THE NATION'S URANIUM PROCESSING FACILITY

UPF JOB HAZARD ANALYSIS

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JHA NO.:	**JHA-00763**	**REV:**	**1**	**ISSUE DATE:**	**2-28-25**
JHA TITLE:	**Installation of Penetration Sealants**	**WORK PACKAGE NUMBER:**	**N/A**	**SPECIFIC LOCATION:**	**N/A**

Activity	Sub-Activity	Hazard	Control
Hand & Power Tools	Hand, Air and Electrical Tools	Improper Use of Tools/Equipment Laceration/Grinding Wheel Failure Fire Electric Shock Inhalation of Carbon Monoxide, Nitrogen Dioxide, and/or Other Combustion Gases, Chemical Asphyxiation Struck-by Abrasion	Tools used on the UPF construction site shall not be manufactured, altered, modified, or in any way changed without the explicit approval of the UPF Site Manager and ES&H Manager.
			Personnel shall Ensure hand tools are safe by performing the following:
			· Inspecting tools before each use for damage or defects, such as:
			o Cracked handles
			o Damaged cutting edges
			o Splitting or cracked parts
			o Broken adjusting components
			o Insulation damage (e.g., flattened, cuts, abrasions, burnt or discolored
			conductors, melted cord caps, cord deformation)
			· Verifying that the work package identifies non-sparking tools when the work to be
			performed may require them
			· Testing daily ground fault circuit interrupter (GFCI) receptacles prior to use, including
			portable units
			· Verifying tools and their components (e.g., guards, retainers, and other safety mechanisms) are not altered and that they are operated in accordance with the manufacturers' specifications
			· Ensuring guards are in place for tools, such as saws and grinders, while they are in operation
			· Ensuring that tools are not abused, are kept in good operating condition, and are
			only used for their intended purposes
			· Double insulating or grounding all electrically powered tools. If there is evidence that the ground pin has been damaged or removed, then immediately take the tool out of service, tag it, and return it to a controlled area for repair
			· Protecting temporary construction outlets used for 120-volt tools with GFCI devices
			· Inspecting woodworking tools for the following:

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Activity	Sub-Activity	Hazard	Control
			o Fixed power-driven tools have disconnect switches that can be either locked or tagged in the off position
			o Circular saws that are over 20 inches in diameter and/or operated over 10,000 peripheral feet per minute have clearly marked operating speeds
			o Installed automatic feed devices are covered and/or guarded
			· Ensuring that the manufacturer's safe operating pressure for hoses, pipes, valves, filters, and other fittings used for conducting compressed air are not exceeded
			· Ensuring that the pressure of compressed air used for cleaning purposes is less than 30 pounds per square inch. Compressed air shall not be used for cleaning or blowing dust from any part of the body or clothing
			· Securing airline hoses for hand tools and other equipment together (i.e., with whip restraints) to preclude uncontrolled whipping in the event that hose couplings become separated while under pressure
			· Protecting air-supplying hoses exceeding 1/2-inch internal diameter with an excess flow valve to prevent whipping in the event of hose separation or failure
			· Installing air receivers and associated drains, traps, gauges, and safety valves to promote ease of access and safe operation
			· Having personnel Ensure portable grinders are properly configured for either a
			left-handed or right-handed person's use, as applicable
			· Providing portable grinders with a hood-type guard with side enclosures that cover the spindle and at least 50 percent of the wheel. All wheels shall be inspected regularly for signs of fracture
			· Bench grinders shall be equipped with deflector shields and side cover guards that have:

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Activity	Sub-Activity	Hazard	Control
			o A maximum angular exposure of the grinding wheel periphery and sides not more than 90 degrees, except when work requires contact with the wheel below the horizontal plane of the spindle
			o An angular exposure not exceeding 125 degrees
			o An exposure not beginning more than 65 degrees above the horizontal plane of the spindle
			o Have tool rests with a maximum clearance of 1/8-inch between the wheel and grinding stone
			· Hand-held grinders shall be equipped with a constant pressure switch.
			· Supervisors shall Ensure frequent light dressings on bench grinders are performed.
			· When turning on a bench grinder, the users shall stand off to one side until the wheel has come up to full speed.
			· Personnel shall inspect all wheels before use for signs of fracture.
			· Prior to operating a bench grinder, personnel shall conduct a "ring test" (i.e., gently tap the wheel with an object, which should yield a metallic tone or "ring"). If there is a "dead" sound, then take the grinder out of service and replace the wheel
			· Electric bench grinders shall be equipped with an anti-restart feature to prevent restart after an electrical power outage
			· Shop machines (e.g., drill presses, fixed saws, or bench grinders) shall be effectively fastened or secured in place to prevent movement during operation and use.
			· Tool safety retainers shall be installed on portable tools when required by the tool manufacturer (e.g., nail gun retainer).
			· Fuel-powered tools shall not be used in unventilated areas. Fuel shall be dispensed only from approved safety cans. These cans shall be properly labeled and stored.

