Yale University

CONTRACTOR

HEALTH & SAFETY GUIDELINES

Prepared cooperatively by Yale University’s Offices of Facilities, Risk Management, and Environmental Health & Safety

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I. INTRODUCTION

Safety is an essential component of construction work at Yale University ("Yale"). It is a key contractual responsibility for those managing and performing such work and an important determinant of overall Project success. Yale believes that effective Contractor safety programs enhance projects by assisting Contractors in systematically identifying and evaluating anticipated hazards and establish controls in advance of actual work.

Yale’s immediate goal is to have Contractors establish excellent safety records for each of the projects they perform at Yale. These project-specific records will aid Yale’s long-term goal of average loss time frequency rates below 1.0 and average OSHA recordable incident rates below 2.5 on all projects.

These Guidelines outline the various roles and responsibilities that Contractors have for construction safety, identify key facility resources, set out minimum safe work requirements, and provide guidelines for responding to emergencies. These Guidelines do not relieve any Contractor of its obligations to

(1) control the means and methods by which it and its employees, Subcontractors of Any Tier and agents perform work or services at Yale;

(2) independently ascertain which health and safety practices are appropriate and necessary for the performance of the Work; and

(3) develop, implement and enforce a comprehensive health and safety program appropriate for the Work or services performed that complies with all Applicable Law and industry standards, including permits, governing the Contractor and the Project.

These Guidelines include information Yale may have that will assist Contractors in developing, implementing and enforcing their health and safety plans and programs. It provides an overview of practices that Contractors should consider for applicability to their Work, but is not designed to address all environmental, safety or health issues. The Guidelines also outline the minimum expectations as to Contractor administration of safety, dust control, fire prevention and other environmental, health and safety issues on a Project. These Guidelines are an introduction to, not a substitution for the Contractor’s own safety plans and programs. Yale shall have the right, but not the obligation, to review and comment on any Contractor Safety Plan and any amendments to it. Contractor shall carefully consider all Yale comments on such Plans, but the Contractor bears full and final responsibility for scope, detail, implementation, enforcement and administration of all such Plans.

II. DEFINITIONS

Applicable Law: All applicable laws, regulations, ordinances, codes, rules, decisions and orders of government authorities.
**Contractor:** Contractor, as used herein, refers to any entity in direct contract with Yale for construction related activities including labor, materials, equipment, and other construction services. The definition of Contractor includes, but is not limited to, general contractors, construction managers, design/build entities and any other company providing construction services directly in contract with Yale.

**Contractor’s Safety Plan:** The plan created by the Contractor pursuant to the requirements of its Contract with Yale outlining how the Contractor intends to address overall safety on the Project, and meet the Contractor’s responsibilities to provide a safe work environment and to aid in developing a program to eliminate accidents, injuries and property damage. The Contractor’s Safety Plan may include specific written Safety Programs, as well.

**Deconstruction:** Selective demolition with the purpose of preserving building components or materials for reuse or recycling.

**EMR:** Worker’s Compensation Experience Modification Rate.

**Hazardous Materials:** Any pollutant, hazardous or toxic substance, waste or material, including oil products, mold, asbestos, asbestos-containing materials, lead, lead-containing materials, urea formaldehyde foam insulation, polychlorinated biphenyls, flammable explosives, radioactive materials or other material or substance designated or regulated as hazardous or as a toxic substance or waste, pollutant or contaminant under Applicable Law.

**Job Hazard Analysis (JHA):** A safety analysis prepared by Subcontractors and/or Contractors to formally evaluate anticipated project and activity hazards and their control.

**Job Safety Board:** Board maintained by Contractor at the Project Site, accessible to all entering the Project Site, that sets forth safety information for the Project.

**OSHA:** Occupational Safety and Health Administration

**Owner or Yale:** Yale University, and all its affiliates, subsidiaries and related entities, directors and officers, trustees and employees:

**Program/Safety Program:** A written program that addresses a specific hazard or specific OSHA standard and is required by Applicable Law or best industry standards or practices. By way of example, without limiting the generality of the definition, a Safety Program may include written documentation of training, or a permit program.

**Project:** The entire construction, which includes the Work, the services undertaken by the Contractor, Architect/Engineer, their Subcontractors of Any Tier and consultants in any related construction and operations by the Owner, Owner’s Consultants or the Owner’s separate contractors.

**Project Safety Representative:** The representative appointed by the Contractor responsible for Project safety, including without limitation, investigation and documentation of incidents.
Project Site: Those areas indicated in the Contract Documents where the Work is to be performed, including premises owned by Yale as described in the Contract between Yale and Contractor and/or areas contiguous thereto, including any Project Site set up by Yale for use exclusively for storage of material or equipment or for on-Project Site fabrication of material to be used on the Project Site, including temporary locations.

Project Team: The Owner, Architect/Engineer and Contractor, together with such other persons or entities selected by the Project Team whose management, responsibility and collaboration are required for the project’s success.

Subcontractors of Any Tier: Subcontractors and lower tier subcontractors engaged to perform Work on the Project.

Work: Construction activities, including labor, materials, equipment and other construction services, described in the Contract Documents and such other work reasonably inferable as necessary to produce the results intended by the Contract Documents, except to the extent specifically indicated in the Contract Documents to be the responsibility of others.

Yale Community: Includes, but not limited to, Yale employees, students, faculty, neighbors, and guests.

Yale Project Manager: The individual identified as such by Yale on a project-by-project basis.

Yale Environmental Health & Safety or Yale EH&S: Yale University’s Office of Environmental Health & Safety.

III. EMERGENCIES AND INCIDENTS

A. Responding to Emergencies and Incidents

The Contractor should develop reasonable preparations and contingencies for the various potential emergencies that can occur on the Project Site, including but not necessarily limited to:

- Project Site accidents and injuries;
- Smoke and fire conditions;
- Spills and releases of Hazardous Materials;
- Structural or equipment failure or collapse;
- Security threats, including public demonstrations, bomb threats, or the discovery of suspicious materials; and
- Severe weather conditions, including high winds.

