

## **Exhibit C.4, Work Breakdown Structure Dictionary**

The following are definitions of the labor cost element and Work Breakdown Structure (WBS) elements.

Labor: The labor cost element represents all Advanced Mixed Waste Treatment Project (AMWTP) human resources charging to the project for day-to-day work to meet the objectives of the Statement of Work (SOW). These resources include the following for each WBS element:

- Administrative (e.g., expeditors, administrative assistants, payroll administrators, accounting clerks, accountability clerks, assistants, and other personnel used primarily in administrative or assistant functions or job classifications);
- Engineer (e.g., system engineers, environmental engineers, quality engineers, radiation control engineers, electrical engineers, system engineers, and other personnel used primarily in engineering functions or job classifications);
- Manager (e.g., shift managers, facility managers, maintenance managers, operations managers, program managers, and other personnel used primarily in a management function or job classification);
- Specialists (e.g., DOT shippers, program analysts, AK experts, chemists, physicists, safety specialists, production planners, waste certification officials, accountants, inspectors, quality assurance/control specialists, subject matter experts, and other personnel used primarily in specialized functions or job classifications);
- Technicians (e.g., radiological technicians, operators, maintenance technicians, janitorial, IH/IS technicians, and other personnel used primarily in day-to-day operational functions or job classifications); and
- Technical Leads (e.g., crew team leads, shift team leads, and other personnel used primarily in supervisory function or job classification).

### **C.3 Description of Waste**

#### **C.3.1 Remote-Handled Waste**

This WBS element includes all project resources directly utilized in conducting the preparation and transfer of candidate Remote-Handled Transuranic (RH-TRU) waste to the Idaho Cleanup Project (ICP) contractor for subsequent processing.

### **C.4 Waste Processing Activities**

#### **C.4.1 Retrieval**

This WBS element includes all project resources directly utilized in the retrieval of waste from the Transuranic Storage Area Retrieval Enclosure (TSA-RE) and Resource Conservation and Recovery Act (RCRA) permitted Storage Modules (WMF-628 through WMF-633).

## **C.4.2 Characterization**

### **C.4.2.1 Characterization of TRU waste**

This WBS element includes all project resources, including the Central Characterization Project (CCP) resources, directly utilized in the characterization and certification of TRU waste exhumed from the Subsurface Disposal Area (SDA) (hereafter referred to as “ICP waste”) and AMWTP stored waste historically managed as TRU waste in TSA-RE and RCRA permitted Storage Modules, which is proposed to be disposed as TRU waste at the Waste Isolation Pilot Plant (WIPP). Characterization activities include drum venting, real-time-radiography (RTR) examination, non-destructive assay (NDA), head space gas sampling, etc. of TRU waste containers. Certification activities include Level I and II validations (visual examination, RTR, NDA) along with the certification Site Project Manager (SPM), data reconciliation, acceptable knowledge (AK), data unloading and validation in the WIPP Waste Information System (WWIS), and production planning activities.

### **C.4.2.2 Characterization of MLLW**

This WBS element includes all project resources directly utilized in the characterization and certification of AMWTP waste, which is proposed to be disposed as mixed LLW (MLLW) at an offsite treatment/disposal facility. Characterization activities include drum venting, RTR examination, NDA, head space gas sampling, etc. of the MLLW containers, as necessary. Certification activities include Level I and II validations (visual examination, RTR, NDA) along with the certification SPM, data reconciliation, AK, data unloading and validation in the Integrated Waste Tracking System (IWTS), and production planning activities. This WBS element also includes the project resources directly utilized in the characterization of LLW.

### **C.4.2.3 Characterization of TRU waste from other DOE sites and INL tenants**

This WBS element includes all project resources, including the CCP resources, directly utilized in the characterization and certification of TRU waste from other DOE sites and Idaho National Laboratory (INL) tenants (Section C.3.4), which is ultimately destined for disposal at WIPP. Characterization activities include conducting drum venting (as necessary), RTR examination, NDA, head space gas sampling, etc. for TRU waste containers. Certification activities include Level I and II validations (visual examination, RTR, NDA) along with the certification SPM, data reconciliation, AK, data unloading and validation in the WWIS, and production planning activities.