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Activity	**Sub-Activity**	**Hazard**	**Control**
			· Cutting tools approved for general application are cutters with an integrated safety device (i.e., self/automatic retracting blade) or safety design (i.e., scissors, shears, wire strippers, or recessed/protected blades).
			· Prior to using cutting tools not approved for general use (i.e., fixed blade knives), Ensure the Job Hazard Analysis (JHA) identifies the hazards and controls associated with the use of the tool(s) and that approval is received from the ES&H Manager or designee. The approval shall be documented on the Field Level Hazard Assessment (FLHA) card for the specific task. Refer to Y17-95-64-823, UPF Field Level Hazard Assessment/ Job Hazard Analysis Program (FLHA/JHA) Process.
Manual Material Handling	Manual Material Handling	Muscle Strain/Sprain Ergonomics Pinch Points	· Supervisors will be trained in the basics of manual material handling, hazards and basic controls, and conducting basic risk assessments for material handling work
			· Where manual handling is unavoidable, the supervisor will conduct an informal risk assessment as part of the FLHA process and follow up with employees before work starts
			· Inspect for shifted loads, stored energy, or loose items prior to unloading
			· Keep hands and arms clear when stacking material
			· Remove/protect sharp edges with "softeners" prior to lifting
			· To understand safe lifting limits during manual material handling, refer to OT-SH-801768-A128, *UPF Ergonomics Lifting Guidelines*
Hazardous Material Use	Hazardous Material Storage	Improper Storage of Hazardous Materials Spill Fire	· 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
			· A "first in, first out" storage strategy must be used to help Ensure material does not expire and become a waste product

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			· 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
Hazardous Material Use	Labeling of Hazardous Materials	Inadequate Hazard Communication	· Labeling of hazardous materials shall be in accordance with Appendix B, *Container Labeling Instructions*
			· 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
			· Project Personnel may transfer hazardous materials from a bulk container to a suitable portable container for immediate use during their shift only
			· 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
Hazardous Material Use	Use and Disposal of Hazardous Materials	Contact with Chemicals (adsorption, inhalation, ingestion, Asphyxiation) Improper Disposal of Hazardous Materials	· Contact IH or ES&H Representative if UCN-23353 SDS Evaluation Form is not completed for the specific chemical/product that you are working with
			· Review UCN-23353 and the Safety Data Sheet (SDS) of the chemical/product prior to starting the work
			· Follow the assigned work controls specified in the SDS Evaluation Form
			· 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*

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Dropped Object Prevention	General Requirements	Dropped Objects	Review the applicable work activities and implement the associated work controls listed in **JHA-00715,** *Dropped Object Prevention*
High Noise Activities/Areas (e.g. power tools use)	Hearing Protection - General	Noise	· Refer to UPF-CP-312, *Hearing Conservation Program*, for the selection and use of hearing protection equipment
			· Care includes discarding disposable earplugs when they possess visible signs of uncleanliness. Reusable earplugs and earmuffs must be cleaned and sanitized. Cleaned and sanitized reusable hearing protection must be kept in a clean, dry area
			· Inspect reusable earplugs and earmuffs for wear and tear. Return damaged earmuffs for repair or disposal.
High Noise Activities/Areas (e.g. power tools use)	Hearing Protection - Noise Levels Between Eighty-Five (85) and Ninety-Nine (99) dBA.	Noise	· Refer to ML-SH-801768-A011, *Sound Levels of Common Construction Power Tools*
			· Wear approved single hearing protection devices with a minimum NRR of 21
			· Barricade and Signage:
			o Install caution sign, or caution barricade tape with caution signs or tags requiring hearing protection on the barricade to establish the eighty-five (85) dBA boundary around the work area
			o Contact Industrial Hygiene to evaluate noise levels for new/changed work activities or when working in enclosed areas.
High Noise Activities/Areas (e.g. power tools use)	Hearing Protection - Noise Levels over One-Hundred (100) dBA	Noise	· Reference ML-SH-801768-A011 Sound Levels of Common Construction Power Tools
			· At a minimum, wear single hearing protection devices with NRR of 33 (i.e. red, white and blue foam earbuds) AND ear muffs
			· Contact IH or ES&H Representative if the anticipated noise levels are greater than 114dBA prior to engaging in the activity

