

## **Environmental Health and Safety Construction Information**

### **General Safety Considerations:**

- 1) Emergency Medical Services on the project site are available via Orange County 911. Calling 911 from any campus landline phone will connect you with the UCF police dispatch who can immediately contact the necessary EMS responder. UCF PD will also respond and assist in escorting the Orange County EMS directly to the site. Services are not available from campus medical facilities. In the case of an emergency, if using a cell phone, contact 911 directly.
- 2) Contractors are individually responsible for meeting and monitoring the requirements set forth by OSHA. A copy of the current OSHA required safety manuals should be kept on site. A copy should be supplied to the UCF Construction Project Manager.
- 3) Lock out/tag out regulations are required to be utilized in all campus facilities. For renovations to facilities, contact the UCF Construction Project Manager.<sup>1.5</sup>
- 4) Crane, forklift, or other heavy equipment operators must be trained and certified. Flagmen for all large vehicles must be provided. This policy applies to all UCF employees, students, contracted vendors, contractors, and subcontractors working on or near any road, driveway, or sidewalk that would require a flagger as designated by the [United States Department of Labor, Occupational Safety and Health Administration's Manual on the Uniform Traffic Control Devices \(MUTCD\)](#).
- 5) Appropriate and sufficient warning signage must be used to identify the site and any hazards that may be present.
- 6) The construction areas must be fenced off by chain link fence with privacy screening. Where part of a remodeling/addition project, the area must be adequately barricaded and secured to prevent unauthorized or accidental entry. All construction debris is to be kept within the secured construction staging area. All electrical hazards must be suitably protected.
- 7) Changes to exiting that affects occupied University buildings must have adequate directional signage. Building exits must not be blocked. Contact the UCF Construction Project Manager for coordination with EH&S and the State Fire Marshal for review and approval of alternate exit routes prior to construction. This requirement must be shown on the Life Safety Drawings incorporated in the 100% Construction Documents.
- 8) Construction fencing and staging areas must not block exits, hydrants, FDC's, or ADA parking/access. A clear path to a public way must be provided.
- 9) Approved drawings and permit for work must be on site at all times. Changes, shop drawings, and missing details must be submitted for review.
- 10) Building Code Inspections are requested by using the UCF Building Code website. For information, contact the UCF Building Code office at 407-823-5323 or go online to <http://secure.fs.ucf.edu/PermitLookup/Default.aspx>. Inspections must be requested no later than 4:00 PM the work day prior to the requested time. When the University is closed for holidays, requests must be sent in advance so that arrangements can be made. Emergency/Special inspections are available with an additional fee. Information can be found at: <http://www.ehs.ucf.edu/bcinspection>.

- 11) State Fire Marshal inspections must be coordinated directly with the local inspector and followed up with a SFM Request for Building Site Inspection Form emailed to Tallahassee. Requests for the State Fire Marshal inspections should be coordinated through the project architect/engineer of record, or the University Construction Project Manager. When contractors call for reinspections that they have failed due to lack of coordination or performance, inspection expenses will be the responsibility of the Contractor. The SFM will visit the site and provide a document package to the Contractor after construction starts. <http://www.myfloridacfo.com/Division/SFM/bfp/Inspections/documents/CONSTRUCTIONSERVICESGUIDEFebruary2015.pdf>
- 12) Minimal insurance requirements for contractors must include General Liability, \$1,000,000 each occurrence, Workers Compensation, per Florida Statutes, the Certificate must remain current throughout contract, and UCF Board of Trustees must be listed as additional insured.

### **Additional Considerations for Remodeling**

- 13) Fire extinguishers must be temporarily relocated if the area of renovation will make them inaccessible. The contractor must provide all fire extinguishers needed to cover the area of construction/renovation. Notify the EH&S department if any building extinguishers will be affected within the construction area.
- 14) Known asbestos locations must be identified in the project Construction Documents. For areas in question, contact UCF Construction Project Manager.
- 15) Existing building systems such as Fire Alarm and Sprinkler must remain fully functional at all times. The alarm system must not be left in the "trouble" mode. UCF Police Department and Orange County Responders (current OCFR Dispatch 407-737-2444) are to be notified any time a fire sprinkler system is temporarily taken off line for maintenance or tie in. Where a system is to be replaced in whole or in part, the old system must not be removed until the State Fire Marshal has accepted the new one.

