

SERVICE SUBCONTRACTOR ACTIVITY HAZARD ANALYSIS TEMPLATE

For Campus Subcontractor and Vendor Work

Based primarily on OSHA 29 CFR Part 1910 - General Industry Standards

Purpose and Use

This baseline AHA identifies common hazards and controls for typical subcontractor and vendor work. It is intended to support pre-job planning and does not replace an employer's responsibility to comply with all applicable OSHA standards, manufacturer instructions, site procedures, training/qualification requirements, or task-specific hazard assessments. Work must stop and the AHA/permit package must be revised when scope, conditions, hazards, or interfaces materially change. Contractors should use this as a guide but should submit their own content in their company format that is familiar to their employees. All AHAs are subject to independent review and approval for each contract. Use of this template or the language provided does not constitute approval of an AHA. Subcontractors and vendors may use the ORNL Activity Hazard Analysis (AHA) Blank Form to create an AHA (<https://contracts.ornl.gov/activity-hazard-analysis-aha/>) or their company formatted AHA template.

Applicability Note

This document is based primarily on 29 CFR 1910. Some campus work - including construction, alteration, demolition, excavation, certain crane operations, and other activities - may fall under 29 CFR 1926 or another OSHA standard. The employer/site representative must determine the governing standard for the actual scope.

PPE Note

PPE requirements are incorporated directly into the hazard controls for each activity. PPE must be selected from the employer's documented hazard assessment, be appropriate to the actual exposure, fit properly, and be compatible with other required PPE.

Activity Hazard Analysis

Three-column format: Work Activity / Example Tasks | Hazard | Hazard Control

WORK ACTIVITY / EXAMPLE TASKS	HAZARD	HAZARD CONTROL
1. Site Access, Mobilization and Demobilization Example Tasks: Contractor check-in; transporting tools/materials; staging equipment; removing equipment at completion.	• Vehicle/pedestrian interaction • unfamiliar site hazards • slips/trips • strains • blocked egress • unauthorized access	• Complete site orientation and check-in • coordinate scope, work boundaries and emergency arrangements with site representative • use designated travel/staging areas • maintain exits, fire equipment and access aisles • barricade staging areas when needed • secure tools/materials during transport. Use/wear

WORK ACTIVITY / EXAMPLE TASKS	HAZARD	HAZARD CONTROL
		appropriate PPE for the task, including safety glasses and safety footwear • high-visibility apparel where exposed to vehicle traffic • task-specific PPE
2. Walking and Working Surfaces Example Tasks: Walking through buildings, laboratories, mechanical rooms, loading docks, roofs, sidewalks and parking areas.	• Slips, trips and falls from wet, uneven, damaged or obstructed surfaces	• Keep surfaces clean, orderly and sanitary • promptly address spills/leaks • maintain aisles and passageways • provide safe access • guard floor holes/openings and elevated edges as required • report defective surfaces. Use/wear appropriate PPE for the task, including slip-resistant/safety footwear • other PPE based on work area
3. Housekeeping and Work-Area Cleanup Example Tasks: Sweeping; debris removal; scrap collection; cleanup during and after maintenance.	• Trips • cuts/punctures • combustible loading • dust • blocked exits or equipment	• Perform continuous housekeeping • remove scrap/debris at suitable intervals • use approved containers • keep exits, electrical panels, emergency equipment and fire protection unobstructed • use dust-control methods instead of uncontrolled dry sweeping when exposure may result. Use/wear appropriate PPE for the task, including gloves, safety glasses and safety footwear • respiratory PPE only when required by exposure assessment
4. Material Delivery and Receiving Example Tasks: Receiving HVAC units, motors, electrical equipment, furniture, chemicals and packaged materials.	• Struck-by/caught-between • shifting loads • vehicle movement • falling materials	• Establish unloading zone • secure vehicle • inspect load condition • use rated handling equipment • keep personnel clear of suspended/shifting loads • use spotter where visibility is limited • stack/store materials securely. Use/wear appropriate PPE for the task, including safety footwear, gloves, safety glasses • high-visibility apparel where exposed to traffic
5. Manual Material Handling Example Tasks: Carrying pipe, conduit, boxes, filters, tools, furniture and equipment.	• Strains/sprains • overexertion • crushed fingers/toes • loss of balance	• Assess load before lifting • use carts, dollies or mechanical aids • team-lift bulky/heavy loads • plan route • keep load close to body • avoid twisting • use handles/grip points

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		- do not exceed individual capability. Use/wear appropriate PPE for the task, including gloves and safety footwear - additional PPE for material hazards
6. Forklift Operation Example Tasks: Loading/unloading trucks; moving pallets, equipment and materials.	- Collision - overturn - falling load - pedestrian strike - dock-edge fall	- Only trained/evaluated operators - pre-use inspection - seat restraint where provided - observe rated capacity - keep load stable and low during travel - control speed - maintain pedestrian separation - use horn/spotter at blind locations - secure trailers/dockboards. Use/wear appropriate PPE for the task, including safety footwear - high-visibility apparel where needed - other PPE based on load
7. Powered Pallet Jacks and Material Carts Example Tasks: Moving pallets, drums, equipment, supplies and tools.	- Foot injuries - collision - caught-between - runaway load - strains	- Inspect equipment - stay within capacity - maintain clear line of sight - control speed - keep hands/feet from wheels and pinch points - secure loads - park with forks lowered - use powered equipment only if trained/authorized. Use/wear appropriate PPE for the task, including safety footwear and gloves
8. Portable Ladder Use Example Tasks: Lighting maintenance; ceiling access; inspections; minor repairs; shelving work.	- Falls - ladder movement/failure - overreaching - electrical contact - dropped objects	- Select correct ladder type/length/duty rating - inspect before use - remove defective ladders - place on stable/level surface - maintain required climbing practices and three-point contact - do not use top step contrary to design - use nonconductive side rails where electrical contact is possible - control area below. Use/wear appropriate PPE for the task, including safety footwear - hard hat where falling-object exposure exists - task-specific PPE
9. Fixed Ladder and Elevated Access Example Tasks: Accessing roofs, platforms, mezzanines and elevated mechanical areas.	- Falls - ladder-system defects	- Inspect access route - use required ladder safety/personal fall protection systems

