



UPF JOB HAZARD ANALYSIS

My signature on the corresponding CFN-1251, UPF Construction Attendance Sheet, indicates that I have read the JHA and have received answers to any questions I had relative to the JHA. My signature further indicates my willingness to comply with the provisions and requirements of the JHA.

JHA NO.:		JHA-00765	REV:	1	ISSUE DATE:	5-6-25
JHA TITLE:		K31 Waterline Replacement	WORK PACKAGE NUMBER:	CWP-VPUBEDG100-D08	SPECIFIC LOCATION:	K-31
Activity	Sub-Activity	Hazard	Control			
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 Fire	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			
			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			
			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			
Hazardous Material Use	Labeling of Hazardous Materials	Inadequate Hazard Communication	Storage areas must be kept organized so materials can be properly inspected, inventoried, and segregated considering their compatibility			
			Labeling of hazardous materials shall be in accordance with Appendix B of UPF-CP-202, <i>Container Labeling Instructions</i>			
			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			





UPF JOB HAZARD ANALYSIS

My signature on the corresponding CFN-1251, UPF Construction Attendance Sheet, indicates that I have read the JHA and have received answers to any questions I had relative to the JHA. My signature further indicates my willingness to comply with the provisions and requirements of the JHA.

JHA NO.:		JHA-00765	REV:	1	ISSUE DATE:	5-6-25
JHA TITLE:		K31 Waterline Replacement	WORK PACKAGE NUMBER:	CWP-VPUBEDG100-D08	SPECIFIC LOCATION:	K-31
Activity	Sub-Activity	Hazard	Control			
			<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 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	<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 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, <i>Construction Waste Management Plan for the Uranium Processing Facility</i> 			
Powered Industrial Truck (PIT)	General Equipment	Loss of Load Improper Use of Tools/Equipment	Review the applicable work activities and implement the associated work controls listed in JHA-00728, Vehicle Safety management, PITs and MEWPs.			
Safety Watch	Traffic Watch (Flagger)	Moving Equipment	In the event a traffic pattern is altered due to construction activities, MUTCD, <i>Manual on Uniform Traffic Control Devices for Streets and Highways – 2009 Edition</i> , guidance will be applied for the use of signage and Flaggers.			
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: 			



UPF JOB HAZARD ANALYSIS

My signature on the corresponding CFN-1251, UPF Construction Attendance Sheet, indicates that I have read the JHA and have received answers to any questions I had relative to the JHA. My signature further indicates my willingness to comply with the provisions and requirements of the JHA.

JHA NO.:		JHA-00765	REV:	1	ISSUE DATE:	5-6-25
JHA TITLE:		K31 Waterline Replacement	WORK PACKAGE NUMBER:	CWP-VPUBEDG100-D08	SPECIFIC LOCATION:	K-31
Activity	Sub-Activity	Hazard	Control			
			<ul style="list-style-type: none"> 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 			
Vehicle Safety Management	General Requirements	Vehicle Collision	Review the applicable work activities and implement the associated work controls listed in JHA-00728, Vehicle Safety management, PITs and MEWPs.			
Working On/Near Roadways	General Requirements	Struck By Vehicle Collision	<ul style="list-style-type: none"> · Safety barriers and DOT traffic signs will be installed to protect workers and warn vehicles of worker presence · Substantial physical protection measures capable of withstanding vehicle impact (e.g., concrete barriers, earthen barriers) for personnel who are involved with directing/guiding vehicles on roadways with posted speed limits in excess of 20 miles per hour · All road closures will be coordinated with Y12 OC and follow the UPF Traffic Plan for the site 			
Working Near Overhead Utilities	General Requirements	Electric Shock	Heavy equipment operations near or under power lines must maintain a minimum clearance distance of: <ul style="list-style-type: none"> · 30ft for lines up to 25kV · 50ft for lines over 25kV · Work is prohibited beyond the boundary unless the line has been de-energized or insulated · Use spotters to help maintain proper clearance from overhead utilities. The spotter shall be positioned to effectively gauge the clearance distance and be in direct communication with operator (e.g., verbal, radio) 			
High Noise Activities	Hearing Protection	Noise	Workers are responsible for complying with the requirements of the HCP, including the following: <ul style="list-style-type: none"> · Wear required hearing protection PPE (e.g., earmuffs and/or earplugs) · Wear noise dosimeter devices, as assigned by PIH or ES&H Representative · Follow HCP-required safety postings 			



UPF JOB HAZARD ANALYSIS

My signature on the corresponding CFN-1251, UPF Construction Attendance Sheet, indicates that I have read the JHA and have received answers to any questions I had relative to the JHA. My signature further indicates my willingness to comply with the provisions and requirements of the JHA.

