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Updating contractor WRPS to H2C; also updating DOE RL/ORP to DOE HFO. New signature page to reflect new staff members.

Contractor Concurrence on the Hanford Mission Essential Services Contract (HMESC) Nuclear Safety Protocol

This signature page serves as concurrence on the HMESC Nuclear Safety Protocol for specific roles and responsibilities between the Hanford Mission Integration Solutions, LLC (HMIS) and the following Hanford Site prime contractors: Hanford Tank Waste Operations & Closure, LLC (H2C), Central Plateau Cleanup Company (CPCCo), Pacific Northwest National Laboratory (PNNL), and Hanford Laboratory Management and Integration, LLC (HLMI).

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TERMS

AIA	Administrative Interface Agreement
AVS	Acquisition Verification Services
BNI	Bechtel National, Inc.
BMI	Battelle Memorial Institute
BWP	Beryllium Work Permit
CFR	Code of Federal Regulations
CPCCo	Central Plateau Cleanup Company
CRD	Contractor Requirements Document
D&D	decontamination and decommissioning
DOE	U.S. Department of Energy
DOT	U.S. Department of Transportation
DSA	Documented Safety Analysis
ERDF	Environmental Restoration Disposal Facility
ES&H	Environmental, Safety & Health
GSA	General Services Administration
H2C	Hanford Tank Waste Operations & Closure, LLC
HC	Hazard Category
HFO	DOE Hanford Field Office
HLMI	Hanford Laboratory Management and Integration, LLC
HMESC	Hanford Mission Essential Services Contract
HMIS	Hanford Mission Integration Solutions, LLC
IBC	Integrated Biological Control
ICD	Interface Control Document
IMP	Interface Management Plan
ISMS	Integrated Safety Management System
IWP	Integrated Work Plans
JCI	Johnson Controls, Inc.
JHA	Job Hazard Analysis
MC&A	Material Control and Accountability
MOA	Memorandum of Agreement
MSA	Mission Support Alliance, LLC
MSC	Mission Support Contract
NNSA	National Nuclear Security Administration
NSP	Nuclear Safety Protocol
NTS	Noncompliance Tracking System
OHC	Other Hanford Contractors
PAAA	Price-Anderson Amendments Act
PFP	Plutonium Finishing Plant
PNNL	Pacific Northwest National Laboratory
PNSO	DOE Pacific Northwest Site Office
RL	DOE Richland Operations Office
RPP	Radiation Protection Program
RWP	Radiation Work Permit
SAS	Safeguards and Security

SDD	Service Delivery Document
SSCs	Structures, Systems, and Components
TOC	Tank Operations Contract
TSD	Transportation Safety Document
TSR	Technical Safety Requirement
USQ	Unreviewed Safety Question
WIDS	Waste Information Data System
WTP	Waste Treatment and Immobilization Plant

1.0 OVERVIEW

Hanford Mission Integration Solutions, LLC (HMIS) is the prime contractor for the Hanford Mission Essential Services Contract (HMESC), as specified in Contract 89303320DEM000031 between the U.S. Department of Energy (DOE) and HMIS. The Nuclear Safety Protocol (NSP) was developed pursuant to HMESC, "Statement of Work," Section C.1. This NSP provides assurance that HMIS shall comply with applicable facility safety authorization basis and nuclear safety requirements established by the responsible contractor before performing work scope within nuclear and radiological facilities. Nuclear facilities include Hazard Category (HC) 1, 2, and 3 nuclear facilities and below HC 3 radiological facilities. This NSP also establishes the overarching process that HMIS uses to interface with other contractors for nuclear safety. Where there is an interface with a nuclear facility, review and approval of HMIS work packages and endorsed procedures may be necessary to ensure the work scope will comply with established nuclear facility requirements. More specific processes are outlined in interface agreements between HMIS and the other Site contractors.

1.1 Applicability

The NSP is only applicable to nuclear facilities (as defined in 10 Code of Federal Regulations (CFR) 830, *Nuclear Safety Management*). The scope of this NSP includes:

- HMIS work performed in nuclear facilities on behalf of other contractors on the Hanford Site (termed Hanford Site contractors, Hanford Site prime contractors or Other Hanford Contractors (OHCs) throughout the document). It also includes any work performed by HMIS in areas contiguous to nuclear facilities such as work on electrical utilities, water utilities, fire protection services, etc.

- HMIS Emergency Response, Interface and Integration Services and Infrastructure and Site Services support activities and services that have been identified by other contractors as having the potential to impact nuclear facility safety authorization basis or nuclear safety requirements (e.g., technical safety requirements [TSRs]).

- HMIS conducted transportation and packaging meeting the requirements for a Documented Safety Analysis (DSA) or the Transportation Safety Document (TSD).

- Quality affecting activities performed by HMIS, such as Acquisition Verification Services (AVS) receipt inspection and evaluation of suppliers. While these activities are not routinely performed in other contractor's nuclear facilities, they do impact nuclear safety. HMIS performs these activities in accordance with its DOE-approved 10 CFR 830 Subpart A quality assurance program and specific agreements with other contractors; these activities are not discussed further.

The NSP describes the general scope of work to be performed, flow down of nuclear safety requirements, and implementing processes or procedures. Revisions to the NSP will be submitted to the OHCs for approval and to U.S. Department of Energy (DOE) Hanford Field Office (HFO) for review.

This NSP applies to HMIS employees, defined as direct employees of HMIS as well as employees of pre-selected subcontractors that comprise the HMIS team. It also applies to other subcontractors when incorporated into subcontract documents.

