



UPF JOB HAZARD ANALYSIS

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JHA NO.: JHA-00742		REV: 2	ISSUE DATE: 2-28-25
JHA TITLE: I&C Installation of Tubing and Instruments		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	Review the applicable work activities and implement the associated work controls listed in JHA-00721 , <i>Hand and Power Tools</i>
Drill Presses	Drill Presses (Floor, Bench, and Magnetic) Manufactures Recommendations	Crushing Striking Entanglement Hot Objects and Components Flying Particles	· Always be sure the machine support is securely anchored to the floor or the work bench
			· Do not overreach. Keep proper footing and balance at all times
			· Never leave chuck keys, wrenches, or any other tools on machine. Always verify removal before starting
			· Keep guards in place and in proper working order. Do not operate the machine with guards removed
			· Never leave the machine running while unattended. Machine shall be shut off whenever it is not in operation
			· All work shall be secured using either clamps or a vise to the drill press table. It is unsafe to use your hands to hold any workpiece being drilled
			· Never brush away any chips while the machine is in operation. All clean up should be done when the machine is stopped



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Portable Band Saws	Portable Band Saws	Laceration	<ul style="list-style-type: none"> Keep hands in sight and clear of all moving parts and cutting surfaces. Do not put hands or fingers around, on, or below any rotating cutting tools
			<ul style="list-style-type: none"> Reference ML-SH-80176-A002, <i>UPF Eye and Face Protection List</i>
			<ul style="list-style-type: none"> Ensure drill press is grounded in accordance with the National Electrical Code and local codes and ordinances
			All portions of band saw blades will be enclosed or guarded, except for the working portion of the blade between the bottom of the guide rolls and the table Band saw wheels shall be fully encased.
			Always adhere to the following requirements:
			<ul style="list-style-type: none"> Keep hands away from cutting area and blade.
			<ul style="list-style-type: none"> Always keep both hands on the tool handles.
			<ul style="list-style-type: none"> Always keep your hands out of the line of the band saw blade.
			<ul style="list-style-type: none"> Ensure the material being cut is secured via approved methods (i.e., bench vise, c-clamp).
			NOTE: Never hold the material that is being cut!
			<ul style="list-style-type: none"> Always wait until the motor has reached full speed before starting a cut.
			<ul style="list-style-type: none"> Prevent unintentional starting. Ensure the switch is in the off position before connecting to power source and/ or battery pack, picking up or carrying the tool.
			<ul style="list-style-type: none"> Remove any adjusting key or wrench before turning the power tool on.
			<ul style="list-style-type: none"> Do not overreach. Keep proper footing and balance at all times.
			<ul style="list-style-type: none"> Do not wear loose clothing or jewelry. Keep your hair, clothing and gloves away from moving parts.
			<ul style="list-style-type: none"> Do not force the power tool. Use the correct power tool for your application.

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Manual Material Handling	Pallet Jack Use	Muscle Strain/Sprain Ergonomics Pinch Points Crushed By Struck By Caught Between	• Do not overload the machine. Be aware of dynamic loading! Sudden load movement may briefly create excess load causing product failure
			• Use as intended only. Do not use machine to support personnel
			• Always load the machine evenly and centrally
			• Keep clear of fork and load while raised
			• Only use on flat, level surface able to withstand weight of machine and load
			• Never leave a loaded machine unattended the load must always be lowered when not in use
			• Inspect before every use do not use if parts are loose or damaged.
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
Hazardous Material Use	Hazardous Material Storage	Improper Storage of Hazardous Materials Spill	• To understand safe lifting limits during manual material handling, refer to OT-SH-801768-A128, <i>UPF Ergonomics Lifting Guidelines</i>
			• 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

