

Shop and General Use Safety Area Checklist

Building _____ Department _____ Room(s) _____ Contact Person _____

Inspection Performed by _____ Date: _____

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Abrasive Wheel Grinders			
1	Work rest present and kept within 1/8 inch of wheel.		29CFR1910.215(a)(4)
2	Tongue on topside of grinder present and kept within 1/4 inch of wheel.		29CFR1910.215(a)(9)
3	Side guards cover spindle, nut, flange, and 75% of wheel diameter.		29CFR1910.215(a)(2)
4	Bench and pedestal mounted grinders permanently mounted.		29CFR1910.212(b)
5	Proper eye protection available and used.		29CFR1910.113(a)(1)
6	Cleanliness maintained around grinders.		29CFR1910.22(a)
Chemical Storage & Safety			
1	All containers properly labeled.		29CFR1910.1200(f)(6) & 1910.1450(h)(1)(ii)
2	All chemical containers securely closed and stored properly when not in use.		40 CFR265.173(a)
4	Cryogenic materials stored properly and proper PPE available.		29CFR1910.138(Hand Protection)
5	Peroxide formers dated at purchase and again upon opening.		NFPA 45:13.4.2
6	Peroxide formers disposed of within proper time frames.		NFPA 45:13.4.2
7	Secondary containment used where appropriate.		40CFR261.175 & 40CFR264.175
8	Vacuum equipment trapped and/or filtered to keep air or water quality clean.		HHS Publication No. (CDC) 21-1112 (12/2009)
9	Chemical storage areas free of ignition sources.		29CFR1926.152(i)(2)(viii)(E)
10	Refrigerators/Freezers properly labeled.		NFPA 45
11	Refrigerators/Freezers properly rated if flammable liquids are stored within.		NFPA 45:11.3.2.1
12	Fume hoods and/or biosafety cabinets not used for general storage.		NFPA 45:8.2.4.7
13	Chemicals segregated and stored by compatibility.		NFPA 45:8.2.4.2
14	Flammable liquids in containers over 4 L are in approved safety cans.		29CFR1910.106(d)(2)(i)
15	Flammable storage cabinet used if more than 10 gal of flammables present.		29CFR1910.106(d)(3)(i)
16	No food or beverages unless adequately separated from chemicals.		HHS Publication No. (CDC) 21-1112 (12/2009);29CFR1910.141(g)(2)
17	Chemicals purchased in amounts that can be used within a reasonable time.		NFPA 45:12.3.1.1
18	Chemical stocks purged of old, outdated, and unusable chemicals.		NFPA 45:13.4.2
19	Chemical inventory up to date.		40CFR704(Reporting & Record Keeping)
Compressed Air & Compressed Gases			
1	Air compressors equipped with pressure gauges and pressure relief valves.		29CFR1910.101(c)
2	Compressed air piping, hoses and fittings in good condition.		29CFR1926.350(f)(3)
3	Compressed air 30 psi or less for machine/parts cleaning.		29CFR1910.242(b)
4	Compressed air cleaning nozzles with chip/particle deflection device.		29CFR1910.242(b)

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References

5	Gas cylinders w/30 lb. or more water capacity have valve protection capability.			29CFR1910.253(a)(4)(b)(iv)
6	Gas cylinders legibly marked as to their contents.			29CFR1910.253(a)(4)(b)(ii)
7	Gas cylinders stored away from high heat, flames, etc.			29CFR1910.253(b)(2)
8	Gas cylinders stored in secure area and secured from tipping or falling.			NFPA 45:10.1.5.1 & 29CFR1925.350(a)(7)
9	Gas cylinders transported on suitable cylinder truck and secured.			29CFR1926.350(a)(7)
10	When in use, gas cylinders kept away from elevators, stairs, and ramps.			29CFR1926.350(a)(11)
11	Valve protectors used when cylinders not in use or when being transported.			29CFR1926.350(a)(1)
12	Liquefied gas cylinders (acetylene) always shipped and stored valve-end up.			29CFR1926.350(b)(3)
13	Proper type of regulator used for type of gas cylinder in use.			29CFR1910.101(c)
14	Gas cylinders, valves, couplings, regulators kept free of oil and grease.			29CFR1926.350(i) & 29CFR1910.253(b)(5)
15	Gas cylinders lacking obvious defects, leaks, damage, etc.			29CFR1926.350(c)(3)
16	Gas cylinders hydrotested at appropriate intervals.			49 CFR 180.209
17	Empty gas cylinders labeled "Empty," valves closed, caps on and stored properly.			29CFR1926.350(a)(8)
18	Oxygen and Acetylene in storage are separated by 5' noncombustible barrier.			29CFR1926.350(a)(10)