The Contractor’s preparations and contingencies should be described in detail in the Contractor’s Safety Plan. Since many emergencies have potential impacts well beyond their immediate location, it is important for Contractors to understand basic emergency response and evacuation procedures, local emergency resources, and follow-up actions. Contractors are expected to devote significant efforts to ensuring that adequate preparations have been made for the range of foreseeable emergencies that might occur during their Work at Yale.
The primary means to summon emergency response is by calling 911 on any telephone. Based upon the incident description, the 911 operator will dispatch police, fire, medical, or other assistance to the scene of the emergency.

For Work occurring within an occupied Yale building, emergency response may be summoned by pulling a nearby fire alarm station, using a Yale “blue emergency phone”, or by contacting the Yale Police Department. The Yale Police Department can be summoned by dialing 911 from any Yale telephone or by dialing (203) 432-4400 from any non-Yale telephone. Note: Dialing 911 from a non-Yale telephone will connect to local emergency services, not the Yale Police Department.

Information about regional emergencies, severe weather conditions, and major campus disturbances is available from Yale’s main website (www.yale.edu) as well as from the local radio station, WELI (960 AM).

In the event that an emergency requires evacuation of the Project Site, re-entry is prohibited until the public safety official or senior Yale official in consultation with the Contractor, has issued an “all-clear” announcement. Since the Project Site is the property of Yale, all inquiries from the media should be coordinated through Yale Public Affairs (telephone: (203-432-1345)). Additional local emergency resources, including area hospitals, are listed in Appendix A.

B. Post-Incident Reporting

After summoning emergency assistance, Contractors are responsible for directly notifying any regulatory agencies as required as well as arranging for any necessary follow-up repairs, abatement, or other corrective actions. Contractors should also notify the Yale Project Manager of the incident as soon as possible and no later than required by applicable regulations, and document it as described below.

IV. SENSITIVE WORK AREAS AND CONDITIONS

A. Nuisance Conditions

Contractors performing demolition and/or renovation Work shall take all ordinary precautions to minimize noise, vibration, dust, odors, or other nuisance conditions associated with the Project. It is the full responsibility of the Contractor to assess the risk and develop an appropriate Plan to control all dust, noise, vibrations, odors, and other factors as may be required to comply with the Contractor’s Safety Plan, these Guidelines and Applicable Law. In addition, Contractors performing activities that require dust control shall prepare a written dust control plan, which dust control plan shall take into account the Yale “Dust Control Measures”, available from Yale EH&S, and be included in Contractor’s Safety Plan.

Some common examples of construction activities that often require dust control include but are not necessarily limited to blasting, heavy equipment operation, demolition (including selective demolition), roofing, dry wall work, and the indoor use or application of a variety of products and equipment including paints and other chemical products, gas or diesel powered equipment, and impact or powder-actuated tools.
B. Sensitive Work Areas

Many locations within Yale are sensitive or special areas, including residential dormitories, laboratories, analytical equipment rooms, research animal facilities, clinical patient care areas, and classrooms. As a result, the Contractor should take additional steps to minimize noise, vibration, dust, odors, or other nuisance conditions associated with the Project in these sensitive or special areas. Although these kinds of impacts are generally most acute for Work occurring in or very close to occupied buildings, they can also pose problems on new construction sites. The Yale Project Manager will communicate special or sensitive conditions about the space, occupants, or neighbors during Project planning and act as a liaison with other Yale departments to establish appropriate levels of protection or control. Depending upon the size, duration, and scope of the Project, as well as the nature of any adjacent sensitive areas, Yale may require that the Contractor participate in a pre-construction community meeting to inform affected community members, including nearby building occupants, of the Work and any needed controls.

C. Underground Storage Tanks

Contractor shall coordinate any Underground Storage Tanks (UST) project removal with Yale EH&S. Contractor shall be responsible for conducting tank waste material profiling with Yale EH&S, and any and all manifests are to be signed by Yale EH&S. UST status notification forms submittals shall be initially prepared by Contractor; Yale EH&S will review UST forms, coordinate their signature by an authorized Yale official, and file the forms with the Connecticut Department of Energy and Environmental Protection. Contractor shall immediately notify Yale EH&S if a UST is discovered during construction activities, of all UST removal or abandonment prior to commencement, all tank grave testing results, and if appropriate, shall sign any contaminated soil manifests.

D. Environmental Releases

1. Stormwater Permits

Before commencing soil disturbance activities of any kind, Contractor shall ensure that it has registered for or obtained all applicable construction stormwater discharge permits and that any local erosion control plans have been approved. Contractor and Subcontractors of Any Tier must follow all requirements of such permit(s), associated Stormwater Pollution Prevention Plan, stormwater requirements, and / or the local erosion control plan. Any construction dewatering must also comply with one of the General Permits for Discharge of Groundwater Remediation Wastewater, if applicable.

2. Other Construction Wastewater Discharges

Contractors and Subcontractors of Any Tier shall not discharge wastewater of any type from the Project Site without a permit as required by Applicable Law. Contractor is responsible for registering or applying for such permit and shall coordinate all registrations or applications for wastewater discharge permits through Yale EH&S for signature by an authorized Yale official. Contractor and Subcontractors of Any Tier shall adhere to all requirements of wastewater discharge permits and local sewer ordinances.
E. **Hazardous Materials**

For purposes of these Safety Guidelines, there are three types of Hazardous Materials:

1. Hazardous Materials brought onto the Project Site by the Contractor or a Subcontractor of Any Tier for purposes of the Work, or generated by the Contractor or a Subcontractor of Any Tier during the Work (“Hazardous Contractor Materials”);

2. Hazardous Materials that are a component or part of any building or building equipment at the Project Site including but not limited to asbestos-containing materials (“ACM”), lead-based paint, lead-based paint abatement waste, mold, or PCB-containing transformers and lamp ballasts (“Hazardous Building Materials”); and,

3. Hazardous Materials used or generated by the Yale Community or students in the ordinary course including but not limited to laboratory chemicals, heating oil, or hazardous waste (“Yale Hazardous Materials.”)