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		Fire	<ul style="list-style-type: none"> A "first in, first out" storage strategy must be used to help Ensure 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
Hazardous Material Use	Labeling of Hazardous Materials	Inadequate Hazard Communication Contact with Chemicals (adsorption, inhalation, ingestion, Asphyxiation) Improper Disposal of Hazardous Materials	<ul style="list-style-type: none"> Labeling of hazardous materials shall be in accordance with Appendix B, <i>Container Labeling Instructions</i>
			<ul style="list-style-type: none"> 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
			<ul style="list-style-type: none"> Project Personnel may transfer hazardous materials from a bulk container to a suitable portable container for immediate use during their shift only
			<ul style="list-style-type: none"> 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		<ul style="list-style-type: none"> 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
			<ul style="list-style-type: none"> Review UCN-23353 and the Safety Data Sheet (SDS) of the chemical/product prior to starting the work
			<ul style="list-style-type: none"> Follow the assigned work controls specified in the SDS Evaluation Form

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			<ul style="list-style-type: none"> 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, <i>Construction Waste Management Plan for the Uranium Processing Facility</i>
Dropped Object Prevention	General Requirements	Dropped Objects	Review the applicable work activities and implement the associated work controls listed in JHA-00715 , <i>Dropped Object Prevention</i>
Personal Protective Equipment (PPE)	Rotating Equipment	Caught Between	Wearing gloves or loose clothing around rotating equipment can pose a risk of entanglement. An ES&H Representative and Responsible Superintendent will evaluate the task, equipment function, and manufacturer's instructions and provide recommendations for the task.
Personal Protective Equipment (PPE)	Hearing Protection - Noise Levels Between Eighty-Five (85) and Ninety-Nine (99) dBA.	Noise	<ul style="list-style-type: none"> Refer to ML-SH-801768-A011, <i>Sound Levels of Common Construction Power Tools</i> Wear approved single hearing protection devices with a minimum NRR of 21 Barricade and Signage: <ul style="list-style-type: none"> 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 Contact Industrial Hygiene to evaluate noise levels for new/changed work activities or when working in enclosed areas.
Personal Protective Equipment (PPE)	Hearing Protection - Noise Levels over One-Hundred (100) dBA	Noise	<ul style="list-style-type: none"> 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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			<ul style="list-style-type: none"> 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: <ul style="list-style-type: none"> Install danger barricade tape with danger signs or tags to identify the one hundred (100) dBA boundary area Identify area outside of danger barricade with caution single hearing protection required signs. Contact IH to evaluate size of these boundaries Contact IH to evaluate noise levels for new/changed work activities or when working in enclosed areas.
Fire Prevention and Protection	Fire Occurrence	Fire	<p>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:</p> <ul style="list-style-type: none"> Step 1 – Yell “FIRE” to notify those in the immediate vicinity. Step 2 – Notify the Y-12 Operations Center (OC) by: <ul style="list-style-type: none"> 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 Contacting the OC via Channel 1 from a Project radio Contacting the supervisor/superintendent and providing any information regarding the fire and its location (to be forwarded to the Y-12 OC)

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			<p>NOTE: Use the phonetic alphabet when calling the OC to avoid confusion identifying the building location.</p> <p>• 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.</p>
Barricades and Signs (Life Critical Activity)	General Requirements	Improper Hazard Communication	Review the applicable work activities and implement the associated work controls listed in JHA-00712 , <i>Barricades, PPE, FLHA</i> .
Compressed Gas Cylinder; Liquefied Petroleum Gas; and Liquefied Inert Gas Use	General Requirements	Spills Asphyxiation Muscle Strain Ergonomic Cryogenic Burn Fire	Review the applicable work activities and implement the associated work controls listed in JHA-00713 , <i>Compressed Gas, LPG, and Inert Gas</i> .
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	Fire Watch	Fire Hot Work	<p>A worker assigned as a Fire Watch:</p> <ul style="list-style-type: none"> • Must wear an orange vest in accordance with UPF-CP-205, Personal Protective Equipment and Safe Work Apparel • Directly observes Hot Work activities to Ensure fire safe conditions, as specified in the Hot Work permit, are maintained. Such observations will continue while Hot Work is in

