THE NATION'S URANIUM PROCESSING FACILITY

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Effective Date

Implements Quality Requirements			
☒ None	☐ BNI	☐ CNS	☐ BNI and CNS

REVISION LOG

Revision 5	☒ Major intent ☐ Minor intent ☐ Non-intent

- This revision is the result of a periodic review and addresses issues identified in DPR-UPF-CP-202-04.
- This revision is also in response to Condition Report 25774-000-GCA-GAM-02253, *CM/GD Periodic Review Indicates Document Revision Needed – UPF-CP-202*.
- An evaluation determination has been performed confirming that this Command Media implements no quality requirements, as tracked in the Programmatic Requirements Management System (PRMS).
- This revision is a complete rewrite with extensive changes.
- UCN-23353, *Safety Data Sheet (SDS/MSDS) Evaluation Form,* was changed with this revision.
- Updated acronym list.
- Editorial changes.
- Because of the extent of changes, revision bars are not shown.

Revision 4	☒ Major intent ☐ Minor intent ☐ Non-intent

- This revision is a complete re-write. Therefore, no revision bars are shown.
- This revision further establishes requirements for purchasing, managing, and using chemicals.

Previous revisions on record.

CONTENTS

1.0 INTRODUCTION....4
1.1 Purpose....4
1.2 Scope....4
2.0 RESPONSIBILITIES....4
2.1 Site Manager....4
2.2 Bechtel National Inc. Environmental Safety &Health Manager....4
2.3 Field Procurement Manager....4
2.4 ES&H Representative....4
2.5 Supervisor....5
2.6 Subcontract Technical Representative....5
2.7 Hazardous Material Requestor....5
2.8 Hazardous Material Custodian....5
2.9 Training Representative....5
2.10 Project Personnel....6
3.0 PROCESS....6
3.1 Hazardous Material Procurement Request Evaluation....6
3.2 Hazardous Material Procurement....7
3.3 Hazardous Material Receiving....7
3.4 Hazardous Material Withdraw....7
3.5 Hazardous Material Storage....7
3.6 Hazardous Material Inventory....8
3.7 Labeling of Hazardous Materials....8
3.8 Use and Disposal of Hazardous Materials....9
3.9 Hazard Communication Training....9
4.0 RECORDS....9
5.0 REFERENCES....10
5.1 Source References....10
5.2 Interfacing References....10
6.0 SUPPLEMENTAL INFORMATION....10
APPENDIX A Acronyms and Definitions....11
APPENDIX B Container Labeling Instructions....14
APPENDIX C Hazards Communication Flowchart....15

1.0 INTRODUCTION

1.1 Purpose

This procedure establishes the requirements for Hazard Communication at the Uranium Processing Facility (UPF) construction sites and support areas.

1.2 Scope

This procedure applies to UPF Project personnel, subcontractors, vendors, and visitors during the course of the Project located at the UPF Construction Site or support area.

2.0 RESPONSIBILITIES

A designee for each named position may perform the responsibilities defined in this procedure.

2.1 Site Manager

The Site Manager is responsible for:

- Ensuring the implementation of this procedure.
- Ensuring that all Project personnel actively participate in their responsibilities as defined in this procedure.
- Providing worker support, facilities, and other resources necessary to effectively carry out this procedure.

2.2 Bechtel National Inc. Environmental Safety &Health Manager

The Bechtel National, Inc. (BNI) Environmental, Safety & Health (ES&H) Manager, in conjunction with the Site Manager, is responsible for:

- Implementing and administering the procedure.
- Periodically monitoring the procurement, storage, and use of hazardous chemicals.

2.3 Field Procurement Manager

The Field Procurement Manager is responsible for ensuring that hazardous materials are handled, received, stored, and disposed in accordance with the requirements of this procedure at the warehouse and/or laydown area.

2.4 ES&H Representative

The ES&H Representative is responsible for:

- Overseeing compliance with the procedure via periodic field inspections.
- Supplying technical advice and interpreting the ES&H requirements pertaining to this procedure.