Electrical Safety

1	Extension cords are not used as permanent wiring.			NFPA 70
2	Extension cords and power strips not daisy-chained one to another.			29CFR1910.303(b)(2), 1926.403(b)(2)
3	Electrical cords not under carpets/rugs, through doorways, or high traffic areas.			NFPA 70
4	Multi-outlet power strips are UL listed and have circuit breakers.			UL1283
5	Power cords are in good condition with no splices or broken insulation.			29CFR1926.405(a)(2)(ii)(I); 1910.334(a)(2)
6	Grounding prongs not removed from 3-way plugs.			29CFR1926.405
7	Outlet, switch and junction box covers are in place and in good repair.			NFPA 70E: 215.1
8	Circuit breaker panels and emergency shut offs unobstructed and labeled.			NFPA 70E: 205.8, 205.10 & 205.11
9	Electrical outlets not overloaded with appliances, i.e. splitters used.			29CFR1910.304(b)(4)
10	Ground Fault Interrupters installed, labeled and operating correctly.			29CFR1910.304(g)(6)(vi)(c)(5); NFPA 70, 210.8(A)&(B)
11	Energized parts, circuits, and equipment guarded against accidental contact.			NFPA 70E: 205.6

Fire Prevention & Protection

1	Fire extinguishers properly mounted, located, and identified.			29CFR1910.157(a)(1)
2	Fire extinguishers adequate in number and type.			29CFR1910.157(a)(4)
3	Fire extinguishers inspected, recharged, and maintained as required.			29CFR1910.157(a)(1)
4	Fire aisles, exit ways, stairways, and fire equipment kept unobstructed.			29CFR1910.36(b)(1) & 36(b)(4)
5	Exit lights properly illuminated and emergency lighting operable.			29CFR1910.36(b)(2)
6	Fire doors not blocked open or are on magnets connected to fire alarm system.			NFPA 105: 5.5
7	Flammable liquids stored in approved safety cans.			29CFR1910.106(d)(2)(i)

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8	Flammable liquid containers kept closed when not in use.				29CFR1910.106(e)(2)(ii)
9	Flammable liquids of 25 gallons or more stored in flammable storage cabinet.				29CFR1926.152(b)(2)
10	Flammable storage cabinets labeled "Flammable - Keep Fire Away."				29CFR1926.152(b)(2)(iii)
11	Connections on drums and combustible liquid piping leak free.				29CFR1910.106(c)
12	Flammable liquid drums grounded and bonded to containers when dispensing.				29CFR1926.152(k)(3)(iii) & 29CFR1926.152(e)(2)
13	Proper storage of flammable/combustible materials to reduce risk of fire.				29CFR1926.152 & 106; NFPA 30 & 45
14	Oily/greasy rags placed in proper self-closing oily rag containers.				29CFR1910.157(e)(3)
15	No penetrations through walls or ceilings and all ceiling tiles are in place.				NFPA 101: Sec 8.3 (fire barriers); NFPA 70
16	Sprinkler heads clean and no storage within 18 inches (24 inches non-sprinklered)				NFPA 13: 8.6.6.1
17	Sprinkler heads protected by metal guards when exposed to physical damage.				NFPA13: 6.2.8
General & Miscellaneous Safety					
1	Hand washing soap and towels available				29CFR1910.141(d)(2)(iii) & (iv)
2	Sink faucets with backflow device or attached hoses above sink rim.				HHS Publication (CDC)21-1112 (12/2009)
3	Heavy objects stored at mid-body height, unless secured and stepladder provided.				OSHA 2236
4	Stepladder or stepstool available & in good condition for high storage access.				29CFR1926.1053(a)(1)(i)
5	Appropriate signs posted (First aid kit, safety shower, fire extinguisher, etc.).				29CFR1910.145
6	Proper disposal of broken glass.				HHS Publication No. (CDC) 21-1112 (12/2009)
7	Batteries charged in properly ventilated area away from sparks and flames.				29CFR1926.441(a)(1)
8	Work practices observed during inspection done safety.				
General Work Environment & Indoor Air Quality					
1	All areas properly illuminated.				29CFR1926.5
2	Noise levels are within acceptable limits or engineering controls established.				29CFR1910.95(c)
3	Areas with high noise levels posted and hearing protection required to be used.				29CFR1910.145
4	Work areas clean, sanitary, and orderly. (garbage disposed properly, etc.)				29CFR1910.141(a)(3)(ii)
5	Work area properly ventilated for type of equipment and/or chemicals in use.				29CFR1926.57(c)
6	Vacuum systems used when possible instead of blowing or sweeping dusts.				NFPA 654,61,484,664 & 655
7	Temperature and humidity seem to be within acceptable ranges.				OSHA 3430-04 (2011)
8	Areas free of visible fungal/mold growth and associated odors.				OSHA 3304-04N (2006)
9	Walls ceilings, floors free of signs of mold or moisture damage.				OSHA 3304-04N (2006)
10	Air intake areas free of odor causing materials or hazardous chemicals.				OSHA Technical Manual, Section III: Ch. 2
Hazard Communication					
1	All hazardous chemical containers marked with contents and hazards.				NFPA 45:13.4
2	Safety Data Sheets readily available.				29CFR1910.1200(g)(11)
3	Employees know what an SDS is and how to use and obtain one.				University Safety Training Policy