1.2 Document Hierarchy

This NSP provides a foundation to perform the HMESC work scope within nuclear facilities that are the responsibility of other responsible contractors on the Hanford Site. This protocol is part of HMIS' Integrated Safety Management System (ISMS) description and is incorporated by reference into the Hanford Site Interface Management Plan (IMP), contract documents, and/or Memorandums of Agreement (MOAs). This NSP is a standalone document, separate and distinct from the IMP and MOAs.

At the highest level, the HMESC defines the scope of work and applicable regulations and requirements, including those for nuclear safety. Attachment J.3 of the HMESC, the "Hanford Site Services and Interface Requirements Matrix," provides DOE-directed requirements for Hanford Site services and identifies interfaces amongst contractors on the Hanford Site. The Hanford Site IMP serves as HMIS' top-level interface document between HMIS and OHCs. The Master Services Agreement or Inter-Contractor Work Orders are the contracts for services requested and performed between HMIS and OHCs.

HMIS' Interface Management philosophy calls for the use of several key documents that play a specific role in defining roles and responsibilities, and how services are requested and provided to Hanford Site contractors. These documents include; MOAs, Administrative Interface Agreements (AIAs), Interface Control Documents (ICDs), and Service Delivery Documents (SDDs).

The MOA serves as a high-level document to specify the roles and responsibilities between HMIS and a specific contractor and demonstrates concurrence through signature by the specific parties. The MOA is a high-level controlling interface document between two prime contractors clarifying the roles and responsibilities of each contractor for service requests, delivery and payment. The MOA represents a mutual desire by the signed Parties for simple and efficient processes for:

- Ensuring safe, environmentally sound service delivery
- Requesting services
- Performing work
- Minimizing administrative efforts and costs
- Ensuring adequate management controls, oversight, and accountability
- Providing financial accountability
- Encouraging frequent, routine communication and timely issue resolution.

AIAs are agreements between prime contractors to document roles and responsibilities, and to provide clarity in communication and expectations for a specific service or set of related services when there is a service interface but no physical interface. AIAs may be linked to SDDs.

ICDs are established between prime contractors to define responsibilities, describe details of activities, and clarify communication expectations related to physical interfaces between facilities or systems that must work in collaboration with each other.

SDDs provide a detailed description of HMIS-provided services that are listed in the J.3 Matrix of the HMESC.

Where applicable, HMIS shall flow down this NSP and other contractors' nuclear facility safety authorization basis and nuclear safety requirements to subcontractors for compliance. At a lower level, these contract and interface documents are supported by both Hanford Site and contractor-specific procedures and processes to implement roles and responsibilities. HMIS will coordinate with the facility and participate in integrated work planning for work conducted in nuclear facilities as appropriate. Figure 1 provides the Interface Management documents that have the objective to allow seamless transactions between companies to efficiently define and implement work between companies and prevent misunderstandings.

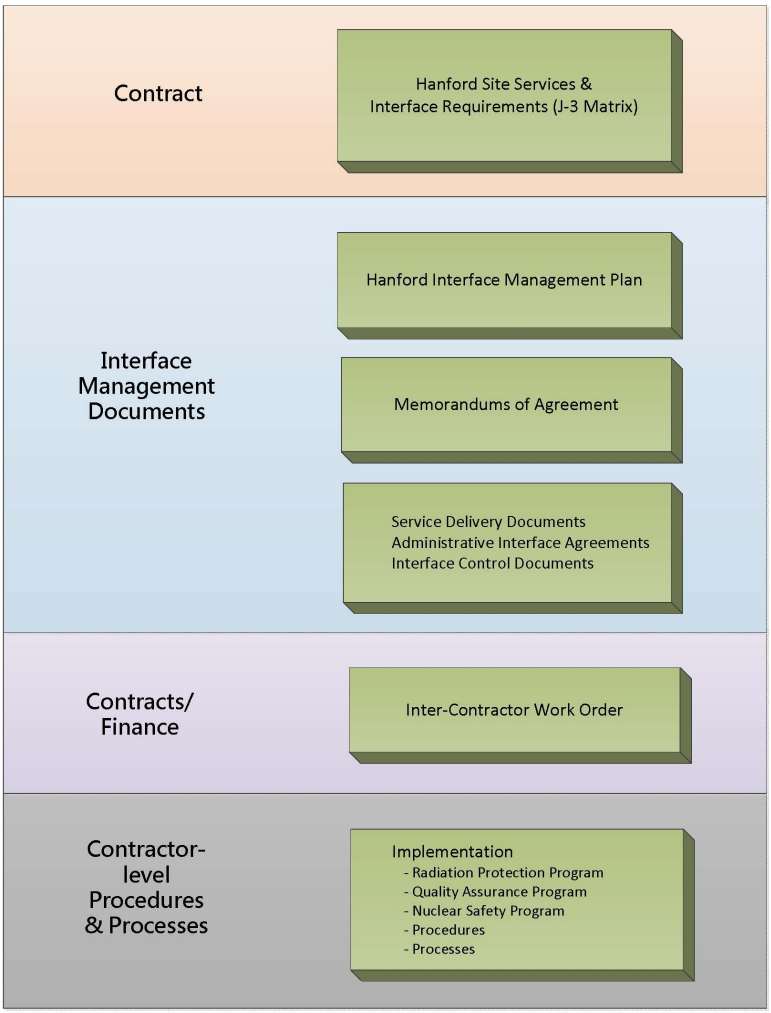

Figure 1. Interface Management Document Hierarchy.