1. **Hazardous Contractor Materials**

Contractors are responsible for the safe and lawful receipt, handling, storage, transport, use, and disposal of all Hazardous Contractor Materials.

When working with Hazardous Contractor Materials, Contractors shall have or develop, implement, and enforce an effective Safety Program that complies with Applicable Law, including without limitation Applicable OSHA standards. Contractor must maintain, and their Subcontractors of Any Tier must provide to Contractor, copies of Material Safety Data Sheets (“MSDSs”) for Hazardous Contractor Materials brought onto the Project Site and keep them readily available for review by Contractor’s employees, workers, Subcontractors of Any Tier, the Yale Project Manager, other Yale officials, government inspectors, and emergency response personnel. Contractors and Subcontractors of Any Tier responsible for any Hazardous Contractor Materials must also ensure that they are appropriately and safely packaged, labeled, stored, and used. Contractors must also provide their employees with, and ensure that Subcontractors of Any Tier provide their employees with, training, personal protective equipment, and emergency response supplies appropriate to the Hazardous Contractor Materials and their use on site.

The Contractor must immediately notify the Yale Project Manager and Yale EH&S of spills or other releases, threats of releases, over-exposures, and all other incidents involving Hazardous or potentially Hazardous Contractor Materials. Contractor will also report any release of Hazardous Contractor Materials to the appropriate governmental agency, if required by and in accordance with Applicable Law, and is responsible for any required investigation and/or remediation of releases or threatened releases of Hazardous Contractor Materials.

Contractors planning to use products containing volatile organic compounds (e.g., paints, adhesives, sealants, coatings, cleansers) shall inform the Yale Project Manager of the planned use prior to use, and apply any safeguards or controls legally required or otherwise needed to protect the Yale community, their employees, workers, Subcontractors of Any Tier, their employees, workers or other personnel, and adjacent University occupants.
Since many laboratories and related rooms are under “negative” air pressure relative to surrounding hallways and corridors, airborne releases (e.g., dusts, off-gases, vapors, odors) from nearby construction can travel long distances and enter such areas. The Yale Project Manager will identify such areas to Contractor prior the commencement of Work. Contractors working near any occupied University spaces shall develop plans to control or contain the vapors, dusts, and fumes released from their operations so that laboratories, other sensitive areas and their occupants are not impacted. (See Section IV(A)).

The disposal of Hazardous Materials to the ground or into sink or floor drains, storm drains, or regular trash receptacles is prohibited.

Consistent with the Contractor’s contractual obligations regarding the handling and management of Hazardous or potentially Hazardous Contractor Materials, the Contractor, Yale Project Manager, and Yale EH&S shall discuss whether the Work will result in the generation of any special or hazardous waste (as defined by Applicable Law) during the Project and the Contractor shall develop for review and approval by Yale EH&S appropriate methods for the safe and lawful management and disposal of wastes that constitute Hazardous Contractor Materials. The Contractor is responsible for maintaining proper storage of Hazardous Contractor Materials, including hazardous or special wastes, while on the Project Site and must verify to the Yale Project Manager in writing that the Hazardous Contractor Materials have been accumulated, stored, collected, removed, transported and disposed of in a legal manner. The Contractor shall not bury, burn or in any other way dispose of Hazardous Contractor Materials on the Project Site or on any other University-owned property.

2. Hazardous Building Materials

Several kinds of Hazardous Building Materials may be present in older existing buildings, including but not limited to ACM, lead-based paint, lead-based paint abatement waste, mold, or PCB-containing transformers and lamp ballasts. The Yale Project Manager shall inform Contractor of the presence of any known or presumed Hazardous Building Materials prior to the start of the Project. In the event that any suspicious building materials are identified during the course of Work, the Contractor must comply with the requirements of its Agreement with Yale that address the discovery of suspected Hazardous Building Materials and should immediately stop Work in the affected area and report the discovery to the Yale Project Manager for testing by Yale.

The Contractor shall not begin Work in areas with known or presumed Hazardous Building Materials until the area where the Work is to be performed has been cleared by the Yale Project Manager and/or Yale EH&S. Certain spaces (i.e., laboratory exhaust ductwork, waste or vacuum plumbing) may not be fully accessible for clearance surveys before the start of Work, and Contractor may need to make arrangements for additional surveys or sampling as the Project progresses.

The Contractors or Subcontractors of Any Tier retained to perform Work associated with Hazardous Building Materials shall have properly trained personnel and all the applicable licensing, registrations, certifications, or other authorizations necessary to lawfully and safely perform this Work. The Contractors or Subcontractors of Any Tier performing abatement,
remediation, and disposal shall coordinate such Work with Yale EH&S. Yale EH&S shall determine whether the Contractor or Yale will be responsible for obtaining any required permits and providing advance notices to the regulatory agencies having jurisdiction over the Work as required by Applicable Law. Yale EH&S is responsible for completing and signing any bills of lading or manifests required for the off-site disposal of Hazardous Building Materials.

Prior to the generation of Hazardous Building Material waste, the Contractor or Subcontractor will notify the Yale Project Manager and Yale EH&S. Yale EH&S will provide properly labeled DOT approved containers for the collection of all wastes. As required, Yale EH&S will conduct inspections of waste containers and provide the Contractor or Subcontractor a standard emergency contingency plan. All waste containers and waste materials must remain at the point of generation and may only be transported by licensed hazardous waste contractors as designated by Yale EH&S. Yale EH&S will arrange for disposal and sign all hazardous waste or shipping manifests.

