

# SAFETY & FIRE INSPECTION CHECKLIST

See S20.50

WASHINGTON STATE UNIVERSITY

PULLMAN, WA 99164

## GENERAL SAFETY

### 1. SAFETY COMMITTEE

All unit employees shall be represented on a safety committee. At least half of the committee membership must be elected by their peers. Meetings shall be held at least bimonthly and files of meeting minutes must be maintained by the department and submitted to the Campus Safety Office. (WAC 296-24-045) (SPPM S20.20)

### 2. WRITTEN ACCIDENT PREVENTION PROGRAM

Each unit must provide a written accident prevention program. The required program elements include: (1) safety orientation, (2) reporting injuries, (3) reporting unsafe conditions and practices, (4) use and care of personal protective equipment, (5) actions to take in emergencies, (6) identification of hazardous materials and operations and actions to take in the event of exposure, (7) on the job review of safety conditions and practices. The written document and periodic updates shall be submitted to the Campus Safety Office. Documentation that all appropriate unit personnel have received the required orientation and training must be retained in the unit's personnel file. (WAC 296-24-040) (SPPM S20.30.1)

### 3. SAFETY BULLETIN BOARD

A safety bulletin board must be maintained in every department. (WAC 296-24-055) (SPPM S20.30.3)

### 4. WISHA POSTERS

Availability of the act and applicable standards for WISHA require that we post one each of a set of two posters in a conspicuous place in each work area, i.e., where notices to employees are customarily posted. (WAC 296-350-400) (SPPM S20.30)

### 5. SAFETY TRAINING

All personnel involved with the following work conditions and equipment must receive specific training. Training must be documented.

- a. Crane operation (WAC 296-24-23529) (SPPM S20.30)
- b. Explosives (WAC 296-52-401) (SPPM S20.30)
- c. Fire extinguisher operation (all employees) (WAC 296-24-59213) (SPPM S20.30)
- d. Flagging and traffic control (WAC 296-155-305) (SPPM S20.30)
- e. Forklift and powered material handling equipment operation. (WAC 296-24-23025) (SPPM S20.30)
- f. Hazardous material handling (WAC 296-62-070) (SPPM S20.30)
- g. Lasers (WAC 296-155-155) (SPPM S20.30)
- h. Motor vehicle trucks (WAC 296-24-233) (SPPM S20.30)
- i. Multipiece rim wheels (WAC 296-24-21705) (SPPM S20.30)
- j. Operation and maintenance of power presses (WAC 296-24-19511, 19513) (SPPM S20.30)
- k. Powder-actuated tools (WAC 296-24-66113, 66319, 66321) (SPPM S20.30)
- l. Proper lifting and moving methods and techniques (all personnel). (WAC 296-126-096) (SPPM S20.30)
- m. Respiratory protective equipment (WAC 296-62-130-133) (SPPM S20.30)
- n. Use of ladders (WAC 296-24-780, 296-24-79507, 296-155-486) (SPPM S20.30)
- o. Welding equipment (WAC 296-24-68201) (SPPM S20.30)
- p. Working in confined spaces (WAC 296-62-14110) (SPPM S20.30)

### 6. FIRST AID TRAINING

At least one first-aid certified person shall be in each work area. (WAC 296-24-06120) (SPPM S20.30)

### 7. FIRST AID KITS

Work areas shall be provided with first-aid kits that are readily visible and accessible, mounted and easily dismantled, and complete with contents. All crew transport vehicles and heavy equipment shall be provided with kits. (WAC 296-24-06145) (SPPM S20.40)

### 8. EMERGENCY PHONE NUMBERS

Emergency phone numbers shall be posted on all first aid kits and phones. (WAC 296-24-06120) (SPPM S01.01)

### 9. EMERGENCY SHOWERS, EYEWASHES

Emergency washing facilities shall be in the immediate work area for persons who may be exposed to the hazards of contact chemical agents. (WAC 296-62-130)

### 10. SAFE WORKPLACE STANDARDS

Every reasonable effort shall be made to provide a workplace free from recognized hazards. These include but are not limited to: personal protective equipment, guarding, signing, and written job procedures. (WAC 296-24-073)

### 11. ELECTRICAL PANELS

- a. Each panel shall be free of obstruction from view and shall have at least 30 inches of access clearance. (NFC Art. 85)
- b. Each panel cover shall be labeled ELECTRICAL PANEL or MAIN. Each breaker or fuse shall be legibly identified as to function. (NEC Art. 110 & 240)

### 12. ELECTRICAL LOCK-OUTS

Each power source (electrical panel) for lights, outlets motors must be capable of being locked in the off position. (WAC 296-24-975)

### 13. PERSONAL PROTECTIVE EQUIPMENT

General requirements (WAC 296-24-07501); Eye and face protection (WAC 296-24-078); Occupational head protection (WAC 296-24-084); Occupational foot protection (WAC 296-24-088); Personal flotation devices (WAC 296-24-086); Occupational noise exposure (WAC 296-62-09015); Respiratory protection (WAC 296-62-071).

