

Job Hazard Analysis

University of Washington – Seattle Campus

Facilities Services - Campus Engineering & Operations
Seattle, WA 98195

Working Job Title: Fire Alarm Control Technician / Lead



JHA Completed by Brent Almond, Shop 24 Manager

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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 fire alarm technicians / leads. 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.

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 Personal Protective Equipment
Driving vehicles	<ul style="list-style-type: none">Bodily injury	<ul style="list-style-type: none">Daily pre-trip vehicle inspectionFollow all traffic rulesMaintain current driver’s licenseReport problems with state vehicles	Task Specific Training <ul style="list-style-type: none">Driver Safety and AwarenessMonthly shop safety meetings on PPESeatbelt use policy PPE <ul style="list-style-type: none">Seatbelt
Computer work	<ul style="list-style-type: none">Eye strainErgonomic problems such as carpal tunnel and back problems	<ul style="list-style-type: none">Adequate lightingRequest on Ergonomic evaluation from EH&SReview ergonomic info on EH&S websiteTake frequent breaks/stretch/move	Task Specific Training <ul style="list-style-type: none">Ergonomic Online training (optional) PPE <ul style="list-style-type: none">None
General use of hand and power tools such as multi-meters, screwdrivers, wrenches, wire strippers	<ul style="list-style-type: none">Bodily injury	<ul style="list-style-type: none">Follow industry safety standards for operating power/hand toolsLocation of exitsLocation of fire extinguisherLocation of first aid kit	Task Specific Training <ul style="list-style-type: none">Monthly shop safety meetings on PPE PPE <ul style="list-style-type: none">Gloves -as neededHearing protection -as neededSafety glasses -as neededSubstantial footwear
Maintain inventory supplies	<ul style="list-style-type: none">Ergonomic problems such as carpal tunnel and back problemsWork off ladders	<ul style="list-style-type: none">Get help or use lifting tools for items exceeding 50 pounds or is an awkward shapeRequest an ergonomic evaluation from EH&SSet-up work station using ergonomic principlesTake frequent breaks/stretchUse hand cart	Task Specific Training <ul style="list-style-type: none">Back Protection & Lifting Safety OnlineErgonomic Online training (optional)Ladder Safety Hands OnLadder Safety OnlineMonthly shop safety meetings on PPE PPE <ul style="list-style-type: none">Dusk mask -as neededSafety glasses -as neededSubstantial footwear
Cell phone usage	<ul style="list-style-type: none">Inattention leading to bodily injury	<ul style="list-style-type: none">Be aware of your surroundingsDon’t drive and talk unless utilizing a ‘hands-free’ device	Task Specific Training <ul style="list-style-type: none">Driver Safety and Awareness PPE <ul style="list-style-type: none">None
Replace 12v batteries on fire alarm systems	<ul style="list-style-type: none">Ergonomic problems such as lifting, repetitive motion, awkward postureHazardous chemicalsHazardous energy (stored energy)Hand tools	<ul style="list-style-type: none">Follow industry safety standards for operating hand toolsGet help or use lifting tools for items exceeding 50 pounds or is an awkward shapeLocation of exitsLocation of fire extinguisherLocation of first aid kitUse of hand cart	Task Specific Training <ul style="list-style-type: none">Back Protection & Lifting Safety OnlineDepartment specific SOPErgonomic Online training (optional)HazCom/GHSMonthly shop safety meetings on PPE PPE <ul style="list-style-type: none">Dry leather glovesNon-conductive toolsSteel toe footwearSafety glasses