JHA NO.:		JHA-00765	REV:	1	ISSUE DATE:	5-6-25
JHA TITLE:		K31 Waterline Replacement	WORK PACKAGE NUMBER:	CWP-VPUBEDG100-D08	SPECIFIC LOCATION:	K-31
Activity	Sub-Activity	Hazard	Control			
			<ul style="list-style-type: none"> Attend or participate in HCP training or other requirements (e.g., audiograms) 			
			Noise hazards will be assessed as part of the work planning process via job hazard analysis (JHA). In addition, workers will review noise hazards and hazard controls at the work location daily (or more frequently as appropriate) via the Field Level Hazard Assessment (FLHA) process			
			Workers must wear hearing protection devices when any of the following situations or conditions applies:			
			<ul style="list-style-type: none"> Waiting for a sound-level survey to be completed 			
			<ul style="list-style-type: none"> Performing a task whose work documents (e.g., JHA, FLHA) and/or this program require workers wear hearing protection 			
			<ul style="list-style-type: none"> Working in or passing through posted noise hazard locations as specified by the area postings or signs 			
			<ul style="list-style-type: none"> Using tools designated as high-noise equipment. 			
Environmental Conditions (Heat & Cold Stress)	Heat Stress Communications	Heat Stress	When heat is combined with physical activity, loss of fluids, fatigue, and other conditions, then heat-related occupational illnesses and injuries may occur. Be alert to conditions that could cause heat stress and take precautions to prevent it. Check with your ES&H representative for details on how to address extremely hot and/or humid conditions.			
			Heat stress can be reduced by taking the following precautions:			
			<ul style="list-style-type: none"> Drink plenty of cool water 			
			<ul style="list-style-type: none"> Follow a work-and-rest regime developed by the ES&H representative in coordination with your supervisor 			
			<ul style="list-style-type: none"> Make sure you understand the signs and symptoms of heat stress, which include the following: 			
			<ul style="list-style-type: none"> o Heat cramps - painful muscle cramps caused by a loss of body salt through excessive sweating o Heat exhaustion - indicates the body's cooling system is not working properly. The victim will sweat heavily the victim's skin will be cool and moist and the victim will seem tired, confused, clumsy, irritable, or upset. Victims of heat exhaustion may tell you that they are all right, even when they are exhibiting obvious symptoms, because heat exhaustion affects their ability to exercise good judgment 			



UPF JOB HAZARD ANALYSIS

My signature on the corresponding CFN-1251, UPF Construction Attendance Sheet, indicates that I have read the JHA and have received answers to any questions I had relative to the JHA. My signature further indicates my willingness to comply with the provisions and requirements of the JHA.

JHA NO.:		JHA-00765	REV:	1	ISSUE DATE:	5-6-25
JHA TITLE:		K31 Waterline Replacement	WORK PACKAGE NUMBER:	CWP-VPUBEDG100-D08	SPECIFIC LOCATION:	K-31
Activity	Sub-Activity	Hazard	Control			
			o Heat stroke - the deadliest of all heat stress conditions. The victim's body temperature will rise the victim's skin may be hot, red, and dry and the victim may complain of headache or dizziness. The victim will probably be weak, confused, or upset			
			o If you feel any of these symptoms, seek first aid immediately. Know the location of the nearest first-aid station and the on-site Occupational Health Services location			
			· Heat stress communications include:			
			o When heat stress conditions are anticipated, ES&H will post advisories for heat stress (Daily Information Sheet and Safely Speaking). Supervisors flow down this information and advice employees when they are at increased risk of developing heat-related illness			
			o When a work/rest regimen is in effect, ES&H will communicate the work/rest regimen via radio announcements and text messages			
			o Supervisors and STRs are responsible for flow down of work/rest announcements and for understanding in what areas their employees/subcontractors are working			
			o A repeat radio notification will be sent out five minutes after the first one to ensure all workers affected by the work/rest regimen are notified and have enough time to take their rest period, if applicable			
Environmental Conditions (Heat & Cold Stress)	Hot Weather Preparation	Heat Stress	o Work/rest regimens are mandatory. Cool-down areas must be utilized during the rest period.			
			When heat stress conditions are expected in upcoming activities, supervision shall begin planning for hot weather by taking the following steps:			
			· Establishing cooling stations (e.g., vehicles, shade structures, cool rooms) for areas that may implement a work/rest cycle			
			· Setting up air-moving equipment (e.g., fans, air-conditioners)			
			· Preparing other materials and equipment, as necessary			



UPF JOB HAZARD ANALYSIS

My signature on the corresponding CFN-1251, UPF Construction Attendance Sheet, indicates that I have read the JHA and have received answers to any questions I had relative to the JHA. My signature further indicates my willingness to comply with the provisions and requirements of the JHA.

JHA NO.:		JHA-00765	REV:	1	ISSUE DATE:	5-6-25
JHA TITLE:		K31 Waterline Replacement	WORK PACKAGE NUMBER:	CWP-VPUBEDG100-D08	SPECIFIC LOCATION:	K-31
Activity	Sub-Activity	Hazard	Control			
			· Briefing workers on heat-related hazards, symptoms, and work controls, encouraging the practice of self-determination			
			· Beginning the evaluation of potential heat-related conditions/tasks			
			· Identifying preventative measures in daily and weekly planning meetings			
			· Briefing supervisors on acclimatization			
Working with Materials Containing Respirable Crystalline Silica (RCS)	Methods of Compliance	Inhalation of Particulates (Silica)	· For tasks performed indoors or in enclosed areas, provide a means of exhaust as needed to minimize the accumulation of visible airborne dust			
			· For tasks performed using wet methods, apply water at flow rates sufficient to minimize release of visible dust			
			· For measures implemented that include an enclosed cab or booth, Ensure the enclosed cab or booth is maintained as free as practicable from settled dust, has door seals and closing mechanisms that work properly, has gaskets and seals that are in good condition and working properly, is under positive pressure maintained through continuous delivery of fresh air, has intake air that is filtered through a filter that is 95% efficient in the range between 0.3 and 10.0 micrometers (e.g., Minimum Efficiency Reporting Value rating of 16 or better), and has heating and cooling capabilities			
			· If the equipment/task is not listed or does not apply as indicated in Attachment A, then the use of engineering controls and associated work practice controls shall be considered as the primary method for controlling worker exposures to respirable silica dust.			
Working with Materials Containing Respirable Crystalline Silica (RCS)	Work Practice Controls	Inhalation of Particulates (Silica)	Typical work practice controls include the following:			
			· Inspect and maintain controls to prevent or fix malfunctions that could result in increased exposures			
			· Confirm that nozzles spray water at the point of dust generation for wet method controls			
			· Confirm that hoses are not kinked on a tool used with a dust collector			