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	dropped objects	- maintain gates/guardrails - keep hands free while climbing - hoist tools when appropriate - restrict area below for falling-object hazards. Use/wear appropriate PPE for the task, including safety footwear - hard hat where needed - fall protection when required
10. Rooftop Work Example Tasks: HVAC service; exhaust fan maintenance; antenna/sensor work; roof inspection.	- Falls from roof edge/skylights - weather - heat/cold - dropped objects - electrical/mechanical hazards	- Evaluate roof and access before work - comply with low-slope roof fall-protection requirements - protect holes/skylights - establish designated area only when allowed - secure tools/materials - monitor weather - use LOTO for equipment - barricade exposure area below. Use/wear appropriate PPE for the task, including safety footwear - hard hat - personal fall protection where required - task/weather PPE
11. Scaffolds and Temporary Work Platforms Example Tasks: Elevated maintenance, painting, equipment service and access.	- Falls - collapse - falling objects - improper access - electrical contact	- Use properly designed/erected equipment - inspect before use - maintain safe access and stable footing - protect workers from falls and falling objects - do not overload - maintain electrical clearance. For general-industry scaffold fall protection, follow 1910.28(b)(12) reference to 29 CFR 1926 Subpart L. Use/wear appropriate PPE for the task, including hard hat, safety footwear, fall protection as required - task-specific PPE
12. Mobile Elevating Work Platforms / Aerial Lifts Example Tasks: Overhead HVAC, lighting, electrical, signage and maintenance work.	- Falls - tip-over - crushing/entrapment - struck-by - overhead electrical contact	- Trained/authorized operators - pre-use inspection and function test - firm/level surface - maintain manufacturer limits - use outriggers as designed - barricade operating area - maintain electrical clearance - use platform gates and required restraint/fall protection - do not climb on rails. Use/wear appropriate PPE for the

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		- task, including harness/lanyard or restraint when required • hard hat, safety footwear, eye protection
13. General Electrical Maintenance Example Tasks: Replacing receptacles, lighting, motors, disconnects, breakers and electrical equipment.	• Shock • electrocution • arc flash/thermal burns • unexpected energization	• Qualified persons where required • de-energize live parts before work unless exception applies • establish electrically safe work condition • apply LOTO • verify absence of voltage with properly rated test equipment • guard exposed parts • maintain clear working space • use insulated/rated tools and electrical PPE. Use/wear appropriate PPE for the task, including voltage-rated gloves and protectors, arc-rated clothing, eye/face/head protection and insulated equipment based on electrical hazard assessment
14. Electrical Troubleshooting and Testing Example Tasks: Voltage measurements; diagnostics; testing energized circuits/equipment where de-energization defeats the test.	• Shock • arc flash • arc blast • inadvertent contact • conductive tool contact	• Qualified employees only • limit energized exposure to necessary diagnostic task • establish boundaries/barriers • use rated meters/leads and verify meter operation • maintain illumination • remove conductive jewelry • use nonconductive ladders • use electrical PPE and insulated tools appropriate to hazard. Use/wear appropriate PPE for the task, including electrical shock and arc-flash PPE determined by assessment • safety glasses • voltage-rated gloves where required
15. Electrical LOTO Example Tasks: Motor replacement; disconnect/panel servicing; electrical equipment repair.	• Unexpected energization • shock • arc flash • stored electrical energy	• Identify sources • notify affected employees • shut down and isolate • apply personal locks/tags • dissipate stored energy • verify de-energized condition before work • control temporary re-energization for testing • follow group/shift-transfer requirements where applicable. Use/wear appropriate PPE for the task, including pPE required to establish/verify safe condition, then task-specific PPE
16. Mechanical / Multi-Energy LOTO/LTV Example Tasks: Pumps, fans, conveyors, HVAC units,	• Unexpected startup • hydraulic/pneumatic pressure	• Use equipment-specific energy-control procedure • identify all energy sources