Job Tasks	Potential Hazard	Controls & Recommended Actions	Training and Personal Protective Equipment
Test/repair/replace fire alarm electrical components that are <50v –OR- not exposed to energized equipment in public/classroom/ office areas	<ul style="list-style-type: none">Airborne contaminantsErgonomic problems (such as lifting, repetitive motion, awkward posture)Fall HazardHazardous chemicals (such as, canned air, canned smoke)NoisePedestrian trafficPower/hand toolsRegulated materials (such as asbestos, lead, silica)Slip/trip/fallWork off ladders	<ul style="list-style-type: none">Barricades/signs/spotter – (if applicable)Building system shutdownEnsure work area is clear from spills and trip hazardsFollow industry safety standards for operating power/hand toolsFollow industry safety standards for operating MWPGet help or use lifting tools for items exceeding 50 pounds or is an awkward shapeLift (MEWP – scissors)Lockout proceduresLocation of exitsLocation of fire extinguisherLocation of first aid kitSafety Data Sheets (SDS) for chemical and productsThis job position does not typically perform work on regulated building materials	<p>Task Specific Training</p> <ul style="list-style-type: none">Asbestos AwarenessAudiometric Hearing TestBack Protection & Lifting Safety OnlineErgonomic Online training (optional)Fall ProtectionFire Extinguisher Hands OnFire Extinguisher OnlineHazCom/GHSHearing Protection/Conservation OnlineLadder safety Hands OnLadder safety OnlineLead Safety OnlineLockout/Tagout SafetyMWP training with scissor & aerial evaluationMonthly shop safety meetings on PPE and SDSSupv LOTO Field Evaluation <p>PPE</p> <ul style="list-style-type: none">Dust mask -as neededHearing protectionImpact glasses – as neededLOTO locks or tagsPersonal fall restraint/arrest equipmentSubstantial footwearAny other PPE as specified by the department
Job Tasks	Potential Hazard	Controls & Recommended Actions	Training and Personal Protective Equipment
Test/repair/replace fire alarm electrical components when working on exposed equipment that is >50v in public/classroom/ office areas	<ul style="list-style-type: none">Airborne contaminantsElectrically energized equipmentErgonomic problems such as lifting, repetitive motion, awkward postureFall HazardHazardous energy (mechanical, heat, pressure)NoisePedestrian trafficPower/Hand toolsRegulated materials such as asbestos, lead, silicaSlip/trip/fallWork off ladders	<ul style="list-style-type: none">Aerial liftBarricades/signs /spotter – (if applicable)Energized electrical work permit & work plan – as neededEnsure work area is clear from spills and trip hazardsFollow industry safety standards for operating power/hand toolsGet help or use lifting tools for items exceeding 50 pounds or is an awkward shapeLockout proceduresLocation of exitsLocation of fire extinguisherLocation of first aid kitLockout procedureSafety Data Sheets (SDS) for chemical and productsThis job position does not typically perform work on regulated building materials	<p>Task Specific Training</p> <ul style="list-style-type: none">Asbestos AwarenessAudiometric Hearing TestBack protection & Lifting Safety OnlineErgonomic Online training (optional)Fire Extinguisher Hands OnFire Extinguisher OnlineFall ProtectionHazCom/GHSHearing Protection/Conservation OnlineLadder Safety Hands OnLadder Safety OnlineLead Safety OnlineLockout/Tagout SafetyMonthly shop safety meetings on PPE and SDSMWP training with scissor & aerial evaluationNFPA 70E Arc Flash/Electrical SafetySupv LOTO Field Evaluation <p>PPE</p> <ul style="list-style-type: none">Arc Flash rated: clothing, Tyvek coveralls, gloves, hard hat, head cover, impact glasses/goggles, substantial <u>leather</u> footwear- as required per NFPA 70EDust mask -as neededElectrically rated toolsGloves - as neededHearing protection –as neededImpact glasses – as neededLOTO locks or tagsPersonal fall restraint/arrest equipmentAny other PPE as specified by the department