3. Exposure to Yale Hazardous Materials

In the unlikely event that a Contractor employee, or Subcontractor of Any Tier or other worker or personnel or visitor is exposed to Yale Hazardous Materials, the Contractor should contact the Yale Project Manager immediately for assistance in identifying and evaluating the exposure and the Yale Hazardous Material. Work in the immediate area should stop until the area is appropriately surveyed or sampled by Yale EH&S or its agent and cleared for reoccupancy by the Yale PM and/or Yale EH&S. Once the space is cleared, the Yale Project Manager will notify the Contractor through the use of a “Clearance Form.” This precaution also applies to any suspicious materials identified during excavation, trenching, or other subsurface Work. Material Safety Data Sheets for Yale Hazardous Materials are maintained by Yale EH&S and available to Contractors or their designated representatives by contacting Yale EH&S. During off-hours, Contractors should contact the Yale Police Department dispatch center ((203) 432-4400), who in turn will summon Yale EH&S for assistance.

F. Laboratories and Research Animal Facilities

Contractors and their Subcontractors of Any Tier should avoid entering laboratories and related support spaces or research animal facilities. If Work requires regular entry into laboratories, research animal facilities or other sensitive areas, a plan for safe entry will be developed by Contractor and the Yale Project Manager in consultation with lab personnel and Yale EH&S. For entry into a research animal facility, the Contractor should contact the Yale Animal Resources Center (YARC). The Yale Project Manager will provide contact information. Warning signs, and the laboratory or facility safety door card provide specific information about potential hazards in the room. While in such a facility, Contractors and their Subcontractors of Any Tier shall not touch, move, or otherwise disturb anything in the space until the Yale Project Manager has explained potential hazards and given approval.
V. PERSONNEL

A. Safety Representatives

1. Project Safety Representative

The Contractor must appoint a Project Safety Representative and have working at the Project Site sufficient numbers of additional safety personnel as are necessary for proper performance of the Work. The Project Safety Representative must have completed an authorized 30 hour OSHA Construction Safety Course. For all Projects where Yale specifically requires it through the RFP, the Project Safety Representative must be a full-time Project Safety Representative.

The Contractor must identify its Project Safety Representative in writing to Yale before the commencement of Work, and the Project Safety Representative must be on-site in accordance with the approved histogram for the Project or as otherwise required by Yale.

2. Subcontractor Safety Representative

Each Subcontractor must have at least one full-time individual on-site at all times who has completed an authorized 30-hour OSHA Construction Safety Course. The person must be identified to the Contractor in writing prior to the Subcontractor commencing Work. The Subcontractor Safety Representative may also function as a crew leader, foreman or superintendent on the Project.

B. Employees

Contractors shall assign only properly trained employees, workers, trades persons and crafts persons to work on Yale Projects. Every employee of a Contractor or Subcontractor of Any Tier who will be engaged on a Yale project is required to have successfully completed, at a minimum, the OSHA 10-Hour Construction Industry Outreach Training Program, and any other training required by OSHA standards and regulations for job related safety and health hazards. The training must have been performed by an OSHA Construction Outreach Trainer authorized to conduct 10 and 30 hour outreach training, or other specific training as applicable, and, if applicable, the program must have been reviewed and accepted by OSHA as being within the guidelines provided by the OSHA Office of Training and Education. Proof of the 10 hour training must be in the form of an OSHA Construction Safety and Health Course Completion Card issued by the U.S. Department of Labor. Proof of any other training should be in written form.

C. Visitors

Visitors to the Project Site must check in with the Contractor, and the Contractor shall obtain permission for the visit from the Yale Project Manager prior to the visitor entering the Project Site. The Contractor is responsible for maintaining a list of Project Site deliveries and visitors, and briefing all entrants about Project Site hazards, basic emergency procedures, and entry requirements, including the mandatory use of personal protective equipment. Contractor must have appropriate personal protective equipment available for visitors’ use. Contractor has the right to refuse entry to any individual if they are not suitably attired. Visitors should not be
permitted free access to the Project Site and should be escorted by a representative of the Contractor. Photographs and other audio-visual data are prohibited without prior approval from the Yale Project Manager.

Except in the event of an emergency requiring immediate Project Site access, inspectors and other representatives from regulatory agencies shall be instructed to check in with the Contractor prior to entering the Project Site. Contractor shall immediately inform Yale’s Project Manager of the arrival of any agency representatives. Among other things, Yale’s Project Manager may require that an appropriate representative of the University escort regulatory personnel or be present during the visit.

VI. SITE MANAGEMENT

A. Job Safety Board

Contractors should post and maintain a Job Safety Board at the Project Site in a conspicuous location that is accessible to Subcontractors of Any Tier, workers and other personnel arriving at or entering the Project Site. At a minimum, the Job Safety Board shall include all OSHA required postings.

B. Yale Community Meeting(s)

At the request of the Yale Project Manager, Contractors shall participate in various meetings with representatives of the larger Yale community in order to address sensitive populations or areas on campus. Any such meetings will be led by the Yale Project Manager and may also involve other affiliated University departments. At such meetings Contractors may be asked to respond to safety and operational issues that have the potential to arise on Projects and may be expected to provide brief descriptions of their planned Work, and such other information as may be appropriate to the Project.

C. Accident and Injury Documentation

The Contractor shall document all Project Site injuries, near misses, accidents, fires, spills, releases, property damage, and other incidents involving the environment, health and safety. The Contractor’s Project Safety Representative is responsible for investigating and documenting such incidents as soon as practicable. Unless it is not possible, based on the circumstances, the Contractor shall complete the documentation by close of the next business day and forward the written summary to the Yale Project Manager.

Contractors should bring any identified violations of the Contractor’s Safety Plan or other safety requirements to the attention of those personnel involved in the violation, their supervisor(s), and Yale’s Project Manager, and Contractor should promptly correct or ensure the correction of any such violations. Violations of any safety requirements may result in Work stoppage and other actions pursuant to the Contractor’s contract with Yale.
D. Monthly Safety Summaries

The Contractor should prepare and submit a monthly safety summary to the Yale Project Manager. At a minimum, the monthly safety summary should include:

1. Dates and times of periodic safety meetings, site inspections, and any corrective actions made during the reporting period;
2. A narrative of all near misses, accidents or incidents beyond first aid cases, and any other emergencies, broken down by subcontractor or trade as applicable. For injuries and illnesses, Contractor should note the total number recorded on the OSHA 300 log and the total number that resulted in lost-time;
3. Discussion of any Project Site visits by a regulatory agency, including the results of the Project Site visit;
4. Total number of hours worked during the month and running cumulative total hours worked on the Project Site through the end of the reporting month;
5. Calculations of the OSHA-Recordable and Lost Time Incidence Rates for the Project. This is to be provided on both a monthly and aggregate basis.