2.0 GENERAL HMESC SCOPE OF WORK

The purpose of the HMESC is to provide direct support to DOE HFO, DOE Pacific Northwest Site Office (PNSO) and its contractors with cost-effective infrastructure and site services integral and necessary to accomplish the Hanford Site environmental cleanup mission. The scope includes the following primary functions:

- Business Operations
- Communications and External Affairs
- Emergency Services
- Engineering
- Environmental, Safety & Health (ES&H)
- Information Management
- Infrastructure and Site Services
- Interface and Integration Services
- Portfolio Management
- Projects
- Training and Conduct of Operations

HMIS also will play a key role in ensuring that interfaces with and between Hanford Site customers (i.e., DOE Offices, Hanford Site contractors, etc.) that affect their scope of work are managed in a manner that encourages open and proactive communication, collaboration, and cooperation.

Governing laws, regulations, and DOE directives for the HMESC work scope are defined in the Contract 89303320DEM000031; Attachment J-2 provides the requirement sources and implementing documents, including those directly related to nuclear safety (e.g., 10 CFR 820, *Procedural Rules for DOE Nuclear Activities*; 10 CFR 830, *Nuclear Safety Management*, Subpart A & B; and Contractor Requirements Document (CRD) O 426.2, *Personnel Selection, Qualification, and Training Requirements for DOE Nuclear Facilities*).

The current scope of the HMESC does not include design, maintenance, operation, or decontamination and decommissioning (D&D) of nuclear facilities; however, HMIS works in nuclear facilities designed and operated by other contractors. HMIS also provides motor carrier services and qualified drivers for general freight and hazardous materials, including radioactive materials and radioactive mixed waste; the quantity of material carried in some cases may meet the threshold for requiring a DSA. Although HMIS will not generate material exceeding the threshold for a DSA, HMIS may provide the motor carrier and qualified driver to transport the material. Compliance for a DSA is met by conducting these activities in accordance with applicable U.S. Department of Transportation (DOT) CFR, Title 49 regulations and DOE/RL-2001-36, *Hanford Site wide Transportation Safety Document*, and referenced safety authorization basis documents therein for on-Site or off-Site transportation, as appropriate. DOE/RL-2001-36 currently is maintained by Central Plateau Cleanup Company (CPCCo) with the support of HFO and OHCs.

HMIS provides services to each of the major contractors that operate and perform work on the Hanford Site. Sometimes these services are performed at nuclear facilities for which a contractor is responsible. HMIS provides services for the following contractors on the Hanford Site that design, maintain, provide surveillance at, operate, or perform D&D at nuclear facilities:

- CPCCo – prime contractor for the Central Plateau Cleanup Contract (Contract 89303320DEM000030), which includes completion of the Plutonium Finishing Plant (PFP) project; non-Tank Farm waste disposal activities; groundwater monitoring and remediation; and facility and waste site characterization, surveillance, maintenance, regulatory document preparation, remediation and deactivation, decontamination, decommissioning, and demolishing excess facilities.

- Hanford Tank Waste Operations & Closure, LLC (H2C) – prime contractor for the Integrated Tank Disposition Contract (ITDC) (Contract 89303324DEM000096) for operations and construction activities necessary to store, retrieve, and treat Hanford tank waste; store and dispose of treated waste; and begin to close the Tank Farm waste management areas to protect the Columbia River.

- Battelle Memorial Institute (BMI), which manages and operates the Pacific Northwest National Laboratory (PNNL) (Contract DE-AC05-76RL01830) for the DOE Office of Science with oversight from the PNSO; a multi-program national laboratory that conducts research and development activities, including technology programs related to the Hanford cleanup mission.

- Hanford Laboratory Management and Integration (HLMI) – prime contractor for the 222-S Laboratory (Contract 89303320CEM000075) to operate, manage, and maintain the 222-S Laboratory Complex; primary mission is to provide analytical support for the storage and treatment of tank waste at the Hanford Site; and laboratory services support cleanup and closure of the Hanford Site that are critical in achieving closure goals of all Hanford Site projects.

The individual contractors maintain a current list of nuclear facilities that are in the scope of their contract.

HMIS provides limited infrastructure support to Bechtel National, Inc. (BNI). BNI is the prime contractor for the design, construction, and commissioning of the Hanford Waste Treatment and Immobilization Plant (WTP) (Contract DE-AC27-01RV14136), a vitrification facility that will convert radioactive tank wastes into glass logs for long-term storage. The nuclear facilities comprising the WTP are not yet authorized for operations.

Types of services performed by HMIS within these nuclear facilities or where work that is performed by HMIS in contiguous areas outside the facility fence line that could affect the nuclear facility may include, but are not necessarily limited to:

- Safeguards and Security
- Fire protection
- Emergency Operations
- Biological controls
- Crane and rigging
- Motor carrier services
- Fleet services
- Facility services
- Railroad services
- Roads and grounds
- Utilities
- Sewer systems
- Telecommunications
- Information systems
- Independent analysis and assessments.

The next sections provide additional detail, segmented by service area, for the types of services that may be performed within the facility or in areas contiguous to the nuclear facilities. They also identify the main mechanism used to ensure compliance with OHCs' nuclear safety requirements.

2.1 Safeguards and Security, Emergency Response Services, and Emergency Management

In accordance with Section 2.1 of the HMESC, HMIS will directly provide time-phased ready-to-serve capability to Hanford Site environmental cleanup missions, including protective forces, physical security systems, information security, personnel security, material control and accountability (MC&A), cyber security, Safeguards and Security program management, fire and emergency response services, and emergency operations.

Some of the following services that are mentioned may or may not be services performed in OHCs' nuclear facilities but are included for completeness.

