THE NATION'S URANIUM PROCESSING FACILITY

UPF JOB HAZARD ANALYSIS

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JHA NO.:	**JHA-00722**	**REV:**	**1**	**ISSUE DATE:**	**9-30-24**
JHA TITLE:	**Hoisting, Rigging, and Material Handling**	**WORK PACKAGE NUMBER:**	**N/A**	**SPECIFIC LOCATION:**	**N/A**

Activity	**Sub-Activity**	**Hazard**	**Control**
Jacks--Lever, Screw, Hydraulic, and Ratchet	Jacks--Lever, Screw, Hydraulic, and Ratchet	Potential Energy Release (Mechanical)	When using jacks, perform the following:
			· Verify the manufacturer's rated capacity is marked legibly on each unit
			· Verify the presence of a positive stop to prevent over-travel on all jacks
			· When the potential exists for slippage from the metal cap of the jack, establish a firm foundation during a lift by setting in place blocking and cribbing at the base of the jack and a wood block between the cap and the load
			· Crib, block, or otherwise secure a load immediately after it has been raised
			· Lubricate jacks at regular intervals and inspect them frequently, but not less frequently than the following:
			o Once every six months for constant or intermittent use
			o When jacks are sent out of shop for special work or when returned
			o When a jack is subjected to abnormal load or shock, immediately inspect before and after use
			· Examine repaired jacks and associated replacement parts for possible defects
			Tag defective jacks and take out of service until repaired
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.

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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 and for guidance on how to conduct a risk assessment on manual material handling, refer to OT-SH-801768-A128, *UPF Ergonomics Lifting Guidelines*			
Hoisting and Rigging Work Operations (Life Critical Activity)	General Requirements	Loss of Control of Material Tipping Loads Crushing Injuries Falling Material	· Never conduct lifting operations, unless you are an authorized operator with verified competence. Never work under a suspended load			
			· Follow the requirements of hoisting and rigging procedures and manufacturer's instructions and guidelines when conducting lifting operations			
			· Inspect Rigging equipment prior to use			
			· Never hoist loads over other people			
			· Never work within a load shadow (i.e., anywhere the load can fall)			
			· Never cross a barricade that controls an area with a suspended load, unless you are a member of the lift team and you are authorized to enter the controlled area.			

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Hoisting and Rigging Work Operations (Life Critical Activity)	Provision of Properly Trained Personnel	Loss of Control of Material Tipping Loads Crushing Injuries Falling Material	Persons performing certain tasks (e.g., signaling cranes) are required (by statute) to be formally qualified persons operating cranes are required (by statute) to be certified.			
Hoisting and Rigging Work Operations (Life Critical Activity)	Mitigating Risk	Loss of Control of Material Tipping Loads Crushing Injuries Falling Material	· Appropriate exclusion zones are defined and monitored by supervision. This includes the area behind a crane as crane booms often spring back and fall to the rear when a crane fails			
			· Supervision is properly enforcing PPE requirements and personnel are trained in its proper use			
Hoisting and Rigging Work Operations (Life Critical Activity)	Checks and Pre-Lift Meeting	Loss of Control of Material Tipping Loads Crushing Injuries Falling Material	The Crane Operator, along with the PRE and Rigging Supervisor, ensures:			
			· Set-up is thoroughly checked			
			· Set-up is in accordance with the plan			
			· No previously unidentified hazards exist before starting any load-handling operation			
			· The PRE and Rigging Supervisor Ensure the Crane Operator has completed the daily crane checklist and confirm that all equipment and systems are in a satisfactory condition to perform the lift, in accordance with Y17-95-64-872, *UPF Cranes Use and Operation*.			
			· The PIC conducts a pre-lift briefing with the rigging crew, equipment operators, and all other personnel involved before starting any load-handling operation. Clear communication between the operator, signal person, and other persons directing and monitoring the operation shall be established			