E. General Work Rules

- Contractor, Subcontractors of Any Tier, and their workers and other personnel, should conduct themselves in a courteous and professional manner, respectful of Yale’s community and property. Horseplay, fighting, or harassment is prohibited.
- The possession, use, sale, purchase, or other transfer of alcohol, drugs or other controlled substances is strictly prohibited and will result in permanent dismissal from a Project.
- Lethal and non-lethal weapons and firearms of all types (excluding appropriate knives, tools, and equipment used for the Contractor’s or Subcontractors of Any Tier performance of Work) are prohibited on Yale premises at all times. Discovery of such weapons, even if properly permitted, will result in permanent dismissal from a Project.
- Contractor, Subcontractors of Any Tier, and their workers and other personnel, must be aware of their Work area and understand the means for emergency egress, evacuation procedures, and evacuation assembly points.
- All workers and other personnel are restricted to their assigned Work areas and material transport routes and shall not explore the campus or use Yale restrooms or amenities, including cafeterias and dining halls.
- Fire/emergency lanes and exit ways must not be blocked, nor shall vehicles be left idling or running near building air supply intake vents. Blocking of public rights of way is not permitted without municipal prior approval.

F. Sanitation and Housekeeping

Contractor shall maintain all Project Work areas and premises in a clean, healthy and sanitary condition. Work areas, passage ways and stairs and walkways in and around buildings and structures should be kept clear of debris and maintained free of dangerous depressions and/or obstructions.
G. Smoking

Yale is a non-smoking campus. Smoking is prohibited inside all buildings, whether occupied or under renovation or construction. Smoking is also prohibited outdoors anywhere near flammable or combustible materials. The Contractor shall designate an outside area, within the construction fencing limits when feasible, as a smoking permitted area. If any worker or other personnel is found smoking outside the designated smoking permitted area, they will be subject to a fine of up to $500.

VII. CONTRACTOR SAFETY PLAN

Contractors must develop, communicate and implement a Project-specific Contractor Safety Plan that addresses at a minimum the following topics. The Contractor Safety Plan shall be maintained in the construction trailer or other location that is readily accessible to all employees of Contractor and Subcontractors of Any Tier, the Yale Project Manager and Yale EH&S. Yale, the Yale Project Manager, and Yale EH&S have the right, but not the obligation, to review the Contractor Safety Plan at any time.

A. Basic Emergency Procedures

Contractors shall develop procedures to identify, communicate, and safely respond to natural and man-made emergencies. These preparations should include, at a minimum:

- Preparing and posting emergency procedures and key personnel contact information on the Job Safety Board;
- Developing means for Project Site evacuation through either existing building fire alarm pull stations or three (3) prolonged blasts from a portable air horn;
- Providing access to a phone for emergency notifications;
- Identifying and maintaining clear emergency paths of exit and egress throughout the duration of the Project;
- Establishing safe off-site assembly areas and methods of accounting for personnel;
- Keeping a first-aid kit readily accessible;
- Providing access to a source of emergency potable water;
- Ensuring that the Project Site is kept prepared for severe weather conditions and taking additional precautions to secure the Project Site and surrounding areas from high winds, especially scaffolding, loose materials stored on elevated surfaces, and crawler, tower or mobile cranes;
- Keeping Material Safety Data Sheets and other product safety information readily available on the Project Site; and
- Briefing Contractors, Subcontractors of Any Tier, their workers, all other employees, personnel and any visitors about basic Project Site emergency procedures.

B. Personal Protective Equipment

All persons entering the Project Site should be appropriately attired. This includes the wearing of ANSI-approved hard hats, safety glasses, sturdy work shoes or boots with protected toes and
metatarsal protection as necessary, and high visibility fluorescent-colored shirts, jackets, or vests. No short pants or sleeveless, tank-top shirts are allowed. Long hair (including long facial hair) must be tied back, and facial hair shall be covered as appropriate or necessary. In addition, the Contractor shall ensure that appropriate personal protective equipment (i.e., safety glasses, hard hats, gloves, respirators, or any equipment or clothing used to protect against injury or illness) are available for use by its workers and shall prohibit Subcontractors of Any Tier, their workers or other personnel from entering the Project Site unless they are wearing appropriate personal protective equipment. Contractor shall direct its Subcontractors to enforce these same requirements with their Subcontractors of Any Tier. If the wearing of any personal protective equipment requires any training or clearance testing, Contractor shall ensure that its workers or other personnel and its Subcontractors of Any Tier and their workers and personnel have been provided such training and given such clearance testing. All personal protective equipment used on the Project Site should meet nationally-recognized standards, including but not limited to approvals by ANSI, NIOSH and other applicable standards.

C. Pre-Task Planning/Job Hazard Analysis

Without limiting specific requirements discussed elsewhere, prior to performing any given task that poses an unusual or specific hazard, the Contractor shall review the task and ensure that the Contractor or appropriate Subcontractor prepares a Job Hazard Analysis, which shall contain any and all appropriate protective measures necessary to ensure the safety of employees of Contractor or Subcontractors of Any Tier.

D. Fire Prevention and Protection

The Contractor is responsible for establishing Fire Prevention and Emergency Response Procedures prior to the start of Work on a Project. Contractor must review these procedures with Yale’s Office of Fire Code Compliance and the Yale Project Manager, and if Yale’s Office of Fire Code Compliance determines that it is necessary, with the local municipal Fire Marshal for the jurisdiction in which the building is located (the “local Fire Marshal”).