2.1.1 Safeguards and Security

In accordance with the contract, HMIS shall have a Safeguards and Security (SAS) Program that includes the following SAS elements: protective forces, physical security systems, information security, personnel security, MC&A, cyber security, and program management to ensure the protection of nuclear material, classified, government sensitive information, and government property. The SAS Program also is responsible for safeguarding the shipment of nuclear material. Hanford Patrol interacts with every facility and every area of the Site, including nuclear facilities. The facility sets entry requirements. Hanford Patrol and other SAS personnel will be trained as appropriate on nuclear facility entry requirements.

2.1.2 Fire and Emergency Response Services

In accordance with the HMESC, HMIS shall provide fire emergency response services, including fire prevention, fire suppression, and fire investigations; emergency rescue; emergency medical service and patient transport; incident command; and hazardous materials and chemical/biological/radiological emergency response (to include decontamination) for the Hanford Site. HMIS may provide fire protection system inspection, testing, and maintenance of existing and new fire systems. Work shall be performed in accordance with CRD 420.1C, *Facility Safety*, Change 2. Hanford Site contractors are responsible to communicate fire service needs to HMIS for changes to their facilities or new installations. HMIS shall ensure 24/7 fire

and emergency services-related protection of human life, property, and facilities, operate basic and advanced life support emergency medical services.

A key interface within nuclear facilities is fire protection system inspection, testing, and maintenance; HMIS (i.e., Hanford Fire Department) also may enter nuclear facilities during emergency response. The fire and emergency response services personnel interact with all buildings and areas of the Hanford Site for emergency response and include the Hanford Fire Department, Fire Marshal's Office, Fire Maintenance group, and Fire Systems Testing group. With the exception of PNNL, HMIS performs inspection, testing and maintenance of Site fire protection systems. The BNI WTP is currently developing its own fire system design, but will transfer the system to the Hanford Fire Department once construction is complete and the system turned over to Operations.

2.1.3 Emergency Management

Emergency Management is conducted in accordance with DOE/RL-94-02, *Hanford Emergency Management Plan* and DOE 0223, *Richland Operations Office Emergency Plan Implementing Procedures*. The Emergency Management Program provides coordination, integration, and maintenance of a centralized emergency operations capability for coping with a spectrum and severity of emergencies originating from or affecting the Hanford Site. This integrated program coordinates steps for effective and efficient responses to emergencies so that appropriate response measures are taken to protect workers, the public, and the environment. Coordination with OHCs facilitates prompt recognition, categorization, and classification of contractor emergencies and requires appropriate reporting and notifications.

2.2 Interface & Integration Services

HMIS' Interface and Integration Services scope includes crane and rigging (including critical lift), motor carrier services, fleet services, roads and grounds, and personal property management/warehousing services. HMIS maintains required services and equipment, and ensures safe, compliant, and cost-effective alignment with projects that are integral to the Hanford Site environmental cleanup mission.

Key interfaces are nuclear facilities of other contractors, with the exception of those under the scope of DOE contracts with BNI or PNNL. Interface and Integration Services maintains the fleet of both heavy equipment and vehicles, including cranes and heavy equipment (except those owned or leased by BNI and those operated for the Environmental Restoration Disposal Facility (ERDF)); commercial motor vehicles (except those operated for the ERDF); and General Services Administration (GSA) vehicles.

2.2.1 Crane and Rigging

HMIS work scope for this activity includes all activities necessary to maintain ready-to-serve capability, including training and physicals, operation and maintenance of mobile cranes; hoisting, rigging, critical lifts, scaffold erection and disassembly; inspections, load testing, and preventive maintenance; provide crane and rigging support for fabrication of below the hook lifting devices; fabricating wire rope slings, hauling of equipment and apparatus; and

management assessments; provide the cranes and qualified personnel necessary to perform hoisting and rigging. The personnel performing these services (e.g., crane operators, ironworkers/riggers) may access nuclear facilities to perform work. HMIS employees accessing nuclear facilities will comply with the facility work control system and the entry/exit requirements established by the facility. HMIS will coordinate with the facility and participate in integrated work planning for work involving cranes and rigging as appropriate. All Hoisting and Rigging activities performed on site by HMIS crane and rigging personnel will be in strict compliance with DOE/RL-92-36, *Hanford Site Hoisting and Rigging Manual* (current revision).

2.2.2 Motor Carrier Services

Motor Carrier Services provides a ready-to-serve, centralized pool of commercial motor vehicles and qualified drivers for on-Site and limited commerce transportation of general freight and hazardous materials, including radioactive materials and radioactive mixed waste. HMIS work scope for this activity includes all activities necessary to maintain ready-to-serve capability of motor vehicles (16,001 pounds or more road use vehicles as defined by Federal motor carrier regulations) service and placard hazardous material shipments to Hanford Site contractors, as requested.

The quantity of material carried may in some cases meet the threshold for requiring a DSA. Although HMIS will not generate material exceeding the threshold for a DSA, HMIS may provide the motor carrier and qualified driver to transport the material. HMIS meets its obligations for nuclear safety in transportation and packaging by conducting these activities in compliance with applicable DOT 49 CFR regulations for off-Site transportation and DOE/RL-2001-36 and referenced safety authorization basis documents therein for on-Site transportation. DOE/RL-2001-36 currently is maintained by CPCCo with the support of HFO and OHCs. If a generator or transporter chooses to use a type of package not meeting DOT performance based standards or for Type B materials and packages that do not have a Certification of Compliance from NRC/DOE, DOT, or DOE (through DOE/RL-2001-36), a new safety basis in accordance with the Transportation Safety Document must be developed and submitted for approval prior to use.