Job Tasks	Potential Hazard	Controls & Recommended Actions	Training and Personal Protective Equipment
Test/repair/replace fire alarm electrical components that are <50v –OR - not exposed to energized equipment in mechanical rooms	<ul style="list-style-type: none">Airborne contaminants (such as refrigerant)Confined spaces (such as attic)Ergonomic problems such as lifting, repetitive motion, awkward postureFall HazardHeat stressInsufficient lightingNoisePower/Hand toolsRadio-Frequency Radiation (cell towers)Regulated materials such as asbestos, lead, silicaSlip/trip/fallWork off ladders	<ul style="list-style-type: none">Aerial LiftEnsure work area is clear from spills and trip hazardsFollow industry safety standards for operating power/hand toolsGet help or use lifting tools for items exceeding 50 pounds or is an awkward shapeIf hot, drink water and take necessary rest breaksLockout proceduresLocation of exitsLocation of fire extinguisherLocation of first aid kitLocation of potable water sourcesRefrigerant leak work plan – if applicableSafety Data Sheets (SDS) for chemical and productsThis job position does not typically perform work on regulated building materialsUse portable refrigerant monitor where neededUse temporary lighting (such as head lamps)	<p>Task Specific Training</p> <ul style="list-style-type: none">Asbestos AwarenessAudiometric Hearing TestBack Protection & Lifting Safety OnlineConfined Space Awareness OnlineErgonomic Online training (optional)Fall ProtectionFire Extinguisher Hands OnFire Extinguisher OnlineHazCom/GHSHearing Protection/Conservation OnlineLadder Safety Hands OnLadder Safety OnlineLead Safety OnlineLockout/Tagout SafetyMonthly shop safety meetings on PPE, SDS and heat stressMWP training with scissor & aerial evaluationRadio-Frequency Radiation Safety AwarenessRefrigerant MonitoringSupv LOTO Field Evaluation <p>PPE</p> <ul style="list-style-type: none">Dust mask -as neededGloves - as neededHearing protectionImpact glasses – as neededLOTO locks or tagsSubstantial footwear

Job Tasks	Potential Hazard	Controls & Recommended Actions	Training and Personal Protective Equipment
Test/repair/replace fire alarm electrical components when working on exposed equipment that is >50v in mechanical rooms	<ul style="list-style-type: none">Airborne contaminants (such as refrigerant)Confined spaces (such as attic)Electrically energized equipmentErgonomic problems such as lifting, repetitive motion, awkward postureFall HazardHazardous energy (mechanical, heat, pressure)Heat stressInsufficient lightingNoisePower/Hand toolsRadio-Frequency Radiation (cell towers)Regulated materials such as asbestos, lead, silicaSlip/trip/fallWork off ladders	<ul style="list-style-type: none">Aerial LiftEnergized electrical work permit & work plan – as neededEnsure work area is clear from spills and trip hazardsFollow industry safety standards for operating power/hand toolsGet help or use lifting tools for items exceeding 50 pounds or is an awkward shapeLocation of exitsLocation of fire extinguisherLocation of first aid kitLocation of potable water sourcesLockout procedureRefrigerant leak work plan – if applicableSafety Data Sheets (SDS) for chemical and productsThis job position does not typically perform work on regulated building materialsUse portable refrigerant monitor where neededUse temporary lighting (such as head lamps)	<p>Task Specific Training</p> <ul style="list-style-type: none">Asbestos AwarenessAudiometric Hearing TestBack Protection & Lifting Safety OnlineConfined Space Awareness OnlineErgonomic Online training (optional)Fall ProtectionFire Extinguisher Hands OnFire Extinguisher OnlineHazCom/GHSHearing Protection/Conservation OnlineLadder Safety Hands OnLadder Safety OnlineLead Safety OnlineLockout/Tagout SafetyMonthly shop safety meetings on PPE, SDS and heat stressMWP training with scissor & aerial evaluationNFPA 70E Arc Flash/Electrical SafetyRadio-Frequency Radiation Safety AwarenessRefrigerant MonitoringSupv LOTO Field Evaluation <p>PPE</p> <ul style="list-style-type: none">Arc Flash rated: clothing, Tyvek coveralls, gloves, hard hat, head cover, impact glasses/goggles, substantial leather footwear- as required per NFPA 70EDust mask -as neededElectrically rated toolsGloves - as neededHearing protectionImpact glasses – as neededLOTO locks or tags