2.5 Supervisor

The Supervisor is responsible for:

- Confirming that all hazardous chemicals are properly labeled, used, stored, and disposed in accordance with the requirements of this procedure.
- Ensuring that Project personnel have the necessary training related to the use of hazardous chemicals and materials.
- Identifying chemical use and hazardous materials in the job hazard analysis process (CFN-1019, *UPF Work Activity Walkdown*) and pre-task briefings (Safety Task Analysis and Risk Reduction Talk [STARRT] card).
- Responding to Project personnel questions or concerns and making the Safety Data Sheet (SDS) and the written Hazard Communication Program available to them when necessary.

2.6 Subcontract Technical Representative

The Subcontract Technical Representative is responsible for:

- Ensuring that all subcontractors follow the requirements of this procedure.
- Ensuring that UCN-21445, *Subcontractor Hazardous Material Inventory Report,* is completed for the initial and monthly hazardous materials inventory.

2.7 Hazardous Material Requestor

The Hazardous Material Requestor is responsible for:

- Comprehending the requirements of this procedure.
- Ensuring that each requested hazardous material has assigned Record Identifier (RECID).
- Ensuring that UCN-23353, *SDS Evaluation Form,* is completed prior to procuring hazardous materials.

2.8 Hazardous Material Custodian

The Hazardous Materials Custodian is responsible for:

- Performing chemical inventory of their designated control area(s).
- Ensuring compliance with all applicable requirements specified in this procedure related to their designated control area(s).

2.9 Training Representative

The Training Representative is responsible for providing all the necessary training related to Hazard Communication.

2.10 Project Personnel

All Project Personnel are responsible for:

- Handling chemicals and hazardous materials in accordance with the requirements specified in this procedure.
- Reporting any problems or issues/concerns regarding chemicals or hazardous materials to their supervisor.

3.0 PROCESS

3.1 Hazardous Material Procurement Request Evaluation

All hazardous materials and chemical products must be evaluated for hazard potential, possible substitutes, and use, handling, and storage requirements prior to being brought onsite. The exceptions are standard office/kitchen cleaning supplies, medical supplies, and toner products used in photocopy machines (but those SDSs still must be submitted to ES&H and filed in the SDS database).

Prior to procurement of hazardous materials, the following steps must be followed:

1. The Hazardous Material Requestor sends their request to SDSEvaluation@cns.doe.gov, providing a current SDS (revision must be current within five years) and the completed Section 1 of UCN-23353. The Hazardous Material Requestor may also submit supplemental documents to aid the evaluation process, such as a Project data sheet, specifications, vendor catalog, etc.
2. The ES&H Representative reviews the submitted documents and cross-references the approved chemical list. The request is automatically approved and the completed UCN-23353 is submitted back to the Hazardous Material Requestor if the hazardous material was already approved and if the newly submitted scope of work does not pose a higher risk compared to the previously approved scope of work.

When the request has not been previously evaluated, the ES&H Representative references ML-SH-801768-A004, *UPF Restricted Materials List,* to verify that the requested hazardous material does not contain constituents that are on the restricted list. If the requested hazardous material does not contain restricted constituents, the ES&H Representative submits the SDS to the Y-12 National Security Complex (Y-12) Hazardous Materials Information System (HMIS) database requesting a RECID. The ES&H Representative returns the completed UCN-23353, provides the assigned RECID back to the Hazardous Material Requestor, and updates the approved chemical list. Once UCN-23353 is completed, it is uploaded to InfoWorks to document the request, approval, and requirements for handling, storage, and disposal.

If the requested hazardous material contains restricted constituents, the ES&H Representative rejects the procurement and asks the Hazardous Material Requestor to identify a substitute. The procurement process of hazardous materials containing restricted constituents may continue only after the submittal of a technical justification (i.e. the material is specified as the only suitable material for the scope of work).

3.2 Hazardous Material Procurement

3.2.1 Direct Hire Requestor

Once approved by the ES&H Representative, the Direct Hire Requestor proceeds with the procurement/purchase process as specified by Y17-95-64-844, *UPF Construction Field Material Requisitions and Purchasing*, the completed UCN-23353 is attached to the Field Material Requisition (FMR), the SDS for the product is attached to the FMR, and the UCN-23353 InfoWorks document number is included in the line item description (both long and short description). During the approval process in Bechtel Procurement System (BPS), the ES&H Representative will verify that the UCN-23353 InfoWorks document number is referenced in both the long and short material descriptions.

