THE NATION'S URANIUM PROCESSING FACILITY

Preparer:

06/30/26

Manelle Bourechak Koutani
Deputy Project Field Engineer — Date

Approval:

Gerald (Ed) Hearne — 07/08/26

Gerald E. Hearne
UPF Fire Protection Field Engineer — Date

07/06/26

Paul N. Chapman for Phillip J. Tarbox
UPF Startup Manager — Date

D. Leshko for P.Chapman

06/30/26

Robert C. Drake
UPF ES&H Manager, BNI — Date

07/02/26

Justin R. Swanson
UPF Site Manager — Date

07/07/26

Richard A. Holmes
UPF Project Director — Date

07/08/2026

Effective Date

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This document has been reviewed by a Y-12 DC/ RO and has been determined to be UNCLASSIFIED, not UCNI, and contains no CUI based upon current classification guidance. This review does not constitute a review for CUI outside of classification guidance and does not constitute clearance for Public Release.
Name: James Blanton Date: 07/07/26

REVISION LOG

Revision 16

☒ Intent ☐ Non-Intent Implements PRMS Requirements: ☒ Yes ☐ No

- These changes are in response to Condition Report 25774-000-GCA-GAM-05559, *Finding #1: Deficiencies With Emergency Egress, Exits and Fire Doors (CAA-SH-801768-FY26-019)*
  - Replaced Section 2.9 *Roving Fire Watch* with *Barricade Monitor*
  - Removed reference to Impairment Process in 1.2, *Scope*
  - Removed Section 1.3 *Temporary Compensatory Measures*
  - Removed fourth bullet and last bullet in Section 2.4, *BNI Fire Protection Field Engineer* referencing impairments
  - Added new bullet in Section 4.3, *Means of Egress*, to include Barricade Monitor
  - Removed Impairment references in Section 4.5, *Fixed Firefighting Equipment*
  - Removed last three bullets in Section 4.7, *Fire Cutoffs*
  - Removed Section 5.1, *Roving Fire Watch*
  - Removed UCN-23488 from Records Section, 8.0 and Forms Section, 9.3
  - Added Barricade Monitor to Appendix A and removed Roving Fire Watch
  - Added new Dedicated Individual to Definitions and removed Impairment
- No forms have been edited as part of this revision
- Other changes include:
  - Updated references and acronyms
  - Editorial changes

Revision 15

☒ Intent ☐ Non-Intent Implements PRMS Requirements: ☒ Yes ☐ No

- No forms have been edited as part of this revision
- Changed Fire Protection Engineer to Fire Protection Field Engineer throughout
- Clarified Responsibilities throughout Section 2.0, Responsibilities
- Added Note to Section 2.4, BNI Fire Protection Field Engineer
- Added Section 4.8, Fire Alarm Control Panel
- Added Note 1 to Section 5.1
- Other changes include:
  - Updated references and acronyms
  - Editorial changes

Previous revisions on record

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1.0 INTRODUCTION

1.1 Purpose

This Procedure provides fire prevention and protection guidelines and requirements to protect workers and property at the Uranium Processing Facility (UPF) construction site implementing the applicable requirements of Y79-001, *Y-12 Fire Protection Program Manual;* and Y79-006PD, *Fire Protection Program.*

1.2 Scope

This Procedure applies to all personnel at the UPF during the Bechtel National, Inc. (BNI) scope of work for the Project.

This Procedure is applicable during all phases of construction, and may include some startup and testing activities, for the UPF. UPF buildings that have completed beneficial occupancy and have been handed over to Consolidated Nuclear Security, LLC (CNS) Operations care, custody, and control are outside the scope of this Procedure and shall fall under Y79-001. For operational and leased facilities refer to Y17-95-64-910, *UPF Fire Protection for UPF Operational/Leased Facilities*.

2.0 RESPONSIBILITIES

2.1 UPF Site Manager

The UPF Site Manager is responsible for:

- Implementing and enforcing requirements of this Procedure
- Providing personnel, support facilities, and other resources necessary to effectively implement this Procedure

2.2 UPF Project Startup Manager

The UPF Project Startup Manager (PSUM) is responsible for accepting work from Construction, and:

- Implementing and enforcing the requirements in this Procedure as it applies to Startup work scope
- Providing personnel, support facilities, and other resources necessary to effectively implement this Procedure
- Ensuring inspection, testing and maintenance are performed for Fire protection systems pending turnover from Startup to Operations

2.3 Environmental, Safety, and Health Manager, BNI

The BNI Environment, Safety, and Health (ES&H) Manager is responsible for:

- Providing technical support/information with respect to the safety-related aspects of this Procedure

NOTE: *The BNI ES&H Manager will fulfill responsibilities of the Fire protection program manager (National Fire Protection Association [NFPA] 241,* Standard for Safeguarding Construction, Alteration, and Demolition Operations*, Section 7.2.4) from a functional aspect and delegate those duties as appropriate.*

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- Providing field support related to Fire prevention and protection measures identified in this Procedure
- Acting as the point of contact for all issues or concerns during the construction process, including transfer to Startup ownership