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			<p>progress or until such a time that the assigned Fire Watch is relieved by another qualified Fire Watch</p> <ul style="list-style-type: none"> Will remain at the work area for at least 30 minutes after Hot Work activities have stopped to Ensure no smoldering embers or slag exist. Fire Watches will watch for fires in all exposed areas and notify supervision and other workers in the event of a fire The Fire Watch ensures that the Hot Work area is barricaded, if required by the permit, and keeps other personnel from entering the barricaded work area More than one Fire Watch is required if: <ul style="list-style-type: none"> Combustible materials that could be ignited by the Hot Work operation and that cannot be directly observed by the initial Fire Watch are present (e.g., when welding or cutting over grating surfaces adjacent to floor and wall openings) Fire prevention methods are not sufficient to adequately ensure the prevention of fires. The supervisor responsible for the welding and/or cutting activities then requires additional Fire Watches to guard against fires The Fire Watch will have the authority to stop welding and/or cutting work activities if unsafe conditions develop <p>In the event of a fire, the Fire Watch:</p> <ul style="list-style-type: none"> Follow the Fire Occurrence steps outlined above for proper notification May attempt to extinguish the fire The Fire Watch shall notify the ESH-R if any fire extinguishers are discharged so they may be refilled and appropriate clean up and disposal of the material can be completed. <p>Upon completion of the job and after it has been determined that no fires or smoldering materials are present, the Fire Watch returns the fire protection equipment to its original location</p>
Safety Watch	Confined Space Watch (Attendant)	Confined Space	<ul style="list-style-type: none"> 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). <p>Workers assigned as a Confined Space Watches must wear orange vests in accordance with UPF-CP-205.</p>

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Safety Watch	Equipment Watch (Spotter)	Moving Equipment	<ul style="list-style-type: none"> 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 			
			<ul style="list-style-type: none"> The following practices should be considered when planning the activity: <ul style="list-style-type: none"> Achieving eye contact and an acknowledgment from the equipment operator before walking near or around heavy equipment Never having Spotters stand within the blind spot of equipment operators or truckers Never allowing personnel to stand within the swing radius of equipment while it is operating 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:			
			<ul style="list-style-type: none"> Short duration tasks with low-risk for dropped objects or similar hazards (e.g., inspections, moving cords, layout/measurements) 			
			<ul style="list-style-type: none"> 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.) 			
			<ul style="list-style-type: none"> 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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			<ul style="list-style-type: none"> • 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
			<ul style="list-style-type: none"> • When an Overhead Safety Watch is used, the following will apply: <ul style="list-style-type: none"> 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.
Confined Space Entry (Life Critical Activity)	General Requirements	Engulfment/Entrapment Hazardous Atmosphere Limited Access/Egress	<ul style="list-style-type: none"> • Never enter a confined space unless you are trained and authorized to do so, and an entry evaluation or permit has been completed
			<ul style="list-style-type: none"> • Never enter a confined space unless atmospheric testing has been performed
			<ul style="list-style-type: none"> • Never enter a confined space without an approved permit
			<ul style="list-style-type: none"> • Never enter a confined space without an attendant at the entrance. Even when an attendant is present, do not enter without an effective way to communicate with the attendant from inside the confined space

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			<ul style="list-style-type: none"> · Confined spaces include, but are not limited to, sewers, tunnels, underground utility vaults, water towers, storage tanks, process vessels, bins, boilers, and ductwork · These spaces share common characteristics that help us understand what a confined space is. · Characteristics of a confined space include the following: <ul style="list-style-type: none"> o it is large enough for a worker or workers to enter o it has limited means of entry and exit o it is not designed for people to enter and work in on a regular basis, and it can contain some form of hazard · Some hazards that can be present in confined spaces are oxygen deficiency, flammable or explosive gases, toxic gases, slips and falls, and electrical and mechanical hazards. Contact ES&H for assistance and evaluation of confined spaces on the construction site · IF a suspect space is confined AND you cannot confirm that a confined space classification was conducted, THEN DO NOT enter the space · Contact supervision to determine if the space was evaluated and classified · IF supervision cannot provide a confirmation, THEN request that ES&H classify the space · Do not enter any confined space prior to contacting ES&H and completing UCN-23273, <i>Confined Space Entry Evaluation</i> 			