### 14. MACHINE GUARDING

Any machine part, function, or process which may cause injury must be safeguarded. The operator must be effectively shielded from:

- a. Nip points
- b. Rotating parts
- c. Flying chips and sparks
- d. Point of operations

(WAC 296-24-15001-20533)

### 15. ABRASIVE WHEEL MACHINERY

Both portable and stationary abrasive wheel machinery (grinders) shall be guarded. (WAC 296-24-180)

### 16. HAND TOOLS

All hand tools must be kept in good serviceable condition at all times. No broken handles or mushroomed heads on driving, cutting tools. (WAC 296-155-355)

### 17. CABLE/ROPE

Regular inspections shall be conducted to check for wear, defects, and overloading. (WAC 296-155-570)

### 18. WELDING

- a. Welding areas must be screened to protect nearby workers and bystanders from the glare of welding, while providing no serious restriction of ventilation. (WAC 296-24-71501)
- b. Gas welding units shall have back-flow check valves installed in line between torch and gauges. (WAC 296-24-68205)
- c. Adequate ventilation shall be provided. Ventilation required will be dependent on the material being welded, and available space per welder. (WAC 296-24-715) (SPPM S20.30.2)

### 19. COMPRESSED GAS CYLINDERS

Safe use and handling of gas cylinders requires a cylinder truck; chain or other securing device to prevent cylinders from being knocked over. (WAC 296-24-68203) Cylinders shall not be allowed to be used or stored in exitways.

### 20. PRESSURE VESSELS

Current safety certification of pressure vessels must be posted on or near the vessel. (WAC 296-155-030) Power boilers shall be inspected annually. Low pressure heating boilers and unfired pressure vessels shall be inspected biennially. (WAC 296-104-100)

### 21. PORTABLE LADDERS

Must be in good repair, designed for specific use and have nonslip bases. (WAC 296-24-780-79507)

### 22. FIXED LADDERS

Must be in good repair, properly designed to meet load requirements, have proper clearance, rung size, and foot clearance, be caged or cabled if over 20' high. (WAC 296-24-810-81013)

### 23. STAIRWAY RAILINGS AND GUARDS

Every flight of stairs having four or more risers are to be railed with a standard hand rail or rails. (WAC 296-24-75009-76555)

### 24. FLOORS, PLATFORMS, RAMPS

Any opening large enough for a person to fall through that is over 48" above the ground must be guarded by a standard railing. (WAC 296-24-75001-75011)

### 25. SIGNING OF HAZARDOUS AND DANGEROUS AREAS/EQUIPMENT

All hazardous and dangerous areas/equipment shall be posted or tagged to forewarn all persons entering the area, using standardized color coded signs. Such signs shall be used only where there actually exists such a condition as indicated by the sign. (WAC 296-24-14009)

## FIRE SAFETY

### 26. ROOM NUMBERING

All compartmented rooms shall be visibly numbered at entrance according to current building plans. (UFC Art. 2)

### 27. OCCUPANT LOADS

All places of assembly, i.e., classrooms, auditoriums, ballrooms, theaters, etc. having an occupant load of more than 50 and where fixed seats are not installed, shall have the capacity posted conspicuously near the main entrance(s) to the room. (UFC Art. 25; UBC Chap. 33)

### 28. EXITS, HALLS, AISLES

Means of egress shall be continuously maintained free of all obstructions or impediments to full design. (UFC Art. 12, WAC 296-24-56521)