2.4 BNI Fire Protection Field Engineer

The BNI Fire Protection Field Engineer (FPFE) is responsible for:

- Providing support to the lead Fire investigator as requested
- Having interpretation authority over this procedure
- Providing technical support related to Fire protection and prevention issues, construction work practices, life safety requirements, hazard evaluations, and compliance with applicable codes and standards
- Determining Fire protection and prevention measures required for building or partial building occupancy
- Coordinating with the Design Authority-Fire Protection and/or the Contractor Authority Having Jurisdiction (CAHJ) any items in which an interpretation is required concerning Fire protection/prevention

NOTE: *In the BNI FPFE absence the BNI Fire Protection Engineer design group (BNI FPE) can assume the BNI FPFE responsibility.*

2.5 Design Authority Fire Protection Representative

The Design Authority Fire Protection Representative serves as the point of contact for the CAHJ. The Design Authority Fire Protection Representative performs the CAHJ delegated activities/responsibilities as permitted by COL-NNSA-NPO-PM-801768-A281, *Delegation of Fire Protection Authority Having Jurisdiction Responsibilities for the Y-12 National Security Complex*.

The Design Authority Fire Protection Representative is responsible for interpreting Fire protection codes and standards in accordance with the above delegation letter and with PL-RM-801768-A001, *UPF Design Code of Record*.

2.6 Construction Distributables Manager

The Construction Distributables Manager (hereinafter referred to as Construction Distribs Manager) is responsible for:

- Ensuring Fire extinguishers are provided, properly maintained, and inspected
- Maintaining a sufficient supply of Fire extinguishers and providing a means to inventory them (refer to **Section 4.4, *Portable Firefighting Equipment***)

2.7 Discipline Superintendent/Facility Test Lead

The Discipline Superintendent/Facility Test Lead is responsible for implementing requirements identified in this Procedure on the UPF construction site and supporting areas, including:

- Planning work activities to identify potential hazards and taking the appropriate steps to mitigate those hazards
- Monitoring site conditions daily and implementing remedial actions as required

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2.8 Supervisor/Discipline Test Lead

The Supervisor/Discipline Test Lead is responsible for:

- Ensuring unsafe conditions or behaviors are corrected/controlled
- Addressing housekeeping, access/egress, and storage and staging of materials in accordance with this Procedure
- Monitoring site conditions daily and implementing remedial actions as required

2.9 Barricade Monitor

A Barricade Monitor (BM) shall be a member of the work crew and is responsible for:

- Having knowledge of the work scope to ensure the work scope is placed in a safe configuration prior to dropping the barricade.
- Wearing an orange vest to distinguish between other crew members
- Managing danger barricade gates that impede exit and/or exit discharge in the event of an emergency.
- If there are multiple exits and/or exit discharges, the use of multiple BMs will be required.
- Items include barricades affecting egress doors to exit stairwells and doors leading to the exterior of the building in the Patrol Main Process Building (MPB), Personnel and Support Building (PSB), and Salvage and Accountability Building (SAB).

3.0 EMERGENCY RESPONSE

3.1 Fire Occurrence

In the event of a Fire, personnel are primarily responsible for evacuating themselves and others safely from the Fire area. The discoverer of the Fire shall perform or direct the following three immediate actions:

Step 1 Yell “FIRE” to notify those in the immediate vicinity.

Step 2 Notify the Y-12 National Security Complex (Y-12) OC by:

- Activating a Fire alarm (pull box), if available
- Calling 911 from a Y-12 landline
- Calling Y-12 OC at (865) 574-7172 from a cell phone
- Utilizing Y-12 Plant Radio – Go to the Y PSS channel
- Contacting the supervisor/superintendent and providing any information regarding the Fire and its location (to be forwarded to the Y-12 OC)

NOTE 1: *Use the phonetic alphabet when calling the OC to avoid confusion identifying the building location.*

Step 3 Only after reporting the Fire, personnel may voluntarily attempt to fight a small, early-stage Fire using an available portable Fire extinguisher. This voluntary action should be taken only if personnel believe it is within their capability to safely extinguish or contain the Fire, a safe escape route is readily available, and there is no immediate danger.

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NOTE 2: *Signage is provided throughout the construction site(s) to reinforce the above reporting steps.*

3.2 Pre-Fire Plans

Pre-Fire plans for the UPF construction site(s) are developed and maintained by the Y-12 Fire Department (FD) with input from UPF Project personnel.

The CNS ES&H Manager coordinates routine monthly site visits by the Y-12 FD to ensure pre-Fire plans are updated to account for changing site conditions.

For daily Operations that may impact FD response the following tools are available for communication with the FD; Startup Plan of the Day, Construction Plan of the Day, ES&H Daily Information Sheet.

3.3 Fire Investigations

All Fire-related incidents shall be promptly reported to the OC. Incidents determined to be a Fire by the CNS FPE and the Y-12 Fire Department Incident Commander shall be promptly investigated in accordance with Y79-001. Once the incident commander from the Y-12 Fire Department has secured the scene in a safe configuration, then unauthorized entry shall be controlled and evidence shall be protected. Cleanup of the Fire scene shall not be performed until after the Fire investigation has been completed. Non-Fire events will be investigated in accordance with UPF-CP-108, *UPF Event Management and Investigation*.