Job Tasks	Potential Hazard	Controls & Recommended Actions	Training and Personal Protective Equipment
Test/repair/replace fire alarm electrical components that are <50v –OR- not exposed to energized equipment in animal areas	<ul style="list-style-type: none">Airborne contaminantsAnimal danderBiological hazardErgonomic problems such as lifting, repetitive motion, awkward postureNoisePedestrian trafficPower/Hand toolsRegulated materials such as asbestos, lead, silicaSlip/trip/fallWork off ladders	<ul style="list-style-type: none">Barricades/signs (if applicable)Check-in with the departmental contact person prior to workEnsure work area is clear from spills and trip hazardsFollow industry safety standards for operating power/hand toolsGet help or use lifting tools for items exceeding 50 pounds or is an awkward shapeLocation of exitsLocation of fire extinguisherLocation of first aid kitSafety Data Sheets (SDS) for chemical and productsThis job position does not typically perform work on regulated building materials	<p>Task Specific Training</p> <ul style="list-style-type: none">Asbestos AwarenessAudiometric Hearing TestBack Protection & Lifting Safety OnlineBiosafety: Working in Non-Human Primate AreasBloodborne Pathogens for Non-LabDepartment specific trainingErgonomic Online training (optional)Fire Extinguisher Hands OnFire Extinguisher OnlineHazCom/GHSHearing Protection/Conservation OnlineLadder Safety Hands OnLadder Safety OnlineLead Safety OnlineLockout/Tagout SafetyMonthly shop safety meetings on PPE and SDS <p>PPE</p> <ul style="list-style-type: none">Animal Areas: head cover, shoe covers, gloves, coveralls, face shield – as requiredBump cap -as neededHead cover – as requiredHearing protection -as neededGloves –as requiredImpact glasses/goggles – as neededLOTO locks or tagsShoe covers – as requiredSplash face shield – as requiredSubstantial footwearTyvek coveralls – as required

Job Tasks	Potential Hazard	Controls & Recommended Actions	Training and Personal Protective Equipment
Test/repair/replace fire alarm electrical components when working on exposed equipment that is >50v in animal areas	<ul style="list-style-type: none">• Airborne contaminants• Animal dander• Biological hazard• Electrically energized equipment• Ergonomic problems such as lifting, repetitive motion, awkward posture• Hazardous energy (mechanical, heat, pressure)• Noise• Pedestrian traffic• Power/Hand tools• Regulated materials such as asbestos, lead, silica• Slip/trip/fall• Work off ladders	<ul style="list-style-type: none">• Barricades/signs/spotter - (if applicable)• Check-in with the departmental contact person prior to work• Energized electrical work permit & work plan – as needed• Ensure work area is clear from spills and trip hazards• Follow industry safety standards for operating power/hand tools• Get help or use lifting tools for items exceeding 50 pounds or is an awkward shape• Location of exits• Location of fire extinguisher• Location of first aid kit• Lockout procedure• Safety Data Sheets (SDS) for chemical and products• This job position does not typically perform work on regulated building materials	Task Specific Training <ul style="list-style-type: none">• Asbestos Awareness• Audiometric Hearing Test• Back Protection & Lifting Safety Online• Biosafety; Working in Non-Human Primate Areas• Bloodborne Pathogens for Non-Lab• Department specific training• Ergonomic Online training (optional)• Fire Extinguisher Hands On• Fire Extinguisher Online• HazCom/GHS• Hearing Protection/Conservation Online• Ladder Safety Hands On• Ladder Safety Online• Lead Safety Online• Lockout/Tagout Safety• Monthly shop safety meetings on PPE and SDS• NFPA 70E Arc Flash/Electrical Safety• Supv LOTO Field Evaluation PPE <ul style="list-style-type: none">• Arc Flash rated: clothing, Tyvek coveralls, gloves, hard hat, head cover, impact glasses/goggles, substantial <u>leather</u> footwear- as required per NFPA 70E• Animal Areas: head cover, shoe covers, gloves, coveralls, face shield – as required• Bump cap -as needed• Electrically rated tools• Gloves - as needed• Head cover – as required• Hearing protection -as needed• Impact glasses/goggles – as needed• LOTO locks or tags• Shoe covers – as required• Splash face shield – as required• Tyvek coveralls – as required• Any other PPE as specified on the department