- 29. EXIT SIGNS**
- Exits shall be marked by a readily visible illuminated "EXIT" sign. (UFC Art. 12; WAC 296-24-56531)
  - Access to exits shall be marked by illuminated exit signs indicating exit direction where the exit is no immediately apparent. (UFC Art. 12; WAC 296-24-56531)
  - Any door or passageway which is not an exit or exitway, but may be mistaken for such, shall be identified by a sign reading "NOT AN EXIT." (WAC 296-24-56531)
- 30. FIRE DOORS**
- A self-closing door shall fully close and shall not at any time be secured in the open position. Doors designed with automatic fire alarm activated closure devices shall not at any time be obstructed from full closure. (UFC Art. 10, NFC 101)
- 31. FIRE EXTINGUISHERS**
- Portable fire extinguishers shall be fully charged and operable, kept in their designated places, and shall not be obstructed from view or ready access. (UFC Standard 10-1; WAC 296-24-59205)
  - In cases where an extinguisher location may not be readily visible, signs shall be posted to indicate extinguisher location. (UFC Standard 10-1)
  - Portable welding machines and fork lifts shall have a fire extinguisher attached. (UFC Art. 2; WAC 296-24-69503)
- 32. FIXED FIRE APPLIANCES**
- Fire alarm boxes and annunciator panels shall be unobstructed and readily accessible at all times. (WAC 296-24-631-63109)
  - Fire hose racks shall be unobstructed and readily accessible at all times. Wet or unraveled hoses shall be reported for maintenance. (WAC 296-24-60299)
  - At least 18 inches shall be maintained between sprinkler head deflectors and the top of storage. (NFC 13 1-5.3; WAC 296-24-60705)
  - Fire department building connections for standpipe and sprinkler systems shall be free of blockage and obstruction at all times (UFC Art. 10)
- 33. HOUSEKEEPING**
- All areas shall be kept clean, orderly, and in a sanitary and safe condition. (UFC Art. 11; WAC 296-24-12003)
  - All areas shall be kept free from accumulation of unnecessary materials and waste. (UFC Art. 11; WAC 296-24-21505)
  - All wall and ceiling coverings shall be properly repaired, restored, or replaced when damaged, breached, penetrated, or removed. (UFC Art. 10)
- 34. COMBUSTIBLE STORAGE**
- Storage of readily combustible materials shall be more than two feet from the ceiling. (UFC Art. 11)
  - Each refrigerator, freezer, and cooler shall be prominently labeled to indicate whether it is or is not suitable for storing flammable liquids. (NFC 9-2.2)
  - Containers of flammable liquids shall not exceed a capacity of one gallon except that safety cans can be of two gallons. The maximum in any work area is 10 gallons accumulative in non-code containers. (UFC Art. 79; For additional information on flammable and combustible liquid storage of chemicals, see SPPM S60.20.5)
  - Incompatible storage of chemicals, e.g., oxidizers stored with solvents or reducers, is not permitted. (UFC Art. 2)
- 35. PORTABLE SPACE HEATERS**
- Personal portable heaters are not permitted. (SPPM S50.10.3)
- 36. COFFEE POTS, HOT PLATES, AND COOKING APPLIANCES**
- All electrical cooking appliances shall have a flat noncombustible surface, e.g., ceramic, placed under them. (UFC Art. 2)
  - Personal cooking appliances except hot pots and coffee makers are permitted only in designated break areas. (UFC Art. 2)
- 37. MOTORIZED ELECTRICAL APPLIANCES**
- All appliances and equipment operated by an electrical motor shall have a three-wire cord or be double insulated, shall have no live parts exposed to contact, shall be kept free from accumulation of oil, dust, dirt and water. (NEC Art. 110 & 240; NFC Art. 85)
- 38. ELECTRICAL CORDS**
- Electrical cords shall be maintained in good condition without splices, deterioration, or damage. (NEC Art. 400)
  - Extension cords shall not be used as a substitute for fixed wiring. (Circuit breaker protected cords used on portable appliances are permitted.) (NEC Art. 400)
  - Electrical cords shall not be run through walls, ceilings, floors, doorways or windows; nor shall they be compressed. (NEC Art. 400)
  - Extension cords shall be no less than 16 gauge and shall be three-wire/three-prong. (UFC Art. 2)
  - Adapter cubes shall not be used. (UFC Art. 2)
- 39. FLEXIBLE GAS HOSE**