4	Employees aware of hazards associated with chemicals used in their areas.			University Safety Training Policy
5	Other hazards identified and labeled (electrical rooms, piping, etc.).			29CFR1910.1200(labeling chemicals etc..)
Hazardous Waste & Materials Disposal and Recycling				
1	Waste storage areas (bins, totes) designated.			40CFR261.172
2	Waste containers properly labeled (chemical components, amounts, etc.).			NFPA 45:13.4
3	Waste containers compatible with waste to be stored.			NFPA 45:9.1.1
4	Only compatible chemical wastes stored in the same container.			NFPA 45:8.2.4.2
5	Waste containers kept closed except when adding waste.			40CFR265.173(a)
6	Waste containers stored compatibly.			NFPA 45: 8.2.4.2
7	Waste generators have received Hazardous Waste Training. (if applicable) CEQ=none			SQ=40CFR262.34(d)(5)(iii) LQ=40CFR262.34(a)(4) & 265.16
8	Fluorescent, HID, Mercury vapor lamps recycled properly.			40CFR273.13(d)
9	Used oil collected and recycled properly.			40CFR279.22 & 40CFR279.24
10	Non-alkaline batteries (lead acid, Ni-cad, silver, etc.) managed properly.			40CFR273.13(a)
11	Mercury containing devices (thermostats, barometers, etc.) managed properly.			40CFR273.13(c)
12	Electronic devices, (monitors, TVs, circuit boards, etc.) managed properly.			40CFR273.13(c)
Hoists, Cranes & Slings				
1	Overhead hoists/cranes with limit 'stop' for safe highest and lowest travel.			29CFR1910.179(e)(1)(i)
2	Hoist/crane will stop & hold 125% of rated load if actuating force removed.			29CFR1910.179(f)(2)(i)(a)
3	Hoist/crane's rated load legibly marked and visible to operator.			29CFR1910.179(b)(5)
4	Hoist/crane controls clearly marked to indicate direction of travel or motion.			29CFR1910.179(g)(1)(v)
5	Hoist/crane drum has minimum of 2 wraps at lowest range of motion.			29CFR1910.179(h)(2)(iii)(a)
6	Hoist/crane chains, ropes (cables), and hooks in good condition.			29CFR1910.179(l)(3)(iii)(b);179(m)(1);179(j)(2)(iii)
7	Competent person inspects slings for damage/defects each day before use.			29CFR1910.179(l)(3)(iii)(a)
8	Damaged/defective slings immediately removed from service.			29CFR1910.179(l)(3)(iii)(b)
9	Slings permanently marked or coded to indicate rated capacity.			29CFR1910.184(f)
10	Slings not used in excess of rated capacities.			29CFR1910.184(f)
11	Hoists, cranes, slings inspected.			29CFR1910.179 and 1910.184
12	Loads not allowed to be carried over people.			29CFR1910.179(n)(3)(vi)
13	Operators trained in the proper operation of hoists/cranes.			29CFR1910.179(b)(8)
Machine Guarding & Lock Out-Tag Out (LOTO)				
1	Rotating or moving parts (chains, gears, belts, etc.) properly guarded.			29CFR1910.212(a)(1)
2	Machinery guards secure and don't present a hazard in their use.			29CFR1910.212(a)(2)
3	Fixed machinery guarded to prevent splash, spark, and flying chip injuries.			29CFR1910.212(a)(1)
4	Equipment and machines securely placed and anchored to prevent moving.			29CFR1910.212(b)