3.2.2 Subcontractor Requestor

The Subcontractor Requestor procures the approved hazardous material in accordance with all of the subcontract-specific procurement requirements and keeps a copy of the completed UCN-23353, along with the assigned RECID, as evidence of ES&H review.

3.3 Hazardous Material Receiving

Materials are received and examined in accordance with Y30-95-809, *UPF Field Procurement Material Receiving*. For incoming line items containing a UCN-23353 InfoWorks document number in their material description, the Project Materials Manager, or designee, accesses InfoWorks or BPS to locate the completed SDS Evaluation Form and ensures that that hazardous material is handled in accordance with the instructions stated thereof. The hazardous material is checked for proper containerization and labeling and is moved to a designated storage area. In the event of missing UCN-23353 and/or SDS with assigned RECID, the Project Materials Manager or designee must contact the Hazardous Material Requestor and/or the ES&H Representative to locate the missing documents. The hazardous materials are placed on hold in a designated area until the UCN-23353 and SDS with assigned RECID are made available.

3.4 Hazardous Material Withdraw

Withdraw and issuance of materials is performed in accordance with Y30-95-811, *UPF Field Procurement Material Withdrawal*. For incoming line items containing a UCN-23353 InfoWorks document number in their material description, the Material Withdrawal Request (MWR) requestor accesses InfoWorks or BPS to locate the completed SDS Evaluation Form and ensures that the hazardous material is handled in accordance with the instructions stated thereof.

3.5 Hazardous Material Storage

Hazardous materials must be stored in containers compatible with the material and in a way that protects human health and the environment from unintended exposure to the hazards associated with the materials. Storage areas for hazardous materials must be reviewed and approved by ES&H prior to receipt of materials at the site.

Criteria for the location of suitable storage areas include:

- Located away from high traffic areas onsite and reasonably protected from potential vehicle/equipment damage by guardrails, fences, or other structural controls
- Secured and/or controlled access, so that only authorized (e.g., trained) personnel may remove and use the materials
- Located away from fence-line locations near environmentally sensitive resources (e.g., parks, wetlands, and streams), storm drains, etc.
- Have adequate secondary containment in the form of an impermeable surface surrounded by curbing or equivalent means to minimize release of spilled product
- Capable of segregating combustible and flammable materials from oxidizing agents and other sources of ignition
- Have a means to prevent water-reactive and pyrophoric materials from contacting accumulated water
- Protected from temperature extremes and inclement weather when they could affect the properties of the hazardous material.

A “first in, first out” storage strategy must be used to help ensure that material does not expire and become a waste product. Storage must be performed in accordance with the completed UCN-23353 and SDS requirements, paying attention to storage temperatures, to prevent product degradation and thus waste generation. Storage areas must be kept organized so materials can be properly inspected, inventoried, and segregated considering their compatibility.

An ES&H Representative may provide additional guidance on the location, design, and maintenance of hazardous material storage.

3.6 Hazardous Material Inventory

All hazardous materials that are received, stored, and used onsite are listed in the HMIS. This database may be used by the Hazardous Materials Custodian and the ES&H Representative to generate inventory reports, to cross-reference the database when requests for procurement are submitted, to update the control areas inventory, etc. Inventory of stored hazardous materials must occur at a frequency appropriate for the risk and rate of material purchase and use, at minimum quarterly. The HMIS database can be accessed via this link: https://ctsappv.y12.doe.gov/ords/f?p=CTSHMIS:117401. Supervision may query the database, make hard copies of the SDSs associated with their scope of work (chemical use identified in the Job Hazard Analysis formulation process, CFN-1019), and make them available to the affected Project personnel.

3.7 Labeling of Hazardous Materials

Labeling of hazardous materials shall be in accordance with **Appendix B, *Container Labeling Instructions.***

Project Personnel may transfer hazardous materials from a bulk container to a suitable portable container for immediate use during their shift only. Appropriate labels must be attached to the portable container. The temporary container may not be used for material storage beyond the time of the Project personnel’s shift.

Pipes and piping systems, engines, fuel tanks, and operating systems in vehicles are not considered containers and therefore are not strictly required to comply with these same labeling requirements.