4.0 FIRE PROTECTION

NOTE: *All UPF facilities are protected with fire suppression systems that are monitored through a third-party fire detection system until the EST4 FIR system becomes active.*

4.1 Access to Buildings under Construction or Startup Control

Maintain roadways for Fire apparatus access to each building or area, having:

- An all-weather driving surface
- At least 20 feet of unobstructed width
- A minimum vertical clearance of 13 feet, 6 inches
- The ability to withstand the loads of Firefighting apparatus

Do not obstruct the required width of the access roadway in any manner, including obstruction caused by parked vehicles.

Post and maintain No Parking signs, other appropriate notices, or both, prohibiting obstruction.

Extend access roadways to within 150 feet of all portions of exterior walls for the first story of any building.

Barricade or otherwise mark roadways that do not meet these requirements.

Communicate changes of established roadways to the Y-12 FD for inclusion in pre-Fire plans.

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Communicate changes of established roadways with BNI FPFE. BNI FPFE will communicate changes to the Y-12 FD for inclusion in pre-Fire plans.

4.2 Access for Firefighting

Ensure clear walkways in facilities under construction, at all times, in accordance with NFPA 101, *Life Safety Code®.*

Provide at least two lighted enclosed stairways in all buildings over one story in height, that is in usable condition, at all times with access to each floor.

Post all exit stairs with identification signs that include the floor level and stair designation.

Maintain clear access to all available Firefighting equipment.

4.3 Means of Egress

Ensure the following egress requirements are met in every building and structure:

- Ensure at least two exits are provided that have unobstructed egress from all parts of the building or structure that discharge to a safe location
- Ensure exits are illuminated and have proper signage for egress
- Ensure locks or fastenings that can prevent free escape from inside the building are not installed
- Ensure all exit stairs are provided with stair identification signs indicating floor level, stair designation, and exit path direction as required to provide for safe egress
- Ensure if a danger barricade is blocking an egress door that a BM is located at the entrance gate of the danger barricade in the event of an emergency
- Maintain means of egress free of all obstructions or impediments for use in case of Fire or other emergency

4.4 Portable Firefighting Equipment

Ensure the following portable Firefighting equipment requirements are met, as applicable:

- Establish maps for each building under construction to identify portable Fire extinguisher placement, location, and type

NOTE: *Fire extinguisher maps are reviewed and approved by the BNI FPFE to ensure proper sizing and spacing of Fire extinguishers*

- Provide Fire extinguishers on each floor; in multi-story buildings, locate at least one Fire extinguisher adjacent to each stairway and include self-propelled equipment, in accordance with NFPA 241, *Standard for Safeguarding Construction, Alteration, and Demolition Operations*
- Inspect and maintain all portable Fire extinguishers in accordance with NFPA 10, *Standard for Portable Fire Extinguishers*; and **Appendix B, *Monthly Inspection and Annual Maintenance Fire Extinguisher Inspection Requirements***
- Use only Fire extinguishers listed or Approved by a nationally recognized testing laboratory
- Replace Fire extinguishers immediately after discharge with another Fire

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extinguisher that is fully charged and of the proper size and type

- The Construction Distribs Manager, or delegate, will maintain a master list of all Fire extinguishers utilized on the Project
- Transient Fire extinguishers are issued through ToolHound™ electronic database (UCN-23356, *UPF Fire Extinguisher Check-Out Log*, may be used as a backup in the event ToolHound is unavailable). Fire extinguishers must be inspected monthly in accordance with NFPA 10

4.5 Fixed Firefighting Equipment

All suppression systems are active. Refer to Y15-95-928, *UPF Startup Fire Impairment Process*

4.5.1 Hydrants

- Provide and maintain free access from the street to Fire hydrants and to outside connections for standpipes, sprinklers, or other Fire extinguishing equipment, whether permanent or temporary
- Do not construct protective pedestrian walkways so they impede access to hydrants
- Do not interfere with access to hydrants, FD/Firehose connections, or Fire extinguishing equipment (e.g., material, construction equipment)
- Provide signage or flagging to indicate which hydrants are in service

4.6 Water Supply

Ensure an adequate water supply for Fire protection, either temporary or permanent, is made available. The supply shall be capable of the volume, duration, and pressure required to operate fixed Firefighting equipment.

4.7 Fire Cutoffs

Ensure the following Fire cutoff requirements are met, as applicable:

- If the facility being constructed includes Fire walls, Fire doors, and exit stairways, then ensure the completion of those systems follows construction completion, and the systems are placed in service as soon as practicable

4.8 Fire Alarm Control Panel

Fire Alarm Control Panel Alarm initiated by a device such as a smoke detector, heat detector, pull station, or pressure switch due to water flow shall only be silenced and reset by a Y-12 Fire Fighter. The purpose of the alarm is to (A) notify individuals of a fire danger and to exit the building and (B) prevent individuals not aware of an alarm from entering the building in the event of a fire or an event that might be an immediate danger to life or health.

