## Job Hazard Analysis

University of Washington Campus Engineering & Operations 3920 Jefferson Road, Seattle, WA 98195

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Norking Job Title: <u>HV</u>	AC Control Technician / Air Balancer		
HA Completed by Gua	rrin Sakagawa, Shop 69 Manager D	ate:	Apr 2021

The Job Hazard Analysis form is designed to help supervisors assess and address health and safety hazards that have the potential to cause serious injury or illness (e.g. power tools, electrical repairs). Supervisors can use this document to train staff on safe work procedures.

The information below is a good faith effort to identify hazards encountered by HVAC technicians / air balancer. If a specific job task is not listed below, contact your supervisor to determine if a specific job hazard analysis or work plan is required.

The baseline training requirements for this position are:

- Driver Safety and Awareness Online
- Fire Extinguisher Hands On
- First aid & CPR
- Hepatitis B Vaccination (must be offered)
- Monthly shop safety meetings on PPE, safety standard operating procedures and SDS
- Ergonomic Online training (optional)
- Fire Extinguisher Online
- HazCom/GHS
- Bloodborne Pathogens for Non-Lab Online
- Covid-19 Safety Training: Back to the Workplace

This document will serve as the certification of hazard assessment for personal protective equipment for the above working job title position.

Job Tasks	Potential Hazard	Controls & Recommended Actions	Training and
Driving vehicles	Bodily injury	<ul> <li>Maintain current driver's license</li> <li>Follow all traffic rules</li> <li>Report problems with state vehicles</li> <li>Daily pre-trip vehicle inspection</li> </ul>	Personal Protective Equipment  Task Specific Training
Computer work	<ul> <li>Ergonomic problems:         carpal tunnel and         back problems</li> <li>Eye strain</li> </ul>	<ul> <li>Adequate lighting</li> <li>Take frequent breaks/stretch/move</li> <li>Review ergonomic info on EH&amp;S website</li> <li>Request on Ergonomic evaluation from EH&amp;S</li> </ul>	Task Specific Training
General use of hand and power tools such as multimeters, screwdrivers, wrenches, wire strippers	Bodily injury	<ul> <li>Follow industry safety standards for operating power/hand tools</li> <li>Location of first aid kit</li> <li>Location of fire extinguisher</li> <li>Location of exits</li> </ul>	Task Specific Training  Monthly shop safety meetings on PPE  PPE  Hearing protection —as needed  Substantial footwear  Impact glasses -as needed  Gloves -as needed
Maintain inventory supplies	<ul> <li>Ergonomic problems: carpal tunnel and back problems</li> <li>Work at elevated heights</li> </ul>	<ul> <li>Get help or use lifting tools for items exceeding 50 pounds or is an awkward shape</li> <li>Request on Ergonomic evaluation from EH&amp;S</li> <li>Take frequent breaks/stretch/move</li> <li>Use ergonomic keyboard</li> </ul>	Task Specific Training
Cell phone usage	<ul> <li>Inattention leading to bodily injury</li> </ul>	<ul> <li>Be aware of your surroundings</li> <li>Don't drive and talk unless utilizing a 'hands-free' device</li> </ul>	Task Specific Training