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mixers, valves and rotating equipment.	• gravity • springs • thermal energy • rotating parts	• isolate and lock/tag • block or restrain gravity/mechanical energy • bleed pressure • verify zero-energy state • maintain control through shift/group changes • restore guards before startup. Use/wear appropriate PPE for the task, including safety glasses, gloves, safety footwear • face/thermal protection as energy dictates
17. Mechanical Equipment Maintenance Example Tasks: Pump repair; bearing replacement; belts/couplings; fan and motor maintenance.	• Rotating parts • pinch points • stored energy • sharp edges • hot surfaces	• LOTO before guard removal or danger-zone entry • allow equipment to stop/cool • use correct pullers/tools • support components • maintain guards • inspect alignment and fasteners before return to service. Use/wear appropriate PPE for the task, including safety glasses, gloves, safety footwear • hearing/face protection as needed
18. Machine and Shop Equipment Example Tasks: Drill press; bench grinder; saws; presses; shop fabrication machinery.	• Amputation • entanglement • crushing • flying chips • noise	• Trained operators • inspect machine • guards and point-of-operation protection in place • secure workpiece • use push tools/fixtures where appropriate • no loose clothing/jewelry • LOTO for servicing • maintain safe operating speeds. Use/wear appropriate PPE for the task, including safety glasses/face protection • hearing protection as needed • safety footwear • avoid gloves near rotating machinery when entanglement risk exists
19. Hand Tool Use Example Tasks: Wrenches; hammers; screwdrivers; chisels; utility knives; hand saws.	• Cuts • punctures • impact injuries • flying fragments • damaged tools	• Use correct tool • inspect handles/heads/blades • remove defective tools • maintain cutting edges • secure work • cut away from body • use striking tools appropriate to material • store/transport sharp tools safely. Use/wear appropriate

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		PPE for the task, including safety glasses - gloves selected for task - safety footwear
20. Portable Power Tools Example Tasks: Drills; saws; impact drivers; reciprocating saws; routers.	- Cuts - kickback - entanglement - electrical shock - noise - flying debris	- Inspect tools, guards, cords and accessories - correct accessory/RPM - secure work - disconnect/remove power before adjustment - maintain two-hand control when designed - use GFCI where required/appropriate - do not defeat guards or switches. Use/wear appropriate PPE for the task, including eye protection - hearing protection as needed - gloves where they do not create entanglement hazard - safety footwear
21. Abrasive Grinding and Cutting Example Tasks: Bench grinders; angle grinders; cutoff wheels; weld preparation.	- Wheel failure - flying fragments - sparks - cuts - fire - noise	- Use correct wheel type and RPM rating - inspect wheel/accessory - maintain guards and tool rests - allow wheel to reach speed while positioned out of plane - secure work - direct sparks away from people/combustibles - hot-work controls if ignition hazard exists. Use/wear appropriate PPE for the task, including safety glasses plus face shield, hearing protection, gloves, nonflammable work clothing
22. Welding Example Tasks: SMAW, MIG, TIG and repair welding.	- Fire - burns - UV/IR radiation - fumes/gases - electrical shock - compressed gases	- Hot-work authorization - inspect area and remove/protect combustibles - provide fire extinguisher and fire watch when required - provide screens - adequate ventilation/local exhaust - secure cylinders - inspect leads/ground - protect nearby occupants. Use/wear appropriate PPE for the task, including welding helmet/lens, safety glasses, FR clothing, welding gloves, safety footwear - hearing and respiratory protection when required
23. Torch Cutting and Brazing Example Tasks: Oxy-fuel cutting; brazing; heating seized components.	- Fire/explosion - burns - fumes - cylinder/hoseline hazards	- Hot-work permit - remove/protect combustibles - inspect torch, hoses and regulators - secure cylinders

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		• use appropriate backflow/flashback protection • leak-test connections • provide ventilation • fire watch as required • close cylinder valves when finished. Use/wear appropriate PPE for the task, including proper shaded eye/face protection, FR clothing, gloves, safety footwear • respiratory protection if required
24. Soldering and Small Heat-Producing Work Example Tasks: Pipe soldering; electronics/electrical soldering; heat guns.	• Burns • fumes • ignition of nearby materials • lead/flux exposure	• Assess hot-work applicability • protect combustibles • provide ventilation • place hot tools on noncombustible rests • follow SDS • wash hands after lead-containing solder • maintain extinguisher where ignition potential exists. Use/wear appropriate PPE for the task, including safety glasses • heat-resistant gloves as needed • protective clothing • respiratory PPE only if required
25. Compressed Gas Cylinder Handling Example Tasks: Moving/storing oxygen, acetylene, nitrogen, argon, CO2 and specialty gases.	• High-pressure projectile • fire/explosion • asphyxiation • manual handling injury	• Identify contents • secure cylinders upright • use valve-protection caps during transport/storage when applicable • use cylinder carts • protect valves • segregate incompatible gases as required • keep from heat and damage • use correct regulator • leak-check connections. Use/wear appropriate PPE for the task, including safety footwear, gloves and safety glasses • specialty PPE based on gas
26. Compressed Air and Pneumatic Tools Example Tasks: Air blowdown; impact wrenches; nailers; air-driven tools.	• Flying debris • hose whip • injection • noise • tool recoil	• Inspect hoses/couplings • secure connections • use safety devices/retainers • regulate pressure • compressed air for cleaning limited and used with effective chip guarding/PPE • never direct air at body • isolate pressure before disconnecting/servicing. Use/wear