A qualified individual performing work on the Fire Alarm Control Panel (e.g., inspections, testing, or maintenance) can silence an alarm when the alarm is intentionally initiated during testing. In addition, qualified technicians and qualified Startup personnel can silence supervisory and trouble signals.

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5.0 FIRE PREVENTION

5.1 Hot Work

Refer to Y17-95-64-877, *UPF Hot Work Permit*, for Fire protection and prevention measures during welding, cutting, and Hot Work.

5.2 Ignition Hazards

Handle ignition hazards as follows:

- Install electrical wiring and equipment for light, heat, or power purposes in accordance with UPF-MANUAL-CM-001, *Uranium Processing Facility Construction Electrical Safety Manual*
- Do not smoke unless in a designated smoking area in accordance with UPF-POLICY-CM-004, *UPF Smoking/Tobacco Use Policy*
- Locate exhausts of internal combustion engine-powered equipment away from Combustible materials

5.3 Construction Material and Equipment Staging

Although not required, it is recommended to stage incidental piece parts contained in cardboard cartons when stored in closable metal cabinets (i.e., clam shell cabinets) or when properly protected and covered by Project-approved Fire blanket or equipment.

To the extent possible, materials used for temporary construction purposes inside buildings/structures shall be of the Fire-resistive type.

Quantities of Combustible materials staged for imminent use inside buildings under construction shall not deviate from practices established by the BNI FPFE and Approved by the CAHJ. Weekly walkdowns captured in CHEKHOV (ES&H - Focus Check - Fire Safety Inspection) shall be monitored by BNI FPFE.

Maintain at least a 36-inch clearance between the top level of the stored material and the sprinkler deflectors.

Do not store material within 36 inches of a door opening.

5.4 Waste Disposal

Remove accumulations of Combustible waste material, dust, and debris at the end of each work shift or more frequently (as necessary).

Dispose of materials susceptible to spontaneous ignition (e.g., oily rags) in a listed disposal container.

Trash chutes shall be constructed of noncombustible materials or Fire retardant, and plans must be Approved by the CAHJ prior to use.

5.5 Scaffolding, Shoring, and Forms

Ensure the following requirements for scaffolding, shoring, and forms are met:

- Prevent the accumulations of unnecessary Combustible scaffold or form lumber
- Bring Combustible forms or lumber into a structure only when needed

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- Remove Combustible forms or lumber from the structure as soon as stripping is completed

5.6 Temporary Enclosures

Ensure only non-Combustible panels, flame-resistant tarpaulins, or Approved materials of equivalent Fire-retardant characteristics are used for Temporary Enclosures. The term “enclosures” also includes panels or materials used to protect equipment, such as dust covers or moisture protection.

5.7 Walk Up Data Stations

Walk Up Data Stations can only be established with approval by contacting the BNI FPFE to get approval from the CAHJ.

NOTE: *These requirements pertain to hoteling locations and other similarly equipped stations as determined by the CAHJ*

Walk Up Data Stations shall not be used for permanent occupancy and used only for its intended purpose during construction.

Walk Up Data Stations shall be provided with noncombustible furniture.

5.8 External Storage Areas

Ensure External Storage Areas meet the following criteria:

- Pile Combustible materials with due regard to the stability of the piles, but no higher than 20 feet
- Keep the storage areas free from accumulation of unnecessary Combustible materials, keep weeds and grass down, and provide periodic cleanup of the entire area
- Do not store Combustible material outdoors within 30 feet of a building or structure
- Provide portable Fire extinguishing equipment suitable for the Fire hazard involved at convenient, conspicuously accessible locations in the External Storage Areas

5.9 Flammable and Combustible Liquids

5.9.1 General Requirements

Use only Project-approved storage cabinets, containers and Portable Tanks for storage and handling of Flammable and Combustible liquids.

Use only Approved safety cans or Department of Transportation-Approved containers for the handling and use of Flammable Liquids in quantities of five gallons or less. The only exception to this requirement is for Flammable liquid materials that are thick and highly viscous (extremely hard to pour), which may be used and handled in original containers.

Do not stage Flammable or Combustible liquids in areas used for exits, stairways, or areas normally used for the safe passage of people or within 35 feet of an exit.

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5.9.2 Storage of Flammable and Combustible Liquids

Designated Flammable and Combustible liquid storage areas (bulk storage) outside of unprotected buildings shall be Approved by the BNI FPFE. No Flammable or Combustible liquids may be stored inside unprotected buildings.

Provide only Approved metal storage cabinets that meet the requirements of NFPA 30, *Flammable and Combustible Liquids Code*, 2012 Edition.

Label cabinets with conspicuous lettering “Flammable—Keep Fire Away.”

Label portable bulk tanks and containers with the applicable NFPA 704, *Standard System for the Identification of the Hazards of Materials for Emergency Response*, placard.

Locate designated Flammable/Combustible liquid storage areas 50 feet or greater from unprotected buildings.

Hot Work or open flames shall not be allowed in Approved Flammable and Combustible liquid storage areas.

Keep Approved Flammable and Combustible liquid storage areas free from weeds, debris, and Combustible materials not necessary to the storage.