The Contractor must post the procedures at the Job Safety Board and also provide copies to all Project Safety Representatives, Subcontractor Safety Representatives, foremen and superintendents, who, as part of overall emergency planning and preparedness, should review this information with all workers and other personnel, and Subcontractors of Any Tier and their workers and other personnel. The Contractor’s Fire Prevention and Emergency Response Procedures should be updated as necessary throughout the Project and at a minimum, Contractor shall include the following:

1. Project Site Fire Safety

   a. Fire extinguishers located at the Project Site are for emergency use only and are not to be used for Hot Work. (For a definition of “Hot Work,” refer to Section VII D.4) As stated under the “Hot Work” section, Hot Work requires the use of separate fire extinguishers from those kept at the Project Site for emergency use only.

   b. All fires, near-fires, or other incidents that occurred and/or caused a fire extinguisher to be discharged should be reported immediately to the Yale Office of Fire Code
Compliance and Yale Project Manager using the emergency procedures described in Sections VI C and VI D.
c. Solid fuel is prohibited on all Yale Projects.
d. All fuel and solvent containers shall be stored in UL-approved flammable liquids cabinets. All flammable liquids shall be stored in UL-approved containers and all storage and labeling should comply with Applicable Law and industry standards. Fuel may be stored indoors only if Contractor requests in writing and receives specific project approval from the Yale Project Manager.
e. All oily rags and oily cloths shall be taken off-site at the end of each shift for proper disposal.
f. Contractor shall build all temporary structures in accordance with Applicable Law and industry standards. Contractors erecting temporary structures or shanties must obtain temporary building permits, as appropriate, from the local Building Department and prominently display them on or in the structure.
g. Temporary plastic membrane construction enclosures and partitions are to be protected from fire.

2. Fire Protection / Fire Alarm Systems

At no point shall the fire sprinkler and or standpipe system in any building be disabled for any reason without prior notification and approval of the Yale Office of Fire Code Compliance and the local Fire Marshal. No fire sprinkler and/or standpipe system should be taken out of service for a period of time greater than 12 hours without the written approval of the local Fire Marshal. Once disabled, the systems shall be put back in service as soon as possible.

3. Temporary Heat

a. Temporary heating system plans and procedures must be submitted, in advance and in writing, to the Yale Project Manager and local Fire Marshal and Yale Office of Fire Code Compliance, noting duration of planned use, fuel handling procedures, safety procedures, type of heating system, and other essential or critical aspects of the plans and procedures. The local Fire Marshal and Yale Office of Fire Code Compliance must approve the plan prior to implementation.
b. All heating equipment must be wired, piped, and operated in accordance with Applicable Law and industry standards
c. Except during actual use, LPG cylinders may not be stored within a Yale building.
d. Open fires and warming fires are banned on all Yale property.
e. Temporary weather-tight enclosures must be made of fire retarding materials.
f. Kerosene heating equipment is prohibited.

4. Hot Work

For purposes of this document, “Hot Work” is defined as any process or procedure that could result in a fire if not properly controlled. Common examples of Hot Work include welding, burning, cutting, brazing, and soldering. Hot Work equipment may produce high voltages or utilize compressed gases and requires special training to be used safely. Contractors shall
prepare and enforce an effective safety program that follows Applicable Law and industry standards and complies with the Yale University Hot Work Policy and Procedures. A copy of the Hot Work Program should be submitted to the Yale Project Manager.

Contractor shall prepare and submit for approval a Job Hazard Analysis plan for all Hot Work. All planned Hot Work should be fully described during the permitting process, which process must be completed before Hot Work begins. The Contractor should obtain a Hot Work permit from the Yale Office of Fire Code Compliance or the Local Fire Marshal’s on-site designee, as applicable. The Contractor shall keep a copy of that permit on the Project Site adjacent to the area of Work at all times.

Hot Work is restricted to normal working hours and the Contractor shall inspect the Work area to verify that adequate control has been established. See Section VII D.1 of these Guidelines for specific fire safety requirements and recommendations. If fire alarm and detection systems need to be shut down during the performance of Hot Work the Contractor should schedule the shutdown through the Yale Project Manager. The Contractor should follow all necessary precautions as indicated on the permit(s) and provide proper training and resources to safely complete all assigned duties.

Contractors must implement the following precautionary measures, at a minimum, during Hot Work:

a. Post the permit
b. Verify that all equipment is in satisfactory operating condition;
c. Check the area for combustibles, e.g., flammable liquids, lint, dust, oily deposits and any other hidden or inconspicuous items;
d. Have suitable fire extinguishing equipment especially designated for Hot Work nearby and maintained in a state of readiness for immediate use


e. Ensure that Hot Work is not taking place in a flammable atmosphere, near large quantities of readily ignitable materials, or in unauthorized areas;
f. Tightly cover tightly openings or cracks in walls, floors, or ducts with fire retardant or noncombustible material to prevent the passage of sparks to adjacent areas;
g. Shield conveyor systems that might carry sparks to distant combustibles;
h. If Hot Work is to be done on a wall, partition, ceiling, or roof, take precautions to prevent ignition of combustibles on the other side by relocating combustibles, or, if not practical, providing a fire watch;
i. Provide proper ventilation in all areas where Hot Work is being performed;
j. Protect oxygen/acetylene hoses from damage;
k. Properly store all oxygen and acetylene cylinders outside (of buildings) and identify with the Contractor’s or Subcontractor of Any Tier’s name.

E. Soil Erosion Control

The Contractor must provide soil erosion and sedimentation controls, run-off protection, and means to minimize dust generation and sedimentation in run-off, all in compliance with Applicable Law, any required permits, including without limitation, the general permit for the discharge of stormwater associated with construction activity, and associated Stormwater
Pollution Prevention Plans, locally approved erosion control plans, industry standards and good practice. Project Site access points from municipal roads must also be maintained in accordance with Applicable Law, industry standards and good practice to reduce mud and dirt transfer from the wheels of construction vehicles and other heavy equipment onto public road surfaces.