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		appropriate PPE for the task, including safety glasses/face protection • hearing protection • gloves as appropriate
27. Pressure System Maintenance Example Tasks: Compressed air, hydraulic, process water and pressure-vessel-connected piping.	• Stored pressure • injection • line-of-fire • component failure • unexpected movement	• Identify medium and pressure • isolate and LOTO • bleed/vent to safe location • verify zero pressure • restrain components • loosen connections cautiously • use rated hoses/fittings • inspect before repressurization • keep personnel out of line of fire. Use/wear appropriate PPE for the task, including eye/face protection, gloves and protective clothing appropriate to medium • safety footwear
28. HVAC Equipment Maintenance Example Tasks: AHUs; chillers; rooftop units; exhaust fans; VAV boxes.	• Electrical/mechanical energy • refrigerants • rotating parts • roof falls • sharp edges	• Coordinate outage • LOTO electrical/mechanical energy • stop/guard fans • recover refrigerants in accordance with applicable environmental requirements • use safe access/fall protection • control sharp sheet-metal edges • verify safe restart. Use/wear appropriate PPE for the task, including safety glasses, cut-resistant gloves, safety footwear • fall/electrical/respiratory PPE as hazards require
29. Filter Replacement and Duct Work Example Tasks: Changing HVAC filters; duct inspection/cleaning; damper service.	• Dust/biological material • sharp sheet metal • overhead work • fan movement	• Shut down/LOTO equipment where exposure to moving parts exists • control dust • bag contaminated filters • use safe ladder/platform • protect occupants below • evaluate mold/biological or respiratory hazards before disturbance. Use/wear appropriate PPE for the task, including gloves, safety glasses, safety footwear • respiratory protection when required by assessment
30. Plumbing Maintenance Example Tasks: Faucets; drains; valves; domestic water; waste piping.	• Pressure • hot water • sewage/biohazards	• Identify system • isolate/depressurize/drain • verify temperature

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	- chemicals - slips - sharp edges	- use hygiene and contamination controls - disinfect tools as appropriate - control spills - follow SDS for drain/cleaning chemicals - prevent cross-connections. Use/wear appropriate PPE for the task, including gloves appropriate to contamination/chemical, safety glasses or face shield, safety footwear - protective clothing as needed
31. Steam and Hot-Water Systems Example Tasks: Steam traps; valves; condensate; hot-water piping and equipment.	- Severe burns - pressure release - stored thermal energy - water hammer	- Coordinate outage - isolate, lock/tag, depressurize, drain and cool - verify zero energy before opening - use blinds/double block where procedure requires - crack connections cautiously - maintain line-of-fire controls - restore slowly. Use/wear appropriate PPE for the task, including face shield over safety glasses, heat-resistant gloves/clothing and safety footwear
32. Confined Space Evaluation / Non-Entry Work Example Tasks: Evaluating tanks, vaults, pits, manholes; work adjacent to openings without entry.	- Unrecognized permit-space hazards - falls into opening - hazardous atmosphere release	- Identify and evaluate confined spaces before entry - post/sign or otherwise prevent unauthorized entry - review host/contractor information - guard open access points - do not break the plane of entry until classification and entry requirements are established. Use/wear appropriate PPE for the task, including safety footwear, gloves, hard hat/eye protection as area requires - fall protection near openings when required
33. Permit-Required Confined Space Entry Example Tasks: Entry into tanks, pits, vaults and other permit spaces.	- Oxygen deficiency/enrichment - toxic/flammable atmosphere - engulfment - entrapment - mechanical/electrical energy - rescue delay	- Written permit-space program - coordinate host/contractor hazards - isolate space - complete entry permit - test atmosphere in required sequence and monitor as conditions warrant - ventilate - attendant and communications - control entrants - provide retrieval/non-entry rescue where appropriate and capable rescue service for foreseeable emergencies. Use/wear appropriate PPE for the task, including full-body harness/retrieval equipment where required

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		• head/eye/hand/foot protection • respiratory/chemical PPE based on evaluated hazards
34. Sewer / Manhole Entry Example Tasks: Sanitary sewer manholes, wet wells and below-grade utility spaces.	• H2S/methane • oxygen deficiency • toxic/flammable atmosphere • biological exposure • engulfment/flow • traffic	• Evaluate as permit space • isolate/control flows where feasible • atmospheric testing and continuous monitoring appropriate to hazards • forced ventilation • attendant • retrieval/rescue • traffic control • hygiene/decontamination • prohibit ignition sources where flammable atmosphere may exist. Use/wear appropriate PPE for the task, including harness/retrieval system, chemical/biological-resistant gloves, eye/face protection, protective clothing, boots • respiratory protection as required
35. Chemical Use and Handling Example Tasks: Cleaners, solvents, lubricants, treatment chemicals and maintenance products.	• Skin/eye contact • inhalation • ingestion • incompatible reactions • spills	• Use approved chemicals • maintain labels and SDS access • train employees • substitute less hazardous products where feasible • provide ventilation • follow manufacturer/SDS storage and handling • keep containers closed • provide spill response materials and emergency washing where corrosive exposure requires. Use/wear appropriate PPE for the task, including chemical splash goggles/face shield, compatible gloves, protective clothing • respirator only under compliant program when required
36. Chemical Transfer and Mixing Example Tasks: Diluting cleaners; transferring treatment chemicals; mixing coatings/solutions.	• Splash • vapor • exothermic reaction • incompatible mixing • spills	• Review SDS before mixing • verify compatibility and sequence • use designated ventilated area • use closed/controlled transfer where feasible • secondary containment • label secondary containers • never mix unknown chemicals • provide eyewash/shower when corrosive exposure warrants. Use/wear appropriate PPE for the task, including splash goggles and face shield where splash potential exists, chemical-resistant gloves/apron, safety footwear • respiratory PPE if required