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5	Guards and safety interlocks not removed or defeated.			29CFR1910.211(d)(35)
6	Equipment and machinery kept clean and properly maintained.			OSHA 3157
7	Equipment and machinery have safety inspections completed regularly.			OSHA 3157
8	Sufficient clearance around machines for safe operating and servicing.			29CFR1910.22(b)(1)
9	Power shut-off switch within reach of operator's position at each machine.			OSHA 3157
10	Users adequately trained to operate equipment or machines safely.			OSHA 3157
11	Adequate supervision to ensure users are following safe procedures.			University Safety Policy & Procedures
12	Manually operated control switches and valves clearly identified(location).			29CFR1910.147(d)(3)
13	Emergency stop buttons available and colored red.			29CFR1910.144(a)(1)(iii)
14	Machines de-energized and locked out for maintenance and repair as required.			29CFR1910.147(f)(3)(i)
15	Auto-startup after power failure or shut-down is prevented.			OSHA 3157
16	Written LOTO program available & employees have been properly trained.			29CFR1910.147
17	Proper LOTO locks and devices available, which identify employees.			29CFR1910.147(c)(5)(i)
18	Documented LOTO procedures are in use.			29CFR1910.147(a)(2)(iii)(B)(3)

Material Handling

1	Safe clearance for equipment through aisles and doorways.			29CFR1910.22(b)(1)
2	All materials stored, stacked, secured, and of limited height for stability.			29CFR1926.250(a)(1)
3	Properly rated dock boards used while loading and unloading trailers.			29CFR1910.30(a)(1)
4	Trucks and trailers secured from movement during loading and unloading.			29 CFR 1910.178(k)(1) & (m)(7)
5	Shelving, mezzanines surfaces properly rated (and marked) for loads.			29CFR1910.22(b)
6	Manual pallet jacks, hand-trucks and dollies in good condition.			29CFR1926.305(jacks)
7	Forklifts and motorized pallet jacks inspected each shift or prior to use.			29CFR1910.178(l){pre-insp};29CFR1926.305
8	Forklift and motorized pallet jack operators properly trained.			29CFR1910.178
9	All equipment unsafe to operate removed from service until properly repaired.			29CFR1926.20(b)(3)
10	Employees instructed in proper manner of lifting heavy objects.			OSHA 2236

Personal Protective Equipment (PPE)

1	Appropriate eye protection is available and used if hazard present.			29CFR1910.133(a)(2)(i)
2	Appropriate hand protection is available and used if hazard present.			29CFR1910.138
3	Appropriate hearing protection available and used if hazard present.			29CFR1910.95 & 29CFR1910.136
4	Appropriate foot protection available and used if hazard present.			29CFR1910.136
5	Protective clothing - coveralls, aprons, gowns, etc. available & used if needed.			29CFR1910.1030(d)(3)(i)
6	Approved respirators available and used if needed.			29CFR1910.134(a)(2)
7	Respirator users medically certified, properly trained and fit tested.			29CFR1910.134(a)(3)
8	PPE is properly stored, clean and in good condition.			29CFR1910.134(b)5 - (b)7

