR 970.5204-2, *Laws, regulations, and DOE directives*
- DOE Form 5484.3, *Individual Accident/Incident Report*
- DOE O 151.1D, *Comprehensive Emergency Management System*
- DOE O 210.2A, *DOE Corporate Operating Experience Program*
- DOE O 231.1B, Admin Chg 1, *Environmental, Safety and Health Reporting*
- DOE O 420.1C, Chg 2 (MinChg), *Facility Safety*
- DOE O 440.1B – Chg 2, Admin Chg, *Worker Protection Program for DOE* (Including the National Nuclear Security Administration) Federal Employees
- DOE O 473.3A Chg 1 (MinChg), *Protection Program Operations*
- DOE STD-1167-2003, *The Department of Energy Respiratory Acceptance Program for Supplied-Air Suits*
- DOE STD-1212-2019, *Explosives Safety*
- DOE STD-6005-2001, *Industrial Hygiene Practices*
- ANSI/ITSDF B56.1, *Safety Standard for Low Lift and High Lift Trucks*
- ANSI/ITSDF B56.8-2006, *Safety Standard for Personnel and Burden Carriers*
- ANSI Z88.2, *American National Standard for Respiratory Protection*
- ANSI Z136.1, *Safe Use of Lasers*

- ANSI Z49.1, *Safety in Welding, Cutting, and Allied Processes*
- ASME B31, *Code for Pressure Piping*
- ASME Boiler and Pressure Vessel Code (2004)
- CWI, *LLC 851 Plan*
- DE-EM0001971, *U.S. Department of Energy Carlsbad Field Office WIPP Management and Operations Contract*
- Executive Order 13335, *Incentives for the Use of Health Information Technology and Establishing the Position of the National Health Information Technology Coordinator*
- LANS 851 Plan
- UChicago Argonne, LLC 851 Plan
- PFO-Series, *WIPP Protective Force Orders*
- DOE/WIPP-07-3372, *Waste Isolation Pilot Plant Documented Safety Analysis*
- DOE/WIPP-95-2054, *WIPP Radiation Protection Program*
- DOE/WIPP 17-3573, *Waste Isolation Pilot Plant Emergency Management Plan*
- ICRP 60, *C-reactive Protein 60*
- ICRP 68, *C-reactive Protein 68*
- ICRP 74, *C-reactive Protein 74*
- NFPA 70, *National Electrical Code*
- NFPA 70E, *Standard for Electrical Safety in the Workplace*
- NFPA 122, *Fire Prevention and Control in Metal/Nonmetal Mining and Metal Mineral Processing Facilities*
- OSHA Form 300
- Presidential Decision Directive 39, *U.S. Policy on Counterterrorism*
- Public Law 91-173, *Federal Mine Safety & Health Act of 1977*
- WIPP-007, *Hazard Identification Summary Report for WIPP Operations*
- WIPP-023, *Fire Hazards Analysis for the Waste Isolation Pilot Plant*
- WIPP OPS 402, *Incidental Rigger Qualification Card*
- CCP-CM-001, *CCP Equipment Change Authorization and Documentation*
- CCP-PO-004, *CCP/SRS Interface Document*
- CCP-PO-012, *CCP/LANL Interface Document*
- CCP-PO-024, *CCP/INL Interface Document*
- CCP-PO-027, *CCP/TRU Waste Processing Center/ORNL Interface Document*
- CCP-PO-048, *CCP/LLNL Interface Document*
- CCP-PO-051, *CCP/LANL Interface Document*