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			· Use employee and or job rotation to reduce the time of exposure. When performing activities in enclosed spaces such as enclosed cells, pits, vaults or other similar spaces that may adversely affect noise levels or where multiple noise sources are present contact ES&H for further evaluation
			· Barricade and Signage:
			o Install danger barricade tape with danger signs or tags to identify the one hundred (100) dBA boundary area
			o Identify area outside of danger barricade with caution single hearing protection required signs. Contact IH to evaluate size of these boundaries
			o Contact IH to evaluate noise levels for new/changed work activities or when working in enclosed areas.
Barricades and Signs (Life Critical Activity)	General Requirements	Improper Hazard Communication and Mitigation	Review the applicable work activities and implement the associated work controls listed in **JHA-00712,** *Barricades, PPE, FLHA*
Safety Watch	Process	Emergency	In the event of an emergency, individuals performing Safety Watch duties are to discontinue the assignment and respond to the emergency as required (e.g., Take Cover, Evacuation).
Safety Watch	Confined Space Watch (Attendant)	Confined Space	· A Confined Space Watch, also referred to as an attendant, is required when personnel must enter a permit-required confined space (e.g., vessel, tank, pit,
			excavation).
			Workers assigned as a Confined Space Watches must wear orange vests in accordance with UPF-CP-205.

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Safety Watch	Equipment Watch (Spotter)	Moving Equipment	· The sole purpose of a Spotter is to assist an equipment operator in maintaining adequate clearance between the equipment and hazards. The operator and Spotter(s) will jointly identify and discuss responsibilities, method of communication, location of the Spotter(s), blind spots, and resources needed to execute the task successfully leveraging the Field Level Hazard Assessment (FLHA) process
			· The following practices should be considered when planning the activity:
			o Achieving eye contact and an acknowledgment from the equipment operator before walking near or around heavy equipment
			o Never having Spotters stand within the blind spot of equipment operators or truckers
			o Never allowing personnel to stand within the swing radius of equipment while it is operating
			o Checking around and underneath trucks and equipment for personnel before operating them
Safety Watch	Overhead Safety Watch	Dropped Objects	An Overhead Safety Watch is utilized to protect personnel from hazards created during elevated work. Examples include:
			· Short duration tasks with low-risk for dropped objects or similar hazards (e.g., inspections, moving cords, layout/measurements)
			· Work activities in remote areas that are not heavily populated or congested with pedestrians/personnel and will not be impacted by concurrent work activities (e.g., parking lots, laydown areas, etc.)
			· In conjunction with a barricade for elevated work/overhead hazards (e.g., when 2:1 ratio of barricade cannot be achieved)

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			· Prior to implementing an Overhead Safety Watch, the task/application must be evaluated by the Responsible Superintendent (Discipline Superintendent) and documented on the applicable FLHA for the activity
			· When an Overhead Safety Watch is used, the following will apply:
			o The Overhead Safety Watch must be strategically located to control and restrict all non-essential personnel and vehicular traffic from entering the overhead work area. Multiple Watches may be required for activities with a larger hazard area or work areas with blind spots
			o The Overhead Safety Watch will notify approaching personnel of the overhead hazard and prevent access to areas below overhead work for the duration of the work
			o The Overhead Safety Watch will perform tasks from a safe location and remain clear of line-of-fire hazards created by the elevated work activities
			o If access to a work area below the elevated work is required, the Overhead Safety Watch shall stop the elevated work and have it placed in a safe configuration before allowing workers in the area.
Respiratory Protection	Voluntary Respirator Use	Improper use of Respiratory Protection	Employees approved for voluntary dust mask use shall be provided the information contained in UCN-23310, *UPF Filtering Facepiece Approval/Issue for Voluntary Use*
Lockout/Tagout (Life Critical Activity)	General Requirements	Release of Hazardous Energy Defeating a Safety Device	· Never commence work until all energy sources have been identified and isolated in accordance with procedures
			· Never remove and/or tamper with any tag and/or lock installed for the safety of personnel.
			Lock and tag machinery, equipment, components, and/or systems that may contain any type of stored energy before work begins
			· Eliminate all residual or stored energy before starting any work activities