Portable Power Tools & Equipment			
1	All tools and equipment used in the workplace in good condition.		29CFR1910.242(a)
2	Tools and equipment stored in secure, dry location to prevent tampering.		
3	Tools, grinders, saws, etc. provided with appropriate safety guards.		29CFR1910.243(c)(1) & 1910.243(c)(3)
4	Circular saws with guard above and below the base shoe, and not wedged up.		29CFR1910.243(a)(1)(i)
5	Constant pressure switches on tools, which will shut off power when released.		29CFR1910.243(a)(2)(i)
6	All electrical tools/equipment grounded or of double insulated construction.		29CFR1910.243(a)(5)
7	Electrical cords and pneumatic/hydraulic hoses in good condition.		29CFR1926.416(e)(1) (cords) & 1926.1412(f)(2)(x)
Welding, Cutting, or Brazing Operations			
			29CFR1910 & NFPA 101
1	Personnel using welding, cutting, brazing equipment trained and authorized.		29CFR1910.252(a)(2)(xiii)(C)
2	Hot Work Permit issued for welding and cutting operations.		29CFR1910.252(a)(2)(iv)
3	Red hose used to identify acetylene or other fuel-gas.		
4	Green hose used to identify oxygen.		
5	Black hose used to identify inert gas or air hose.		
6	Only approved apparatuses used (torches, regulators, manifolds, etc.).		
7	Grounding connections on welding machines checked periodically.		29CFR1910.254(c)(2)(v)
8	Adequate ventilation exists or is provided for welding or cutting operations.		
9	Combustible scrap & debris kept clear of operations and removed promptly.		
10	Welding/Cutting areas posted "No Smoking, Matches or Open Lights, Etc."		
11	As needed, fire watch established & maintained for 30 min. after operations.		
Furnace Operations and Maintenance - Visual Operational Checklist			
1	Burners ignition and combustion operates properly per manufacturer specifications		NFPA 86
2	Pilots and igniters ignite properly per manufacturer specifications		NFPA 86
3	Air-fuel ratios are accurate per manufacturer specifications		NFPA 86
4	Operating temperatures are accurate per manufacturer specifications		NFPA 86
5	Sight drains and gauges for water temperature and water-cooling flow are accurate per manufacturer specifications		NFPA 86
6	Burners and pilots receive adequate combustion air		NFPA 86
7	Ventilating equipment is operating properly per manufacturer specifications		NFPA 86
Furnace Operations and Maintenance - Regular Shift Checklist			
1	Gas analyzers are taken, automatic and manual readings match, and automatic analyzers are recalibrated		NFPA 86
2	Set point for control instrumentation is set per manufacturer specifications		NFPA 86
3	Hand valve, manual dampers, secondary air openings, and adjustable bypass are positioned properly per manufacturer specifications		NFPA 86

4	Blowers, fans, compressors, and pumps operate without any unusual noises, bearings, or shaft vibrations				NFPA 86
5	Belts on V-belt drivers have proper tension and no signs of fatigue				NFPA 86
6	Parts are lubricated per manufacturer requirements				NFPA 86
Furnace Operations and Maintenance - Weekly Checklist					
1	Flame sensing devices are in proper condition, location, and cleanliness				NFPA 86
2	Thermocouples and lead wires have no signs of shorts or loose connections				NFPA 86
3	Temperature limit settings set properly and operate correctly				NFPA 86
4	Alarm systems, audible and visible, are signaling properly				NFPA 86
5	Igniters have proper gaps				NFPA 86
6	Pressure switches are set correctly				NFPA 86
7	Control valves, dampers, and actuators move freely and smoothly and make proper adjustments				NFPA 86
Furnace Operations and Maintenance - Periodic Checklist					
1	Interlocks on safety equipment checked for proper functioning				NFPA 86
2	Shutoff valves close tightly per manufacturer specifications				NFPA 86
3	Main fuel manual valves operate properly				NFPA 86
4	Pressure switches operate properly				NFPA 86
5	Electrical switches, contacts, and controls have no signs of arcing or contamination				NFPA 86
6	Instrument is tested for proper response to thermocouple failure				NFPA 86
7	Timed purge procedure (where applicable) results are recorded				NFPA 86
8	Air blower filters are clean				NFPA 86
9	Water, gas compressor, and pump strainers are clean				NFPA 86
10	Fire-check screens and valve seats are clean, and valve is tested for free movement				NFPA 86
11	Burners and pilots are inspected and cleaned as needed				NFPA 86
12	Orifice plates, air-gas mixers, flow indicators, meters, gauges, and pressure indicators are checked and cleaned/repared as needed				NFPA 86
13	Ignition cables and transformers are inspected				NFPA 86
14	Modulating control operation is inspected				NFPA 86
15	Equipment interiors, ductwork, and ventilation systems are checked for cleanliness and free of flow restrictions				NFPA 86
16	Pressure-relief valves are tested and cleaned/replaced as needed				NFPA 86
17	Air, water, fuel, and impulse lines are checked for leaks				NFPA 86
18	Radiant and heat exchanger tubes are checked for leaks and repaired if needed				NFPA 86
19	Instrumentation, valve motors, valves, blowers, compressors, pumps, and other				NFPA 86

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	components are properly lubricated				
20	Instrumentation is tested per manufacturer specifications				NFPA 86
21	Flame safeguard units are tested				NFPA 86