UPF JOB HAZARD ANALYSIS

My signature on the corresponding CFN-1251, UPF Construction Attendance Sheet, indicates that I have read the JHA and have received answers to any questions I had relative to the JHA. My signature further indicates my willingness to comply with the provisions and requirements of the JHA.

JHA NO.: JHA-00765		REV: 1	ISSUE DATE: 5-6-25
JHA TITLE: K31 Waterline Replacement		WORK PACKAGE NUMBER: CWP-VPUBEDG100-D08	SPECIFIC LOCATION: K-31
Activity	Sub-Activity	Hazard	Control
			· Moisten crystalline silica dust before sweeping, shoveling, or vacuuming
			NOTE: Material must be continuously and thoroughly wetted at all times with no visible dust generation
			· Schedule work so that tasks that involve high exposures are performed when no other applicable project personnel are in the area
			· When necessary, barricades and signs shall be used to control personnel access to areas to limit not only the number of applicable project personnel exposed to respirable crystalline silica but also the levels to which applicable project personnel are exposed
			· Follow the applicable sections of UPF-CP-318, <i>Respirator Use and Issuance</i> and UPF-CP-214, <i>Barricades and Signs</i> .
Working with Materials Containing Respirable Crystalline Silica (RCS)	Housekeeping	Inhalation of Particulates (Silica)	· Compressed air cleaning of surfaces or clothing is not allowed unless this method is used in conjunction with a ventilation system that effectively captures the dust cloud created by the compressed air. Workers shall use a ventilation system with a high-efficiency particulate air (HEPA) filter or other approved method to clean surfaces or clothing if necessary
			· Dry sweeping or dry brushing is prohibited where such activity could contribute to applicable project personnel exposure to silica. Use wet sweeping or shoveling, or a HEPA-filtered vacuum cleaner
			· Concrete slurry (e.g., from dust control methods or excess water from concrete
			cleaning) shall be removed from work areas by wet vacuuming or other similar methods and placed into appropriate concrete washout bins, containers or other locations to prevent accumulation of silica dust on work surfaces
	Concrete Prep.	Flying Particles	· Reference ML-SH-801768-A002, UPF Eye and Face Protection List



UPF JOB HAZARD ANALYSIS

My signature on the corresponding CFN-1251, UPF Construction Attendance Sheet, indicates that I have read the JHA and have received answers to any questions I had relative to the JHA. My signature further indicates my willingness to comply with the provisions and requirements of the JHA.

JHA NO.:		JHA-00765	REV:	1	ISSUE DATE:	5-6-25
JHA TITLE:		K31 Waterline Replacement	WORK PACKAGE NUMBER:	CWP-VPUBEDG100-D08	SPECIFIC LOCATION:	K-31
Activity	Sub-Activity	Hazard	Control			
Working with Materials Containing Respirable Crystalline Silica (RCS)		Inhalation of Particulates (Silica) Environmental Waste	<ul style="list-style-type: none"> Fully and properly implement the engineering controls, work practices, and respiratory protection requirements specified for the equipment/tasks in ML-SH-801768-A010. For tasks performed using wet methods, apply water at sufficient flow rates determined by Industrial Hygiene. For tasks using local exhaust ventilation, use the tool and any attachments according to the manufacturer's recommendations 			
			<ul style="list-style-type: none"> For tasks performed indoors or in enclosed areas, provide a means of exhaust as needed to minimize the accumulation of visible airborne dust. If a respirator is required per Table 2, then a minimum of a half face respirator (APF 10) with P100/HEPA cartridges shall be worn 			
			<ul style="list-style-type: none"> When conducting periodic maintenance of the HEPA vacuums (i.e., changing the bags, filters, etc.) at a minimum wear a half-face respirator (APF 10). Handle parts and components of the vacuum with care not to suspend the material accumulated on the surfaces 			
			<ul style="list-style-type: none"> Barricade and Signage: <ul style="list-style-type: none"> Install danger barricade tape with completed danger signs or tags around the activity that requires respiratory protection to adequately protect adjacent personnel Transfer silica dust contained by HEPA vacuum or other removal processes to identified "Special Waste" staging area for disposal (posted area next to the BNI concrete washout area) Slurry material generated by wet control methods should be collected with other solid concrete debris and transported/deposited in the BNI concrete wash-out area. 			
Excavation (Life Critical Activity)	Evaluation of Areas Excavation Areas	Cave-in Hazardous Atmosphere Property Damage	1. Responsible Person to evaluate each excavation scope of work considering the level of risk. Risk evaluation will primarily look at known utilities within the limits of excavation and type of utility. The daily work plan shall identify energized utilities within the excavation limits and determine if associated hazards can be eliminated (i.e., LOTO or air gap). If hazard cannot be eliminated, the execution plan including protective measure requires a full review and approval by the Site Manager.			