Job Tasks	Potential Hazard	Controls & Recommended Actions	Training and Personal Protective Equipment
Operate/maintain/repair/ troubleshoot pneumatic and DDC controls <50v – OR - not exposed to energized equipment in public/classroom/office areas.  Operate/maintain/repair/ troubleshoot air balance and water systems <50v – OR - not exposed to energized equipment in public/classroom/office areas.	<ul> <li>Airborne contaminants (such as occupant concerns, odors, mold)</li> <li>Biological hazards (such as sanitary sewer leaks, legionella)</li> <li>Confined spaces (such as crawl spaces, ceiling plenums)</li> <li>Ergonomic problems such as lifting, repetitive motion, awkward posture</li> <li>Hazardous chemicals (such as chemicals in hydronic systems)</li> <li>Hazardous energy (mechanical, heat, pressure)</li> <li>Insufficient lighting</li> <li>Noise</li> <li>Overhead equipment/hazards</li> <li>Pedestrian traffic</li> <li>Power/Hand tools</li> <li>Regulated materials such as asbestos, lead, silica</li> <li>Slip/trip/fall</li> <li>Scaffolding</li> <li>Vermin (such as bird or rodent feces)</li> <li>Work off ladders</li> </ul>	<ul> <li>Aerial lift</li> <li>Asbestos work plan (if applicable)</li> <li>Avoid energized electrical work when possible</li> <li>Barricades/signs/spotter (if applicable)</li> <li>Building system shutdown</li> <li>Confined space permit (as needed)</li> <li>Check-in with the department contact person prior to work</li> <li>Ensure work area is clear from spills and trip hazards</li> <li>Follow industry safety standards for operating power/hand tools</li> <li>Get help or use lifting tools for items exceeding 50 pounds, or is an awkward shape</li> <li>Hot Work Permit (ie soldering) if applicable</li> <li>Lead work plan (if applicable)</li> <li>Lockout procedure, LOTO locks &amp; tags</li> <li>Location of fire extinguisher</li> <li>Location of first aid kit</li> <li>Pest Contractor – as needed</li> <li>Safety Data Sheets (SDS) for chemical and products</li> <li>Use temporary lighting (such as head lamps)</li> <li>Water Treatment Plan</li> </ul>	Task Specific Training  Asbestos <1% & Lead Work Practices  Audiometric Hearing test  Back Protection & Lifting Safety Online  Confined Space Awareness  Department specific training  Fall Protection  Hearing Protection/Conservation Online  Ladder Safety Hands On  Ladder Safety Online  MEWP training with scissor & aerial evaluation  Lockout/Tagout Safety  Respirator training & Fit Test  Scaffold Safety  Supv LOTO Field Evaluation  PPE (as required unless noted as needed)  Bump cap - as needed  Dust mask - as needed  Electrically rated tools  Gloves - as needed  Hearing protection - as needed  Hearing protection - as needed  Impact glasses/goggles - as needed  Personal fall restraint/arrest equipment  Respirator  Substantial footwear  Any other PPE as specified by the department

Job Tasks	Potential Hazard	Controls & Recommended Actions	Training and
			Personal Protective Equipment
Operate/maintain/repair/ troubleshoot pneumatic and DDC controls when working on exposed equipment that is >50v in public/classroom/ office areas  Operate/maintain/repair/ troubleshoot air balance and water systems when working on exposed equipment that is >50v in public/classroom/ office areas	<ul> <li>Airborne contaminants (such as occupant concerns, orders, mold)</li> <li>Biological hazards (such as sanitary sewer leaks, legionella)</li> <li>Confined spaces (such as crawl spaces, ceiling plenums)</li> <li>Electrically energized equipment</li> <li>Ergonomic problems such as lifting, repetitive motion, awkward posture</li> <li>Hazardous chemicals (such as chemicals in hydronic systems)</li> <li>Hazardous energy (mechanical, heat, pressure (gas / liquid lines))</li> <li>Heat stress</li> <li>Insufficient lighting</li> <li>Noise</li> <li>Overhead equipment</li> <li>Pedestrian traffic</li> <li>Power/Hand tools</li> <li>Regulated materials such as asbestos, lead, silica</li> <li>Slip/trip/fall</li> <li>Scaffolding</li> <li>Vermin (such as bird or rodent feces)</li> <li>Work off ladders</li> </ul>	<ul> <li>Aerial lift</li> <li>Asbestos work plan (if applicable)</li> <li>Avoid energized electrical work when possible</li> <li>Barricades/signs/spotter (if applicable)</li> <li>Building system shutdown</li> <li>Check-in with the department contact person prior to work</li> <li>Confined space permit (if applicable)</li> <li>Energized electrical work permit &amp; work plan – as needed</li> <li>Ensure work area is clear from spills and trip hazards</li> <li>If hot, drink water and take necessary rest breaks</li> <li>Lead work plan (if applicable)</li> <li>Lockout procedure, LOTO locks &amp; tags</li> <li>Location of exits</li> <li>Location of first aid kit</li> <li>Pest Contractor – as needed</li> <li>Safety Data Sheets (SDS) for chemical and products</li> <li>Understand and implement industry safety standards for operating power/hand tools</li> <li>Understand and implement safe practices for lifting items exceeding 50 pounds, or is an awkward shape</li> <li>Understand and implement industry safety standards for tool tethering and toe boards</li> <li>Use temporary lighting (such as head lamps)</li> <li>Water treatment plan</li> </ul>	Task Specific Training  Asbestos <1% & Lead Work Practices  Audiometric Hearing test  Back Protection & Lifting Safety Online  Confined Space Awareness  Department specific training  Fall Protection  Hearing Protection /Conservation Online  Ladder Safety Hands On  Ladder Safety Online  Lift Training  Lockout/Tagout Safety  NFPA 70E Arc Flash/Electrical Safety  Respirator Training & Fit Test  Scaffold Safety  Supv LOTO Field Evaluation  PPE (as required unless noted as needed)  Arc Flash rated: clothing, Tyvek coveralls, gloves, hard hat, head cover, impact glasses/goggles, electric hazard footwear  Bump cap -as needed  Dust mask -as needed  Electrically rated tools  Hearing protection -as needed  Impact goggles — as needed  Personal fall restraint/arrest equipment  Respirator  Substantial footwear  Any other PPE as specified by the department