## **C.4.3 Treatment**

### **C.4.3.1 Treatment of TRU waste**

This WBS element includes all project resources directly utilized in the treatment (onsite and offsite) of stored AMWTP waste, which is proposed to be

disposed as TRU waste at WIPP. Treatment operations include conducting the processing of boxed and drummed debris waste in the Advanced Mixed Waste Treatment Facility (AMWTF), which produces product drums (100-gallon drums) for subsequent shipment to WIPP or offsite MLLW treatment/disposal depending on the resulting product drum transuranic constituent concentration. Other treatment activities include the treatment (removal of prohibited items, liquid removal/absorption, etc.) of drummed TRU waste for subsequent shipment to WIPP.

#### **C.4.3.2 Treatment of MLLW**

This WBS element includes all project resources directly utilized in the treatment (onsite and offsite) of AMWTF waste, which is proposed to be disposed as MLLW at an offsite treatment/disposal facility. Treatment operations include conducting the processing of boxed and drummed debris waste, which produces product drums (100-gallon drums) for subsequent shipment to WIPP or offsite treatment/disposal as MLLW depending on the resulting product drum transuranic constituent concentration. Other treatment activities include the treatment (removal of prohibited items, liquid removal/absorption, etc.) of waste for subsequent onsite and/or offsite treatment activities for AMWTF waste destined for disposal at an offsite MLLW disposal facility. This WBS element also includes the project resources directly utilized in the treatment of LLW, as applicable.

#### **C.4.3.3 Treatment of TRU waste from other DOE sites and INL tenants**

This WBS element includes all project resources directly utilized in the treatment (onsite and offsite) of TRU waste from other DOE sites and INL tenants (Section C.3.4), which is ultimately destined for disposal at WIPP. The treatment operations include conducting the processing of boxed and drummed debris waste in the, which produces product drums (100-gallon drums) for subsequent shipment to WIPP or offsite treatment/disposal as MLLW depending on the resulting product drum transuranic constituent concentration. Other treatment activities include the treatment (removal of prohibited items, liquid removal/absorption, etc.) of drummed TRU waste for subsequent shipment to WIPP.

### **C.4.4 Storage**

#### **C.4.4.1 Storage of TRU waste**

This WBS element includes all project resources directly utilized in the storage of AMWTF waste and ICP waste, which is proposed to be disposed as TRU waste at WIPP. Storage of TRU waste includes monitoring, movement, inspections, and other storage operations necessary to ensure safe and compliant storage.

#### **C.4.4.2 Storage of MLLW**

This WBS element includes all project resources directly utilized in the storage of AMWTP waste, which is proposed to be disposed as MLLW at an offsite treatment/disposal facility. Storage of MLLW includes monitoring, movement, inspections, and other storage operations necessary to ensure safe and compliant storage of this waste. This WBS element also includes the project resources directly utilized in the storage of LLW.

#### **C.4.4.3 Storage of TRU waste from other DOE sites and INL tenants**

This WBS element includes all project resources directly utilized in the storage of TRU waste from other DOE sites and INL tenants (Section C.3.4), which is ultimately destined for disposal at WIPP. Storage includes monitoring, movement, inspections, and other storage operations necessary to ensure safe and compliant storage of this waste.

### **C.4.5 Packaging and Transportation**

#### **C.4.5.1 Packaging and Transportation of TRU waste**

This WBS element includes all project resources, including CCP resources, directly utilized in the packaging and transportation of stored AMWTP waste and ICP waste, which is proposed to be disposed as TRU waste at WIPP. Packaging and transportation include selection of containers for payloads, payload assembly, loading the payloads into the TRUPACT II and HalfPACT shipping containers, along with inspection and leak testing of the shipping containers, placarding, and hazardous waste manifesting. This also includes data entry and certification of the assemblies, payloads, and shipments in the WWIS.

#### **C.4.5.2 Packaging and Transportation of MLLW**

This WBS element includes all project resources directly utilized in the packaging and transportation of AMWTP waste, which is proposed to be disposed as MLLW at an offsite treatment/disposal facility. Packaging and transportation of MLLW include selection of containers for payloads, payload assembly, loading the payloads into the applicable shipping containers, placarding, hazardous waste manifesting, along with inspection and data entry into the IWTS. This WBS element also includes the project resources directly utilized in the packaging and transportation of LLW to an offsite disposal facility.