Job Tasks	Potential Hazard	Controls & Recommended Actions	Training and Personal Protective Equipment
Test/repair/replace fire alarm electrical components that are <50v –OR - not exposed to energized equipment in laboratory areas	<ul style="list-style-type: none">• Airborne contaminants• Biological hazard• Ergonomic problems: (lifting, repetitive motion, awkward posture)• Hazardous chemicals• Noise• Pedestrian traffic• Power/Hand tools• Regulated materials such as asbestos, lead, silica• Slip/trip/fall• Work off ladders	<ul style="list-style-type: none">• Barricades/signs/spotter - (if applicable)• Check-in with the departmental contact person prior to work• Ensure work area is clear from spills and trip hazards• Follow industry safety standards for operating power/hand tools• Get help or use lifting tools for items exceeding 50 pounds or is an awkward shape• Location of exits• Location of fire extinguisher• Location of first aid kit• Safety Data Sheets (SDS) for chemical and products• This job position does not typically perform work on regulated building materials	<p>Task Specific Training</p> <ul style="list-style-type: none">• Asbestos Awareness• Audiometric Hearing Test• Back Protection & Lifting Safety Online• Bloodborne Pathogens for Non-Lab• Department specific training• Ergonomic Online training (optional)• Fire Extinguisher Hands On• Fire Extinguisher Online• HazCom/GHS• Hearing Protection/Conservation Online• Ladder Safety Hands On• Ladder Safety Online• Lead Safety Online• Lockout/Tagout Safety• Monthly shop safety meetings on PPE and SDS <p>PPE</p> <ul style="list-style-type: none">• Dust mask -as needed• Gloves -as needed• Hearing protection -as needed• Impact glasses/goggles• LOTO locks or tags• Substantial footwear• Tyvek coveralls -as needed• Any other PPE as specified on the lab entry sign

Job Tasks	Potential Hazard	Controls & Recommended Actions	Training and Personal Protective Equipment
Test/repair/replace fire alarm electrical components when working on exposed equipment that is >50v in laboratory areas	<ul style="list-style-type: none">• Airborne contaminants• Biological hazard• Electrically energized equipment• Ergonomic problems: (lifting, repetitive motion, awkward posture)• Hazardous chemicals• Hazardous energy (mechanical, heat, pressure)• Noise• Pedestrian traffic• Power/Hand tools• Regulated materials such as asbestos, lead, silica• Slip/trip/fall• Work off ladders	<ul style="list-style-type: none">• Barricades/signs/spotter (if applicable)• Check-in with the departmental contact person prior to work• Energized electrical work permit & work plan – as needed• Ensure work area is clear from spills and trip hazards• Follow industry safety standards for operating power/hand tools• Get help or use lifting tools for items exceeding 50 pounds or is an awkward shape• Location of exits• Location of fire extinguisher• Location of first aid kit• Lockout procedure• Safety Data Sheets (SDS) for chemical and products• This job position does not typically perform work on regulated building materials	<p>Task Specific Training</p> <ul style="list-style-type: none">• Asbestos Awareness• Audiometric Hearing Test• Back Protection & Lifting Safety Online• Bloodborne Pathogens for Non-Lab• Department specific training• Ergonomic Online training (optional)• Fire Extinguisher Hands On• Fire Extinguisher Online• HazCom/GHS• Hearing Protection/Conservation Online• Ladder Safety Hands On• Ladder Safety Online• Lead Safety Online• Lockout/Tagout Safety• Monthly shop safety meetings on PPE and SDS• NFPA 70E Arc Flash/Electrical Safety• Supv LOTO Field Evaluation <p>PPE</p> <ul style="list-style-type: none">• Arc Flash rated: clothing, Tyvek coveralls, gloves, hard hat, head cover, impact glasses/goggles, substantial <u>leather</u> footwear- as required per NFPA 70E• Dust mask -as needed• Electrically rated tools• Gloves - as needed• Hearing protection -as needed• Impact glasses/goggles• LOTO locks or tags• Tyvek coveralls (as needed)• Any other PPE as specified on the lab entry sign