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			· The PIC ensures a pre-lift safety checklist CFN-1092 is completed for medium- or critical-risk operations. All participants are required to sign the checklist to confirm that the planned procedure has been described to them and they understand their roles and responsibilities.			
Hoisting and Rigging Work Operations (Life Critical Activity)	Hazard Briefing	Loss of Control of Material Tipping Loads Crushing Injuries Falling Material	The PIC ensures the rigging crew understands any job-specific procedures regarding hazards before starting load-handling operation. Hazards include, but are not limited to, the following:			
			· Mechanical and Electrical Hazards – when rigging operations take place in close proximity to electricity or mechanical energy sources that are not locked out or de-energized, and where danger to the riggers or other personnel involved in rigging activities may exist. CFN-1093, *UPF Hoisting and Rigging Hazard*			
			· Evaluation, should be used. Reference UPF-MANUAL-CM-001, *Uranium Processing Facility Construction Electrical Safety Manual*, to determine UPF requirements for work near utilities			
			· Moving Equipment Hazards – when rigging operations take place in close proximity to moving machinery, vehicles, or equipment, if danger to the riggers or personnel involved in the rigging activities exist			
			· Hazardous Materials – when rigging activities occur in environments where the presence or possible release of hazardous materials endangers the riggers or other personnel			
			· Confined Spaces – when rigging operations take place in a confined space			
			· Lifting Over Personnel – note that persons are not allowed, either in whole or in part, under any portion of a suspended load. Personnel assigned to rigging (i.e., attaching and/or detaching rigging hardware to an intended load) are permitted under the lifting/rigging hardware only, and to the extent required to attached or detach the hardware from the intended load prior to or after it has been lifted			
			· Public Protection – when rigging operations take place in close proximity to the public, where danger to the riggers or other personnel involved in the rigging activity exists from foreseeable activity of the public, or where danger exists from foreseeable consequences of the rigging operation			
			· Ground and Support Conditions – when cranes, hoists, or loads are set upon, or moved over, ground that is not compacted or where underground structures, vaults, trenches, pipelines, pits, or other structures or voids exist or may exist			

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Hoisting and Rigging Work Operations (Life Critical Activity)	Monitoring the Operation	Loss of Control of Material Tipping Loads Crushing Injuries Falling Material	· The PIC ensures loads to cranes, radii, etc., are monitored at all times to ensure the operation is progressing as planned and the equipment remains within capacity. This monitoring is particularly important when upending or flipping loads, and when using multiple cranes. Any unanticipated shifting of weight shall be cause to stop the operation until the reason is adequately explained, and the PIC and Crane Operator are satisfied it is safe to recommence. If necessary, the assistance of a CRE shall be sought to investigate · The PIC/Crane Operator ensures the load is not completely released from the lifting or transport equipment until it is confirmed that the load is leveled/aligned as required, is stable, and is securely supported (including against possible wind loads)			
Hoisting and Rigging Work Operations (Life Critical Activity)	Tower Cranes and Rental Cranes	Loss of Control of Material Tipping Loads Crushing Injuries Falling Material	· Ensure daily/monthly/annual inspections are performed when the crane is in use using CFN-1144, Mobile Crane Daily/Pre-Use Inspection Checklist or CFN-1145, *UPF Mobile Crane Initial/Monthly/Periodic Inspection Record*, as applicable · When a crane has been idle for more than 30 days, ensure an inspection is performed and documented on a CFN-1145 prior to use			
Hoisting and Rigging Work Operations (Life Critical Activity)	Inbound Inspection	Loss of Control of Material Tipping Loads Crushing Injuries Falling Material	Upon arrival of a rental crane at the site, an inbound inspection must be conducted by UPF Construction Indirects and an equipment owner's representative. Any discrepancies found during the inspection that requires recertification before use shall be corrected according to a plan of action agreed upon by the equipment owner's representative and the UPF Construction Indirects. A re-inspection or testing may be required depending on the extent of the repair.			

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Hoisting and Rigging Work Operations (Life Critical Activity)	Monitoring the Operation	Loss of Control of Material Tipping Loads Crushing Injuries Falling Material	The PIC monitors the execution of the lift to Ensure it remains on track, that conditions remain within established parameters, and that no unanticipated hazards arise.			
Hoisting and Rigging Work Operations (Life Critical Activity)	Daily Operations & Maintenance	Loss of Control of Material Tipping Loads Crushing Injuries Falling Material	· Cranes shall be operated only by a Qualified Crane Operator (QCO). Approved operator trainees may operate cranes on non-critical lifts under the direct supervision of a designated qualified operator. Inspectors and maintenance personnel who are QCOs (and who are approved to operate the specific class of machine) may operate a crane strictly for those functions required to perform their inspection or maintenance duties			
			· The crane operator shall perform a daily inspection of the crane and record the results on CFN-1144 or similar equipment daily checklist and safety inspection form. The crane operator shall also Ensure monthly and/or annual inspections are performed using CFN-1145, when scheduled			
			· If repairs are done to any load-bearing parts, then a load test shall be performed.			
			Upon completion of repairs and required load tests, the operator shall verify crane readiness by completing CFN-1144.			
Hoisting and Rigging Work Operations (Life	Tower Crane Operations	Loss of Control of Material Tipping Loads Crushing Injuries	· Implement the Field Level Hazard Assessment (FLHA) Card process defined in Y17-95-64-823, UPF Field Level Hazard Assessment/Job Hazard Analysis Program (FLHA/JHA) Process using CFN-1268, UPF Tower Crane Operations FLHA Card			
			· Tower crane operators shall perform shiftly inspections and document findings using CFN- 1250, *Daily Tower Crane Inspection Checklist*.			