Job Tasks	Potential Hazard	Controls & Recommended Actions	Training and
Job Tasks  Operate/maintain/repair/ troubleshoot pneumatic and DDC controls <50v – OR - not exposed to energized equipment in mechanical areas  Operate/maintain/repair/ troubleshoot air balance and water systems <50v – OR - not exposed to energized equipment in mechanical areas	Potential Hazard  Airborne contaminants (such as occupant concerns, odors, mold, refrigerant leak)  Asbestos exposure  Biological hazards (such as sanitary sewer leak, cooling tower – legionella)  Confined spaces  Ergonomic problems such as lifting, repetitive motion, awkward posture  Hazardous chemicals (such as chemicals in hydronic systems)  Hazardous energy (mechanical, heat, pressure (gas / liquid lines))  Heat stress  Noise  Overhead equipment  Power/Hand tools  Regulated materials such as asbestos, lead, silica  Slip/trip/fall  Scaffolding  UV light (radiant energy – radio frequency)  Vermin (such as rats, birds, rodents' feces)  Work off ladders	<ul> <li>Aerial lift</li> <li>Asbestos work plan (if applicable)</li> <li>Avoid energized electrical work when possible</li> <li>Barricades/signs/spotter (if applicable)</li> <li>Building system shutdown</li> <li>Check-in with the department contact person prior to work</li> <li>Confined space permit (if applicable)</li> <li>Ensure work area is clear from spills and trip hazards</li> <li>Follow industry safety standards for operating power/hand tools</li> <li>Get help or use lifting tools for items exceeding 50 pounds, or is an awkward shape</li> <li>Hot Work Permit (ie soldering) if applicable</li> <li>If hot, drink water and take necessary rest breaks</li> <li>Lead work plan (if applicable)</li> <li>Lockout procedure, LOTO locks &amp; tags</li> <li>Location of first aid kit</li> <li>Pest Contractor – as needed</li> <li>Refrigerant leak work plan (if applicable)</li> <li>Safety Data Sheets (SDS) for chemical and products</li> <li>Use portable refrigerant monitor where needed</li> </ul>	Personal Protective Equipment  Task Specific Training  Asbestos <1% & Lead Work Practices  Audiometric Hearing test  Back Protection & Lifting Safety Online  Confined Space Awareness  Confined Space Entry/Hands On (such as Columbia Lift) — as needed  Department specific training  Fall Protection  Hearing Protection /Conservation Online  Ladder Safety Hands On  Ladder Safety Online  Lift Training  Lockout/Tagout Safety  Monthly shop safety meetings on PPE and SDS  Radio-Frequency Radiation Safety  Awareness  Refrigerant Monitoring  Respirator Training & Fit Test  Scaffold Safety  Supv LOTO Field Evaluation  PPE (as required unless noted as needed)  Bump cap -as needed  Dust mask -as needed  Electrically rated tools  Gloves — as needed  Hearing protection -as needed  Impact glasses/goggles — as needed  Impact glasses/goggles — as needed  LOTO locks or tags  Personal fall restraint/arrest equipment
		Use portable refrigerant monitor	LOTO locks or tags