Motor Carrier Services includes Heavy Equipment Operations, which provides a ready-to-serve, centralized pool of heavy equipment and qualified operators to support the HMESC and all other OHCs. Heavy Equipment Operations supports HMIS utilities departments for both maintenance and emergency operations. They also support the Site with snow removal in the winter and support Hanford Fire Department wildfire efforts in the summer. The OHCs can request heavy equipment support for maintenance of facility roads, parking lots, utilities, snow removal, blow sand removal, and both regulated and non-regulated guzzler truck operations. Heavy Equipment Operations also supports D&D efforts with manpower and equipment enabling the OHCs to accomplish milestones.

2.2.3 Fleet Services

In accordance with the HMESC, HMIS provides management and coordination, statistical usage tracking, and reporting on GSA-leased vehicles and DOE-owned vehicles/equipment.

HMIS shall perform vehicle repair and modification services as required (e.g., in the 200 Area). Some vehicles are designated as "regulated" because of contamination and are required to be serviced within radiological controlled areas. The roles and responsibilities for regulated vehicles (e.g., radiological surveys) will be conducted in accordance with the responsible contractor's Radiation Protection Program (RPP) and implementing procedures. The scope also includes record-keeping, vehicle assignment, ensuring vehicle utilization, and excess/disposal of fleet vehicles and parts. The majority of motorized vehicles (those that are eligible for license plates) are leased from the GSA, including sedans, buses, ambulances, tractors, flatbeds, dump trucks, tool vans, utility maintenance vans, cab and chassis, trailers, wreckers, and fuel tankers. The majority of the fleet of vehicles/equipment is operated outside nuclear facilities. In the event HMIS employees require entry into nuclear facilities, they will comply with the entry/exit requirements established for the facility.

2.3 Infrastructure and Site Services

HMIS' Infrastructure and Site Services maintains and operates the utilities (electrical and energy management, water, and sewer) required to support the Hanford Site mission, provides the central maintenance function, and performs Sanitary Waste Management and Disposal for the Hanford Site. HMIS implements an integrated, life-cycle approach to furnish, operate, maintain, turn down, and close required infrastructure for all mission areas based on user requirements. HMIS operates and maintains infrastructure systems to directly and reliably meet customers' needs and support customers' ability to conduct environmental cleanup. HMIS, when appropriate and cost effective, replaces fixed and system-related utilities with temporary services or permanent, off-grid power sources. When DOE or HMIS determines that the services and/or equipment are no longer required or cost-effective, HMIS shall propose actions for elimination or removal.

2.3.1 Maintenance Services, and Electrical, Water & Sewer Utilities

HMIS Infrastructure and Site Services organization provides the central maintenance function for non-radiological facilities and includes facility painting, sign painting, carpentry, refrigerated equipment service, insulation, pipefitting, electrical, sheet metal, instrumentation, cement finishing, glazier work, custodial, locksmith, movers, and equipment calibration. Key interfaces of Maintenance Services are nuclear facilities of other contractors, with the exception of those under the scope of DOE contracts with BNI or PNNL. Another Hanford Site prime contractor, Johnson Controls, Inc. (JCI), maintains and operates the 300 Area centralized air compressors and provides steam to support heating and other operations at the Hanford Site. HMIS Infrastructure and Site Services maintains and operates the "main loop" utilities, such as water, electric, and sewer, except for the 300 Area where PNNL operates and maintains water and sewer. The interface points are defined in applicable contractor ICDs. For nuclear and radiological facilities, the individual facilities maintain the utilities and may do maintenance on electrical systems on the facility side of transformers (i.e., low voltage work). High voltage work (to the transformers and including the transformers) is performed by HMIS; non-radiological/non-construction facilities for CPCCo are maintained by HMIS. The TOC receives limited facility services; the TOC receives and provides input to HMIS for refrigerated equipment service, custodial services, and movers service.

HMIS employees accessing nuclear facilities will comply with the entry/exit requirements established by the facility; as appropriate, HMIS will coordinate with the facility and participate in integrated work planning for work involving facilities services and utilities. The OHCs have a responsibility to identify those HMIS-provided services essential for maintaining the nuclear facility safety authorization basis or nuclear safety requirements. For HMIS services that have been identified by other contractors as potentially impacting nuclear safety, HMIS will maintain those services as agreed to via contract documents (e.g., contracts, MOAs, SDDs, AIAs, and/or ICDs).

2.4 Environmental

2.4.1 Environmental Program & Regulatory Compliance and Environmental Field Support

In accordance with the HMESC, HMIS shall establish an environmental program that is compliant with applicable laws, regulations, DOE directives, and the Section H Clause entitled, "Environmental Responsibility." Responsibilities include Site-wide management, administration, integration, permitting, and compliance in coordination with other Hanford Site contractors; HMIS-specific work scope for environmental permitting and compliance; and near and far field environmental monitoring performed by HMIS Environmental Surveillance. Although environmental monitoring is primarily conducted in areas outside of nuclear facilities, situations may arise that require environmental monitoring to be conducted in nuclear facilities, particularly outdoor nuclear facilities (e.g., Tank Farms, WIDS sites). In the event that HMIS employees require entry into nuclear facilities, they will comply with the entry/exit requirements established for the facility (e.g., Radiological Work Permits [RWP], Job Hazard Analysis [JHA], Radiological Access Control [RAC], facility/shift manager notification/authorization, and/or training requirements).