UPF JOB HAZARD ANALYSIS

My signature on the corresponding CFN-1251, UPF Construction Attendance Sheet, indicates that I have read the JHA and have received answers to any questions I had relative to the JHA. My signature further indicates my willingness to comply with the provisions and requirements of the JHA.

JHA NO.:		JHA-00765	REV:	1	ISSUE DATE:	5-6-25
JHA TITLE:		K31 Waterline Replacement	WORK PACKAGE NUMBER:	CWP-VPUBEDG100-D08	SPECIFIC LOCATION:	K-31
Activity	Sub-Activity	Hazard	Control			
		Improper Hazard Communication Inadequate Access/Egress	2. Review the excavation permit with the applicable superintendent and field engineer for adequacy. 3. Once determination has been made to proceed with excavation activity, a briefing of all personnel assigned to the scope of work. This documented briefing is to discuss the minimum expectations for all excavating activity.			
	DAILY Work Start of Excavation Activity	Cave-in Hazardous Atmosphere Property Damage Improper Hazard Communication Inadequate Access/Egress	<p>The Responsible Person for the excavation/demolition will ensure the following is completed and verified each shift (by signing a copy of the as-built survey drawing for that shift's scope):</p> <ol style="list-style-type: none"> 1. Superintendent to be present at work location for FLHA briefing. 2. The daily work plan will be documented on FLHA card and marked on a copy of the approved SEN survey as-built exhibit. 3. Assigned responsible person for the excavation will ensure the following is complete and verified: <ul style="list-style-type: none"> • Excavation has been inspected and signed off by an Excavation Competent Person (CFN-1031). • Ensure all utilities within the designed daily scope are clearly marked. • Perform a daily scope brief and ensure everyone involved in the excavation activity signs in. • Ensure the location of all utilities within the designated daily scope have been positively identified by using hand digging or hydro-excavation prior to Mechanical Excavation. • Ensure the survey as-built for the SEN is maintained in the cab of equipment performing the excavations. • SEN and/or daily LOE shall include allowable machine excavation distances to visible commodity with spotter assistance. • Ensure the spotters for the equipment has a copy of the survey as-built for the SEN. • Ensure a copy of the SEN and this JHA is available at the work location • Ensure everyone entering the excavation be briefed and signed onto the FLHA card <p>NOTE 1: The requirements listed above must be included in the "Hold Point" section of the SEN.</p> <p>NOTE 2: When entering an excavation barricade and your intent is to excavate, you must be briefed on the daily excavation LOE and scope by the responsible person.</p>			



UPF JOB HAZARD ANALYSIS

My signature on the corresponding CFN-1251, UPF Construction Attendance Sheet, indicates that I have read the JHA and have received answers to any questions I had relative to the JHA. My signature further indicates my willingness to comply with the provisions and requirements of the JHA.

JHA NO.:		JHA-00765	REV:	1	ISSUE DATE:	5-6-25
JHA TITLE:		K31 Waterline Replacement	WORK PACKAGE NUMBER:	CWP-VPUBEDG100-D08	SPECIFIC LOCATION:	K-31
Activity	Sub-Activity	Hazard	Control			
	General Requirements	Cave-in Hazardous Atmosphere Property Damage Improper Hazard Communication Inadequate Access/Egress	<p>IMPORTANT NOTE: It is the responsibility of each person to verify the excavation has been inspected by a competent person and to review the CFN-1031 (UPF Daily Trench Safety Report form)</p> <p>Follow the requirements of the excavation permit with regards to potholing near existing utilities</p> <ul style="list-style-type: none"> Never enter, or direct others to enter, an excavation or trench without a prior, documented, formal assessment (CFN-1031) by a Competent Person for excavation and trenching Review the CFN-1031, Daily Excavation/Trench Safety Report, completed by the Competent Person and inspect the area to verify safe entry into excavation boundary Use only established excavation access points and walkways. Verify the work being performed does not create a hazardous atmosphere (e.g., shielded welding, use of gas-powered equipment). Contact Industrial Hygiene for further evaluation Never perform excavation or trenching work without the onsite presence of a Competent Person for excavation and trenching Protective measures (i.e., sloping, benching, trench boxes) must be installed in all excavations over four (4) feet in depth Excavation hazards are controlled through the completion and use of an excavation permit per CFN-1030, Site Excavation Notification. Form CFN-1031, Daily Excavation/Trench Safety Report, is used to track day to day changes to the excavation area as well as access to the area. Excavations and trenches shall be appropriately identified with signs, warnings, and barricades Excavation barricades may be established using semi-permanent material (i.e., temporary "orange" fencing). Excavations across or next to a roadway should be protected by semi-permanent concrete vehicle barriers (CVB) or orange Jersey barriers. Roadway signs or equivalent should be used to alert vehicle traffic that personnel are working in excavations adjacent to the roadways. 			
	Backfill Activities	Crush Hazardous Atmosphere	<ul style="list-style-type: none"> When using the jumping jack compactor or pneumatic pogo stick compactor metatarsal guards are required Verify the equipment in use does not create a hazardous atmosphere. Contact Industrial Hygiene for further evaluation 			



UPF JOB HAZARD ANALYSIS

My signature on the corresponding CFN-1251, UPF Construction Attendance Sheet, indicates that I have read the JHA and have received answers to any questions I had relative to the JHA. My signature further indicates my willingness to comply with the provisions and requirements of the JHA.