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Critical Activity)		Falling Material				
Hoisting and Rigging Work Operations (Life Critical Activity)	Outbound Inspection	Loss of Control of Material Tipping Loads Crushing Injuries Falling Material	The outbound inspection of a rental crane shall be conducted by UPF Construction Indirects.			
Hoisting and Rigging Work Operations (Life Critical Activity)	Other Requirements	Loss of Control of Material Tipping Loads Crushing Injuries Falling Material	· A qualified rigger/person in charge (PIC) shall be responsible for rigging loads			
			· Inspect all rigging equipment prior to use and verify it is rated for the load's weight and rigging configuration. Verify that the tags are current			
			· Identify and restrict access to areas where hoisting and rigging occur			
			· Clear the load travel path. No hoisting of materials over occupied equipment or personnel			
			· Perform an initial lift to allow for load settling, and adjust rigging as necessary			
			· The rigging crew shall attach non-conductive tag lines to the load to safely control the load. Use multiple tag lines of sufficient length to control the load. Use long-reach tools and push-pull sticks to assist with controlling the load			
			· Stay arms' length from the exterior of the load during movement. Keep hands off material until below shoulder height and to the extent possible			
			· Personnel performing rigging operations shall not place any part of the body under a suspended load			
			· Rigging/hoisting of permanent plant hangers, pipe spools, valves, blinds, etc., must be physically secured prior to leaving the material unattended			
			· Means of securing are welding, rigging, lashing, clamping hardware, or other approved means by Piping/Rigging Superintendent			

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			· Use two workers to install and uninstall all heavy overhead rigging (greater than 35 lbs.). Utilize approved tethering tie off restraints or alternate dropped object prevention controls where necessary. This also requires approval from a General Foreman and Foreman			
			Field Level Hazard Assessment/Job Hazard Analysis Program (FLHA/JHA) Process			
			· All Riggers and Bellmen will be a part of the steel erector crew FLHA UP meeting at the start of shift			
			· Connectors will clear all the rigging clear up hooks while lowering or raising the hoist line			
			· Never take eyes off the load and rigging while load line is in motion			
			· All Connectors and Riggers will have Sub Part R training			
			· Training must be verified through union hall training centers			
			· Operator and riggers will clearly communicate when loads are ready to hoist and release			
			· Do not operate on high-speed mode until and all clear has been given			
			· Prior to beginning operations, the operator, signal person, must contact each other and agree on the voice signals that will be used. Once the voice signals are agreed upon, these workers need not meet again to discuss voice signals unless another worker is added or substituted, there is confusion about the voice signals, or a voice signal is to be changed			
			· Each voice signal must contain the following three elements, given in the following order: function (such as hoist, boom, etc.), direction distance and/or speed function, stop command			
			· Follow the requirements of the Lift Plan/Data Sheet			
			· Crane Coordinator to be utilized in all areas where Cranes can clash:			
			· Duties include:			
			o Collaborating with Field crane operations and superintendents, organize and prepare crane pick schedules			
			o Review Crane pick plans for the shift prior to starting operations/FLHA up review with team			