- The use of plastic tubing, such as Tygon, to convey flammable gas is prohibited. Approved flexible gas tubing shall be limited in use to portable appliances, e.g., Bunsen burners, and shall not be more than six feet in length. (IENG C)
- ENVIRONMENTAL SAFETY**
- 40. NOXIOUS ODORS, FUMES**
- Toxic atmospheres (WAC 296-62-14105); Procedures for entry into toxic or flammable atmosphere (WAC 296-62-14110); Removal of flammable or toxic material (WAC 296-62-14061); Evaluation of potentially hazardous atmosphere. Fumes present in concentrations high enough to be of concern to inspector. (Solvent odors, acid fumes, etc., complaints of eye, skin or respiratory irritation.) (WAC 296-62-14110 and -14172)
- 41. NOISE**
- Report continuous high pitched, irritating noise. (WAC 296-62-09015)
- 42. LIGHTING SURFACE**
- Adequate light to prevent injury, accident, strain and/or stress. (WAC 296-62-09003)
- 43. TEMPERATURE (ROOM)**
- Temperature, radiant heat, or temperature-humidity combinations. Extremely hot, cold, or humid working conditions producing harmful physiological response will require adequate controls. (WAC 296-62-09013)
- 44. PLUMBING LEAKS, DRAIN TRAPS**
- Inspection and Testing (UPC Sec. 318); Maintenance (UPC Sec. 319); Health and Safety (1973) (UPC Sec. 321); Drain traps in floors, sinks, sink-cups in fume hoods, etc. kept primed. Training required.
- 45. CHEMICAL USE, STORAGE**
- Chemical Agents (WAC 296-62-070); Air Contaminants (WAC 296-62-075); No incompatible storage (no solvents stored with oxidizers, no reducers stored with oxidizers, potentially explosive or pyrophoric chemicals properly stored). Exposure to toxic chemicals minimized through use of ventilation, personal protective equipment, and proper storage. Training required.
- 46. CHEMICAL DATING AND LABELING**
- All oxidizers or peroxide forming materials shall be labeled and dated. Out-of-date chemicals must be properly and immediately disposed. (UFC Art. 2.2.102)
- 47. HAZARDOUS AREA LABELING**
- List of Carcinogens (WAC 296-62-07302, 07306); Vinyl chloride (WAC 296-62-07329); Acrylonitrile (WAC 296-62-07336); 1,2-Dibromo-2-chloropropane (WAC 296-62-07342); Inorganic arsenic (WAC 296-62-07347); Lead (WAC 296-62-07521); Asbestos (WAC 296-62-077); Radiation Carcinogens; 4-Nitrobiphenyl, Alpha-Naphthylamine, 4,4 Methylene bis, Methyl chloroethyl ether, 3,3'-Dichlorobenzidine, Bis-Chloromethyl ether, Beta-Naphthylamine, Benzidine, 4-Adminodiphenyl, Ethyleneimine, Beta-Propiolactone, 2-Acetylaminofluorene, 4-Dimethylaminoazobenzene, N-Nitrosodimethylamine (WAC 296-62-07302 and -09004)
- 48. FOOD/BEVERAGE STORAGE — CONSUMPTION**
- No person shall be permitted to store or consume food or beverages in any room containing toxic chemicals. (WAC 296-24-12017)
- 49. HAZARDOUS WASTE**
- The storage and disposal of hazardous wastes procedures must comply with the WSU Safety Policies and Procedures Manual, S70.40.
- 50. FUME HOOD OPERATIONS**
- Fume hoods will draw air into the sash face opening. Sash height air velocity indicating tags/tape will be positioned on the side airfoil of the hood. Hood lights and sash mechanism will be in operating condition. Fume hood exterior/interior will show no visible physical damage. Training is required. (WAC 296-62-11001 through 296-62-11013) Ventilation. (WAC 296-62-110)
- 51. FUME HOOD TAGS**
- Each fume hood will have both yellow and green tags posted. Hood air velocity readings, air balancer initials and inspection data will be listed and current. Hood data/date will not be over one year old. Training required. Ventilation guide (WAC 296-62-11003).
- 52. FUME HOOD WORK SURFACE**
- The fume hood work surface area will not be covered totally by liquid/solid containers. The lower baffle slot will not be blocked by either liquid/solid containers or paper/foil. Training required. (WAC 296-62-11003)
- REFERENCE GUIDE**
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| IENG C | Inland Empire Natural Gas Code        |
| NEC    | National Electrical Code              |
| NFC    | National Fire Code                    |
| SPPM   | Safety Policies and Procedures Manual |
| UBC    | Uniform Building Code                 |
| UFC    | Uniform Fire Code                     |
| WAC    | Washington Administrative Code        |

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