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			· The LO/TO program prevents the accidental release of hazardous energy such as electricity, compressed gases, liquids, and steam. The LO/TO program includes requirements for tagging, locking, blanking, capping, or blocking of moving mechanical parts, and for isolating electrical systems to prevent their being energized accidentally or without authorization
			· You must be trained on work-specific LO/TO requirements to be authorized to lock or tag out equipment and machinery
			· Never remove and/or tamper with any tag and/or lock installed for the safety of personnel
			· Prior to work, lock and tag machinery, systems, equipment, components, and/or systems that may contain any type of stored energy
			· Identify and eliminate all residual/stored energy prior to any work activities
			· Sign the authorized lockout/tagout EIP permit, as required in accordance with procedures, prior to work activities
			· Do not perform work on any machinery, system, or equipment covered by LO/TO procedures without authorization or approved training
			· Never manipulate any machinery, equipment, or system devices covered by any type of a LO/TO or restricted-use tagging permit without authorization and/or if not in accordance with procedures
			· All panels and circuit breakers shall be easily identifiable with signage and NFPA 70E warning labels
			· Only qualified electrical workers shall perform zero-energy checks using approved test equipment. Appropriately rated arc flash PPE will be used as required by the warning label or engineering calculation

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			· All electrical equipment to be inspected prior to use, any damaged equipment to be removed from service and quarantined. Insulating gloves shall be rated for the hazard, air tested for holes prior to use, and maintained with proper annual testing records
			· Check access and escape routes are clear at all times
Field Level Hazard Assessment (FLHA)	Field Level Hazard Assessment Process	Unidentified and Unmitigated Hazards	· FLHA is a pre-task briefing that must be used daily by crews at the beginning of their work shift or when new tasks are undertaken. It is a process of employee participation to identify and mitigate environmental, safety, and health risks and hazards associated with their planned work that day. The JHA process must not replace, or be a substitute for, the daily FLHA process.
Field Level Hazard Assessment (FLHA)	Implementing Field Level Hazard Assessment	Unidentified and Unmitigated Hazards	Prior to beginning work activities each day or after an extended break or interruption (e.g., shift change, weekend), perform the following:
			· Perform a Walkdown and review the work location with involved personnel
			· Review area hazards to ensure they are identified and hazard controls/mitigations are in place to eliminate/reduce them
			· Ensure there are no new hazards unidentified and uncontrolled by the approved JHA
			Using UCN-23552, perform the following:
			o Conduct a FLHA briefing with the work crew and support disciplines
			o Resolve any issues/concerns with the work crew
			o List and discuss the scope of work, anticipated hazards, and controls/mitigation measures for the work to be performed
			o Ensure personnel document participation in the "Employee" section of UCN-23552
			o Conduct appropriate FLHA briefings when any of the following conditions exist:
			· The work area changes
			· Personnel with different classifications will be working in close proximity

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			· Differing types of work are performed in close proximity
			· The work activity changes
			· The Responsible Superintendent deems it necessary
			· Turn in completed forms (i.e., UCN-23552, UCN-23464, UCN-23544, CFN-1268) as applicable at the end of each shift at the designated collection points. The end of shift review/de-briefing section must be completed before submitting these forms to UPF DMC.
Scaffold Use (Life Critical Activity)	Scaffold User	Unauthorized Use Fall to Elevation Below Slips and Trips	· Never access any scaffold without documented evidence of inspection by a designated Competent Person for scaffolding before each work shift
			· Obey the scaffold requirements at all times
			· Never use any scaffold without a proper tag that displays the current day's date. Scaffold requirements include strict adherence to the color-coded tagging system of red (Danger—Unsafe for Use), yellow (Caution), and green (Safe for Use) tags, as appropriate
			· Never access a red-tagged scaffold. Only authorized scaffold builders are permitted to access a red-tagged scaffold, and they are required to wear fall protection
			· Never access a yellow-tagged scaffold without proper fall protection
			· Consider all scaffolds without tags as red-tagged scaffolds
			· Never alter or modify a scaffold, unless you are a designated Competent Person, who is qualified and authorized to do so
			· Touching-the-tag before each use to ensure a scaffold inspection has been completed for the shift
			· Never access any scaffold without a documented and tagged daily inspection. Inspect the scaffold prior to use, looking for holes in the platform, missing handrails and other potential hazards