NOTE: *Additional requirements for storage areas and inventory of hazardous materials are established in Y73-181PD,* Hazardous Materials Management Program*.*

5.9.3 Handling at the Point of Final Use

NOTE 1: *The NFPA Glossary of Terms defines “Handling” as “The deliberate movement of material by any means to a point of storage or use”.*

Class I and Class II liquids shall be kept in Approved safety containers.

Means shall be provided to dispose of leakage and spills promptly and safely.

Flammable and Combustible liquids shall be handled only where there are no open flames or other sources of ignition within the possible path of vapor travel.

Flammable and Combustible liquids shall be kept in closed tanks or containers when not actually in use.

Class I liquids (or Class II and Class III liquids that are heated up to or above their flash points) shall be drawn from or transferred into vessels or containers as follows:

- From original shipping containers with a capacity of five gallons or less
- From Project-approved dispensing device (i.e., plunger cans)

Ensure adequate natural or mechanical ventilation is provided in the area of operation.

NOTE 2: *Industrial Hygiene ventilation requirements for the protection of personnel are more restrictive than ventilation requirements pertaining to Fire protection and prevention (i.e., maintaining concentrations below 25% of the Lower Flammable Limit (LFL) vs. maintaining concentrations below the Occupational Exposure Limit [OELs]). The applicable Job Hazard Analysis (JHAs) and Safety Data Sheet (SDS) Evaluation*

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Forms outline the work controls necessary during the handling of flammable and combustible liquids.

5.9.4 Refueling Activities

Ensure only Approved vehicles are used for refueling activities.

Ensure portable fuel cells/tanks comply with NFPA 30 and are UL Research Institutes listed to include the dispensing hose and nozzle. If fuel cells/tanks are required to be lifted, ensure the tank is rated and approved for hoisting.

Shut off the motors of all equipment being refueled before refueling operations begin.

If pumps are used to refuel, then ensure they are provided with automatic shut-off.

Do not refuel vehicles and/or portable equipment in buildings under construction.

Provide adequate spill preventing and control means.

5.9.5 Flammable and Combustible Gases

Refer to UPF-CP-225, *Compressed Gas Cylinders, Liquefied Petroleum Gas, and Liquefied Inert Gases*, for handling liquefied petroleum gas and other Flammable or Combustible gasses.

5.10 Temporary Heating Devices

Ensure the following requirements for temporary heating devices are met:

- Supply fresh air in sufficient quantities to maintain the health and safety of workers

NOTE: *Contact industrial hygiene to specify the ventilation requirements when setting up temporary heating devices that can impact the indoor air.*

- Ensure temporary heating devices are installed to provide a 36-inch clearance to all material, unless otherwise specified by the manufacturer
- Ensure heaters used in the vicinity of tarpaulins or similar sheet material are located at least 10 feet from the coverings, and the covering is securely fastened to prevent ignition or upsetting the heater as a result of wind or severe weather
- Ensure heaters, when in use, are set horizontally level unless otherwise permitted by the manufacturer's markings
- Do not use solid fuel salamanders or temporary heating equipment using exposed radiant heating wires
- Ensure Flammable Liquid-Fired heaters are equipped with a primary safety control to stop the flow of fuel in the event of flame failure. Barometric or gravity oil feed is not considered a primary safety control
- Ensure heaters designed for barometric or gravity oil feed are used only with integral tanks

Use and maintain temporary heating equipment in accordance with the manufacturer's instructions.

- Ensure portable heaters, regardless of fuel source, are equipped with an Approved automatic device to shut off the flow of gas to the main burner and pilot, if used, in the event of flame failure

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- Ensure heaters having inputs above 50,000 Btu per hour are equipped with either a pilot, which must be lighted and proved before the main burner can be turned on, or an electrical ignition system
- Ensure fuel supplies for liquefied petroleum gas-Fired heaters comply with NFPA 54, *National Fuel Gas Code*; and NFPA 58, *Liquefied Petroleum Gas Code*
- Ensure heating devices are secured and immobile during operation
- Temporary Construction Heating, Ventilating, and Air Conditioning (HVAC) shall be designed to maintain the temperature in the buildings under construction above freezing until the permanent HVAC systems are installed and commissioned

6.0 FIRE PREVENTION/PROTECTION SELF-INSPECTIONS

Project personnel can perform and document informal observations utilizing Chekhov supporting the leadership engagement efforts. Formal assessments (i.e., UPF Project personnel assessing the implementation of this Procedure will be performed on a predetermined schedule in accordance with Y60-95-803, *UPF General Assessments*. The triennial programmatic assessments will be performed in accordance with E-SD-2004.

7.0 WORK PHASE TRANSITION/HAZARD ANALYSIS

As the work phases transition in each facility/building (i.e., construction to startup), the changes in the hazards will be evaluated by the PSUM and BNI FPFE to determine additional Fire prevention controls and practices, including:

- Fire protection systems
- Fire detection and communication
- Life safety and egress
- Y-12 FD response and access
- Housekeeping and control of Combustibles
- Control of ignition sources
- Rapid Communication
- Consideration of special hazards
- Protection of existing structures and equipment from exposure Fires

8.0 RECORDS

Records generated by this Document shall be maintained in accordance with Y15-95-800, *UPF Document Management*.