F. Protection of Property and the Public

The Contractor shall include in the Contractor’s Safety Plan requirements for protection of property and the public. The entire Project Site must be secured against unauthorized access and contain appropriate warning signage. The Contractor must coordinate Work occurring in areas occupied by the public with the Yale Project Manager. Whenever permanent sidewalks, ramps or stairs are obstructed by Work, Contractor shall install temporary sidewalks, ramps or stairs in the place of the permanent, with guardrails on both sides in accordance with Applicable Law and industry standards. If fences, sheds, walkways and/or guardrails are impractical, the Contractor may employ barricades that meet the requirements of Applicable Law and industry standards. During the period when any barricade, fence, shed, walkway, or guardrail is removed for the purpose of Work, the Contractor shall place a watchperson at all potential hazard locations.

Contractor shall install barriers against falling debris and objects as necessary where spatial setbacks on the Project Site are limited. Contractor shall also develop proper protections against wind-blown debris and construction-related materials.

Contractor shall post conspicuously appropriate warnings, signs, warning lights and instructional safety signs where necessary. Contractors must consult with Yale’s Office of Fire Code Compliance before any emergency egress route is blocked or reduced.

Roadways and walkways may not be blocked or encroached without municipal authority. Where roadways or walkways must be encroached upon or closed due to Work, Contractor shall install adequate signage and barriers to safely redirect the flow of vehicles, bicycles and pedestrians and protect them from construction activities. As much as possible, Contractor shall preserve sightlines for such encroachments, as well as for drop-offs, short-term parking and other construction activities. Roadway encroachments generally require a permit from the Town or City where the Project is located and also involve night warning lighting. It is the Contractor’s responsibility to work with the approving authorities in which the project is located to secure all necessary permits and approvals.

G. Blasting

If blasting is anticipated, Contractor must develop, implement and enforce an effective safety plan that addresses the hazards of blasting and complies with Applicable Law and industry standards. A blasting plan must be included in the Contractor’s Safety Plan. Contractor must communicate to and discuss with the Yale Project Manager the blasting plan as soon as practical, and prior to initiating any blasting, the Contractor must (1) present its blasting plan to the Yale Project Manager, including any additional safety measures to be taken (both at the Project Site and off-site); and (2) coordinate its blasting operations with Yale’s Project Manager and Yale EH&S. Coordination with the Yale Project Manager and Yale EH&S staff does not relieve the Contractor of its obligation to control the means and methods of the blasting operations and
independently ascertain as to what is appropriate or necessary to perform such services, and implement and develop a blasting plan complies with all Applicable Law. The Contractor must immediately stop Work and notify the Yale Project Manager if any unintended consequences of the blasting operations occur.

H. Lockout/Tagout

Each Contractor or Subcontractor of Any Tier performing Work on energized systems must have a written Lockout/Tagout Program to ensure equipment is isolated from energy sources, as appropriate. The Contractor is responsible for ensuring coordination of all Lockout/Tagout programs with Yale Utilities Distribution Department, and Subcontractors of any Tier must submit their Lockout/Tagout Programs to the Contractor.

I. Confined Space Entry

Contractors must be familiar with and develop a safety program for entry into confined spaces that complies with Applicable Law, including without limitation OSHA’s General Industry Standards. The presence or creation of confined spaces on the Project should be discussed at the Pre-Construction Safety Meeting.

The responsibility for recognition and advance notification of Work in a confined space rests with the Contractor. The Contractor’s project superintendent and Project Safety Representative should be notified to evaluate the situation, develop safe workplans, and issue an entry permit as necessary. Contractor should include rescue procedures as part of such workplan and entry permit. Consistent with Applicable Law, including OSHA standards, the confined space entry permit should be posted at the entrance to the confined area. The Contractor shall be responsible for providing rescue services in accordance with Applicable Law, including without limitation OSHA standards.

J. Equipment

1. Motor Vehicles and Mechanized Construction Equipment

Contractor and Subcontractors of Any Tier shall inspect their respective motor vehicles and mechanized construction equipment daily before use. Contractor must maintain inspection records on the Project Site and make them available to the Yale Project Manager upon request. Defective equipment should be repaired or removed from service immediately. Operators of construction equipment shall have all necessary training, licenses and certifications. Contractor must maintain documentation of training and copies of the licenses or certifications on the Project Site and make them available to the Yale Project Manager upon request.

Contractor must review locations for the storage of all fuels, lubricants, starting fluids, and the like for the equipment with the Yale Office of Fire Code Compliance prior to use, and should conform to the requirements of Applicable Law as well as those requirements of the Yale Office of Fire Code Compliance and local Fire Marshal. All such fluids shall be stored in double-wall tanks or within secondary containment.

Contractor should adequately mark means of vehicular and equipment ingress and egress to the
Project Site and keep the Project Site clear of stored material, debris, and equipment. At public crossings, walks and roadways, pedestrians should always have right-of-way over motorized traffic.

Contractors and Subcontractors of Any Tier should also be aware of nearby building air supply intake vents to avoid the inadvertent entrainment of vehicle exhaust. Where operating equipment must be located close to building air intakes, the Contractor shall review conditions with the Yale Project Manager and develop adequate controls and/or Work modifications. Contractor shall develop and implement adequate controls, and review equipment to be operated indoors in advance with the Yale Project Manager.

2. **Derricks, Crane Safety and Rigging**

The Contractor is responsible for identifying anticipated crane use in its Contractor Safety Plan and reviewing planned Work in advance with the Yale Project Manager.

Daily and pre-shift inspections should be performed and documented by the crane operator or other properly trained representative designated by the Contractor in accordance with the manufacturer’s recommendations. A properly trained representative appointed by the Contractor should inspect and document all rigging equipment prior to each work shift. Any rigging equipment found to be defective or damaged should be immediately removed from use and the Project Site.

