

Low-Risk Hazard (If your task has TWO or more low-risk hazards, a JHA/SOP is required.)	High-Risk Hazards (If your task has ONE or more high-risk hazards, a JHA/SOP is required.)
<p>Chemicals, Hazardous or Toxic Substances</p> <ul style="list-style-type: none"> • Use of chemicals/materials, which under a normally controlled work environment, do not pose a significant safety or health hazard. (Refer to the SDS). Contact ESH Department for guidance in determining the hazard level of chemicals. 	<ul style="list-style-type: none"> • Use of materials that are flammable, combustible, corrosive, reactive, toxic, caustic, poisonous, where the quantity or manner of use may adversely affect workers, equipment, or the environment. (Refer to the SDS). Contact ESH Department for guidance in determining the hazard level of chemicals. <p>Example: Handling and transporting hazardous substances such as bare lead (Pb) bricks that may expose workers to Pb dust.</p>
<p>Confined Space Work</p> <ul style="list-style-type: none"> • Work in a space that has limited or restricted means for entry or exit. Work in a “Non-Permit Required Confined Space” or a “Permit Required Confined Space” that has been reclassified as a "Non-Permit Required Confined Space". 	<ul style="list-style-type: none"> • Entry into a “Permit Required Confined Space”. Contact ESH Department for guidance and permit.
<p>Crane & Hoist Use</p> <ul style="list-style-type: none"> • Any lifting operations < 75% of the load chart capacity using approved lifting fixtures and devices. 	<ul style="list-style-type: none"> • Load requires exceptional care in handling because of size, shape, close tolerance installation, high susceptibility to damage, or other unusual factors (e.g., high value lift). • If load exceeds 75% of the load chart capacity. • Lifts involving prototype or initial use of in-house lifting devices/fixtures or attachments. • Critical lift.
<p>Cryogenic Equipment or Systems</p> <ul style="list-style-type: none"> • Refer to high risk column. 	<ul style="list-style-type: none"> • Working with cryogenic materials of any volume. Potential for exposure to reduced atmospheric oxygen. • Transporting cryogenic dewar in a conveyance or vehicle. • Working on cryogenic systems.
<p>Electrical Work</p> <ul style="list-style-type: none"> • Tasks where workers are not likely to be exposed to voltages, currents, or stored electrical energy of sufficient magnitude and duration. 	<ul style="list-style-type: none"> • Work activities near or on exposed electrical conductors, circuits, or equipment that are or may be energized and where there is a significant and unmitigated (potential) exposure to electrical shock or a significant potential for arcing, flash burns, electrical burns, or arc blast. • When not all hazards can be incorporated into the energized electrical work permit (EEWP) or equipment specific lockout. • When all hazards cannot be adequately addressed in the EEWP.

<p>Excavation and Trenching</p> <ul style="list-style-type: none"> • Trenching or excavation. 	<ul style="list-style-type: none"> • Where the potential exists for encountering buried utilities. • Entering an excavation/trench that is > 4 feet in depth. • Wet unconsolidated materials are present. • Hazardous atmosphere potential. • Sewer or natural gas lines exposed. • Exposure to vehicular traffic.
<p>Fall Exposure</p> <ul style="list-style-type: none"> • Work from a ladder at < 4 feet • Work from 3-sided platform ladder up to 6 feet • Work from 4-sided platform ladder • Work from a scissor lift or articulating boom lift equipped with guard rails and used in accordance with manufacture requirements. 	<ul style="list-style-type: none"> • Risk of fall is > 4 feet. <i>NOTE: JHA also requires rescue plan when using fall protection equipment.</i> • Any use of scaffolding, including erection of the scaffolding. <i>NOTE: Any erection or dismantling of scaffolding must be overseen by scaffolding competent person.</i>
<p>"First-time use" of new or unfamiliar equipment</p> <ul style="list-style-type: none"> • Training has been conducted by a competent person. • Competent person is present during "first-time use/ initial use". 	<ul style="list-style-type: none"> • Activity presenting unfamiliar hazards to employees.
<p>Hazardous Atmosphere</p> <ul style="list-style-type: none"> • When the potential for a hazardous atmosphere does not exist. 	<ul style="list-style-type: none"> • When the potential for a hazardous atmosphere exists.
<p>Hazardous Substance Abatement Activities</p> <ul style="list-style-type: none"> • Refer to high risk column. 	<ul style="list-style-type: none"> • Work involving abatement of asbestos, beryllium, lead, Polychlorinated Biphenyls, mercury, etc.
<p>Hydraulic and Pneumatic Systems (Fluids such as: oil, water, air, etc.)</p> <ul style="list-style-type: none"> • Connecting hoses or lines to pressurized oil, water, or air systems. • The use of standard equipment by trained individuals. • Pressure washing operations or power sprayers. 	<ul style="list-style-type: none"> • Any work where a sudden uncontrolled release (failure) of pressure or fluids could result in injury (e.g., people working around a heavy object supported hydraulically could get "caught between") or impact to the environment (air, land, or water). • Modifying or reconfiguring hydraulic or pneumatic systems. • Operating hydraulic cutters. • Performing leak location checks on hydraulic systems
<p>Lasers</p> <ul style="list-style-type: none"> • Lasers less than class 3b. 	<ul style="list-style-type: none"> • Work with a Class 3b or 4 lasers. Note: Work with a class 3b or 4 laser requires ESH approval.
<p>Machining, Grinding Welding, Flame Cutting, Brazing, Open Flame Work</p> <ul style="list-style-type: none"> • The use of standardized machinery per manufacturer's recommendations. 	<ul style="list-style-type: none"> • When Hot Work Permit is required. • Machining or grinding hazardous materials such as lead, etc. • Machinery operated without appropriate guards. • Any work that generates sparks in an area with flammable liquids or combustible materials, or in a confined space. Welding work in an area where passers-by can see the arc. • Work requiring welding, brazing, or open flames.