The following records are generated:

Record or Form Number	Record Title	System/ Location	Document Type
Document Specific	*ToolHound Fire Extinguisher Final Report (UCN-23356 may be used in the event ToolHound is unavailable)*	InfoWorks	RP

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9.0 REFERENCES

9.1 Source References

10 CFR 851, *Worker Safety and Health Program*

29 CFR 1926, Subpart F, *Fire Protection and Prevention*

Bechtel Core Process 211 2HC-E0S0-00211-000, *Fire Prevention and Protection*

DOE-STD-1066-2012, *Fire Protection*

E-SD-2009, *Integrated Safety Management Program - Incorporating Worker Safety and Health Program Requirements*

NFPA 13, *Standard for the Installation of Sprinkler Systems*

NFPA 70, *National Electrical Code®*

UPF-CP-227, *UPF Safety Watches*

Y60-95-015, *Uranium Processing Facility Software Quality Assurance*

9.2 Interfacing References

COL-NNSA-NPO-PM-801768-A281, *Delegation of Fire Protection Authority Having Jurisdiction Responsibilities for the Pantex and Y-12 National Security Complex*

NFPA 10, *Standard for Portable Fire Extinguishers*

NFPA 25, *Standard for the Inspection, Testing, and Maintenance of Water-Based Fire Protection Systems*

NFPA 30, *Flammable and Combustible Liquids Code*

NFPA 54, *National Fuel Gas Code*

NFPA 58, *Liquefied Petroleum Gas Code*

NFPA 72, *National Fire Alarm and Signaling Code®*

NFPA 101, *Life Safety Code®*

NFPA 241, *Standard for Safeguarding Construction, Alteration, and Demolition Operations*

NFPA 251, *Standard Methods of Tests of Fire Resistance of Building Construction and Materials*

NFPA 704, *Standard System for the Identification of the Hazards of Materials for Emergency Response*

PL-RM-801768-A001, *UPF Design Code of Record*

ROD-CM-801768-A006, *Record of Decision - BNI Direct Hire to Perform Annual External Examination of UPF Fire Extinguishers*

ROD-EZ-801768-A003, *Fire Suppression Systems Plan for Activation*

UPF-CP-108, *UPF Event Management and Investigation*

UPF-CP-214, *Barricades and Signs*

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

UPF-MANUAL-CM-001, *Uranium Processing Facility Construction Electrical Safety Manual*

UPF-POLICY-CM-004, *UPF Smoking/Tobacco Use Policy*

Y15-95-800, *UPF Document Management*

Y15-95-928, *UPF Startup Fire Impairment Process*

Y17-95-64-910, *UPF Fire Protection for UPF Operational/Leased Facilities*

Y17-95-64-877, *UPF Hot Work Permit*

Y60-95-803, *UPF General Assessments*

Y73-181PD, *Hazardous Materials Management Program*

Y79-001, *Y-12 Fire Protection Program Manual*

9.3 Forms

UCN-23356, *UPF Fire Extinguisher Check-Out Log*

10.0 SUPPLEMENTAL INFORMATION

Appendix A, *Acronyms and Definitions*

Appendix B, *Monthly Fire Extinguisher Inspection Requirements*

Appendix C, *UPF Fire Protection System Outage/Impairment/Deficiency Tag*

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APPENDIX A
Acronyms and Definitions

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Acronyms

BM - Barricade Monitor 7
BNI - Bechtel National, Inc. 5
BNI FPE - BNI Fire Protections Engineer design group..... 6
CAHJ - Contractor Authority Having Jurisdiction 6
CNS - Consolidated Nuclear Security, LLC 5
ES&H - Environment, Safety, and Health Manager 5
FPFE - Fire Protection Field Engineer..... 6
HMIS -Hazard Material Information System 21
JHA - Job Hazard Analysis.....14
LFL - Lower Flammable Limit.....14
MPB - Main Process Building..... 7
NFPA - National Fire Protection Association 5
OEL - Occupational Exposure Limit 14
PSB - Personnel and Support Building..... 7
PSUM - Project Startup Manager..... 5
SAB - Salvage and Accountability Building 7
SDS - Safety Data Sheet 14
UPF - Uranium Processing Facility..... 5
Y-12 - Y-12 National Security Complex..... 7

Definitions

Alarm	A warning of danger. A signal that results from the manual or automatic detection of a fire alarm condition.
Annual	Once per calendar year.
Approved	For the purpose of this Procedure, equipment that has been listed or Approved by a nationally recognized testing laboratory that issues approval for such equipment.
Closed Container	A container so sealed by means of a lid or other device that neither liquid nor vapor will escape from it at ordinary temperatures.
Combustible	Any liquid having a flash point at or above 140º F and below 200º F.
Dedicated Individual	An individual reserved for one specific purpose to ensure safety and reliability with no other duties or tasks (i.e., Fire Watch).
Designated Flammable and Combustible	Any area Approved by BNI FPFE utilized for the storage of Flammable and Combustible liquids in excess of incidental use quantities.