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			· Never access a red-tagged scaffold. Only authorized scaffold builders are permitted, and they must wear required fall protection
			· Never access a yellow-tagged scaffold without 100% tie-off or fall protection
			· Indicating on the scaffold request when intended use will require scaffold capacity greater than light duty (i.e., 25 pounds per square foot [psf])
			· Ensuring scaffold is not loaded in excess of its duty rating
			· Maintaining housekeeping and accumulation of materials to prevent dropped objects
			· Notifying scaffold erectors when pearlweave, toe board, or other dropped object prevention controls need repair
			· Utilizing barricading, as required, when scaffold dropped object controls (e.g., mesh, toe boards) are incomplete OR when hoisting material outside of the dropped object confines of the scaffold
Work at Heights (Life Critical Activity)	General Requirements	Fall to Elevation Below	Review the applicable work activities and implement the associated work controls listed in **JHA-00717,** *Elevated Work*
Mobile Elevated Work Platforms (MEWPs) (Life Critical Activity)	General Requirements	Contact with Surrounding Structure, Equipment, or Commodities Fire Entrapment	· Never operate any mechanical elevated work platform without documented training
			· Never stand on the toe board, mid-rail, or top rail of the basket
			· Never work from the basket without being tied off to the manufacturer's designated anchor point, even during ground positioning
			· Never exit the basket at height unless prior, documented approval for the deviation has been obtained from Project ES&H personnel

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		Limited Access/Egress Dropped Objects Electrical Shock Fall to Elevation Below	· Follow the operating requirements defined in UPF-CP-224, *UPF Aerial/Scissor Lift Operations*, which apply to all construction site and support area personnel, including subcontractors
			· Never operate an aerial/scissor lift that has not been inspected by a trained operator, in accordance with the requirements specified in UPF-CP-224. At the beginning of each shift or before each use, a trained operator will visually inspect and functionally test the lift and document the results on an approved form
			· Ensure the lift style in use is appropriate for the work task and location (e.g., indoors versus outdoors)
			· Follow all directions related to adverse weather conditions, including lightning and high wind speeds
			· The operator/safety manual(s) are to be maintained with the equipment provided they can be protected from the elements. If this cannot be accomplished, a hard copy may be stored in a central location as determined by the Project Distributable Superintendent
			· All controls must be plainly marked as to their function
			· All capacity and warning decals will be in place, secure, and legible, at both the platform/basket and ground stations
			· All aerial/scissor lifts must be equipped with an ABC-rated fire extinguisher in the platform/basket. The fire extinguisher shall be secured in a manner as to prevent displacement of the extinguisher. Scissor lifts must be equipped with a fire extinguisher 2.5 lbs. or greater. Aerial (boom) lifts must be equipped with a fire extinguisher 10 lbs. or greater
			· Boom-type aerial lifts must be equipped with anti-entrapment devices
			· Aerial/scissor lifts are to be inspected daily before use or at crew/shift change and documented on a UCN-23248, *Aerial/Scissor Lift Daily Checklist*