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37. Flammable and Combustible Liquid Handling Example Tasks: Solvents, fuels, coatings and flammable cleaning products.	• Fire/explosion • vapor inhalation • static ignition • spills	• Use approved containers/cabinets as applicable • control quantities • keep away from ignition sources • maintain ventilation • bond/ground during applicable transfer operations • close containers • provide suitable fire-control equipment • clean spills promptly using approved methods. Use/wear appropriate PPE for the task, including safety glasses/goggles, compatible gloves, protective clothing • respiratory PPE if required
38. Painting and Coating Example Tasks: Brush/roller/spray painting; touch-up; protective coatings.	• Vapors/aerosols • skin/eye exposure • flammability • falls • overspray	• Review SDS • provide ventilation • control ignition sources • protect occupants and adjacent equipment • use approved spray area/controls when applicable • use safe ladder/platform • manage rags/waste • assess respiratory exposure before selecting respirator. Use/wear appropriate PPE for the task, including eye protection, chemical-resistant gloves, coveralls • respirator when required by exposure assessment/program
39. Adhesives, Sealants and Solvents Example Tasks: Caulking; flooring adhesive; contact cement; solvent cleaning.	• Vapor inhalation • dermatitis • eye contact • flammability	• Select lower-hazard product where feasible • review SDS • ventilate • eliminate ignition sources • keep containers closed • use small quantities • protect occupants • dispose of solvent-contaminated materials properly. Use/wear appropriate PPE for the task, including safety glasses/goggles, compatible gloves • respiratory PPE only when required
40. Hazard Communication / SDS Review Example Tasks: Bringing chemicals onsite; labeling secondary containers; employee chemical use.	• Uninformed exposure • incompatible storage • incorrect emergency response	• Maintain written HazCom program as applicable • inventory hazardous chemicals • ensure labels are intact • SDS readily accessible • train employees before exposure and when new hazards are introduced • coordinate hazard information between host and contractor.

WORK ACTIVITY / EXAMPLE TASKS	HAZARD	HAZARD CONTROL
		Use/wear appropriate PPE for the task, including pPE is chemical/task-specific per SDS and hazard assessment
41. Respirator Use Example Tasks: Required use for dusts, fumes, vapors, gases or aerosols; voluntary use where permitted.	- Inadequate protection - improper cartridge - poor fit - physiological burden - IDLH exposure	- Use engineering controls first where feasible - written respiratory protection program for required use - medical evaluation - fit testing for tight-fitting respirators - NIOSH-certified respirator selected for evaluated hazard - training, inspection, cleaning and cartridge/change schedule - user seal check each use - IDLH procedures when applicable. Use/wear appropriate PPE for the task, including NIOSH-certified respirator selected for hazard plus required eye/skin/other PPE
42. Respirable Crystalline Silica Work Example Tasks: Cutting/drilling/grinding concrete, brick, block, mortar or stone during maintenance/repair where 1910 applies.	- Respirable silica exposure - eye injury - noise	- Determine applicability/exposure - use engineering/work-practice controls such as local exhaust/HEPA collection or wet methods - restrict access - housekeeping methods that minimize airborne dust - respiratory protection when required - comply with exposure assessment/medical surveillance requirements where triggered. Use/wear appropriate PPE for the task, including safety glasses/face protection, hearing protection - respirator when required by silica assessment/program
43. Asbestos-Containing Material - Avoidance / Maintenance Interface Example Tasks: Work near suspect insulation, floor tile, mastics, roofing or surfacing materials.	- Asbestos fiber release from disturbance - contamination	- Do not disturb suspect material unless properly identified and work is assigned to qualified personnel under the applicable asbestos standard - review building asbestos information before intrusive work - stop work if unexpected suspect material is found - isolate area and notify site representative. Use/wear appropriate PPE for the task, including no routine PPE for avoidance - asbestos work requires task/exposure-specific respiratory and protective clothing controls
44. Lead-Containing Material - Avoidance / Maintenance Interface Example Tasks: Disturbing painted surfaces, coatings, solder or lead components.	- Lead dust/fume ingestion/inhalation - contamination	- Determine whether lead is present before disturbance where reasonably anticipated - use qualified personnel and exposure controls - prohibit uncontrolled dry sanding/grinding - maintain hygiene and housekeeping - comply with applicable lead standard based on work classification

WORK ACTIVITY / EXAMPLE TASKS	HAZARD	HAZARD CONTROL
		stop and notify if unexpected lead hazard is identified. Use/wear appropriate PPE for the task, including gloves/protective clothing and respiratory protection as required by exposure assessment
45. Mold and Biological Contamination Example Tasks: Cleaning water-damaged material; HVAC mold; bird/rodent contamination.	- Allergens - irritants - infectious agents - contaminated dust	- Assess extent/source before disturbance - correct moisture source - isolate work area as appropriate - minimize aerosolization - use HEPA methods where suitable - bag contaminated material - hygiene/decontamination - evaluate respiratory protection based on material and exposure. Use/wear appropriate PPE for the task, including gloves, eye protection, protective clothing - respiratory protection when assessment requires
46. Bloodborne Pathogen Exposure Example Tasks: Handling sharps, contaminated waste, first-aid cleanup or sewage-associated items where occupational exposure exists.	- Exposure to blood or other potentially infectious materials - needlestick/cut	- Apply exposure-control plan where occupational exposure exists - universal precautions - engineering/work-practice controls - approved sharps containers - prohibit hand contact with broken glass - hygiene and decontamination - post-exposure evaluation/follow-up. Use/wear appropriate PPE for the task, including disposable gloves - eye/face protection and protective clothing when splash anticipated
47. Laboratory Maintenance and Support Example Tasks: Repairing utilities/equipment; changing fixtures; maintenance in active labs.	- Chemical, biological, radiological or physical hazards - unknown residues - energized equipment	- Coordinate with laboratory owner - define safe work boundary - identify/secure hazardous materials and experiments - decontaminate equipment/area as required - LOTO utilities/equipment - do not handle unknown containers - maintain emergency access - follow laboratory-specific postings and controls. Use/wear appropriate PPE for the task, including minimum lab/site PPE plus task-specific chemical/electrical/biological PPE
48. Laboratory Chemical Service Work Example Tasks: Connecting gas lines; chemical cabinet service; fume hood maintenance; equipment decontamination.	- Residual chemicals - toxic/corrosive exposure - compressed gases - ventilation loss	- Obtain hazard/decontamination status - review SDS - isolate and purge systems as applicable - coordinate fume hood/ventilation outage