### **Procedures to Identify and Manage Environmental Issues during Construction**

- 16) During renovation, demolition and new construction projects, it is the contractor's responsibility to ensure that the environmental issues including sediment/erosion control, hazardous substances/waste, and indoor environment and air quality (for renovation/demolition in occupied spaces) are handled in compliance with applicable regulations. The identification and documentation of potential environmental issues by the Contractor during the pre-construction phase will be required.
- 17) The Contractor must be responsible for providing applicable forms, plans, permits, inspection reports, storm water and hazardous materials/wastes training certifications, and hazardous materials lists to Environmental Health & Safety for filing or distribution. Whenever possible, electronic submittals are requested.
- 18) All Contractors or designees must attend a one-hour annual session covering UCF Environmental Management Systems (EMS) construction specific components.<sup>1.6</sup> UCF Environmental Management System construction forms to be used for documentation are available at <http://www.ehs.ucf.edu/EHSforms.html>. These include the following:

Contractor EMS Agreement and Contractor Hazardous Material/Waste Inventory Forms  
Construction/Subcontractor Procedures (EMS Procedure 011)  
Contractor Agreement (EMS Form 011-01)  
Contractor Hazardous Waste Generation (EMS Form 011-02)  
Storage Tank Registration Form (Form 022-03)

- 19) All construction sites are subject to inspection by UCF representatives and federal or state agents. The Contractor is responsible for all fines incurred due to the failure of their employees and subcontractors to follow federal or state regulations. Failure to follow UCF Environmental Issues Construction Standards can result in stop work orders or other penalties.

### **Storage Tanks, Boilers and Air Permitting**

- 20) Report proposed installation of all storage tanks on EMS Form-023-03: Storage Tank Registration. The form must be provided to EH&S prior to ordering the tank system.
- 21) Tanks with capacity of 551 gallons and larger must be inspected by the local FDEP designated tank inspection authority on the day of installation and once again after the system is fueled and fully operational. Contractor to submit to EH&S written assurance the tank is an approved DEP tank, a leak test has been performed and confirm interstitial sensor is operational in accordance with State and County regulations.
- 22) The Contractor is responsible for scheduling with the appropriate inspection authority and implementing any corrective actions related to tank design or installation.
- 23) All installations of storage tanks, for petroleum products and synthetic or vegetable oils must have rain-tight secondary containment.
- 24) Contractor must provide details on boilers, water heaters, generators 200 kw or less and similar stationary combustion equipment and appliances including fuel supply, Btu ratings, etc.
- 25) Emergency generators greater than 200 kw require an Orange County Environmental Protection Division air construction permit prior to ordering the generator. Contractor must provide the approved generator submittal to EHS for the air construction permit application. UCF EHS will obtain the air construction permit and notify the Contractor when they are allowed to order the generator. The permitting application process may take up to 6 months.

### **Hazardous Substances and Waste**

- 26) A complete list of hazardous substances to be used on or removed from the project must be submitted prior to the substances arrival on or commencement of renovation/demolition of UCF property using the Contractor Hazardous Material/Waste Inventory form which can be found under Contractor Hazardous Waste Generation at: <http://www.ehs.ucf.edu/EHSforms>. Material Safety Data Sheets must be kept on site and must be made available when requested. Less toxic alternatives should be used wherever possible.
- 27) All containers of hazardous substances and waste, including new and used petroleum products must be stored in a covered area on impervious surface. Outside storage must be in rain-tight, secondary containment. Used mercury containing bulbs and devices, ballasts and batteries must be segregated and stored in appropriate closed containers, labeled, on a pallet and in a rain-tight location. Hazardous substance or waste storage must be secured.
- 28) Hazardous substances used in occupied spaces will require the Contractor to prepare and follow a ventilation plan. The plan is to be submitted to a UCF EH&S representative for approval prior to use of the substance.
- 29) The University is registered as a Large Quantity Generator (LQG) of hazardous waste. All hazardous waste generated must be handled per the UCF Management System. In general,

40 CFR parts 261 thru 270, and FAC (Florida Administrative Code) 62 parts 730 and 731 should be followed.

- 30) A UCF representative must verify all hazardous waste is properly managed prior to its transportation off campus. The UCF EPA ID number must be used on all manifests. Transportation and disposal facilities must be pre-approved by a UCF EH&S representative. Alternatively, approved waste may be disposed through the University hazardous waste program at a charge to the project.
- 31) All spills must be cleaned up immediately. Contractor shall maintain adequate spill cleanup materials. Discharges to pervious surfaces, sanitary or storm water conveyances or bodies of water must be reported to a UCF EH&S representative upon discovery.

### **Indoor Environmental Quality**

- 32) During construction operations, especially those involving demolition or renovation, appropriate measures are required to maintain acceptable air quality levels. Any activity generating dust, debris or pollutants should be performed in unoccupied areas. If this is not possible, the contractor must be required to ensure proper isolation of all such dust, debris or pollutants. The Sheet Metal and Air Conditioning Contractor's Association's (SMACNA) IAQ Guidelines for Occupied Buildings Under Construction must be followed.

### **Contact Information**

- 33) All inquiries should be routed through or copied to your UCF project manager.
- 34) For Building Code Questions contact Roy Johnston, EH&S 407-823-0423.
- 35) For Hazardous Substances, Environmental Issues, and Storage Tanks, Boilers and Air Permitting, contact David Bock, EH&S 407-823-0707.
- 36) For Asbestos Abatement Questions contact Jose Vazquez, EH&S 407-823-2605.
- 37) For UCF Standards questions contact your Facilities Planning project manager.