Job Tasks	Potential Hazard	Controls & Recommended Actions	Training and
troubleshoot pneumatic and DDC controls when working on exposed equipment that is >50v in mechanical areas	<ul> <li>Airborne contaminants (such as occupant concerns, odors, mold, refrigerant leak)</li> <li>Asbestos exposure</li> <li>Biological hazards (such as sanitary sewer leak, legionella)</li> <li>Confined spaces</li> <li>Electrically energized equipment</li> <li>Ergonomic problems such as lifting, repetitive motion, awkward posture</li> <li>Hazardous chemicals (such as chemicals in hydronic systems)</li> <li>Hazardous energy (mechanical, heat, pressure (gas / liquid lines))</li> <li>Heat stress</li> <li>Noise</li> <li>Overhead equipment</li> <li>Power/Hand tools</li> <li>Regulated materials such as asbestos, lead, silica</li> <li>Slip/trip/fall</li> <li>Scaffolding</li> <li>UV light (radiant energy – radio frequency)</li> <li>Vermin (such as rats, birds, rodents' feces)</li> <li>Work off ladders</li> </ul>	<ul> <li>Aerial lift</li> <li>Asbestos work plan (if applicable)</li> <li>Avoid energized electrical work when possible</li> <li>Barricades/signs/spotter (if applicable)</li> <li>Building system shutdown</li> <li>Check-in with the department contact person prior to work</li> <li>Confined space permit (if applicable)</li> <li>Energized electrical work permit &amp; work plan – as needed</li> <li>Ensure work area is clear from spills and trip hazards</li> <li>Follow industry safety standards for operating power/hand tools</li> <li>Get help or use lifting tools for items exceeding 50 pounds, or is an awkward shape</li> <li>Hot Work Permit (ie soldering) if applicable</li> <li>If hot, drink water and take necessary rest breaks</li> <li>Lead work plan (if applicable)</li> <li>Lockout procedure, LOTO locks &amp; tags</li> <li>Location of first aid kit</li> <li>Pest Contractor – as needed</li> <li>Refrigerant leak work plan (if applicable)</li> <li>Safety Data Sheets (SDS) for chemical and products</li> <li>Use portable refrigerant monitor where needed</li> <li>Use temporary lighting (such as head lamps)</li> <li>Water treatment plan</li> <li>Cooling tower work practice – if applicable</li> </ul>	Personal Protective Equipment  Task Specific Training  Asbestos <1% & Lead Work Practices  Audiometric Hearing test  Back Protection & Lifting Safety Online  Confined Space Awareness  Confined Space Entry/Hands On (such as Columbia Lift) — as needed  Department specific training  Fall Protection  Hearing Protection /Conservation Online  Ladder Safety Hands On  Ladder Safety Online  Lift Training  Lockout/Tagout Safety  NFPA 70E Arc Flash/Electrical Safety  Radio-Frequency Radiation Safety  Awareness  Refrigerant Monitoring  Respirator Training & Fit Test  Scaffold Safety  Supv LOTO Field Evaluation  PPE (as required unless noted as needed)  Arc Flash rated: clothing, Tyvek coveralls, gloves, hard hat, head cover, impact glasses/goggles, electric hazard footwear  Bump cap (as needed)  Dust mask (as needed)  Electrically rated tools  Hearing protection (as needed)  Impact glasses/goggles — as needed  Personal fall restraint/arrest equipment  Respirator  Substantial footwear  Any other PPE as specified by the