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Field Level Hazard Assessment (FLHA)	Field Level Hazard Assessment Process	Unidentified and Unmitigated Hazards	<ul style="list-style-type: none"> 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:
			<ul style="list-style-type: none"> Perform a Walkdown and review the work location with involved personnel
			<ul style="list-style-type: none"> Review area hazards to ensure they are identified and hazard controls/mitigations are in place to eliminate/reduce them
			<ul style="list-style-type: none"> Ensure there are no new hazards unidentified and uncontrolled by the approved JHA
			Using UCN-23552, perform the following:
			<ul style="list-style-type: none"> o Conduct a FLHA briefing with the work crew and support disciplines
			<ul style="list-style-type: none"> o Resolve any issues/concerns with the work crew
			<ul style="list-style-type: none"> o List and discuss the scope of work, anticipated hazards, and controls/mitigation measures for the work to be performed
			<ul style="list-style-type: none"> o Ensure personnel document participation in the "Employee" section of UCN-23552
			<ul style="list-style-type: none"> o Conduct appropriate FLHA briefings when any of the following conditions exist:
			<ul style="list-style-type: none"> The work area changes
			<ul style="list-style-type: none"> Personnel with different classifications will be working in close proximity
			<ul style="list-style-type: none"> Differing types of work are performed in close proximity

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Scaffold Use (Life Critical Activity)	Scaffold User	Unauthorized Use Fall to Elevation Below Slips and Trips	<ul style="list-style-type: none"> 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. 			
			<ul style="list-style-type: none"> Never access any scaffold without documented evidence of inspection by a designated Competent Person for scaffolding before each work shift 			
			<ul style="list-style-type: none"> Obey the scaffold requirements at all times 			
			<ul style="list-style-type: none"> 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 			
			<ul style="list-style-type: none"> 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 			
			<ul style="list-style-type: none"> Never access a yellow-tagged scaffold without proper fall protection 			
			<ul style="list-style-type: none"> Consider all scaffolds without tags as red-tagged scaffolds 			
			<ul style="list-style-type: none"> Never alter or modify a scaffold, unless you are a designated Competent Person, who is qualified and authorized to do so 			
			<ul style="list-style-type: none"> Touching-the-tag before each use to ensure a scaffold inspection has been completed for the shift 			
			<ul style="list-style-type: none"> 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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			<ul style="list-style-type: none"> Never access a red-tagged scaffold. Only authorized scaffold builders are permitted, and they must wear required fall protection
			<ul style="list-style-type: none"> Never access a yellow-tagged scaffold without 100% tie-off or fall protection
			<ul style="list-style-type: none"> Indicating on the scaffold request when intended use will require scaffold capacity greater than light duty (i.e., 25 pounds per square foot [psf])
			<ul style="list-style-type: none"> Ensuring scaffold is not loaded in excess of its duty rating
			<ul style="list-style-type: none"> Maintaining housekeeping and accumulation of materials to prevent dropped objects
			<ul style="list-style-type: none"> Notifying scaffold erectors when pearlweave, toe board, or other dropped object prevention controls need repair
			<ul style="list-style-type: none"> 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
Scaffold Use (Life Critical Activity)	Scaffold Safety	Unauthorized Use Fall to Elevation Below Slips and Trips	<ul style="list-style-type: none"> Climbing on scaffolding components (e.g., cups, rings, diagonal members) is not allowed
			<ul style="list-style-type: none"> Free Climbing scaffold structures in any direction above a height greater than 6 ft without using a Personal Fall Arrest System (e.g., harness and retractable lifeline) tied off to an acceptable anchor point is not allowed
			<ul style="list-style-type: none"> Ensure an adequate working surface during erection/dismantlement activities
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	General Requirements		<ul style="list-style-type: none"> Never operate any mechanical elevated work platform without documented training

