

Project EHS Evaluation Checklist – Change/Construction

1. Demo/Construction
 - a. Are there any asbestos materials (pre-1989 building) - notification and management required
 - b. Lead paint? Pre-1978 building
 - c. PCB caulk? Pre-1980 building
 - d. Decontamination of fume hoods, biosafety cabinets, etc.
 - e. How will waste be managed, especially chemical waste
 - f. Will aerial lifts be required
 - g. Will there be trenching or excavating? Review contractor qualifications, training, and safety plan.
 - h. Will there be work at heights? Review contractor qualifications, training, and safety plan.
 - i. Has contract been written to require vendors to provide SDS's for all chemicals brought on site.
2. Physical Layout
 - a. New electrical system or circuit installed?
 - b. Electrical system or circuit modified so that it could overload a system/affect arc flash hazard?
 - c. Does existing hazard warning signage (for modifications) need to be changed?
 - d. New or modified fire prevention system?
 - e. Is an egress route altered (temporary or permanent)?
 - f. Is a door secured or interlocked that previously was not?
 - g. Is access for maintenance or emergency response reduced?
3. Equipment
 - a. Will local ventilation be required?
 - b. Will a new utility be installed or will there be a significant change (increase or decrease) in load on an existing system?
 - c. Is all new equipment provided with adequate mechanical guarding
 - d. What is the expected noise level in the space – does it approach 85 dB
 - e. Ergonomic design
4. Environmental
 - a. Will more than 1 acre be disturbed? Stormwater general permit submission BEFORE work begins
 - b. Will a source of air emissions (generator or boiler or solvent bath cleaner for example) be changed or replaced? Could require permit change BEFORE work begins.
 - c. Are new tanks being installed?
 - d. Will the use or storage of a hazardous substance increase or decrease?
 - e. Will equipment containing a refrigerant/halon be added, repaired, modified or removed?
 - f. Will a source of ionizing or non-ionizing radiation be added or removed?

- g. Have requirements for use of lasers been evaluated
- 5. Hazardous Materials/Hazard Communication
 - a. Will a new hazardous substance be introduced or will the quantity of an existing hazardous substance be significantly increased or decreased? (chemical, biological, radiation, regulated materials, etc.)
 - b. Has the contractor provided SDSs for hazardous materials they will bring on site?
 - c. Has the VU employee responsible for the work provides SDSs for hazardous materials to which the contractor employees may be exposed?
- 6. Work Tasks
 - a. Will there be a change in emergency planning or procedures?
 - b. Will new or modified EHS documentation be required (labels, procedures, warning signs, etc.)?
 - c. Will engineering controls (hoods, ventilation systems, barriers, etc.) be modified?
 - d. Will any work be performed in a confined space?
 - e. Will any work involve burning / welding / cutting?
 - f. Will any work be performed that will require lockout of electrical or mechanical equipment?
- 7. Training
 - a. Will a new EHS training program need to be developed or will an existing program need to be modified?
 - b. Has the contractor provided a copy of their Safety Plan?
 - c. Has the contractor been advised of VU safety policies they must follow?
- 8. Design
 - a. Will there be significant storage of flammable materials in the new space – explosion proof wiring could be required.
 - b. All new electrical panels, equipment should come WITH required NFPA 70e labeling
 - c. If maintenance (or window washers ?)will require work on the roof of the building, include anchorage points in the design.
 - d. Have HVAC systems been designed to enable year round humidity management?
 - e. Has easy access for maintenance been built into design
 - f. IS THERE ADEQUATE STORAGE SPACE
 - g. Are walking surfaces slip resistant?
 - h. Will corrosive materials be used – shower/eyewash with tepid water required. Assure location is conducive to testing.
 - i. Does design minimize confined spaces?
 - j. Flammable storage cabinet space if required
 - k. Chemical storage space/shelves with lips
 - l. Are interlocks required for safe operation and maintenance and are they provided
 - m. Is all new equipment provided with adequate mechanical guarding
 - n. Are interlocks required for safe operation and maintenance and are they provided
 - o. Adequate outlets
 - p. Space for waste segregation (inc. recycling)

- q. Is gas cylinder anchorage provided
 - r. Are floor mats provided in areas where there will be long periods of standing
 - s. Is secondary containment provided for hazardous materials
 - t. If respiratory protection equipment is to be stored in area, is dedicated storage space provided
 - u. Is local/specific fire suppression required?
 - v. Is specific air monitoring required (due to presence of specific gases)?
 - w. Is backflow prevention required/addressed?
 - x. Designed for pest control prevention (whole book)
9. Laboratory Specific Design
- a. Fume hood
 - b. Biosafety cabinet
 - c. Flammable storage cabinet
 - d. Is additional laboratory security required due to the nature of the chemicals or processes