Job Tasks	Potential Hazard	Controls & Recommended Actions	Training and Personal Protective Equipment
Operate/maintain/repair/ troubleshoot pneumatic and DDC controls <50v – OR - not exposed to energized equipment in animal areas  Operate/maintain/repair/ troubleshoot air balance and water systems <50v – OR - not exposed to energized equipment in animal areas	<ul> <li>Airborne contaminants (such as occupant concerns, odors, mold)</li> <li>Asbestos exposure</li> <li>Biological hazards (such as sanitary sewer leaks, animal feces, legionella)</li> <li>Confined spaces (such as crawl space, ceiling plenums)</li> <li>Ergonomic problems such as lifting, repetitive motion, awkward posture</li> <li>Hazardous chemicals (such as chemicals in hydronic systems)</li> <li>Hazardous energy (mechanical, heat, pressure (gas or liquid lines))</li> <li>Heat stress</li> <li>Insufficient lighting</li> <li>Noise</li> <li>Overhead equipment</li> <li>Pedestrian traffic</li> <li>Power/Hand tools</li> <li>Regulated materials such as asbestos, lead, silica</li> <li>Slip/trip/fall</li> <li>Work off ladders</li> </ul>	<ul> <li>Asbestos work plan (if applicable)</li> <li>Barricades/signs/spotter (if applicable)</li> <li>Avoid energized electrical work when possible</li> <li>Building system shutdown</li> <li>Check-in with the department contact person prior to work</li> <li>Confined space permit (if applicable)</li> <li>Ensure work area is clear from spills and trip hazards</li> <li>Follow industry safety standards for operating power/hand tools</li> <li>Get help or use lifting tools for items exceeding 50 pounds, or is an awkward shape</li> <li>Hot Work Permit (ie soldering) if applicable</li> <li>If hot, drink water and take necessary rest breaks</li> <li>Lead work plan (if applicable)</li> <li>Lockout procedure, LOTO locks &amp; tags</li> <li>Location of fire extinguisher</li> <li>Location of first aid kit</li> <li>Safety Data Sheets (SDS) for chemical and products</li> <li>Use portable refrigerant monitor where needed</li> <li>Use temporary lighting (such as head lamps)</li> <li>Water treatment plan</li> </ul>	Task Specific Training  Asbestos <1% & Lead Work Practices  Audiometric Hearing test  Back Protection & Lifting Safety Online  Biosafety—non-human primate areas  Confined Space Awareness  Confined Space Entry/Hands On (as needed)  Department specific training  Hearing Protection /Conservation Online  Ladder Safety Hands On  Ladder Safety Online  Lockout/Tagout Safety  Refrigerant Monitoring  Respirator Training & Fit Test  Supv LOTO Field Evaluation  PPE (as required unless noted as needed)  Animal Areas: head cover, shoe covers, gloves, coveralls, face shield  Bump cap - as needed  Dust mask - as needed  Head light / temporary lighting  Hearing protection -as needed  Impact glasses/goggles  Respirators  Substantial footwear  Any other PPE as specified by the department

Job Tasks	Potential Hazard	Controls & Recommended Actions	Training and Personal Protective Equipment
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	ocerns, odors, mold, ak)	Asbestos work plan (if applicable) Barricades/signs/spotter (if applicable)	Personal Protective Equipment  Task Specific Training  Asbestos <1% & Lead Work Practices
	ncerns, odors, mold, ak)	Barricades/signs/spotter (if applicable)	
and DDC controls  <50v – OR - not exposed to energized equipment in laboratory areas  Operate/maintain/repair/ troubleshoot air balance and water systems  <50v – OR - not exposed to energized equipment in laboratory areas  - Confined space space, ceiling Ergonomic prolifting, repetiting awkward poses - Hazardous chemicals in Heat, pressure lines)) - Insufficient light Noise - Overhead equipment in laboratory areas  - Noise - Overhead equipment in Regulated materials in transported to the provention of the prove	er leaks, legionella ) ces (such as crawl g plenums) roblems such as tive motion, sture nemicals (such as hydronic systems) nergy (mechanical, re (gas or liquid  ghting  uipment affic tools aterials such as d, silica  as bird or rodent  ders	Location of exits Location of fire extinguisher Location of first aid kit	<ul> <li>Audiometric Hearing test</li> <li>Back protection &amp; Lifting Safety Online</li> <li>Confined Space Awareness</li> <li>Confined Space Entry/Hands On – as needed</li> <li>Department specific training</li> <li>Hearing Protection /Conservation Online</li> <li>Ladder Safety Hands On</li> <li>Ladder Safety Online</li> <li>Lockout/Tagout Safety</li> <li>Respirator Training &amp; Fit Test</li> <li>Supv LOTO Field Evaluation</li> <li>PPE (as required unless noted as needed)</li> <li>Bump cap - as needed</li> <li>Dust mask - as needed</li> <li>Gloves – as needed</li> <li>Head light / temporary lighting</li> <li>Hearing protection -as needed</li> <li>Impact glasses/goggles</li> <li>Respirator</li> <li>Substantial footwear</li> <li>Any other PPE as specified on the department lab entry sign</li> </ul>