UPF JOB HAZARD ANALYSIS

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JHA NO.: JHA-00742		REV: 2	ISSUE DATE: 2-28-25
JHA TITLE: I&C Installation of Tubing and Instruments		WORK PACKAGE NUMBER: N/A	SPECIFIC LOCATION: N/A
Activity	Sub-Activity	Hazard	Control
Work Platforms (MEWPs) (Life Critical Activity)		Contact with Surrounding Structure, Equipment, or Commodities Fire Entrapment Limited Access/Egress Dropped Objects Electrical Shock Fall to Elevation Below	• 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
			• Follow the operating requirements defined in UPF-CP-224, <i>UPF Aerial/Scissor Lift Operations</i> , 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

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JHA TITLE: I&C Installation of Tubing and Instruments		WORK PACKAGE NUMBER: N/A	SPECIFIC LOCATION: N/A
Activity	Sub-Activity	Hazard	Control
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	<ul style="list-style-type: none"> 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
			<ul style="list-style-type: none"> Boom-type aerial lifts must be equipped with anti-entrapment devices
			<ul style="list-style-type: none"> Aerial/scissor lifts are to be inspected daily before use or at crew/shift change and documented on a UCN-23248, <i>Aerial/Scissor Lift Daily Checklist</i>
			Only trained and qualified personnel shall operate aerial or scissor lift devices in accordance with the following:
			<ul style="list-style-type: none"> All personnel must wear an approved PFAS in accordance with the requirements of Section 3.0, <i>Fall Prevention and Protection</i>
			<ul style="list-style-type: none"> 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
			<ul style="list-style-type: none"> Aerial/scissor lift platform or basket will not be secured to any structure for any reason nor be allowed to rest on any structure
			<ul style="list-style-type: none"> When aerial/scissor lift equipment is used with outriggers, outriggers shall be positioned on a solid surface
			<ul style="list-style-type: none"> 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

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JHA TITLE:		I&C Installation of Tubing and Instruments	WORK PACKAGE NUMBER:	N/A	SPECIFIC LOCATION:	N/A
Activity	Sub-Activity	Hazard	Control			
			<ul style="list-style-type: none"> 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 			
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	<p>Aerial/scissor lifts may be used to access elevated work areas or structures by exiting or entering the lift platform under the following requirements:</p> <ul style="list-style-type: none"> 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 <p>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</p>			
Ladders	General Requirements	Fall to Elevation Below Dropped Objects	<p>All portable ladders purchased or used on the Project shall meet minimum specifications, including:</p> <ul style="list-style-type: none"> 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 			

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JHA TITLE:		I&C Installation of Tubing and Instruments	WORK PACKAGE NUMBER:	N/A	SPECIFIC LOCATION:	N/A
Activity	Sub-Activity	Hazard	Control			
Ladders	Ladder Use	Fall to Elevation Below Dropped Objects	· 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			
			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			
			· 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			

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Activity	Sub-Activity	Hazard	Control			
			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			
Ladders	Ladder Storage	Fall to Elevation Below Dropped Objects	• When not in use, store portable ladders to protect them from the elements and direct sunlight store ladders away from excessive heat and in areas with good ventilation			
			• Other materials are not to be stored on ladders			