Job Tasks	Potential Hazard	Controls & Recommended Actions	Training and Personal Protective Equipment
Test/repair/replace fire alarm electrical components that are <50v – OR - not exposed to energized equipment in construction areas	<ul style="list-style-type: none">Airborne contaminantsElectrically energized equipmentErgonomic problems such as lifting, repetitive motion, awkward postureFall HazardHazardous chemicalsNoisePedestrian trafficPower/Hand toolsRegulated materials such as asbestos, lead, silicaScaffoldingSlip/trip/fallWork off ladders	<ul style="list-style-type: none">Check-in with the construction contact person prior to workEnsure work area is clear from spills and trip hazardsFollow industry safety standards for operating power/hand toolsGet help or use lifting tools for items exceeding 50 pounds or is an awkward shapeLocation of exitsLocation of fire extinguisherLocation of first aid kitTemporary lighting (if applicable)Safety Data Sheets (SDS) for chemical and productsThis job position does not typically perform work on regulated building materials	<p>Task Specific Training</p> <ul style="list-style-type: none">Asbestos AwarenessAudiometric Hearing TestBack Protection & Lifting Safety OnlineConfined Space AwarenessConstruction site specific trainingErgonomic Online training (optional)Fall ProtectionFire Extinguisher Hands OnFire Extinguisher OnlineFirst aid & CPRHazCom/GHSHearing Protection/Conservation OnlineLadder Safety Hands OnLadder Safety OnlineLead Safety OnlineLockout/Tagout SafetyMonthly shop safety meetings on PPE and SDSScaffold Safety <p>PPE</p> <ul style="list-style-type: none">Dust mask -as neededGloves -as neededHard hatHearing protection – as requiredImpact glassesLOTO locks or tagsSafety vestSubstantial footwearAny other PPE required by the construction site

Job Tasks	Potential Hazard	Controls & Recommended Actions	Training and Personal Protective Equipment
Test/repair/replace fire alarm electrical components when working on exposed equipment that is >50v in construction areas	<ul style="list-style-type: none">Airborne contaminantsElectrically energized equipmentErgonomic problems such as lifting, repetitive motion, awkward postureFall HazardHazardous chemicalsHazardous energy (mechanical, heat, pressure)NoisePedestrian trafficPower/Hand toolsRegulated materials such as asbestos, lead, silicaScaffoldingSlip/trip/fallWork off ladders	<ul style="list-style-type: none">Check-in with the construction contact person prior to workEnergized electrical work permit & work plan – as neededEnsure work area is clear from spills and trip hazardsFollow industry safety standards for operating power/hand toolsGet help or use lifting tools for items exceeding 50 pounds or is an awkward shapeLockout procedureLocation of exitsLocation of fire extinguisherLocation of first aid kitTemporary lighting (if applicable)Safety Data Sheets (SDS) for chemical and productsThis job position does not typically perform work on regulated building materials	Task Specific Training <ul style="list-style-type: none">Asbestos AwarenessAudiometric Hearing TestBack Protection & Lifting Safety OnlineConfined Space AwarenessConstruction site specific trainingErgonomic Online training (optional)Fall ProtectionFire Extinguisher Hands OnFire Extinguisher OnlineFirst aid & CPRHazCom/GHSHearing Protection/Conservation OnlineLadder Safety Hands OnLadder Safety OnlineLead Safety OnlineLockout/Tagout SafetyMonthly shop safety meetings on PPE and SDSNFPA 70E Arc Flash/Electrical SafetySupv LOTO Field EvaluationScaffold Safety PPE <ul style="list-style-type: none">Arc Flash rated: clothing, Tyvek coveralls, gloves, hard hat, head cover, impact glasses/goggles, substantial <u>leather</u> footwear- as required per NFPA 70EConstruction – hard hat, impact glasses/goggles, safety vest, gloves, substantial footwear – as requiredDust mask – as neededElectrically rated toolsGloves – as neededHard hatHearing protection -as neededImpact glassesLOTO locks or tagsSafety vestAny other PPE required by the construction site