Job Tasks	Potential Hazard	Controls & Recommended Actions	Training and Personal Protective Equipment
Operate/maintain/repair/ troubleshoot pneumatic and DDC controls when working on exposed equipment that is >50v in laboratory areas  Operate/maintain/repair/ troubleshoot air balance and water systems when working on exposed equipment that is >50v in laboratory areas	<ul> <li>Airborne contaminants (such as occupant concerns, odors, mold, refrigerant leak)</li> <li>Asbestos exposure</li> <li>Biological hazards (such as sanitary sewer leaks, legionella)</li> <li>Confined spaces (such as crawl space, ceiling plenums)</li> <li>Electrically energized equipment</li> <li>Ergonomic problems such as lifting, repetitive motion, awkward posture</li> <li>Hazardous chemicals (such as chemicals in hydronic systems)</li> <li>Hazardous energy (mechanical, heat, pressure (gas or liquid lines))</li> <li>Insufficient lighting</li> <li>Noise</li> <li>Overhead equipment</li> <li>Pedestrian traffic</li> <li>Power/Hand tools</li> <li>Regulated materials such as asbestos, lead, silica</li> <li>Slip/trip/fall</li> <li>Vermin (such as bird or rodent feces)</li> <li>Work off ladders</li> </ul>	<ul> <li>Asbestos work plan (if applicable)</li> <li>Avoid energized electrical work when possible</li> <li>Barricades/signs/spotter (if applicable)</li> <li>Building system shutdown</li> <li>Check-in with the department contact person prior to work</li> <li>Confined space permit (if applicable)</li> <li>Energized electrical work permit &amp; work plan – as needed</li> <li>Ensure work area is clear from spills and trip hazards</li> <li>Follow industry safety standards for operating power/hand tools</li> <li>Get help or use lifting tools for items exceeding 50 pounds, or is an awkward shape</li> <li>Hot Work Permit (ie soldering) if applicable</li> <li>Lead work plan (if applicable)</li> <li>Lockout procedure, LOTO locks &amp; tags</li> <li>Location of exits</li> <li>Location of fire extinguisher</li> <li>Location of first aid kit</li> <li>Pest Contractor – as needed</li> <li>Safety Data Sheets (SDS) for chemical and products</li> <li>Use temporary lighting (such as head lamps)</li> <li>Water Treatment Plan</li> </ul>	Task Specific Training  Asbestos <1% & Lead Work Practices  Audiometric Hearing test  Back protection & Lifting Safety Online  Confined Space Awareness  Confined Space Entry/Hands On – as needed  Department specific training  Hearing Protection /Conservation Online  Ladder Safety Hands On  Ladder Safety Online  Lockout/Tagout Safety  NFPA 70E Arc Flash/Electrical Safety  Respirator Training & Fit Test  Supv LOTO Field Evaluation  PPE (as required unless noted as needed)  Arc Flash rated: clothing, Tyvek coveralls, gloves, hard hat, head cover, impact glasses/goggles, electrical hazard footwear  Bump cap - as needed  Dust mask - as needed  Electrically rated tools  Head light / temporary lighting  Hearing protection (as needed)  Impact glasses/goggles  Respirator  Substantial footwear  Any other PPE as specified on the department / lab entry sign