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- CCP-PO-500, *CCP/ANL RH TRU Waste Interface Document*
  - CCP-PO-501, *CCP/INL RH TRU Waste Interface Document*
  - CCP-PO-504, *CCP/REDC and IFEL at ORNL Interface Document*
  - CCP-PO-505, *CCP Remote-Handled Transuranic Waste Authorized Methods for Payload Control*
  - CCP-PO-510, *CCP/SNL Interface Document*
  - CCP-QP-001, *CCP Graded Approach*
  - CCP-QP-002, *CCP Training and Qualification Plan*
  - CCP-QP-008, *CCP Records Management*
  - CCP-QP-010, *CCP Document Preparation, Approval, and Control*
  - CCP-QP-014, *CCP Quality Assurance Trend Analysis and Reporting*
  - MP 1.12, *Worker Protection Policy*
  - MP 1.28, *Integrated Safety Management*
  - MP 1.29, *Establishment of Annual Goals*
  - MP 1.7, *Employee Performance Appraisal and Development*
  - SDD GPDD, *General Plant Design Description*
  - WP 02-EC.12, *Site Users and Tenants Guide for Organizations, Personnel, or Companies That Perform Work on U.S. Department of Energy Property or Rights-of-Way on or Around the Waste Isolation Pilot Plant*
  - WP 09, *Conduct of Engineering*
  - WP 09-CN3005, *Graded Approach to Application of QA Controls*
  - WP 09-CN3018, *Design Verification*
  - WP 09-DC.01, *Construction Management Program*
  - WP 10-AD3007, *Use and Control of Rigging Components*
  - WP 12-ER4911, *Underground Fire Response*
  - WP 12-ER4925, *CMR Incident Recognition and Initial Response*
  - WP 12-FP.01, *WIPP Fire Protection Program*
  - WP 12-FP.23, *WIPP Baseline Needs Assessment*
  - WP 12-IH.02, *WIPP Industrial Hygiene Program Manual*
  - WP 12-IH.02-1, *WIPP Industrial Hygiene Program – Health Hazard Assessment*
  - WP 12-IH.02-2, *WIPP Industrial Hygiene Program – Confined Spaces*
  - WP 12-IH.02-4, *WIPP Industrial Hygiene Program – Hazard Communication and Hazardous Materials Management Plan*
  - WP 12-IH.02-6, *WIPP Industrial Hygiene Program – Respiratory Protection*

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- WP 12-IH.02-7, *WIPP Industrial Hygiene Program – Lasers, Lighting, Pest Control, and Sanitation*
  - WP 12-IH.02-9, *WIPP Industrial Hygiene Program – Beryllium Exposure Prevention Program*
  - WP 12-IH.02-11, *WIPP Industrial Hygiene Program – Polychlorinated Biphenyls (PCBs)*
  - WP 12-IH.02-12, *WIPP Industrial Hygiene Program – Cryogenics, Refrigerants, and Process Gases*
  - WP 12-IH, *Heat Stress*
  - WP 12-IH1022, *Sampling for Waste Generated VOCs*
  - WP 12-IS.01, *Industrial Safety Program – Structure and Management*
  - WP 12-IS.01-3, *Industrial Safety Program – Power and Hand Tools*
  - WP 12-IS.01-4, *Industrial Safety Program – Personal Protective Equipment*
  - WP 12-IS.01-5, *Industrial Safety Program – Walking and Working Surfaces and Ladders*
  - WP 12-IS.01-6, *Industrial Safety Program – Visitor, Vendor, User, Tenant, and Subcontractor Safety Controls*
  - WP 12-IS.01-8, *Industrial Safety Program – Vehicle Safety*
  - WP 12-IS.01-10, *Industrial Safety Program – Fall Protection*
  - WP 12-IS.01-12, *Industrial Safety Program – Hoisting & Rigging*
  - WP 12-IS.01-15, *Industrial Safety Program – Scaffolds*
  - WP 12-IS.03, *Electrical Safety Program Manual*
  - WP 12-IS0301, *Nationally Recognized Testing Laboratory Process*
  - WP 12-IS3002, *Job Hazard Analysis and Electrical Risk Assessment Development and Performance*
  - WP 12-SA3130, *Occupational Injuries and Illnesses*
  - EA12SA3130-2-0, *Injury/Illness Report*
  - WP 12-SA3131, *Occupational Injuries and Illnesses Recordkeeping*
  - WP 13-1, *SIMCO Quality Assurance Program Description*
  - WP 14-TR.01, *WIPP Training Program*
  - WP 15-GM.12, *Workplace Violence Policy and Response Manual*
  - WP 15-CA1002, *Management Self-Assessments*
  - WP 15-CA1007 *Event Learning Review*
  - WP 15-CA1010, *Reporting Occurrences in Accordance with DOE Order 232.2A*
  - WP 15-CA1012, *Operating Experience/Lessons Learned Program*
  - WP 15-GM.03, *Integrated Safety Management System Description*
  - WP 15-GM1002, *Integrated Issues Management*

- WP 15-GM1003, *Graded Approach to Stop Work*
- WP 15-HS.02, *Occupational Health Program*
- EA15HS02-2-0, *Provider's Release to Return to Work Form*
- WP 15-PC3605, *Proposal, Competition, Identification, Selection, Evaluation, and Award*
- WP 15-PC3609, *Preparation of Purchase Requisitions*
- WP 15-RA.01, *Nuclear Safety & Worker Safety and Health Compliance Program*
- WP 17-SS1006, *Safeguards and Security Security Evaluation Program*
- Absence Notification Form