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Activity	Sub-Activity	Hazard	Control
Welding, Cutting, and Brazing	Material Fit-up/Tack Weld Activities	Arc – Flash Burns	Support personnel in the immediate area assisting with the weld/hotwork activities (i.e., tacking supports) must wear PPE appropriate to the hazard (e.g., gloves, category 2 weld shirt/jacket, shaded glasses, face shield, etc.)
			NOTE: The “immediate area” consists of the direct work face, weld screened area, aerial lift platform/basket, etc.
			· The assigned PPE is to protect workers from secondary hazards created by the activity (e.g., sparks, slag, weld arc, flying debris) and is not intended to protect personnel directly watching the weld process.
Orbital Welding (i.e., Swagelok)	Orbital (autogenous) Welding	Electric Shock Burns Fire Eye Damage	Orbital gas tungsten arc welding (GTAW) can be hazardous. Only qualified persons should use this equipment.
			After welding, the work piece, weld head, electrode, fixture block, and collets can be extremely hot and may cause burns.
			The M200 power supply has no internal serviceable parts and must not be disassembled.
			Keep all panels and covers securely in place. Do not touch electrode connector, electrode, or rotor after pressing start. The electrode is electrically charged during the weld process.
			Frequently inspect input power cord for damage or bare wiring—replace immediately if damaged.
			Properly unplug the power cord. Grasp the plug to remove it from the receptacle.
			Shut off gas supply when not in use.
			Use only with enclosed Swagelok weld heads, which minimize exposure to ultraviolet and infrared rays.
			Do not use extension cords that are in poor physical condition or have insufficient current capacity. Failure to do so can pose fire and shock hazards.

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Activity	Sub-Activity	Hazard	Control
Defeating Safety Devices (Life Critical Activity)	Guards / Safety Protection Devices	Unsafe Conditions	Never Disable, bypass, modify, or remove any safety protection devices without written authorization from the Site Manager and ES&H Manager. This includes, but it's not limited to:
			· Disconnect load indicators
			· Remove Guards or handles from rotating equipment or tools
			· Fix or lock triggers and power switches to keep them in the "on" position
			· Hardwire electrical wires into outlets
			· Use damaged or defective equipment and/or tools
			· Skip or bypass required inspections before using equipment and/or tools
Ergonomic Hazard Activities	Various Activities	Musculoskeletal Disorder Injury	· Operate equipment without deploying outrigger pads when they are required
			Contact ES&H/IH (Radio: Channel 1) to evaluate your work activity if any of the following risk factors are encountered.
			<i>Risk Factors</i>
			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.

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Activity	Sub-Activity	Hazard	Control
			<ul style="list-style-type: none"> • 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.
			<ul style="list-style-type: none"> • 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.
			<ul style="list-style-type: none"> • 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.
			<ul style="list-style-type: none"> • 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.
			<ul style="list-style-type: none"> • Combined exposure to several risk factors. May place workers at a higher risk for MSDs than does exposure to any one risk factor.
Working with Lead-Lined Drywall	Commodity Installation into Lead-Lined Walls	Exposure to Lead (Pb)	<p>The following two tasks are approved:</p> <ol style="list-style-type: none"> 1. Installing commodity (unistrut, brackets) using self-drilling screws. If a pilot hole is required, a HEPA vacuum attachment is required during the drilling. 2. Installing butterfly screw anchors using a HEPA vacuum during the drilling of the pilot hole.



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Activity	Sub-Activity	Hazard	Control			
			<p>Never touch their face, or put fingers in mouth or nose when handling lead products and thoroughly wash prior to touching face, mouth or nose Thoroughly clean face, arms and hands including under finger nails prior to eating, drinking, leaving room or going home Absolutely no food, eating, drinking or using tobacco products permitted in the area where lead is being handled</p> <p>If the scope of work requires a task not listed above, pause and contact Industrial Hygiene to evaluate.</p>			



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Ensure a new corresponding CFN-1251, <i>UPF Construction Attendance Sheet</i> , is signed and inserted in the CWP to document JHA briefing.					
PREPARER:	Anton Panev <i>Anton Panev</i>			02/28/25	
	Printed Name/Signature			Date	
APPROVAL:					
ES&H:	Robert Drake <i>Robert C Drake</i>			02/28/25	
	Printed Name/Signature			Date	
SITE MANAGER: (DOA-CM-801768-A214)	Christopher Hogan <i>Ch/Hogan</i>			03/31/25	
	Printed Name/Signature			Date	