Job Tasks	Potential Hazard	Controls & Recommended Actions	Training and
Operate/maintain/repair/	Airborne contaminants (such	Aerial lift     Ash acts a weedle plan (if anylicable)	Personal Protective Equipment  Task Specific Training
troubleshoot pneumatic and DDC controls	as occupant concerns, odors, mold, refrigerant leak)	Asbestos work plan (if applicable)      Device des /signs/appettes (if applicable)	<ul><li>Asbestos &lt;1% &amp; Lead Work Practices</li><li>Audiometric Hearing test</li></ul>
<50v – OR - not exposed	Asbestos exposure	<ul><li>Barricades/signs/spotter (if applicable)</li><li>Avoid energized electrical work when</li></ul>	<ul> <li>Audiometric Hearing test</li> <li>Back Protection &amp; Lifting Safety Online</li> </ul>
to energized equipment	Biological hazards (such as	possible	Confined Space Awareness
in construction areas	sanitary sewer leaks, cooling	Building system shutdown	Confined Space Entry/Hands On – as
Operate/maintain/repair/	tower -legionella )	Check-in with the construction contact	needed
troubleshoot air balance	<ul> <li>Confined spaces (such as crawl space, ceiling plenums)</li> </ul>	<ul><li>person prior to work</li><li>Confined space permit (if applicable)</li></ul>	<ul><li>Construction site specific training</li><li>Fall Protection</li></ul>
and water systems	<ul> <li>Ergonomic problems such as</li> </ul>	Ensure work area is clear from spills and	Hearing Protection / Conservation Online
<50v – OR - not exposed	lifting, repetitive motion,	trip hazards	Ladder Safety Hands On
to energized equipment in construction areas	awkward posture	Follow industry safety standards for	Ladder Safety Online
in construction areas	Hazardous chemicals (such as chemicals in hydronic systems)	operating power/hand tools	• Lift Training
	Hazardous energy	Get help or use lifting tools for items exceeding 50 pounds, or is an awkward	<ul><li>Lockout/Tagout Safety</li><li>Radio Frequency Radiation Safety</li></ul>
	(mechanical, heat, pressure	shape	Awareness
	(gas or liquid lines))	Hot Work Permit (ie soldering) if applicable	Refrigerant Monitoring
	Insufficient lighting     Noise	Lead work plan (if applicable)	Respirator training & Fit Test
	<ul><li>Noise</li><li>Overhead equipment</li></ul>	<ul><li>Lockout procedure, LOTO locks &amp; tags</li><li>Location of exits</li></ul>	Scaffold Safety     Supplied Signal Supplied Safety
	Power/Hand tools	Location of exits     Location of fire extinguisher	Supv LOTO Field Evaluation
	Regulated materials such as	Location of first aid kit	PPE (as required unless noted as needed)
	asbestos, lead, silica	Pest Contractor – as needed	Construction – hard hat, impact
	<ul><li>Slip/trip/fall</li><li>Scaffolding</li></ul>	Refrigerant leak work plan (if applicable)	glasses/goggles, safety vest, gloves,
	UV light (radiant energy –	<ul> <li>Safety Data Sheets (SDS) for chemical and products</li> </ul>	<ul><li>substantial footwear</li><li>Dust mask - as needed</li></ul>
	radio frequency)	Use portable refrigerant monitor where	Head light / temporary lighting
	Vermin (such as bird or rodent	needed	Hearing protection (as needed)
	feces)  Work off ladders	Use temporary lighting (such as head	Personal fall restraint/arrest equipment
	Work off fadders	lamps)  Water treatment plan	Respirator     Footwar required by construction site.
		Cooling tower work practice – if applicable	<ul> <li>Footwear required by construction site</li> <li>Any other PPE as specified on the</li> </ul>
			construction site
Job Tasks	Potential Hazard	Controls & Recommended Actions	Training and Personal Protective Equipment
Operate/maintain/repair/	Airborne contaminants (such	Aerial lift	Task Specific Training