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Mobile Elevated Work Platforms (MEWPs) (Life Critical Activity)	Operating Requirements	Contact with Surrounding Structure, Equipment, or Commodities Fire Entrapment Limited Access/Egress Dropped Objects Electrical Shock Fall to Elevation Below	Only trained and qualified personnel shall operate aerial or scissor lift devices in accordance with the following: · All personnel must wear an approved PFAS in accordance with the requirements of Section 3.0, *Fall Prevention and Protection* · The basket or platform of the aerial/scissor lift will not be loaded in excess of the design lifting load capacity. The weight of personnel, tools, and materials in aerial/scissor lift baskets or platforms will be included as part of the total load capacity. If material cannot be contained inside the aerial/scissor lift basket or platform, obtain approval from the Responsible Supervisor and an ES&H Representative, and document on the FLHA Card before lifting the material · Aerial/scissor lift platform or basket will not be secured to any structure for any reason nor be allowed to rest on any structure · When aerial/scissor lift equipment is used with outriggers, outriggers shall be positioned on a solid surface · Personnel shall stand firmly on the floor of the basket/platform and shall not sit or climb on the edge of the basket/platform or use planks, ladders, or other unapproved devices for work positioning · Personnel riding in the equipment should keep their hands off the handrail when raising or lowering the basket use interior grab rail for balance when provided · Do not tie electrical cords, welding leads, or hoses to an aerial/scissor lift when operated (traveling horizontally or vertically) · When at the work location, the operator should engage the emergency stop function and close the platform mounted control panel cover (if equipped) to prevent accidental movement

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Activity	**Sub-Activity**	**Hazard**	**Control**
Mobile Elevated Work Platforms (MEWPs) (Life Critical Activity)	Exiting Aerial/Scissor Lifts at Elevation	Limited Access/Egress Dropped Objects Electrical Shock Fall to Elevation Below	Aerial/scissor lifts may be used to access elevated work areas or structures by exiting or entering the lift platform under the following requirements: • There is no other established safe access to the work area (e.g., stairs) • The job must be evaluated to ensure the use of an aerial lift is the safest means to access the elevated area or structure • The Responsible Supervisor for the work and an ES&H Representative must approve the activity and document the approval on CFN-1323 • Personnel must use the lift manufacturer's access point (e.g., gate, slide bar) when entering or exiting the lift Personnel must ensure 100% tie-off is maintained throughout the transition from the lift to the elevated area or structure, from the elevated area or structure to the lift, and while performing work on the elevated area or structure
Ladders	General Requirements	Fall to Elevation Below Dropped Objects	All portable ladders purchased or used on the Project shall meet minimum specifications, including:
			· Ladders must be vendor-certified as American National Standards Institute (ANSI) Type 1A or greater
			· Only nonmetallic ladders will be purchased and used on the site (fiberglass ladders are recommended)
			· Tripod ladders (ladders with three legs) are prohibited
			· Straight ladders longer than 20 feet are prohibited
			· Extension ladders longer than 36 feet are prohibited
			· Stepladders and platform ladders longer than 12 feet are prohibited
			· All portable ladders will be equipped with nonskid feet
Ladders	Ladder Use	Fall to Elevation Below Dropped Objects	Inspect ladders prior to use to verify:
			· All hardware and fittings are securely attached and the movable parts operate freely without binding or undue play
			· Ladder rungs are free from grease, oil, mud, and other materials

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Activity	Sub-Activity	Hazard	Control
			· Ladder safety feet and other auxiliary equipment are in good condition
			· Ladder does not have any broken or missing steps, rungs, cleats, broken side rails, or any other faulty equipment
			When using a ladder: - Do not use ladders in any manner other than their intended purpose - Two or more people will not work from the same ladder unless it is specifically designed for two people - Place portable ladders on a level and stable surface and secure them or have them held by another person to prevent slipping - Personnel shall face the ladder when ascending or descending and use both hands to grasp the ladder - Do not carry materials or tools in hands while ascending or descending ladders - If working from portable ladders, then remain within the confines (side rails) of the ladder - Prevent unauthorized entry in the area below the ladder with barricades or flagging when overhead hazards are present during ladder use - Do not stand on the platform or top step of a stepladder (i.e., top two steps) - Do not sit on or straddle a stepladder to perform work - When accessing another elevation, extend the top of the ladder 36 inches beyond the upper landing surface. If this is not possible because of the ladder's configuration, install a grab rail(s) 36 inches above the landing to help personnel mount and dismount the ladder
Ladders	Ladder Inspection	Fall to Elevation Below Dropped Objects	· Ladders that do not have the current quarterly color code marking shall be tagged out of service at the point of discovery using a “Do Not Use” tag until inspected and color coded
			· Ladders that are damaged or defective shall be immediately tagged out of service at the point of discovery using a “Do Not Use” tag and returned to the Tool Crib
Mobile Elevated Work	General Requirements	Contact with Surrounding	· The operator is to ensure adequate clearance is obtained between the lift and structures, equipment, and/or commodities