2.4.2 Biological Controls

HMIS operates the Integrated Biological Control Program (IBC) for the Hanford Site. Biological controls are a service to control and minimize noxious weeds, industrial weeds, other vegetation, and animal pests. This is achieved using an integrated approach employing multiple techniques to achieve targeted control objectives.

The IBC performs services across the Hanford Site. One of the primary missions of the program is to control the spread of contamination through biological vectors. In this effort, the IBC interacts with every nuclear facility for control of vegetation and animal pests. Biological control services will be conducted as specified in contract documents (e.g., contracts, SDDs, and/or AIAs). In the event HMIS employees require entry into nuclear facilities, they will comply with the entry/exit requirements established for that facility.

3.0 NUCLEAR SAFETY POLICY

The following section denotes HMIS's nuclear safety policy. Section 3.1 describes how nuclear safety management applies to HMIS, and Section 3.3 describes the policy for nuclear safety compliance and self-reporting.

3.1 HMIS Nuclear Safety Management

No HMIS or HMIS subcontractor person may take or cause to be taken any action inconsistent with the requirements of 10 CFR 830. HMIS may be subject to enforcement actions under the provisions of the *Price-Anderson Amendments Act of 1988 (PAAA)*, (as amended), including the imposition of civil and criminal penalties in accordance with 10 CFR 820, *Procedural Rules for DOE Nuclear Activities*, Section 820.11, *Information Requirements*, and U.S. Department of Energy's Office of Enforcement, *Enforcement Process Overview*, for HMIS violation of these requirements. HMIS will maintain complete and accurate records as necessary to substantiate compliance with the requirements of 10 CFR 830.

It is the responsibility of the contractor that designs, maintains, or operates the nuclear facility to establish the work control system and nuclear safety management requirements for the facility. This may include work review, work authorization, operational readiness review, maintenance of safety authorization basis documents, identification of safety class and safety significant structures, systems, and components (SSCs), Unreviewed Safety Question (USQ) process, and TSRs. It is the responsibility of each contractor who operates and maintains a nuclear facility to develop a formal agreement regarding required interface and coordination between HMIS for ensuring USQ screening prior to the performance of Managed Tasks within the other contractors' nuclear facility(s). The primary objectives are as follows:

- Ensure USQ review of HMIS work (Managed Tasks) to be performed within the other contractors' controlled facilities is completed in a timely fashion and in accordance with applicable requirements.
- Eliminate redundant USQ reviews.
- Provide for completion of USQ reviews prior to check-in for the purpose of conduct of work.
- Provide clarity, by defining the process to be used for determining whether a USQ review has been completed, and/or when further USQ review is required.

It is HMIS policy to perform work in accordance with the safety basis for a nuclear facility, and in particular, with the hazard controls that ensure adequate protection of workers, the public, and the environment. It is HMIS policy to follow the work control and nuclear safety management requirements established by the responsible contractors that design, maintain, and operate Hanford Site nuclear facilities. It is also HMIS policy to comply with the nuclear safety requirements established by the responsible contractor for major changes or modifications to a nuclear facility. HMIS will coordinate with the responsible facility contractor to ensure work is conducted in compliance with their applicable facility-specific nuclear safety requirements, including radiological controls for below HC 3 facilities/activities.

3.2 Endorsed Procedures

Endorsed procedures are documents that are HMIS-owned procedures that are endorsed for use by the OHCs, at their sites and in their facilities. The OHCs reserve the right to review any

new or revised endorsed procedures and are required to provide any USQ evaluations needed to ensure that the work performed in accordance with the procedure does not affect the safety basis for any nuclear facility.

HMIS does not have a Nuclear Safety program, its documents are not automatically in compliance with 10 CFR 830.203 and it is for this reason that HMIS and the OHCs must work cooperatively to ensure the HMIS managed documents which the OHCs use are evaluated prior to use, to ensure compliance with their nuclear safety requirements.

Examples of types of documents that are currently endorsed are the Site Wide Standards and Level I, II, III procedures owned by Safeguards and Security, the Hanford Fire Department, and Environmental Integration Services.

The process for reviewing endorsed procedures is guided by HMIS-PRO-MS-589, *HMIS Procedures and Related Documents*. The list of endorsed procedures can be found on the HMIS Procedure webpage in the HMIS Endorsed Procedures Review Matrix.

3.3 Unreviewed Safety Question (USQ) Process

10 CFR 830.203, *Unreviewed Safety Question Process*, outlines the requirements which the OHCs must follow in accordance with their contracts to ensure any proposed change(s) to the facility safety basis will not affect the safety basis, either explicitly or implicitly.

The existence of a USQ does not mean that a facility or operation is unsafe. If a change is proposed or a condition is discovered that could increase the risk of operating a facility beyond that established in the current safety basis, DOE line management reviews and determines the acceptability of that risk through the process of approving a revised safety basis that would be developed and submitted by the contractor.

10 CFR 830.203 is implemented using contractor procedures for ensuring that proposed changes to physical characteristics or technical procedures (e.g., operating, test, surveillance, maintenance, and emergency procedures) are evaluated relative to the approved safety basis and that those proposed changes determined to involve USQs are brought to the attention of DOE for review and approval before changes are made.

A proposed change or test involves a USQ if:

- The probability of the occurrence or the consequences of an accident or the malfunction of equipment important to safety previously evaluated in the documented safety analysis could be increased
- The possibility of an accident or malfunction of a different type than any evaluated previously in the documented safety analysis could be created, or
- A margin of safety could be reduced

The NSP directs not only HMIS but the OHCs to ensure that all procedures used and activities performed in nuclear facilities receive a USQ screening prior to performing the work in a nuclear facility, in order to ensure compliance with 10 CFR 830.203.