troubleshoot pneumatic	as occupant concerns, odors,	Asbestos work plan (if applicable)	Asbestos <1% & Lead Work Practices
and DDC controls when working on exposed	mold, refrigerant leak)  • Asbestos exposure	Avoid energized electrical work when	Audiometric Hearing test     Deals Protection & Lifting Sefets Online
equipment that is >50v	Biological hazards (such as	<ul><li>possible</li><li>Barricades/signs/spotter (if applicable)</li></ul>	<ul><li>Back Protection &amp; Lifting Safety Online</li><li>Confined Space Awareness</li></ul>
in construction areas	sanitary sewer leaks, cooling	Building system shutdown	<ul> <li>Confined Space Entry/Hands On – as</li> </ul>
Operate/maintain/repair/	tower -legionella )	Check-in with the construction contact	needed
troubleshoot air balance	<ul> <li>Confined spaces (such as crawl space, ceiling plenums)</li> </ul>	person prior to work	<ul><li>Construction site specific training</li><li>Fall Protection</li></ul>
and water systems when	Electrically energized	<ul><li>Confined space permit (if applicable)</li><li>Energized electrical work permit &amp; work</li></ul>	Hearing Protection /Conservation Online
working on exposed	equipment	plan – as needed	Ladder Safety Hands On
equipment that is >50v in construction areas	Ergonomic problems such as  !ifii a proportion and the problems are a second and a second a second and a	Ensure work area is clear from spills and	Ladder Safety Online
	lifting, repetitive motion, awkward posture	<ul><li>trip hazards</li><li>Follow industry safety standards for</li></ul>	Lift Training     Landaut/Transact Cofets
	Hazardous chemicals (such as	<ul> <li>Follow industry safety standards for operating power/hand tools</li> </ul>	<ul><li>Lockout/Tagout Safety</li><li>NFPA 70E Arc Flash/Electrical Safety</li></ul>
	chemicals in hydronic systems)	Get help or use lifting tools for items	Radio Frequency Radiation Safety
	Hazardous energy     (mechanical heat pressure)	exceeding 50 pounds, or is an awkward	Awareness
	(mechanical, heat, pressure (gas or liquid lines))	<ul><li>shape</li><li>Hot Work Permit (ie soldering) if applicable</li></ul>	Refrigerant Monitoring     Pospirator training % Fit Tost
	Insufficient lighting	Lead work plan (if applicable)	<ul><li>Respirator training &amp; Fit Test</li><li>Scaffold Safety</li></ul>
	• Noise	Lockout procedure, LOTO locks & tags	Supv LOTO Field Evaluation
	<ul><li>Overhead equipment</li><li>Power/Hand tools</li></ul>	Location of exits	·
	<ul> <li>Power/Hand tools</li> <li>Regulated materials such as</li> </ul>	<ul><li>Location of fire extinguisher</li><li>Location of first aid kit</li></ul>	<ul> <li>PPE (as required unless noted as needed)</li> <li>Arc Flash rated: clothing, Tyvek</li> </ul>
	asbestos, lead, silica	Pest Contractor – as needed	coveralls, gloves, hard hat, head cover,
	Slip/trip/fall     Slip/trip/fall	Refrigerant leak work plan (if applicable)	impact glasses/goggles, electrical hazard
	<ul><li>Scaffolding</li><li>UV light (radiant energy –</li></ul>	Safety Data Sheets (SDS) for chemical and	footwear
	radio frequency)	<ul><li>products</li><li>Use portable refrigerant monitor where</li></ul>	Construction – hard hat, impact
	Vermin (such as bird or rodent	needed	glasses/goggles, safety vest, gloves, substantial footwear
	feces)	Use temporary lighting (such as head	Dust mask - as needed
	Work off ladders	lamps)	Electrically rated tools
		<ul><li>Water treatment plan</li><li>Cooling tower work practice – if applicable</li></ul>	Head light / temporary lighting
		cooming tower work practice - it applicable	<ul><li>Hearing protection (as needed)</li><li>Personal fall restraint/arrest equipment</li></ul>
			Respirator
			Substantial footwear
			Any other PPE as specified on the
	<u> </u>	<u> </u>	construction site