Individual stationary containers (e.g., storage tanks) must have signs, placards, or other appropriate signage attached to them that contain the same information as a manufacture's original label.

3.8 Use and Disposal of Hazardous Materials

Use of hazardous materials shall be in accordance with the completed UCN-23353 for the given product/chemical.

Disposal of hazardous materials shall be in accordance with the completed UCN-23353 for the given product/chemical and in accordance with PL-SH-801768-A002, *Construction Waste Management Plan for the Uranium Processing Facility*.

3.9 Hazard Communication Training

The Training Representative provides specific Hazard Communication training for applicable Project personnel.

Initial information and training regarding the elements of the Hazard Communication Program, in conjunction with other site-specific training, is provided during new employee orientation.

Hazard awareness is maintained via follow-up briefings, toolbox meetings, and pre-job briefings. The focus of these briefings is to address new hazards or information on task-specific hazards that have been identified and communicated through the work control process (CFN-1019).

4.0 RECORDS

Records generated by this procedure shall be maintained in accordance with Y15-95-800, *UPF Document Management*. Record types for documents submitted to the UPF Document Management Center (DMC) are identified in ML-PS-801768-A001, *Uranium Processing Facility Project Master Document Type List*. Quality type is listed as Quality-Lifetime (QA-L), Quality-Nonpermanent (QA-NP), or Non-Quality (Non-QA).

Records generated during the performance of this procedure include:

Record or Form Number	Record Title	Record Holder	System/ Location	Quality Type
UCN-21445	*Subcontractor Hazardous Materials Inventory Report*	UPF DMC	InfoWorks	Non-QA
UCN-23353	*Safety Data Sheet (SDS/MSDS) Evaluation Form*	UPF DMC	InfoWorks	Non-QA

5.0 REFERENCES

5.1 Source References

10 CFR 851, *Worker Safety and Health Program*

American Conference of Governmental Industrial Hygienists, *ACGIH Threshold Limit Values (TLVs) and Biological Exposure Indices (BEIs)*

Bechtel Core Process 202, *Hazard Communication*

UPF-CP-225, *Compressed Gas Cylinders, Liquefied Petroleum Gas, and Liquefied Inert Gases*

5.2 Interfacing References

CFN-1019, *UPF Work Activity Walkdown*

ML-PS-801768-A001, *Uranium Processing Facility Project Master Document Type List*

ML-SH-801768-A004, *UPF Restricted Materials List*

PL-SH-801768-A002, *Construction Waste Management Plan for the Uranium Processing Facility*

Y15-95-800, *UPF Document Management*

Y17-95-64-844, *UPF Construction Field Material Requisitions and Purchasing*

Y30-95-809*, UPF Field Procurement Material Receiving*

Y30-95-811, *UPF Field Procurement Material Withdrawal*

Y73-181PD, *Hazardous Materials Management Program Description*

6.0 SUPPLEMENTAL INFORMATION

Appendix A, *Acronyms and Definitions*

Appendix B, *Container Labeling Instructions*

Appendix C, *HazCom Flowchart*

APPENDIX A
Acronyms and Definitions

(Page 1 of 3)

Acronyms

BNI	Bechtel National, Inc.
BPS	Bechtel Procurement System
DMC	Document Management Center
ES&H	Environmental, Safety & Health
FMR	Field Material Requisition
GHS	Global Harmonization System
HMIS	Hazardous Materials Information System
MWR	Material Withdrawal Request
PO	Purchase Order
RECID	Record Identifier
SDS	Safety Data Sheet
STARRT	Safety Task Analysis and Risk Reduction Talk
UPF	Uranium Processing Facility
Y-12	Y-12 National Security Complex