JHA NO.:		JHA-00765	REV:	1	ISSUE DATE:	5-6-25
JHA TITLE:		K31 Waterline Replacement	WORK PACKAGE NUMBER:	CWP-VPUBEDG100-D08	SPECIFIC LOCATION:	K-31
Activity	Sub-Activity	Hazard	Control			
	Safety Precautions and Requirements	Cave-in Improper Hazard Communication Loss of Load Moving Equipment	<ul style="list-style-type: none"> · Appropriately identifying excavations and trenches with signs, warnings, and barricades and, where required, have a barricade around the entire perimeter with designated access points. · Removing spoil material and any other material the proper distance away from the edge of excavations. Spoils and any other material storage must be kept at least 2 feet (0.6 meters) away from the excavation edge. If this is not completed, then retaining devices must be utilized to prevent materials or equipment from falling or rolling into the excavations. A combination of both methods may be used, as required · Ensuring no employee is permitted underneath loads handled by lifting or digging equipment, and no employee who is inside the barricaded excavation stands within the swing radius or blind spots of operating equipment · Avoiding pedestrian traffic and/or walking around or behind excavation. ALL ground personnel shall establish positive eye contact with equipment operators and receive positive acknowledgement back from the operator before moving into the path of equipment · Utilizing a warning system (e.g., barricades, spotter, restraining device) when mobile equipment must be operated adjacent to an excavation and the operator does not have a clear and direct view of the edge of the excavation <p>Installing walkways across excavations where employees or equipment are required to cross over excavations. Guardrails shall be installed where walkways are 6 feet (1.8 meters) or more above lower levels</p> <ul style="list-style-type: none"> · Ensuring Personal Fall Arrest Systems (PFAS) are used to protect personnel from free falling six feet or greater to the next level (e.g., excavation floor) where vertical or near vertical excavation walls exist. Personnel are not allowed to walk or work between the excavation barricade and excavation slope if a fall hazard of six feet or greater to the next level exists without using a PFAS · All excavations shall be provided with a suitable means of access and egress in the form of ramps, stairways, and/or ladders · If hazardous or unknown materials are suspected and/or encountered, then the work shall be discontinued until a qualified individual or group (e.g., environmental compliance lead, Health Physics/Radiation Protection) can identify the suspect material and ensure it is safe to continue working. If it is determined that the material is hazardous, then all applicable contract requirements and jurisdictional codes and standards must be followed in order to handle these materials. The area 			



UPF JOB HAZARD ANALYSIS

My signature on the corresponding CFN-1251, UPF Construction Attendance Sheet, indicates that I have read the JHA and have received answers to any questions I had relative to the JHA. My signature further indicates my willingness to comply with the provisions and requirements of the JHA.

JHA NO.:		JHA-00765	REV:	1	ISSUE DATE:	5-6-25
JHA TITLE:		K31 Waterline Replacement	WORK PACKAGE NUMBER:	CWP-VPUBEDG100-D08	SPECIFIC LOCATION:	K-31
Activity	Sub-Activity	Hazard	Control			
			shall be barricaded with red barricade tape and danger tags meeting requirements of UPF- CP-214, Barricades and Signs, prior to the end of shift. After suspected hazardous material has been identified as "hazard free" by a qualified person, the RS shall contact the CNS ES&H Oversight Lead for further instruction regarding disposition of legacy material · Suspected hazardous material shall be barricaded or segregated (e.g., bagged and tagged appropriately) prior to end of shift · Ensure excavations are free from storm water. If necessary, pump and reroute the storm water. Divert surface drainage from surrounding areas and away from the excavations. Discharge storm water in a manner that does not produce erosion and is consistent with disposal measures or requirements identified in the SWPPP or other applicable jurisdictional regulations or permits.			
	Clearing, Grubbing, and Scrubbing	Fire	DO NOT use burning as a means of clearing or disposing of material.			
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, Barricades, PPE, FLHA.			
Working with Materials Containing Respirable Crystalline Silica (RCS)	Walk Behind Saw	Exposure to Silica Contact with moving parts Improper use.	-Avoid dry cutting any material. Utilize the integrated water delivery system that continuously feed water to the blade. Follow Attachment AY72-95-003			
			-Operate and maintain the tool in accordance with the manufacturer's instructions to minimize dust emissions			
			-Keep all guards in place and in good condition.			
			-Keep all parts of your body away from the blade and all other moving parts.			
			-Inspect the blade, flanges and shafts for damage before installing the blade			
			-Use the correct blade for the type of work being done. Check with blade manufacturer if you do not know if blade is correct.			
			-Don't stand behind or in front of the blade path while the engine is running. Ensure that all guards and shields are installed prior to operating.			