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			o During crane operations, coordinator must be present to Define/enforce/authorize limits of swing range of booms capable of making contact, and crane movements to eliminate any clashes			
			o Maintain daily operation consistency with safe operations and communications with all cranes on the project			
			o Coordinates and evaluates crane and/or concrete placing equipment movements within the swing radius of the tower crane jib and counter jib			
			o Authorizes crane movement outside the assigned operation quadrant. When Operators need to cross the demising wall or alley ways operators must first seek clearance from Crane Coordinator			
			o Defines limitations if more than one crane enters or operates within the same quadrant			
			o Alternates crane movement where one crane may conflict with another crane			
			o Assigns operation quadrants for cranes and concrete placing equipment and communicates these quadrants to the operators and signal persons by use of the crane coordination map			
			o Stops rigging activity for safety or coordination reasons			
			o Ensures signal persons and operators in their area have functional radios			
			· Specifies each crane's park position and verifying the support cranes are clear of the tower crane jib and counter jib swing at the end of each shift			
Operating Cranes with Clash Capability	Coordinator Role		Crane Coordinator is to be utilized in all areas where Cranes can clash. Duties include:			
			· Collaborating with Field crane operations and superintendents, organize and prepare crane pick schedules			
			· Review Crane pick plans for the shift prior to starting operations/ FLHA up review with team			
			· During crane operations, coordinator must be present to Define/enforce/authorize limits of swing range of booms capable of making contact, and crane movements to eliminate any clashes			
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			· Stops rigging activity for safety or coordination reasons			
			· Ensures signal persons and operators in their area have functional radios			
			Specifies each crane's park position and verifying the support cranes are clear of the tower crane jib and counter jib swing at the end of each shift			
Bull Rigging (Life Critical Activity)	Training and Competent Personnel	Loss of Control of Material Tipping Loads Crushing Injuries Falling Material	Persons involved in planning and executing Bull Rigging work operations on construction projects shall be trained and qualified to perform their assigned tasks in accordance with Y17-95-64-900, *UPF Bull Rigger Qualifications*.			
Bull Rigging (Life Critical Activity)	Categorization of Bull Rigging Operations	Loss of Control of Material Tipping Loads	In order to prescribe the extent of planning, review, and skilled oversight appropriate to the risk of each Bull Rigging operation, all Bull Rigging operations shall be categorized by the RS/BR PIC as being either "Critical" or "General" based on the operational risk characteristics in accordance with the guidelines contained in Table 1.			

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		Crushing Injuries Falling Material				
Bull Rigging (Life Critical Activity)	Bull Rigging Planning Requirements	Loss of Control of Material Tipping Loads Crushing Injuries Falling Material	· The BR PIC shall explain the Bull Rigging plan to the participants before starting the operation. The formality of this discussion varies by risk category			
			· The BR PIC creates the Bull Rigging plans for general risk operations in discussion with the Bull Rigging Team Members			
			· The plan is a verbal agreement on how the operation is to be conducted in conjunction with a JHA and FLHA			
			· The BR PIC in a general risk Bull Rigging operation shall, at a minimum, be a Qualified Bull Rigger as defined in Y17-95-64-900			
			· The BR PIC will complete a Bull Rigging Plan (refer to CFN-1352, *Bull Rigging Plan*). This plan shall be supplemented by a relevant sketch of load-handling methods for the task and any other information required to adequately explain the intent			
			· The Bull Rigging Plan will show where the rigging is to be placed and the specific rigging needed for the task			
			· The BR PIC develops the Critical Risk JHA and validates it has been reviewed and understood by all team members involved in the Bull Rigging operation			
			· The BR PIC will conduct a briefing with the Bull Rigging team prior to load- handling operations, reviewing the JHA, FLHA card, and, as applicable, the Bull Rigging Plan to inform team members of the work plan, the hazards present, and the control measures in place to manage risk to personnel and property			

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			· All members of the Bull Rigging operation will sign the FLHA card, documenting their attendance at the pre-operation briefing and agreement to adhere to the work plan, established controls, and any hold/stop work points. Bull rigging activities identified as a Critical Risk Operation are required to be directed by a BR PIC			
Bull Rigging (Life Critical Activity)	Equipment	Loss of Control of Material Tipping Loads Crushing Injuries Falling Material	· All rigging shall be used in the manner intended by the manufacturer and within their specifications and/or guidelines			
			· All elements of the rigging arrangement shall always be used within their rated capacities after applying appropriate rating reduction factors for the mode of use (D/d ratio, side loading capacity, hitch configuration used, etc.)			
			· A qualified rigger shall inspect rigging equipment prior to use and as necessary during its use to Ensure it is safe.			
			If a piece of lifting or load restraint equipment is deemed to be defective, an Out of Service tag shall be attached to it and the equipment shall be returned to the Rigging Superintendent or designee for repair or replacement. Defective equipment deemed beyond practical or economic repair shall be rendered unusable and properly disposed of the register of Lifting Equipment shall be updated accordingly.			
			· Periodic and annual inspections shall be performed in accordance with Y17-95-64-875, *UPF Control of Hoisting and Rigging Equipment*.			
			All lifting and load restraint equipment and accessories must be stored in a controlled area.			
Bull Rigging (Life Critical Activity)	Structural Steel Limitations	Loss of Control of Material Tipping Loads Crushing Injuries	· Suitable structural anchor points shall be chosen for the attachment of rigging those points shall be adequate for the most onerous load condition (magnitude and direction) the rigging will impose			
			· Loading of a structural steel member shall not be permitted unless the member is designed to be of load bearing capacity or is designed as a primary pipe and/or mechanical support			