Definitions

Bechtel Procurement System (BPS)	Bechtel's material management database system used for documenting the requisition, purchase, receipt, inventory, and issuance of bulk and tagged components throughout the life of a project; includes management of blanket purchase orders, expediting, inventory control, traffic, and logistics tracking
Carcinogen	For the purpose of this procedure, a carcinogen is defined as a substance or a mixture of substances that can induce cancer or increase its incidence.
Chemical	Any substance or mixture of substances
Container	Any bag, barrel, bottle, box, can, cylinder, drum, reaction vessel, storage tank, or the like that contains a hazardous chemical **NOTE:** *Pipes or piping systems, engines, fuel tanks, or other operating systems in a vehicle are not considered to be containers.*
Exposure	An incident where an employee is subjected to a hazardous chemical in the course of employment through any route of entry (e.g., inhalation, ingestion, skin absorption); includes potential exposure
Foreseeable Emergency	Any potential occurrence such as, but not limited to, equipment failure, rupture of containers, or failure to control equipment that could result in an uncontrolled release of a hazardous chemical into the workplace
Hazard Category	The division of criteria within each hazard class (e.g., oral acute toxicity and flammable liquids include four hazard categories) to compare hazard severity within a hazard class; should not be taken as a comparison of hazard categories more generally
Hazardous Chemical	Any chemical that is classified as a physical hazard, health hazard, simple asphyxiant, combustible dust, pyrophoric gas, or hazard not otherwise classified

APPENDIX A
Acronyms and Definitions

(Page 2 of 3)

Hazardous Material Inventory	A list of chemical SDSs, products, or materials that are planned to be used for work and are maintained by the UPF Project and UPF subcontractors or their lower-tier subcontractors
Hazardous Materials Information System (HMIS)	The Y-12 HMIS is an electronic tracking system to collect inventory data for use in controlling, managing, and reporting hazardous materials and selected chemicals and their associated SDSs. (Refer to Y73-181PD, *Hazardous Materials Management Program Description*.)
Health Hazard	A chemical that is classified as posing one of the following hazardous effects: acute toxicity (any route of exposure), skin corrosion or irritation, serious eye damage or eye irritation, respiratory or skin sensitization, germ cell mutagenicity, carcinogenicity, reproductive toxicity, specific target organ toxicity (single or repeated exposure), or aspiration hazard
Immediate Use	The quantity of a hazardous chemical transferred from its labeled container by one person, kept under the control of that person, and used within the work shift in which it was transferred
Label	An appropriate group of written, printed, or graphic information elements concerning a hazardous chemical that is affixed to, printed on, or attached to the immediate container of a hazardous chemical or the outside packaging
Label Elements	The specified pictogram, hazard statement, signal word, and precautionary statement for each hazard class and category
Material Withdrawal Request (MWR)	A document generated in BPS, or manually, to withdraw material from a project storage area or warehouse; includes all of the pertinent information for issue, such as date required, item description, quantity requested, etc.
Material/Product Requestor	The Product/Material Requestor is any worker (UPF direct hire or subcontractor) who works to obtain a product/material from an outside source.
Mixture	A combination or solution composed of two or more substances in which the substances do not react
Physical Hazard	A chemical classified as posing one of the following hazardous effects: explosive, flammable (gases, aerosols, liquids, or solids), oxidizer (liquid, solid, or gas), self-reactive, pyrophoric (liquid or solid), self-heating, organic peroxide, corrosive to metal, gas under pressure, or emits flammable gas when in contact with water
Product Identifier	The name or number used for a hazardous chemical on a label or in the SDS that provides a unique means by which a user can identify the chemical
Safety Data Sheet (SDS)	A document prepared by the manufacturer of a product or material that provides information on the safe use, handling, and potential hazards of the product or material; can be obtained from the manufacturer or supplier of the product/material
Safety Data Sheet Database	A centralized and electronic storage location for evaluated SDSs available through Consolidated Nuclear Security at Y-12

APPENDIX A
Acronyms and Definitions

(Page 3 of 3)

Simple Asphyxiant	A substance or mixture that displaces oxygen in the ambient atmosphere and can, thus, cause oxygen deprivation in those who are exposed, leading to unconsciousness and death
Worker	For the purposes of this procedure, a worker is an individual who may be potentially exposed to hazardous chemicals under normal operating conditions or in foreseeable emergencies. Workers who encounter hazardous chemicals only in non-routine, isolated instances are not covered.