UPF JOB HAZARD ANALYSIS

My signature on the corresponding CFN-1251, UPF Construction Attendance Sheet, indicates that I have read the JHA and have received answers to any questions I had relative to the JHA. My signature further indicates my willingness to comply with the provisions and requirements of the JHA.

JHA NO.:		JHA-00765	REV:	1	ISSUE DATE:	5-6-25
JHA TITLE:		K31 Waterline Replacement	WORK PACKAGE NUMBER:	CWP-VPUBEDG100-D08	SPECIFIC LOCATION:	K-31
Activity	Sub-Activity	Hazard	Control			
			-Only employees authorized to operate the equipment should do so.			
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			
			· 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			



UPF JOB HAZARD ANALYSIS

My signature on the corresponding CFN-1251, UPF Construction Attendance Sheet, indicates that I have read the JHA and have received answers to any questions I had relative to the JHA. My signature further indicates my willingness to comply with the provisions and requirements of the JHA.

JHA NO.:		JHA-00765	REV:	1	ISSUE DATE:	5-6-25
JHA TITLE:		K31 Waterline Replacement	WORK PACKAGE NUMBER:	CWP-VPUBEDG100-D08	SPECIFIC LOCATION:	K-31
Activity	Sub-Activity	Hazard	Control			
			· 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			
			· 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			
Lockout/Tagout (Life Critical Activity)	Prerequisites to Isolation	Release of Hazardous Energy	The following are prerequisites to isolation:			
			· Personnel shall not isolate a piece of plant equipment until they possess the appropriate training, competencies, and authorization to isolate a specific item of plant or equipment			
			· Personnel shall not work on or within safe approach boundaries of a piece of plant equipment until they possess the appropriate training, competencies, and authorization			
			· Any personnel escorting a visitor ensures the visitor does not manipulate or otherwise tamper with any plant component under control of this Procedure			
			· An EIP is not always required for certain work scopes that can be executed by isolation under direct control of the individual performing the work			
			· Personal locks shall only be attached and removed by their owner utilizing the lock's uniquely matched key			
Lockout/Tagout (Life Critical Activity)	Preparation, Issue, and Implementation	Release of Hazardous Energy	· The intent of CFN-1312A and CFN-1312B is to protect people. If any doubt exists regarding the level of protection that an isolation might provide, any potential hazards and mitigation necessary shall be fully addressed via the Job Hazard Analysis (JHA) process			



UPF JOB HAZARD ANALYSIS

My signature on the corresponding CFN-1251, UPF Construction Attendance Sheet, indicates that I have read the JHA and have received answers to any questions I had relative to the JHA. My signature further indicates my willingness to comply with the provisions and requirements of the JHA.

JHA NO.:		JHA-00765	REV:	1	ISSUE DATE:	5-6-25
JHA TITLE:		K31 Waterline Replacement	WORK PACKAGE NUMBER:	CWP-VPUBEDG100-D08	SPECIFIC LOCATION:	K-31
Activity	Sub-Activity	Hazard	Control			
Lockout/Tagout (Life Critical Activity)			<ul style="list-style-type: none"> No work shall proceed within the boundary of the EIP until the isolation points are verified, the permit has been signed as issued by the TA, and the WGS and/or AE for the working group have signed on the permit accepting the permit and zero-energy has been verified. 			
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) Lockout/Tagout (Life Critical Activity) Field Level Hazard Assessment (FLHA) 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 			
			<ul style="list-style-type: none"> · The work activity changes 			
			<ul style="list-style-type: none"> · The Responsible Superintendent deems it necessary 			



UPF JOB HAZARD ANALYSIS

My signature on the corresponding CFN-1251, UPF Construction Attendance Sheet, indicates that I have read the JHA and have received answers to any questions I had relative to the JHA. My signature further indicates my willingness to comply with the provisions and requirements of the JHA.

JHA NO.:		JHA-00765	REV:	1	ISSUE DATE:	5-6-25
JHA TITLE:		K31 Waterline Replacement	WORK PACKAGE NUMBER:	CWP-VPUBEDG100-D08	SPECIFIC LOCATION:	K-31
Activity	Sub-Activity	Hazard	Control			
			· 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.			
Hoisting and Rigging Work Operations (Life Critical Activity)	Hoisting and Rigging using mobile equipment (e.g., excavator, all-terrain forklift) other than cranes	Loss of Control of Material Tipping Loads Crushing Injuries Falling Material	Adhere to the applicable Hoisting and Rigging Work Operations General Requirements outlined above. When hoisting and rigging loads from mobile equipment other than cranes: <ul style="list-style-type: none"> • Equipment shall be approved for handling suspended loads by the manufacturer • Equipment manufacturer guidance regarding suspended loads shall be followed • PIC shall be present and guiding the operation • Suitable and inspected rigging gear shall be used • A low, medium or critical risk lift plan shall be used (ref. Y-17-95-64-871, UPF Construction Hoisting and Rigging Work Operations) • Excavators must only be used for lifting when the excavator is designed to lift loads, has a load chart displayed in the cab, and the operator has been properly trained to understand the load charts for the equipment they are operating. Excavators must be: <ul style="list-style-type: none"> o Thoroughly inspected before use and have weekly inspections; o Examined after alteration or repair; o Positioned on a stable surface; and o Have properly designed and installed lifting points and check valves. • Authorized equipment operators must complete the Basic Rigging Fundamentals Training. 			
Ladders Hoisting and Rigging Work Operations (Life Critical Activity) 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			



UPF JOB HAZARD ANALYSIS

My signature on the corresponding CFN-1251, UPF Construction Attendance Sheet, indicates that I have read the JHA and have received answers to any questions I had relative to the JHA. My signature further indicates my willingness to comply with the provisions and requirements of the JHA.