WORK ACTIVITY / EXAMPLE TASKS	HAZARD	HAZARD CONTROL
		• cap/plug lines • verify no residual pressure/chemical • control area and emergency equipment access. Use/wear appropriate PPE for the task, including chemical splash eye/face protection, compatible gloves/clothing • respiratory PPE if required
49. Cryogenic Material Handling Example Tasks: Liquid nitrogen/argon service; moving dewars; connecting cryogenic equipment.	• Cold burns/frostbite • oxygen displacement • pressure buildup • brittle materials	• Use approved vented containers • do not seal cryogenic liquid in unrelieved volume • ensure adequate ventilation/oxygen monitoring where assessment requires • use proper transfer equipment • secure dewars • avoid confined spaces/elevators with uncontrolled oxygen-displacement risk per site procedure. Use/wear appropriate PPE for the task, including safety glasses plus face shield for transfer, loose-fitting insulated cryogenic gloves, long pants and closed/safety footwear
50. Battery Maintenance and Charging Example Tasks: Lead-acid battery service; UPS/forklift battery charging; terminal cleaning.	• Acid/alkali burns • hydrogen gas • electrical short/arc • heavy lifting	• Designated charging area • ventilation • prohibit ignition sources • protect terminals from shorting • use insulated tools where appropriate • provide emergency flushing where corrosive exposure exists • use mechanical handling for heavy batteries • follow manufacturer charging procedures. Use/wear appropriate PPE for the task, including chemical goggles/face shield, acid-resistant gloves/apron, safety footwear • electrical PPE as applicable
51. Noise-Producing Operations Example Tasks: Hammer drilling; grinding; compressors; generators; powered tools.	• Hearing loss • communication interference • startle/distraction	• Evaluate noise exposure • use quieter equipment, isolation or distance where feasible • limit exposure • post/control high-noise areas • provide hearing protection • implement hearing conservation program when exposures meet action-level criteria. Use/wear appropriate PPE for the task, including hearing protection with adequate attenuation • other task PPE
52. Hearing Conservation Activities Example Tasks: Work by employees with occupational noise	• Noise-induced hearing loss	• Implement monitoring, audiometric testing, hearing protectors, training and recordkeeping when standard

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exposures at/above program thresholds.	improper hearing protector fit/use	- thresholds are met - allow protector selection - ensure proper fit and attenuation - reevaluate when exposure changes. Use/wear appropriate PPE for the task, including hearing protection selected for measured exposure
53. Overhead Work Example Tasks: Work above occupied areas; ceiling work; elevated tool use.	- Falling tools/materials - struck-by - falls	- Barricade/exclude area below - use toeboards/screens/tool tethering where appropriate - secure materials - maintain good housekeeping aloft - wear head protection below where falling-object exposure remains - use proper fall protection/access system. Use/wear appropriate PPE for the task, including hard hat, safety glasses, safety footwear - fall protection where required
54. Ceiling and Plenum Access Example Tasks: Removing ceiling tiles; cable/HVAC inspection; above-ceiling maintenance.	- Falls from ladder - falling debris - sharp edges - hidden electrical/utility hazards - dust	- Coordinate with building owner - inspect ladder - barricade area below - remove tiles carefully - identify energized equipment/piping before contact - do not use ceiling grid as support - control dust - replace tiles and remove debris promptly. Use/wear appropriate PPE for the task, including safety glasses, gloves, safety footwear - hard hat where falling-object exposure exists - respiratory PPE if required
55. Floor / Wall Penetrations Example Tasks: Drilling/cutting openings for pipe, conduit or cable.	- Contact with concealed electrical/gas/process lines - silica/dust - falling cores - fire-barrier damage	- Review drawings and perform utility/embedded hazard scan - obtain penetration authorization - control both sides of surface - de-energize/isolate affected utilities when necessary - capture dust - secure core - protect opening immediately - restore fire/smoke barriers with approved system. Use/wear appropriate PPE for the task, including eye/face protection, hearing protection, gloves, safety footwear - respiratory PPE if required
56. Core Drilling / Drilling Existing Surfaces	Embedded utilities	Utility scan/clearance before drilling