3.4 HMIS Change Management Process

The Change Management (USQ Like) process, employed by HMIS, ensures that proposed changes to below HC 3 facilities cannot increase the radioactive inventory or alter its form and distribution in a manner that would cause the HC 3 threshold to be exceeded. The process applies a graded approach to protect the key assumptions underlying the hazard categorization to ensure that this does not happen.

Proposed changes to a below HC 3 facility include plans, work packages, procedure changes, or facility modifications, for example. Most such changes are planned and conducted consistent with the planned operation of the facility as evaluated in the hazard categorization. Thus, proposed changes will typically have little or no potential to impact the facility hazard categorization. The change management process relies upon the Responsible Manager (RM) (or delegate) to identify instances where an impact might occur. Potential impacts are then reviewed by a Nuclear Safety authorized evaluator to determine whether there is an actual impact that would require an update to the hazard categorization (and possibly DOE approval) before the proposed action can take place. The RM/delegate must be sufficiently familiar with the controls and conditions/assumptions needed to protect the below HC 3 designation as documented in the compliance matrix to determine when there is potential for an impact warranting a formal evaluation.

3.5 HMIS Nuclear Safety Compliance and Self Reporting

Nuclear safety requirements are established in 10 CFR 830, Subpart A, *Quality Assurance*, and Subpart B, *Safety Basis Requirements*. Compliance with applicable nuclear safety requirements is mandatory for all HMIS employees, as well as HMIS subcontractors.

HMIS employees and subcontractors are expected to promptly self-identify and report nuclear safety non-compliances to HMIS management. Non-compliances and non-conformances affecting a specific nuclear facility also will be reported immediately to the responsible Facility Manager of that nuclear facility. Working with the responsible Facility Manager of the affected nuclear facility, HMIS management and employees are expected to identify causes, establish and implement effective corrective actions to prevent future recurrence, and track these corrective actions to closure. For Noncompliance Tracking System (NTS) reportable non-compliances, the issue and required actions are tracked on NTS. For non-NTS reportable non-compliances, the issue and required actions are tracked on the HMIS corrective action tracking system.

By complying with applicable nuclear safety requirements, promptly self-reporting potential non-compliances, and implementing timely and effective corrective actions to address identified causes, HMIS will maintain an effective nuclear safety compliance program that promotes nuclear safety and continuous improvement; enhances protection of workers, the public, and the environment; and mitigates potential enforcement activity.

3.6 HMIS Occupational Radiation Protection

Although radiological facilities are below the HC 3 threshold for nuclear facilities, radiological facilities are considered within the scope of 10 CFR 835. The HMIS policy for compliance with 10 CFR 835, *Occupational Radiation Protection*, follows.

> *No HMIS or HMIS subcontractor person may take or cause to be taken any action inconsistent with the requirements of 10 CFR 835, or any program, plan, schedule, or other process established by 10 CFR 835. HMIS may be subject to enforcement actions under the provisions of PAAA in accordance with 10 CFR 820. HMIS maintains its own RPP, which defines the scope of applicability of 10 CFR 835 for HMIS. When performing work at radiological facilities and areas maintained by other contractors, HMIS employees, and subcontractors will comply with the requirements of the contractor's RPP.*

4.0 NSP ROLES AND RESPONSIBILITIES

This section identifies key mechanisms and specific roles and responsibilities. Key mechanisms for maintaining compliance with nuclear safety requirements include:

- Identification of clear roles and responsibilities for nuclear safety
- Maintenance of and compliance with the facility DSA
- Identification of safe boundaries and hazard controls credited for providing the safety basis for the nuclear facility
- Implementation of effective emergency response
- Implementation of an effective work control system
- Completion of required training prior to work
- Compliance with required entry controls (Beryllium Work Permits (BWPs)/RWPs, etc.)
- Prompt identification, reporting, tracking, and effective corrective actions for nuclear safety non-compliances.

4.1 Hanford Site Prime Contractor Roles and Responsibilities

The following nuclear safety management roles and responsibilities apply to Hanford Site prime contractors for work conducted by HMIS employees at nuclear facilities designed, maintained, or operated by Hanford Site prime contractors.

1. Maintain a nuclear safety management program and quality assurance program that is compliant with 10 CFR 830.

2. Maintain the nuclear facility DSA, as approved by the appropriate DOE office through regular updates and a compliant USQ process.

3. Identify safe boundaries and hazard controls credited for providing the safety basis for the nuclear facility.

4. Maintain an RPP that is compliant with 10 CFR 835; clearly delineate scope of applicability, and roles and responsibilities under 10 CFR 835.

5. Review all work/activities to be performed by HMIS in and around the nuclear facility, perform the USQ process, identify controls, and notify HMIS of work that has the potential to impact the functionality of SSCs or other elements of the safety basis.

6. Consistent with the terms of its prime contract, ensure work performed within the boundary of the safety basis is performed in compliance with the applicable nuclear safety basis requirements at the affected facility. Each party is responsible for performing their work on systems/facilities assigned to them in accordance with approved contract documents.

7. Implement an effective work control system that implements elements of ISMS and includes work authorization/release, entry/exit controls, required training, identification of hazards, and controls.

8. Review and release HMIS work within nuclear facilities or work that could impact nuclear facilities in accordance with the prime contractor work control process.

9. For major changes or modifications to nuclear facilities conducted by HMIS, include the HMIS work scope as part of prime contractor readiness assessments, operational readiness reviews, and/or start-up notification reports.