JHA NO.:		JHA-00765	REV:	1	ISSUE DATE:	5-6-25
JHA TITLE:		K31 Waterline Replacement	WORK PACKAGE NUMBER:	CWP-VPUBEDG100-D08	SPECIFIC LOCATION:	K-31
Activity	Sub-Activity	Hazard	Control			
			· 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			
			· 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			



UPF JOB HAZARD ANALYSIS

My signature on the corresponding CFN-1251, UPF Construction Attendance Sheet, indicates that I have read the JHA and have received answers to any questions I had relative to the JHA. My signature further indicates my willingness to comply with the provisions and requirements of the JHA.

JHA NO.:		JHA-00765	REV:	1	ISSUE DATE:	5-6-25
JHA TITLE:		K31 Waterline Replacement	WORK PACKAGE NUMBER:	CWP-VPUBEDG100-D08	SPECIFIC LOCATION:	K-31
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			
Environmental Protection Practices and Requirements Ladders Environmental Protection Practices and Requirements	Spill Prevention and Control	Unwanted Environmental Impact	· Maintain best management practices for spill prevention, such as the following:			
			o Store hazardous materials away from drainages, streams, and wetlands			
			o Provide weather protection and secondary containment as necessary			
			o Ensure spill kits are stocked and available on site			
			· Take the following actions if a minor (hydraulic, fuel) spill occurs:			
			o Shut down the equipment			
			o Isolate the spill and prevent the spilled fluid from entering into drains or waterways			
			o Apply absorbent material and remove or containerize the contaminated soil			
			· Take the following actions if a major or emergency spill occurs:			
			o Evacuate as necessary or as directed by emergency services personnel			



UPF JOB HAZARD ANALYSIS

My signature on the corresponding CFN-1251, UPF Construction Attendance Sheet, indicates that I have read the JHA and have received answers to any questions I had relative to the JHA. My signature further indicates my willingness to comply with the provisions and requirements of the JHA.

JHA NO.:		JHA-00765	REV:	1	ISSUE DATE:	5-6-25
JHA TITLE:		K31 Waterline Replacement	WORK PACKAGE NUMBER:	CWP-VPUBEDG100-D08	SPECIFIC LOCATION:	K-31
Activity	Sub-Activity	Hazard	Control			
			<ul style="list-style-type: none"> o Notify your supervisor and call OC at (865) 574-7172. The OC will dispatch the Spill Response Coordinator or Fire Department as necessary · If safe to do so, then contain the spill to prevent it from spreading. 			
Environmental Protection Practices and Requirements	Erosion and Sediment Control	Unwanted Environmental Impact	<ul style="list-style-type: none"> · Install erosion and sediment controls prior to any construction work. Maintain those controls throughout the work. Controls may be temporarily removed during a shift, but must be replaced at the end of the shift · Report any damaged or nonfunctioning controls to your supervisor 			
Environmental Protection Practices and Requirements	Unexpected Conditions and Sensitive Area Protection	Unwanted Environmental Impact	<ul style="list-style-type: none"> · Project personnel must be knowledgeable about and comply with environmental rules and regulations applicable to their work tasks, including rules and regulations relating to hazardous substances and wastes. Review work packages and other work control documents to understand environmental requirements for a specific work task · If you encounter any of the following during the course of your work, stop and notify your supervisor and/or ES&H representative: <ul style="list-style-type: none"> o Artifacts (archeological or production related) o Chemically (smelly, shiny, or sticky) or radiologically contaminated soils o Buried drums, pipes, tanks, and other debris · Sensitive areas include wetlands, riparian zones (areas near creeks, streams, or similarly flowing water), archeological sites, greenfield sites, and sensitive habitat areas · Review applicable environmental practices and regulations before starting or performing construction work in or near a sensitive area: <ul style="list-style-type: none"> o Ensure the area has been assessed for compliance and cleared for work to start by a competent person o Ensure boundary limits are established and understood o Sensitive areas and buffer zones are often marked on the Project footprint. 			



UPF JOB HAZARD ANALYSIS

My signature on the corresponding CFN-1251, UPF Construction Attendance Sheet, indicates that I have read the JHA and have received answers to any questions I had relative to the JHA. My signature further indicates my willingness to comply with the provisions and requirements of the JHA.