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		Falling Material	· If a visual assessment by the BR PIC gives any concern regarding the capacity of the proposed anchor point, the BR PIC shall elevate the concern to PFE for review and confirmation. If any potential discrepancies are noted between the capacity of the rigging anchor point and the weight of the load, then the process will be stopped and the Project Field Engineer consulted			
			Steel grating, landscape timbers, scaffolding, conduit, and piping shall not be used as anchor points to support rigging hardware. All anchors shall be verified by Project Field Engineering for proper capacity and suitability for suspended rigging hardware and subsequent loadings.			
Bull Rigging (Life Critical Activity)	Temporary Load Support	Loss of Control of Material Tipping Loads Crushing Injuries Falling Material	Where a load cannot be installed in its final resting position within one work shift, the BR PIC, in conjunction with the Rigging Superintendent or designee, shall determine the equipment and rigging practices necessary to positively secure and control the load in a temporary supported position prior to the load being lifted			
			Temporary rigging, particularly synthetic slings and mechanical lifting devices (e.g., chain hoist), should not be used to hold up, or hold in place, any structural components, material, or equipment for any period longer than the end of the shift in which the use began. For multiple shifts within a 24-hour period, the Bull Rigging being used as a temporary support can be transferred to the next work shift however, mechanical lifting devices and synthetic slings should not remain as a temporary hanger longer than 24 hours			
			All loads that will be suspended by a mechanical lifting device and not immediately placed into final position should be properly secured with pipe hangers, pipe shoes, and/or other supports with a known and adequate, working load limit			
			A Qualified Bull Rigger must complete the installation of temporary pipe supports under the direction of the Rigging Superintendent or designee			
			In all cases where a load is left suspended, the Bull Rigging team shall establish a red danger hard barricade that secures the drop zone hazard area. The barricade shall be equipped with signage indicating the suspended load hazard and entry by authorized personnel only.			

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Bull Rigging (Life Critical Activity)	Monitoring the Operation	Loss of Control of Material Tipping Loads Crushing Injuries Falling Material	· The BR PIC monitors the execution of the Bull Rigging operation to ensure it remains on track, that conditions remain within established parameters, and no unanticipated hazards are presenting themselves			
			The BR PIC ensures loads and rigging equipment, etc., are always monitored to ensure the operation is progressing as planned and the rigging equipment remains within capacity. This monitoring is particularly important when upending or flipping loads. If any unanticipated shifting of weight occurs, the operation shall be stopped until the reason for the weight shift is adequately understood and the BR PIC and Bull Rigging team are satisfied it is safe to resume operations. If necessary, the assistance of a rigging engineer shall be sought to investigate.			
			The BR PIC ensures the load is not completely released from the rigging equipment until it is confirmed that the load is leveled/aligned as required, is stable, and is securely supported.			
Installation of Structural Steel	General Requirements	Pinch Points Fall to Elevation Below Structure Instability	· Be aware of hand and body placement			
			· Use sleever bars or spud wrenches to align steel members			
			· Whenever possible, steel erection will be performed with an aerial lift (boom/scissor)			
			· Employees shall not climb structural steel, nor slide columns for access/egress. Vertical travel in structural steel structures shall consist of properly placed and secured access ladders or aerial lifts (boom/scissor)			
			· If an overhead (traditional) anchor point locations cannot be achieved, an Alternate Fall Protection Plan (UCN-26359) shall be developed and implemented for the scope of work			
			· At least two bolts (wrench tight) are required per connection prior to releasing the crane and rigging. Each connection should be evaluated by the connector to determine if additional bolts (or other support) are warranted or needed due to the size of the structural member, site conditions, or weather conditions. Contact Field Engineering for additional guidance			
			· Only authorized personnel shall be allowed to work within suspended load fall zones			