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Activity	**Sub-Activity**	**Hazard**	**Control**
Platforms (MEWPs) (Life Critical Activity)		Structure, Equipment, or Commodities Falls Inadvertent Movement Electrical Shock	· The operator and/or supervisor to perform a pre-work walkdown and determine the need for a spotter(s) when conditions similar to those listed below are encountered
			· Area blind spots exist OR
			· Obstructions exist in the path of planned travel (e.g., clutter, other equipment, other activities) OR
			· Obstructions exist when raising or lowering the lift OR
			· Aerial lift tip over potential. Contact supervision and ES&H prior to operating an aerial lift on uneven surface OR
			· Other (e.g., abrupt edges, holes, tight spots, soft surfaces)
			· Employees riding or working from any aerial lift must wear an approved safety harness securely connected with a personal fall limiter (6ft SRL) to the lift anchorage point at all times
			· To prevent inadvertent lift/platform control activation, engage the Emergency Stop switch when the lift is not in motion
			· Always treat electrical equipment/cables and components as if they are energized. Any electrical components obstructing the operation of an aerial lift must be removed, properly protected, or managed with the use of a spotter
			· Standard 120-volt extension cords and 208-volt (single-phase twist lock) extension cords are a tool of the trade and craft persons can plug or unplug these cords after shedding the load (e.g., turning off the welder, tool, or heater)
			· Only Temporary Power Electricians can plug in, unplug, or route 480-volt cord sets
			o Only Temporary Power Electricians can operate or reset any breakers in temporary electrical equipment such as panel boards.
			General waste segregation guidelines for any coatings or fireproofing

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Activity	**Sub-Activity**	**Hazard**	**Control**
Environmental Protection Practices and Requirements	Disposal of Waste	Improper Disposal of Waste	· Brushes and naps (applicators) are to be put in dedicated 6ml plastic bag for specific application.
			· Liners are to be put in a dedicated 6ml plastic bag.
			NOTE: E100 Liners may be put into bags with mixed material at the end of shift for disposal (current process).
			· All excess paint is to be poured back into the original paint can and sealed.
			· Any rags used need to be put in a dedicated 6ml plastic bag for specific applications.
			· All bags are to be clear bags.
			· Any cans containing thinner are not to be placed in plastic bag.
			· Material stored in metal buckets to be sealed with lid, picked up by Distribs (tech support), and taken to waste connex for sorting/labeling.
			· All bags shall be labeled with name, contents, date, and time. Must be legible.
			o Use of Tag or "tape flag" acceptable.
			· All contents in bags should weight no more the 35 lbs.
			· Material cans must be verified (by RCRA trained person) prior to stacking or disposing in metal recycling.
			· Ensure all containers are free of any residual liquid or moisture by visual inspection. Clean out with rag.
			· Ensure all waste streams are segregated into dedicated bags. (I.e. PPE, applicators, rags, etc.)
			o All PPE (i.e. Tyvek, gloves, glasses, respirator cartridges) should be placed in dedicated back for the specific application.
			· All employees have the right to STOP work when unsure.
			· In the event of an emergency (i.e. Suspect bag or drum expanding) Follow the proper communication (set forth in separate communication chart) for proper notification.
			o In case of emergency contact the Y-12 Operations Center: 865-574-7172.

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Activity	**Sub-Activity**	**Hazard**	**Control**
			KEY NOTES:
			· Do not put empty paint cans into the bags with the poured-up paint.
			· Do not stack buckets or cans inside each other.
			· Do not place Part A and Part B in the same bag.
			· Do not bag any buckets or liners with any "residual" paint or thinners.
			· Do not open bagged waste once it has been sealed.
			· THE GUIDELINE ABOVE ARE TO BE USED FOR THE FOLLOWING PAINTS (any materials not listed in this should be added to next revision as applicable)
Ergonomic Hazard Activities	Various Activities	Musculoskeletal Disorder Injury	Contact ES&H/IH (Radio: Channel 1) to evaluate your work activity if any of the following risk factors are encountered.
			Risk Factors
			The risk of musculoskeletal disorder (MSD) injury depends on work positions and postures, how often the task is performed, the level of required effort and how long the task lasts. Risk factors that may lead to the development of MSDs include:
			· **Exerting excessive force**. Examples include lifting heavy objects or people, pushing or pulling heavy loads, manually pouring materials, or maintaining control of equipment or tools.
			· **Performing the same or similar tasks repetitively**. Performing the same motion or series of motions continually or frequently for an extended period of time.
			· **Working in awkward postures or being in the same posture for long periods of time**. Using positions that place stress on the body, such as prolonged or repetitive reaching above shoulder height, kneeling, squatting, leaning over a counter, using a knife with wrists bent, or twisting the torso while lifting.