JHA NO.:		JHA-00765	REV:	1	ISSUE DATE:	5-6-25
JHA TITLE:		K31 Waterline Replacement	WORK PACKAGE NUMBER:	CWP-VPUBEDG100-D08	SPECIFIC LOCATION:	K-31
Activity	Sub-Activity	Hazard	Control			
Vacuum Excavator Use Vacuum Excavator Use	Operation	Laceration Flying Debris High Noise Entanglement Pressurized Fluid Struck-by Explosion Electrocution Falls to Lower Level	Read and understand all safety and operating manufacturer instructions before operating this machine.			
			Personnel excavating are required to wear double hearing protection:			
			At a minimum, wear single hearing protection devices with NRR of 33 with ear muffs.			
			Barricade and Signage:			
			Install danger barricade tape with danger signs or tags to identify the 100dBA boundary area.			
			Wear sealed safety glasses (spoggles) or goggles and face shield when excavating with this machine.			
			§ Inspect Machine before operating. Machine must be in good operating condition and all safety equipment installed and functioning properly.			
			§ Operate machine outdoors. If it is necessary to operate in an enclosed area, contact IH for directions on how to properly ventilate exhaust gases.			
			§ Turn OFF engine before refueling. Contain spills immediately and report to UPF Environmental.			
			§ Do not vacuum flammable or combustible substances.			
			§ High pressure water from digging tool or wash wand can penetrate body tissue. Use metatarsal guards in addition to safety toed boots while operating. Zero degree tips are not allowed.			



UPF JOB HAZARD ANALYSIS

My signature on the corresponding CFN-1251, UPF Construction Attendance Sheet, indicates that I have read the JHA and have received answers to any questions I had relative to the JHA. My signature further indicates my willingness to comply with the provisions and requirements of the JHA.

JHA NO.: JHA-00765		REV: 1	ISSUE DATE: 5-6-25
JHA TITLE: K31 Waterline Replacement		WORK PACKAGE NUMBER: CWP-VPUBEDG100-D08	SPECIFIC LOCATION: K-31
Activity	Sub-Activity	Hazard	Control
			§ Never point the digging tool or wand at anyone or at any part of the body.
			§ Keep vacuum hose away from face and body.
			§ Keep all non-essential personnel away from work area.
			§ Utility clearances as required by the Electrical Safety Manual are as follows:
			o ≤ 25 kV - 30 feet
			o > 25 kV - 50 feet
			o If these clearances cannot be met, contact the utility owner to ensure they are de-energized or insulated
			§ The water heater can produce steam, all components downstream of the heater module will be extremely hot. Do not come in contact with these components.
			§ Never direct high-pressure spray toward any live electrical equipment or outlets.
			§ Do not operate without rotating equipment guards in place.
			§ Never operate the equipment when inadvertent contact can be made with rotating line or components.
			§ Do not elevate yourself where your feet are at or above 6ft off the ground or working surface without implementing the appropriate fall protection controls.
	Dumping Spoil Tank	Pinch Points Crush Hazard Pressurized Equipment	§ Keep hands clear when closing doors or lowering the tank.
			§ Stay away from door and the tank when dumping the spoils. The crushing weight of the spoils can cause serious injury.
			§ Ensure all personnel are clear of the dumping area.
	Tank Safety Lockout (work underneath the tank)	Caught Between Crush Hazard	§ Relieve tank pressure before opening.
			Contact for ES&H for specific directions if you need to work underneath the tank itself. LOTO may be necessary!



UPF JOB HAZARD ANALYSIS

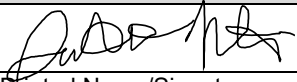
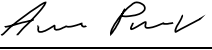
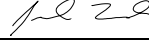
My signature on the corresponding CFN-1251, UPF Construction Attendance Sheet, indicates that I have read the JHA and have received answers to any questions I had relative to the JHA. My signature further indicates my willingness to comply with the provisions and requirements of the JHA.

JHA NO.:		JHA-00765	REV:	1	ISSUE DATE:	5-6-25
JHA TITLE:		K31 Waterline Replacement	WORK PACKAGE NUMBER:	CWP-VPUBEDG100-D08	SPECIFIC LOCATION:	K-31
Activity	Sub-Activity	Hazard	Control			
	Clean Spoil Tank	Confined Space Struck-by	Follow the manufacturer instructions on how to clean the spoil tank.			
			Ensure all personnel are clear of the spoil tank door areas before opening and closing the door.			
			Confined Space - NEVER enter the spoil tank!			



UPF JOB HAZARD ANALYSIS

My signature on the corresponding CFN-1251, UPF Construction Attendance Sheet, indicates that I have read the JHA and have received answers to any questions I had relative to the JHA. My signature further indicates my willingness to comply with the provisions and requirements of the JHA.

JHA NO.:	JHA-00765	REV:	1	ISSUE DATE:	5-6-25
JHA TITLE:	K31 Waterline Replacement	WORK PACKAGE NUMBER:	CWP-VPUBEDG100-D08	SPECIFIC LOCATION:	K-31 South Road
Ensure a new corresponding CFN-1251, <i>UPF Construction Attendance Sheet</i> , is signed and inserted in the CWP to document JHA briefing.					
PREPARER:	Jonathan Nichols			05/06/2025	
			Printed Name/Signature	Date	
APPROVAL:					
ES&H:	Anton Panev			05/06/25	
			Printed Name/Signature	Date	
SITE MANAGER: (DOA-CM-801768-A214)	Justin Landis			05/06/25	
			Printed Name/Signature	Date	