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APPENDIX A
Acronyms and Definitions

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Fire	Unplanned destructive and uncontrolled burning, including detonation and deflagration, as manifested by any or all of the following: flame, heat, or smoke. Fire does not include the following events unless they cause a Fire or occur as a consequence of the event: lightning or electrical discharge; rupture of a pressure vessel not caused by internal combustion; detonation of munitions; overheat (without damage to initiating material); or failure of electric motors and other electrical equipment through overheating and shorting where any visible sparks or flames self-extinguish after power is removed from the device.
Fire Resistance	Resistant to Fire such that, for specified time and under conditions of standard heat intensity, will not fail structurally and will not permit the side furthest from the Fire to become hotter than a specified temperature. For purposes of this Procedure, Fire Resistance is determined by NFPA 251, *Standard Methods of Tests of Fire Resistance of Building Construction and Materials*.
Flammable	Capable of being easily ignited and burning intensely or rapidly.
Flammable Liquids	Any liquid having a flash point below 140º F and having a vapor pressure not exceeding 40 pounds per square inch (absolute) at 100º F.
Hot Work	Work involving burning, welding, grinding, or a similar operation that is capable of initiating Fires or explosions (Does not include the use of electric heat guns, electric soldering irons, or cutting tools that result in an unintentional spark) Work involving burning, welding, grinding, or a similar operation that is capable of initiating Fires or explosions (Does not include the use of electric heat guns, electric soldering irons, or cutting tools that result in an unintentional spark)
Hot Work Area	Encompasses the area defined by the 35-Foot Rule or modified by the PAI. (Does not include the use of electric heat guns, electric soldering irons, or cutting tools that result in an unintentional spark)
Portable Tank	A Closed Container having a liquid capacity more than 60 gallons and not intended for fixed installation.
Supervisory Signal	A signal from a fire alarm system indicating a potential impairment or off normal condition in a component, not a fire. A signal that results from the detection of a supervisory condition.
Temporary Building	Construction-related structures, such as offices, trailers, sheds, or other facilities for the storage of tools and materials intended to remain throughout the construction phase.
Temporary Enclosure	A structure erected to protect equipment/material or support the completion of a construction work task (e.g., welding, coatings application). Typical enclosure types include tents and other membrane-covered structures (e.g., scaffolding).
Trouble Signal	An abnormal condition in a system due to fault. A signal that results from the detection of a trouble condition.
Walk Up Data Stations	Locations inside of the construction area that have computers and printers available to access information and drawings for Project productivity.

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APPENDIX B
Monthly Inspection and Annual Fire Extinguisher Examination Requirements

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Monthly Fire Extinguisher Inspection Requirements

Monthly visual inspections shall be performed on each portable Fire extinguisher and the tag shall be marked/punched to denote that it passed inspection. Any deficiencies shall be corrected on the spot. Damaged or defective Fire extinguishers shall be tagged, removed from service, and replaced with an equivalent operable unit.

Monthly Fire extinguisher inspections requirements are as follows:

Present and Secured	A Fire extinguisher is provided at each location designated by the inventory list.
Accessible	The Fire extinguisher is accessible with an area provided around the extinguisher to allow access to the extinguisher. Also, trash is not placed on or in any component of the Fire extinguisher or blocking access to the extinguisher.
Identification	Permanently installed extinguisher locations are marked with a placard that is mounted above the extinguisher or cabinet and is clearly visible.
Seal Intact	Each pressurized portable Fire extinguisher is provided with a plastic seal. The seal must be intact and not broken to ensure the extinguisher has not been discharged.
Pressure or Volume is Adequate	For extinguishers with a pressure gauge, the needle indicator is within the operable range or position.
Damage	The Fire extinguisher appears in good condition with no obvious physical damage, corrosion, leakage, or clogged nozzle.
Tagged	Check the extinguisher tag to confirm the monthly inspection and Annual maintenance has been completed. Verification dates on the tag shall include the calendar year.

Annual External Examination of UPF Fire Extinguishers

BNI personnel designated to perform the Annual external examinations of portable Fire extinguishers will be briefed, tested, and certified on the examination procedure and requirements in accordance with NFPA 10 and as Approved by the UPF Fire Protection DAR in ROD-CM-801768-A006, *UPF Record of Decision - BNI Direct Hire to Perform Annual External Examination of UPF Fire Extinguishers*. PowerBI will be utilized to generate and maintain a report/list of all BNI personnel that are designated to complete the Annual external examination of UPF Fire Extinguishers.