APPENDIX B
Container Labeling Instructions

A.1 Manufacturer's Requirements

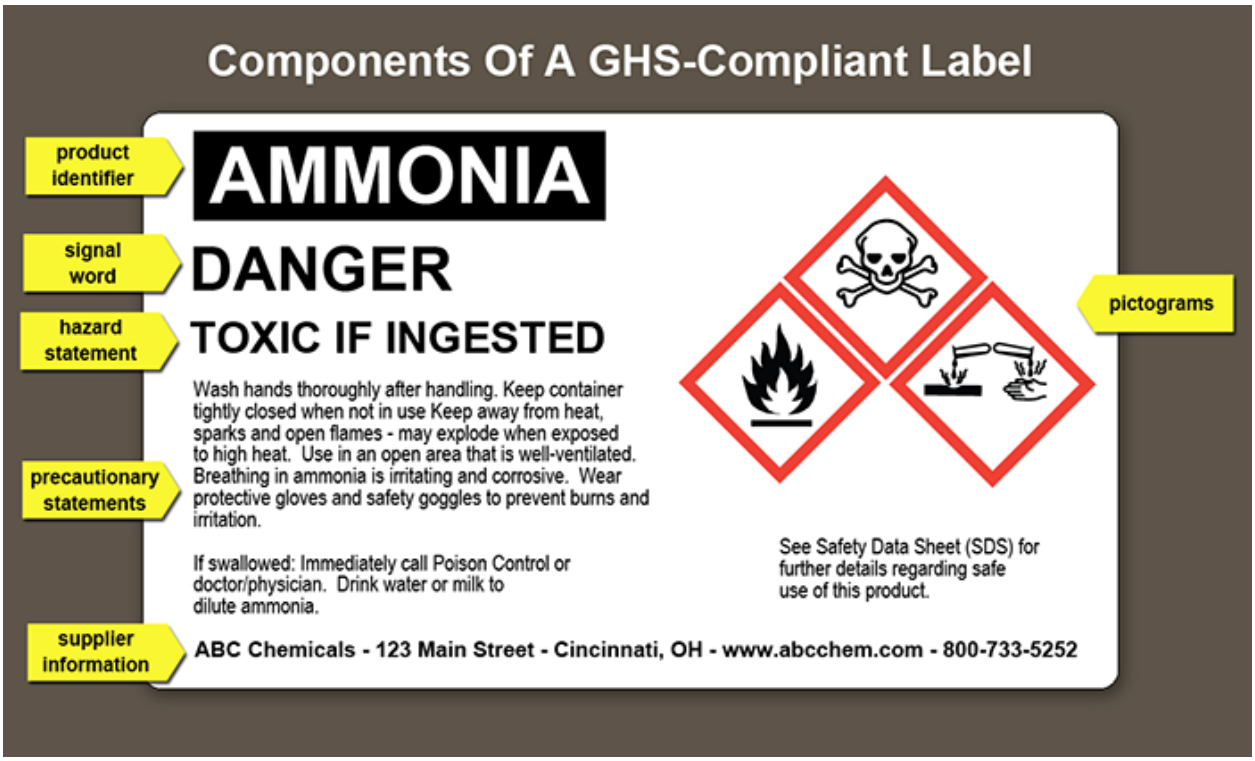
The Occupational Safety and Health Administration requires that all chemical manufacturers, importers, and distributors ensure that each container of hazardous chemicals leaving their facilities is labeled, tagged, or marked with the following: product identifier; signal word; hazard statement(s); pictogram(s); precautionary statement(s); and name, address, and telephone number of the chemical manufacturer, importer, or other responsible party.

NOTE: *Container labeling, as provided by the chemical manufacturer, distributor, or importer, is recommended to be used if available. If there are any questions about the information on the label or in the SDS, contact ES&H for guidance. If the original label is defaced, removed, or illegible, then replace it with a new label that has the appropriate information from the manufacturer's SDS.*

A.2 Secondary/Transfer Container Requirements

The Global Harmonization System (GHS) went into effect on December 1, 2015. Containers, including chemical containers received from the manufacturer, shall be labeled as required by the GHS.

A secondary container label shall meet the requirements of the GHS. Labels shall have the Product Identifier and words, pictures, symbols, or a combination thereof that can provide employees with the specific information regarding the physical and health hazards of the hazardous chemical.



https://www.general-data.com/ghs-labeling-software

APPENDIX C
Hazards Communication Flowchart