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			· **Localized pressure into the body part**. Pressing the body or part of the body (such as the hand) against hard or sharp edges, or using the hand as a hammer.
			· **Cold temperatures**. In combination with any one of the above risk factors may also increase the potential for MSDs to develop. For example, many of the operations in meatpacking and poultry processing occur with a chilled product or in a cold environment.
			· **Vibration, both whole body and hand-arm, can cause a number of health effects**. Hand-arm vibration can damage small capillaries that supply nutrients and can make hand tools more difficult to control. Hand-arm vibration may cause a worker to lose feeling in the hands and arms resulting in increased force exertion to control hand-powered tools (e.g., hammer drills, portable grinders, chainsaws) in much the same way gloves limit feeling in the hands. The effects of vibration can damage the body and greatly increase the force which must be exerted for a task.
			· **Combined exposure to several risk factors**. May place workers at a higher risk for MSDs than does exposure to any one risk factor.
Installation of Penetration Sealants	Mineral Wool Installation	Exposure (Skin, Inhalation) to Hazardous Chemicals Eye and Skin Irritation	**Handling:** Avoid handling the material in a matter that would generate excessive dust. When installation is performed overhead, utilize plastic to cover the floor/sides of the scaffold/lift, so loose material and dust will not fall down on other project personnel. Avoid dust contact with eyes, skin and clothing and avoid breathing dust. Wash hands with soap and water after handling.
			Skin Protection: Use project approve gloves. Where activities generate excessive amount of dust, disposable coveralls may be used to keep dust away from work clothing.
			Eye Protection: Project approved safety glasses. When work is being performed overhead, use spoggles or goggles and face shield.
			Storage: Keep tightly closed in the packaging until ready for use. Store in a dry location.
	Manually Cutting	Lacerations	Keep the fixed blade knifes sheathed at all times when not in use and wear Kevlar A5 cut-resistant sleeves when using fixed blade insulation knifes.

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Activity	**Sub-Activity**	**Hazard**	**Control**
	Insulation Material with Fixed Blade (Insulator) Knifes		Obtain ES&H and Superintendent approval on the FLHA card prior to using fixed blade knifes.
	Installation Foam Sealants	Exposure (Skin, Inhalation) to Hazardous Chemicals Eye and Skin Irritation	Review UCN-23353 and the Safety Data Sheet (SDS) of the chemical/product prior to starting the work: SDSE-SH-801768-A346 - 3M Fire Barrier Water Tight Sealant 1000 NS SDSE-SH-801768-A202 - Pelseal 2078 SDSE-SH-801768-A269 - 3M Fire Barrier Watertight Sealant 3000 WT SDSE-SH-801768-A293 - 3M Fire Barrier CP-25WB+ SDSE-SH-801768-A152 - Fire Barrier Sealant FD 150+ Limestone SDSE-SH-801768-A292 – Hilti CSF-F SOL; CP 620 **General Requirements:** Ventilation: Handle in areas with general mechanical ventilation. Eye Protection: Wear standard issue safety glasses and when splash potential exists wear chemical protective goggles. Skin Protection: Wear chemical protective gloves and handle material in a way that minimizes potential for skin exposure. Hygiene Measures: Do not eat, drink or smoke when using this product. Always wash hands after handling the product. Evaluate the area and work activity to determine if eyewash station is required.

THE NATION'S URANIUM PROCESSING FACILITY

UPF JOB HAZARD ANALYSIS

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Ensure a new corresponding CFN-1251, *UPF Construction Attendance Sheet*, is signed and inserted in the CWP to document JHA briefing.					
PREPARER:		Anton Panev (Printed Name/Signature)		02/28/25 (Date)	
APPROVAL:					
ES&H:		Robert Drake (Printed Name/Signature)		02/28/25 (Date)	
SITE MANAGER: (DOA-CM-801768-A214)		Brian Tevis (Printed Name/Signature)		03/13/25 (Date)	