- Annual external examinations will be conducted by BNI within the calendar year for all portable Fire extinguishers with a date of manufacture of the previous year or older

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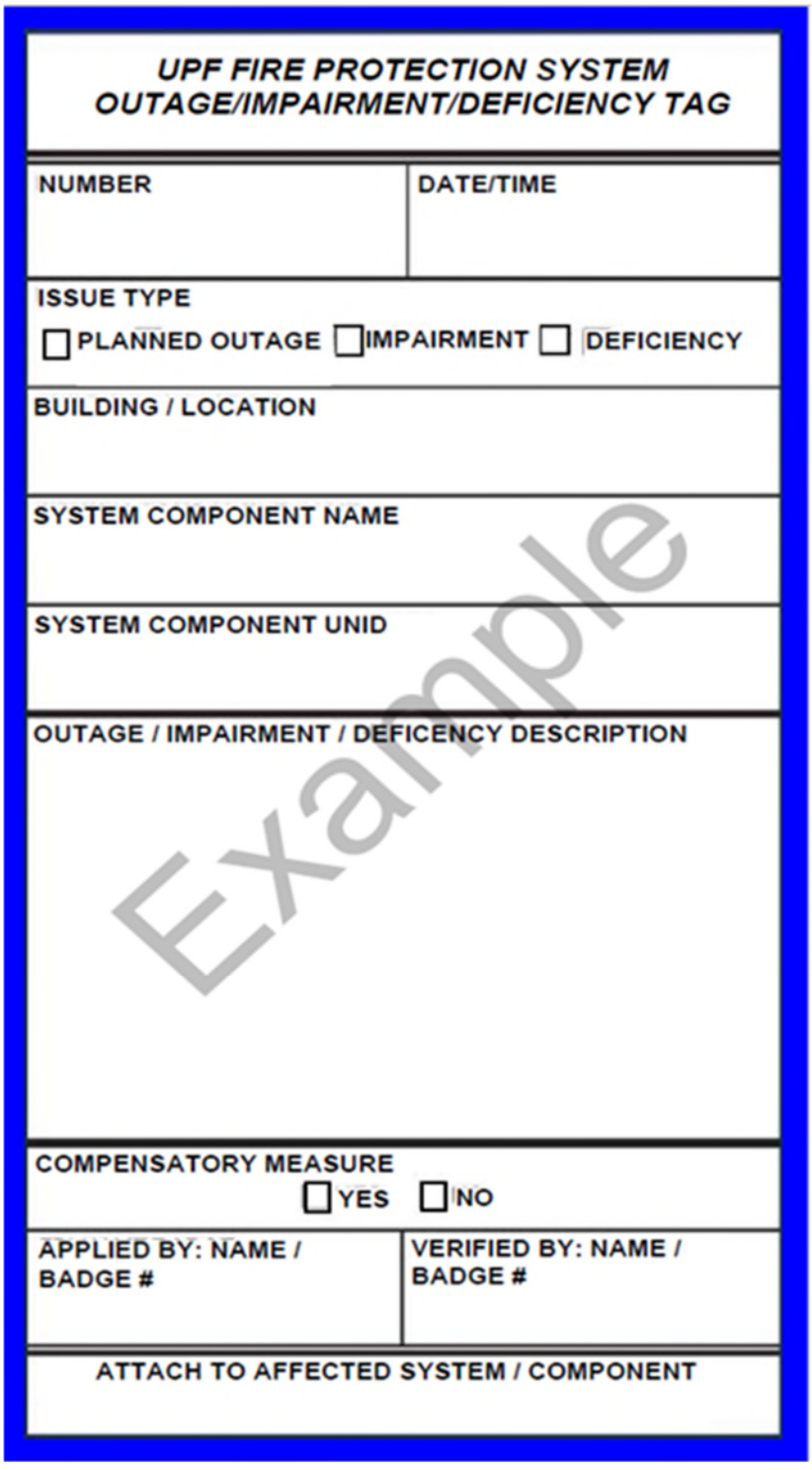
APPENDIX B
Monthly Inspection and Annual Fire Extinguisher Examination Requirements

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- Annual external examination attributes shall comply with NFPA 10, Section 7.3.2:
  - The Hazard Material Information System (HMIS) information is present and legible
  - Determine if a the six-year internal examination or 12-year hydrostatic test is due in accordance with NFPA 10, Table 7.3.3.1
  - Remove the tamper seal by operating the pull pin
  - Install a new tamper seal
  - Damaged or defective Fire extinguishers shall be tagged, removed from service, and replaced with operable extinguishers of the same size and type
- Annual examination Tag and/or seal shall comply with NFPA 10 Section 7.3.4.1.1
- The dates the Annual external examinations were performed will be documented and tracked in ToolHound
- When a portable Fire extinguisher meets the criteria of requiring an internal examination, in accordance with NFPA 10, Distribs organization shall disposition the Fire extinguisher from the UPF Project.

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APPENDIX C
UPF Fire Protection System Outage/Impairment/Deficiency Tag



UPF FIRE PROTECTION SYSTEM OUTAGE/IMPAIRMENT/DEFICIENCY TAG

NUMBER	DATE/TIME

ISSUE TYPE

☐ PLANNED OUTAGE ☐ IMPAIRMENT ☐ DEFICIENCY

BUILDING / LOCATION

SYSTEM COMPONENT NAME

SYSTEM COMPONENT UNID

OUTAGE / IMPAIRMENT / DEFICENCY DESCRIPTION

Example

COMPENSATORY MEASURE

☐ YES ☐ NO

APPLIED BY: NAME / BADGE #	VERIFIED BY: NAME / BADGE #

ATTACH TO AFFECTED SYSTEM / COMPONENT

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