10. Inform HMIS of requirements for performing quality affecting services for the prime contractor.

11. Jointly with HMIS employees, implement effective emergency management program in accordance with DOE/RL-94-02 and DOE-0223, and identify additional roles and responsibilities as necessary in contract documents (e.g., contracts, MOAs, SDDs, AIAs, ICDs).

12. Jointly with HMIS employees, implement effective Safeguards and Security programs and identify additional roles and responsibilities as necessary in contract documents.

13. Identify those HMIS-provided services that are essential for maintaining the nuclear facility safety authorization basis or nuclear safety requirements. Assume prime responsibility to coordinate with HMIS for developing contract documents (e.g., contracts, MOAs, SDDs, AIAs, ICDs) that identify how these services will be maintained and the physical interfaces for systems operated by HMIS that are required to maintain the nuclear safety basis of their facility. Apply USQ process to screen

changes to services activities that have been identified as potentially impacting nuclear facilities.

14. For transportation and packaging of radioactive material meeting the threshold for requiring a DSA, conduct these activities in compliance with appropriate quality assurance requirements and applicable DOT 49 CFR regulations and DOE/RL-2001-36 and referenced safety authorization basis documents therein for on-Site or off-Site transportation, as appropriate.

4.2 HMIS Roles and Responsibilities

The following nuclear safety management roles and responsibilities apply to HMIS for work conducted in and around nuclear facilities designed, maintained, or operated by other contractors.

1. Maintain the NSP, necessary nuclear safety procedures, and a quality assurance program that is compliant with 10 CFR 830.

2. Maintain an RPP that is compliant with 10 CFR 835; clearly delineate HMIS scope of applicability, and roles and responsibilities under 10 CFR 835.

3. Train HMIS employees and subcontractor staff that procedure compliance is mandatory, including work being performed according to a work package [referred to as an Integrated Work Plan (IWP) within the HMESC]. If errors or problems are noted in the IWP, work is stopped, management is consulted, and the IWP is changed per the change control process prior to resuming work.

4. Notify the responsible contractor prior to working in and around nuclear facilities; ensure all work performed by HMIS at nuclear facilities is screened by the responsible contractor for nuclear safety.

5. Perform work within the safe boundaries and hazard controls such that the safety basis of the nuclear facility and the functionality of SSCs is not negatively impacted. Each party is responsible for performing their work on systems/facilities assigned to them in accordance with contract documents.

6. Coordinate with the responsible contractor and comply with the work control system, including: work authorization/release, entry/exit controls, required training, and work within controls. Ensure work is released through the contractor's work control process prior to performing work in nuclear facilities.

7. For major changes or modifications to nuclear facilities conducted by HMIS, participate in contractor readiness assessments and operational readiness reviews, and ensure start-up notification reports are coordinated with the responsible contractor.

8. Provide information as requested by the responsible contractor for HMIS performing quality affecting services and perform quality affecting services in accordance with specified quality and technical requirements.

9. Jointly, with other responsible contractor employees, implement effective Emergency Management program in accordance with DOE/RL-94-02, and identify additional roles and responsibilities as necessary in contract documents, (e.g., contracts, MOAs, SDDs, AIAs, ICDs).

10. Jointly, with other responsible contractor employees, implement effective Safeguards and Security programs, and identify additional roles and responsibilities, as necessary, in contract documents.

11. For HMIS-provided services and activities that have been identified by other responsible contractors as potentially impacting nuclear safety, maintain those services as agreed to via contract documents (e.g., contracts, MOAs, SDDs, AIAs, ICDs); ensure changes to HMIS-provided services that have been identified as potentially impacting nuclear facilities are submitted to the responsible contractor for review in the USQ process.

12. For transportation and packaging of radioactive material meeting the threshold for requiring a DSA, conduct these activities in compliance with appropriate quality assurance requirements and applicable DOT 49 CFR regulations and DOE/RL-2001-36 and referenced safety authorization basis documents therein for on-Site or off-Site transportation, as appropriate.

13. Identify, report, and track nuclear safety non-compliances that resulted from work performed by HMIS employees and subcontractors. Non-compliances and non-conformances affecting a specific nuclear facility will also be reported immediately to the responsible Nuclear Facility Manager. Before resuming work following a nuclear safety non-compliance, the HMIS Project Manager for the activity must receive authorization to proceed from the responsible Nuclear Facility Manager.

4.3 HMIS Subcontractor Roles and Responsibilities

Flow-down of requirements to HMIS subcontractors is performed through the HMIS Subcontractor Procurement and Management Process. Subcontract documents require conformance to this NSP when a subcontracted scope of work includes performing work in and around a nuclear facility.

Subcontractor management is required to:

1. Implement and comply with the NSP as part of the subcontract.

2. Implement and comply with the nuclear safety requirements specified in the IWP governing the specific work.

3. Flow down this NSP to subcontractors, as applicable.

5.0 REFERENCES

10 CFR 820, *Procedural Rules for DOE Nuclear Activities*, as amended.
10 CFR 830, *Nuclear Safety Management*, as amended.
10 CFR 835, *Occupational Radiation Protection*, as amended.
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DOE/RL-94-02, *Hanford Emergency Management Plan*, U.S. Department of Energy, Richland Operations Office, Richland, Washington, as amended.
DOE/RL-2001-36, 2017, *Hanford Site wide Transportation Safety Document*, U.S. Department of Energy, Richland Operations Office, Richland, Washington, as amended.
DOE-0223, *Richland Operations Office Emergency Plan Implementing Procedures*, U.S. Department of Energy, Richland Operations Office, Richland, Washington, as amended.
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