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JHA NO.:	**JHA-00722**		**REV:**	**1**	**ISSUE DATE:**	**9-30-24**
JHA TITLE:	**Hoisting, Rigging, and Material Handling**		**WORK PACKAGE NUMBER:**	**N/A**	**SPECIFIC LOCATION:**	**N/A**
Activity	**Sub-Activity**	**Hazard**	**Control**			
Installation of Structural Steel	Installation of Structural Steel - Connecting Steel Members	Suspended Structural Steel	· Routes for suspended loads shall be pre-planned to ensure no employee is required to work directly below a suspended load. When required, employees engaged in the initial connection of the steel (Structural Steel Connectors) shall use tooling (e.g., sleever bar, bullpin) where feasible to temporarily align and support members while working to place and secure the required bolts			
			· Only authorized personnel shall be allowed to work within suspended load fall zones			
Installation of Structural Steel	Q-Deck Installation Activities	Falling Material Noise	· All decking shall be wind tacked or wind screwed down prior to the end of the task or the end of the shift			
			· All excess sheets and bundles of Q-deck shall be secured prior to the end of the task or end of the shift			
			· Double hearing protection required, use approved ear plugs and muffs when using powder actuated or pneumatic fasteners to secure Q-decking due to impact noise			
			· There is no requirement to install a 100 dBA boundary danger barricading.			
Linear Module, Handling and Rigging	Module Movement Planning	Loss of Control	· Prior to handling any infill linear modules Forman confirms load for compliance with drawings and piece numbers to prevent double handling			
			· Qualified Rigger (QR) will plan with the Foreman the load handling operations, including proper equipment and rigging hardware			
			· QR will plan with the FM the safest travel path inside the building and identify height of cribbing required to clear obstacles			
			· QR will confirm required chain fall size and chain fall placement location for interior positioning/installation			
			· QR will identify the module points for attachment of the rigging and ensure correct size rigging is utilized			
			· QR will identify any yellow shipping steel to be removed as necessary			

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JHA TITLE:	**Hoisting, Rigging, and Material Handling**		**WORK PACKAGE NUMBER:**	**N/A**	**SPECIFIC LOCATION:**	**N/A**
Activity	**Sub-Activity**	**Hazard**	**Control**			
			· QR must be a part of the FLHA discussion for all linear modules where handling plans will be discussed with the crew			
			· Sketch FSK-CM-801768-A192 will be used as a demonstration of proper skate placement and module orientation during travel/positioning			
Linear Module, Handling and Rigging	Initial Offload	Loss of Control	· Offload linear modules from the trailer as a unit in the vertical position and set in the lay down area for disassembly into separate individual linier modules			
			o Each disassembled module component is rigged/lifted and set in the staging area in the horizontal position			
Linear Module, Handling and Rigging	Prep to Move into Building/Structure	Loss of Control	· Crew confirms interior travel path and utilizes appropriate cribbing on skates per the plan			
			· During module movement on skates - Spotter must accompany load and notify surrounding area. Workers must stay out of line of fire			
Linear Module, Handling and Rigging	Prep for Installation	Loss of Control	· The installation location is properly barricaded for the lifting operations			
			· At the installation location the module is rigged per QR direction and lifted from the horizontal to the vertical position for bolt up			
Linear Module, Handling and Rigging	Module Storage	Loss of Control	· Any vertically stored module not being actively worked must be secured by lashing to complete main structural steel in which all bolts are installed and tight. Lashing may consist of wire rope and clips, Synthetic chain, or slings/shackles/rigging hardware to secure the load on cribbing until the next shift			
			· At initial installation, 2 bolts per connection are required prior to the crew leaving for any reason. No mechanical rigging will be left in place (under a load) during lunch or after shift			

THE NATION'S URANIUM PROCESSING FACILITY

UPF JOB HAZARD ANALYSIS

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JHA TITLE:	**Hoisting, Rigging, and Material Handling**	**WORK PACKAGE NUMBER:**	**N/A**	**SPECIFIC LOCATION:**	**N/A**
Ensure a new corresponding CFN-1251, *UPF Construction Attendance Sheet*, is signed and inserted in the CWP to document JHA briefing.					
PREPARER:		Nicholas Prewitt Printed Name/Signature		10/07/24 Date	
APPROVAL:					
ES&H:		Anton Panev Printed Name/Signature		10/07/24 Date	
SITE MANAGER: (DOA-CM-801768-A214)		Wesley Stone Printed Name/Signature		10/16/24 Date	