WORK ACTIVITY / EXAMPLE TASKS	HAZARD	HAZARD CONTROL
Example Tasks: Concrete coring; anchor drilling; masonry drilling.	• rotating equipment • silica • noise • water/slurry • falling core	• secure drill rig/workpiece • manage water and electrical equipment safely • local exhaust/HEPA or wet methods • barricade opposite side/below • control core • GFCI as applicable • inspect bits and equipment. Use/wear appropriate PPE for the task, including safety glasses/face shield, hearing protection, gloves, safety footwear • respirator if required
57. Utility Locating and Marking Example Tasks: Locating underground electrical, gas, water, communication and process utilities before ground disturbance.	• Incorrect locate • traffic exposure • contact with energized/pressurized utility	• Review available drawings • use qualified locating methods • mark utilities and tolerance zones • coordinate with utility owners • pothole/verify as required before mechanized disturbance • protect locators from traffic • stop work on discrepancies. Use/wear appropriate PPE for the task, including high-visibility apparel, safety footwear, eye protection • electrical PPE if task requires
58. Excavation / Ground Disturbance Interface Example Tasks: Minor digging, post holes, utility exposure, landscaping excavation.	• Underground utility strike • cave-in • falls • mobile equipment • hazardous atmosphere	• Determine whether activity is construction and apply 29 CFR 1926 Subpart P when applicable • obtain utility locates/ground-disturbance authorization • protect exposed utilities • maintain safe access and barricades • evaluate protective systems and atmospheric hazards based on excavation conditions • keep spoil/equipment back from edge. Use/wear appropriate PPE for the task, including hard hat, safety glasses, gloves, safety footwear, high-visibility apparel • additional PPE based on utilities/atmosphere
59. Landscaping and Grounds Maintenance Example Tasks: Planting; mulching; pruning shrubs; hand digging; grounds cleanup.	• Cuts • strains • insects/plants • traffic • underground utilities • heat/cold	• Inspect area • utility clearance before digging • use guarded/maintained tools • ergonomic lifting • control pedestrian/vehicle interface • manage biological hazards • hydration/weather controls • follow chemical labels for fertilizers/pesticides. Use/wear appropriate PPE for the task, including safety glasses,

WORK ACTIVITY / EXAMPLE TASKS	HAZARD	HAZARD CONTROL
		gloves, safety footwear • high-visibility apparel near traffic • hearing protection for powered equipment
60. Mowing, String Trimming and Blowing Example Tasks: Mowing lawns; weed trimming; leaf/debris blowing.	• Flying objects • noise • cuts • rollover • fuel/fire • pedestrian exposure	• Inspect area/remove debris • maintain guards/shields • keep bystanders clear • shut down before clearing jams/servicing • follow slope limits • refuel with engine off/cool • control discharge direction • use hearing protection based on exposure. Use/wear appropriate PPE for the task, including safety glasses/face protection, hearing protection, gloves, safety footwear • high-visibility apparel near traffic
61. Tree and Limb Work Example Tasks: Ground pruning; chainsaw work; limb removal; work near overhead utilities.	• Falling limbs • chainsaw cuts • struck-by • falls • electrical contact	• Use trained/qualified personnel • establish drop zone • inspect saws • use proper cutting techniques • maintain distance from overhead electrical lines and use qualified line-clearance personnel where required • use appropriate aerial/tree-climbing systems only under applicable standards • do not work under suspended limbs. Use/wear appropriate PPE for the task, including hard hat, eye/face and hearing protection, cut-resistant leg protection for chainsaw use, gloves, safety footwear • fall protection where required
62. Snow and Ice Removal Example Tasks: Shoveling; spreading deicer; plowing; clearing entrances and sidewalks.	• Slips/falls • cold stress • overexertion • vehicle strikes • equipment hazards	• Prioritize pedestrian routes • use traction/deicing methods • pace shoveling and use ergonomic tools • maintain equipment • use spotters/lighting where visibility is poor • separate pedestrians from plows • provide warming breaks and weather-appropriate clothing. Use/wear appropriate PPE for the task, including slip-resistant waterproof footwear, gloves, weather clothing, high-visibility apparel near vehicles • eye/hearing protection for equipment
63. Pressure Washing Example Tasks: Cleaning building exteriors, floors,	• High-pressure injection/cuts • slips	• Inspect hoses/nozzles • never direct stream at people

WORK ACTIVITY / EXAMPLE TASKS	HAZARD	HAZARD CONTROL
equipment and sidewalks.	• electrical contact • chemical splash • flying debris	• use rated equipment • maintain safe electrical/GFCI practices • barricade wet work area • manage runoff • review SDS for detergents • use stable access • depressurize before service. Use/wear appropriate PPE for the task, including safety glasses plus face shield, waterproof gloves/clothing and safety footwear • hearing protection as needed
64. Window Washing Example Tasks: Interior/exterior window cleaning; elevated glazing work.	• Falls • dropped tools • chemical exposure • wet surfaces	• Use ground-based methods where feasible • safe ladder/platform access • for rope descent systems comply with anchorage and fall-protection requirements • obtain building owner anchorage information • barricade area below • control cleaning chemicals and wet floors. Use/wear appropriate PPE for the task, including fall protection for elevated systems, safety footwear, gloves, eye protection • hard hat where falling-object exposure exists
65. Janitorial and Housekeeping Services Example Tasks: Floor cleaning; restroom cleaning; trash removal; disinfecting.	• Chemical exposure • slips • sharps • biohazards • ergonomic strain	• HazCom/SDS training • never mix incompatible cleaners • use wet-floor signs/barricades • inspect waste before handling • use tools rather than hands for sharps • maintain ventilation • ergonomic methods • provide hand hygiene. Use/wear appropriate PPE for the task, including chemical-resistant gloves, eye protection for splash tasks, slip-resistant footwear • protective clothing as needed
66. Pest Control Application Example Tasks: Applying insecticides, rodenticides and other pesticides.	• Chemical exposure • occupant exposure • contaminated surfaces • spills	• Use licensed/qualified applicators where required • follow pesticide label/SDS • coordinate occupancy and restricted-entry times • secure bait/chemicals • ventilate as directed • prevent contamination of food/labs • post areas when required • manage spills and waste. Use/wear appropriate PPE for the task, including pPE specified by pesticide label/SDS,