<p>Magnetic Fields</p> <ul style="list-style-type: none"> • Refer to high risk column. 	<ul style="list-style-type: none"> • Work in > 2.5 gauss field if personnel are fitted with cardiac pacemakers or metallic implants. • Work near any area with a fringe field of more than 1 kilogauss. • Any time averaged exposure of people to 300 gauss or more per unit time. • Any situation where ferrous objects can be subject to magnetic forces causing sudden or unexpected movement into the magnetic field.
<p>Noise Hazard</p> <ul style="list-style-type: none"> • Exposure < 85.0 dBA 8-hour TWA. 	<ul style="list-style-type: none"> • Exposure > 90.0 dBA 8-hour TWA (ESH must be consulted)
<p>Other Work Environments</p> <ul style="list-style-type: none"> • Nuisance dust from general cleaning, sweeping, or windy conditions. 	<ul style="list-style-type: none"> • Any remediation work to historical buildings. • Exposure to cleaning material with significant amounts of visible mold. • Exposure to animal feces during clean-up operations (birds, rodents, raccoons, etc.) • Working with systems or equipment which are pressurized > 15 psi. • Working with vacuum vessels. • Work requiring construction, altering, and/or repair, including painting and decorating. • A material being used in a state that is altered from its original form, that as a result may be hazardous to the health of the workers, the environment, or presents a potential for fire/explosion. • Potential for Fatigue (e.g., long hours, short deadlines). • Activities presenting hazards unfamiliar to employees.
<p>Radiation</p> <ul style="list-style-type: none"> • Refer to high risk column. 	<ul style="list-style-type: none"> • All work with radioactive materials (regardless of whether quantities are exempt) or radiation producing devices must be coordinated with the SDSTA Radiation Safety Officer.
<p>Repetitive Motion or Ergonomically Challenging Tasks</p> <ul style="list-style-type: none"> • Not exceeding one's abilities. 	<ul style="list-style-type: none"> • Lifting unusually shaped or heavy objects > 50 lbs. • Tasks with repetitive motion. • Work conducted from awkward positions with the potential to cause harm.
<p>Respiratory Hazards</p> <ul style="list-style-type: none"> • Work involving a voluntary use of a filtering face piece respirator. See ESH representative for details. 	<ul style="list-style-type: none"> • Work that requires respirator protection due to a potential overexposure.
<p>Release/Spill Potential Refer to SDS sheets and high-risk column. See ESH</p>	<ul style="list-style-type: none"> • Potential release of hazardous materials list (list found in 40CFR302, and 40CFR355). • Potential release of chemicals, petroleum products, etc. to surface waters (streams or ponds) or drains that lead to surface waters. • Potential release, intentional or unintentional, of chemicals, petroleum products, etc. to the sanitary system.

<p>Stored Energy</p> <ul style="list-style-type: none"> Commercial activated devices designed to release energy in a controlled manner and will not induce harm. 	<ul style="list-style-type: none"> Any unusual arrangement of heavy objects. Mechanical stored energy hazards (e.g., springs). Work on equipment where there is potential for unexpected release of energy (hydraulic, pneumatic, thermal, potential, etc.) where LOTO is required. Work near equipment that has the potential to release stored energy through falling, rotating, or other unplanned movement not covered by a LOTO procedure.
<p>Waste Generation See ESH</p>	<ul style="list-style-type: none"> Work that will generate a mixed (radioactive + regulated) waste. Work that will generate waste that has a flash point below 140 degrees F, a pH below 2 or greater than 12.5, or which contains any toxic substance (see Safety Data Sheet).
<p>Working Alone</p> <ul style="list-style-type: none"> Refer to high risk column. 	<ul style="list-style-type: none"> Whenever working alone on a high-risk activity identified above.

Revision History

Rev	Date	Section	Paragraph	Summary of change	Authorized by
01	12/6/2022	NA	NA	Initial Release	CCR 517