#### **C.4.5.3 Packaging and Transportation of TRU waste from other DOE sites and INL tenants**

This WBS element includes all project resources, including CCP resources, directly utilized in the packaging and transportation of TRU waste from other DOE sites and INL tenants (Section C.3.4), which is ultimately destined for disposal at WIPP. Packaging and transportation include selection of containers for payloads, payload assembly, loading the payloads into the TRUPACT II

and HalfPACT shipping containers, along with inspection and leak testing of the shipping containers, placarding, hazardous waste manifesting. It also includes data entry and certification of the assemblies, payloads, and shipments in the WWIS.

#### **C.4.6 Disposal**

##### **C.4.6.1 Disposal of TRU waste**

This WBS element includes all project resources directly utilized in supporting disposal of AMWTP stored waste and ICP waste at WIPP. Disposal of TRU waste at WIPP is the responsibility of DOE-Carlsbad Field Office (CBFO).

##### **C.4.6.2 Disposal of MLLW**

This WBS element includes all project resources directly utilized in the disposal of MLLW at an offsite MLLW disposal facility. This WBS element also includes the project resources directly utilized in the disposal of LLW at an offsite disposal facility.

##### **C.4.6.3 Disposal of TRU waste from other DOE sites and INL tenants**

This WBS element includes all project resources directly utilized in supporting disposal at WIPP of TRU waste from other DOE sites and INL tenants (Section C.3.4). Disposal of TRU waste at WIPP is the responsibility of DOE-CBFO.

#### **C.5 Project Support**

This WBS element includes all project resources involved in upper-level management (e.g. Key Personnel including the President, Vice President, Waste Programs Lead, Environmental Safety and Health (ES&H) Lead, and etc.). This WBS element also includes Legal, Human Resources, Project Controls, Procurement, and Finance/Accounting (e.g. Chief Financial Officer (CFO), etc.) resources supporting the AMWTP contract scope of work. This WBS element does not include the direct line-management of day-to-day operations.

#### **C.6 Integrated Safety Management System (ISMS) and Environmental Safety and Health Program (ES&H)**

This WBS element includes all project ES&H resources. These resources include labor resources (radcon technicians, industrial safety/industrial hygiene (IS/IH) specialists, rad engineers, etc.), maintenance & materials, equipment, ODCs, subcontracts, travel, etc., necessary to meet the objectives of the SOW. Also, this WBS element includes the resources to implement the Integrated Safety Management System (ISMS), Voluntary Protection Program (VPP), and other safety and health programs.

#### **C.7 Quality**

This WBS element includes all project resources utilized in conducting quality activities.

- This WBS element also includes all project training and qualification program resources and activities.
- C.8 Environmental Compliance**  
This WBS element includes all project resources utilized in conducting environmental compliance activities.
- C.9 Laboratory Sampling and Analysis**  
This WBS element includes all project resources utilized in conducting laboratory sampling and analysis (e.g., RCRA core samples, gas samples, etc.).
- C.10 Facility Operation, Maintenance, and Improvements**  
This WBS element includes all project resources utilized in conducting facility operations and maintenance, along with facility improvement activities for the AMWTP contract.
- C.11 Processing TRU Waste from Other INL Tenants or Other DOE Sites**  
This WBS element includes all project resources necessary for processing waste from other INL tenants or other DOE sites including the specific applicable activities in Section C.4. For use in accordance with Section B.5.
- C.12 DOE Support**  
This WBS element includes all project resources utilized in supporting DOE oversight.
- C.13 Interfaces with Site Contractors for Services**  
This WBS element includes all project resources, including the mandatory and other site services purchased from the INL and ICP contractors. Note that the Mandatory Site Services are already populated in the Cost Model Summary.
- C.14 Records Management**  
This WBS element includes all project resources utilized in conducting records management (including document control) activities.
- C.15 Safeguards, Security, and Counterintelligence**  
This WBS element includes all project resources utilized in conducting safeguards, security, and counterintelligence activities.
- C.16 Transition from Incumbent Contractor**  
This WBS element includes all project resources utilized for contract transition.