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		- commonly gloves, eye protection and protective clothing - respirator only if required and program-compliant
67. Waste Handling and Removal Example Tasks: Trash; scrap metal; construction/maintenance debris; contaminated disposables.	- Cuts/punctures - strains - unknown chemicals - sharps - falling material	- Characterize waste before handling - segregate hazardous/special waste - use appropriate containers - do not compact by hand - use mechanical aids - keep containers closed - label as required - use sharps containers - follow site waste procedures. Use/wear appropriate PPE for the task, including gloves appropriate to waste, safety glasses, safety footwear - protective clothing/respirator based on characterization
68. Universal Waste / Lamps / Batteries Example Tasks: Handling fluorescent lamps, mercury devices, rechargeable batteries and electronic waste.	- Broken glass - mercury release - battery electrolyte - short circuit - heavy lifting	- Handle intact - use compatible closed containers - protect batteries/terminals from short circuit - segregate damaged batteries - do not intentionally break lamps - use spill procedures for mercury/electrolyte - follow site/environmental accumulation and labeling requirements. Use/wear appropriate PPE for the task, including safety glasses, gloves, safety footwear - chemical splash PPE for leaking batteries - mercury-response PPE per assessment
69. Loading Dock Operations Example Tasks: Loading/unloading deliveries; dock plates; staging freight; trailer access.	- Falls from dock edge - trailer movement - PIT/pedestrian collision - shifting freight	- Maintain clear dock - secure trailers - inspect/use dockboards correctly - control dock-edge exposure - separate pedestrians/PITs - use chocks/restraint systems as required - ensure adequate lighting - stack materials securely. Use/wear appropriate PPE for the task, including safety footwear - high-visibility apparel - gloves and eye protection based on freight
70. Traffic Control and Vehicle Work Areas Example Tasks: Work in parking lots/roadways; deliveries; utility work; temporary lane/pedestrian changes.	- Vehicle strike - backing - poor visibility	- Develop work-zone controls appropriate to campus traffic - cones/barricades/signs - maintain accessible pedestrian route

WORK ACTIVITY / EXAMPLE TASKS	HAZARD	HAZARD CONTROL
	pedestrian conflict	- use trained flaggers/spotters where needed - high-visibility apparel - adequate lighting - coordinate road/lane closures with site authority. Use/wear appropriate PPE for the task, including high-visibility apparel, safety footwear, hard hat where work hazards warrant - weather PPE
71. Work in Occupied Buildings Example Tasks: Maintenance, installation, renovation support and service calls in offices/classrooms/labs.	- Occupant exposure to noise/dust/chemicals - unauthorized entry - blocked egress - interference with operations	- Coordinate schedule and impacts - establish work boundary - maintain exits/accessibility - use barriers/signage - control dust, fumes and noise - protect furnishings/equipment - secure tools/chemicals - communicate outages - restore area before reopening. Use/wear appropriate PPE for the task, including task-specific PPE - high-visibility or hard hat if work-zone conditions warrant
72. Barricades, Signs and Work-Zone Control Example Tasks: Isolating maintenance areas, floor openings, overhead work and temporary hazards.	- Unauthorized entry - trip hazards from barricades - inadequate warning - exposure to falling objects	- Use durable barricades appropriate to hazard - signs/tags communicate hazard and restrictions - maintain egress and accessible routes - do not rely on caution tape where physical protection is required - inspect barriers during work - remove promptly when hazard is eliminated. Use/wear appropriate PPE for the task, including pPE based on underlying work - high-visibility apparel where traffic is present
73. Fire Protection System Maintenance / Impairment Example Tasks: Sprinkler, fire alarm, suppression, hydrant or fire-pump service/testing.	- Reduced fire protection - inadvertent discharge - pressure - electrical hazards - false alarms	- Coordinate impairment with site fire protection authority - identify affected area/duration - implement compensatory measures/fire watch when required - isolate/LOTO energy - notify affected occupants/monitoring service - maintain alternate protection - restore, test and document system promptly. Use/wear appropriate PPE for the task, including safety glasses, gloves, safety footwear - electrical/pressure PPE as task requires

WORK ACTIVITY / EXAMPLE TASKS	HAZARD	HAZARD CONTROL
74. Emergency Alarms and Evacuation During Contractor Work Example Tasks: Response to fire alarm, chemical release, severe weather or site emergency.	• Delayed evacuation • confusion • exposure to emergency • accountability failure	• Before work, identify alarm signals, exits, assembly/accountability expectations and emergency contacts • stop work safely when alarm occurs • do not block exits • evacuate unless specifically directed otherwise • do not re-enter until authorized • account for contractor personnel. Use/wear appropriate PPE for the task, including normal task PPE • do not delay evacuation to retrieve PPE/equipment unless needed for immediate safe shutdown
75. Heat Stress / Hot Environments Example Tasks: Outdoor summer work; roofs; mechanical rooms; steam areas; protective clothing work.	• Heat exhaustion/stroke • dehydration • reduced concentration	• Plan work/rest cycles based on heat, workload and clothing • acclimatize workers • provide potable water and shaded/cool recovery • schedule heavy work for cooler periods • use buddy/monitoring practices • train on symptoms and emergency response • consider heat sources and PPE burden. Use/wear appropriate PPE for the task, including lightweight protective clothing consistent with task • cooling PPE where selected • required task PPE remains mandatory