3. **Powder-Actuated Tools**

Contractor shall ensure that all workers who operate powder-actuated tools are properly trained and carry valid operator's cards for the tools used. Powder-actuated tools should be stored in a locked container when not in use. Powder-actuated tools should be left unloaded until they are ready for use. Contractor shall conspicuously post a sign with bold face type reading "POWDER-ACTUATED TOOL IN USE" posted in the area of operation when the tool is in use. Contractors and Subcontractors of Any Tier shall ensure that their workers inspect powder-actuated tools for obstructions or defects before use.

4. **Other Equipment**

Before using any equipment that poses the risk of injury to users, other workers or personnel, the public, or members of the Yale Community or poses the risk of property damage (e.g., industrial radiography, high intensity lasers, pipe freezing, etc.), the Contractor shall notify and coordinate with the Yale Project Manager and Yale EH&S as to Contractor’s intended use and work plan for such equipment.

K. **Demolition and Deconstruction**

Contractor shall secure areas being demolished or deconstructed by means of barricades to prevent unauthorized personnel from entry. Contractors and Subcontractors of Any Tier performing such Work shall submit to the Yale Project Manager for review, prior to the start of construction, a detailed plan that specifies the means and methods to be used to complete the Demolition or Deconstruction Work, related drawings, materials surveys, dust, noise, and nuisance control plans, and other relevant safety
information. Contractor is responsible for obtaining any required demolition or building permits, and complying with such permits.

L. Electric – Temporary

Contractors shall perform all temporary electrical work in accordance with the pertinent provisions of the National Electrical Code (most current version), ANSI and OSHA Standards, and all other Applicable Laws, including at a minimum:

1. Portable electric lighting and other electrical equipment used in moist or other hazardous locations such as drums, tanks, vessels, bins, bunkers, etc., should be GFI protected and meet Applicable Law and industry standards to qualify as non-explosive. Ordinary shop lighting and portable task lighting should have covers and guards installed.

2. Extension cords should be heavy-duty 3-wire type. Flat extension cords and daisy-chaining of cords are not allowed. Extension cords should be fastened or suspended above the finished floor or Work platform in accordance with best practices, OSHA standards, and Applicable Law. Contractor shall inspect extension cords for fraying or damage; any damaged cords must be removed from service immediately.

3. Any electrical tools, equipment, or extension cords found defective (e.g., missing or broken ground pins, exposed internal conductors) should immediately be rendered inoperative.

4. The Contractor should determine in advance if any energized equipment or electrical circuits in the Work area pose a safety risk to those in the area. Contractor must review and coordinate electrical shutdowns with the potential to affect adjacent occupants, adjacent buildings or the Yale community in advance with the Yale Project Manager in order to make appropriate notifications and precautions.

M. Fall Protection

Contractors shall develop, implement, and enforce an effective fall protection plan that complies with Applicable Law including without limitation OSHA standards and other industry standards. The plan should include, but not be limited to, the following:

1. Use of fall protection for walking/working surfaces six (6) feet or more above a lower level. This is required for any and all Work performed at Yale, and will be enforced with zero tolerance. Violators will be removed from the Project.

2. Ensuring that workers are notified of fall hazards and appropriately trained;

3. Protecting workers, visitors, onlookers, or passersby from being struck by falling objects.

4. When performing elevated Work, including roofing, the use of signs noting such conditions as “Controlled Access Zones”, “Safety Monitoring”, or “Warning Lines” are not permitted as a means of fall protection;

5. Installing and maintaining adequate guardrails, mid-rails, and toe boards in accordance with Applicable Law and industry standards;

6. Covering all open holes, skylights, trenches, and excavations to prevent fall hazards, or installing appropriate and compliant guardrails, mid-rails, and toe boards;
7. A personal fall arrest system shall only be used when passive fall protection is not feasible. Passive fall protection includes, but is not limited to, guardrails, positioning devices, and safety nets.

8. Only one individual at a time should be allowed to use a vertical safety line.

9. Ensuring that wire rope guardrails are properly installed in compliance with Applicable Law and industry standards. Turnbuckles or other suitable means should be installed at suitable intervals to maintain required tautness of the wire rope. No less than three wire rope clips must be employed.

10. When wire rope is used as a horizontal lifeline, it should be sized and the system designed by a registered professional engineer and installed and maintained by a properly trained person;

11. Ladders: Whenever possible, a different means of gaining access should be considered (i.e., scissor lift, scaffold, etc.). Manufactured ladders must comply with Applicable Law and industry standards. Metal portable ladders are not permitted on the Project Site. All ladders should be used in the manner and for the purposes for which they were designed and constructed. All ladders (including stepladders) should be tied, blocked, stabilized by a second worker or otherwise secured against accidental displacement. Where adequate anchorages are available, workers should tie off using a personal-fall-arrest system.

N. Excavation

The Contractor shall develop, implement, and enforce an effective safety plan that addresses the hazards presented by excavations and trenchwork that meets Applicable Law, including OSHA standards. Prior to beginning excavation or trenching work, the Contractor should designate a representative properly trained in the recognition of trenching and excavation hazards. The designated representative should be on the Project Site whenever excavating or trenching work is being performed or personnel are working within the excavation or trench cut. Before engaging in any excavation, Contractor shall contact both the State Call Before You Dig (CBYD) program, [http://www.cbyd.com/](http://www.cbyd.com/), as well as the Yale Central Control Center.

Contractors must maintain on the Project Site all documentation required to meet Applicable Law, including without limitation OSHA trenching and excavation standards.

O. Scaffolding

Contractor shall develop, implement, and enforce an effective safety plan that addresses the hazards presented by scaffolding use and ensures that all scaffolding equipment and materials meet Applicable Law and industry standards. The scaffolding safety plan must address the following at a minimum:

1. Contractors planning to use scaffolding shall post on the Job Safety Board the name of their designated representative who has been properly trained in the safe erection, maintenance, use, and dismantling of scaffolding. Contractor shall keep on-site documentation of its scaffolding training program and proof of OSHA approved scaffold user training for all workers or other personnel who may fabricate or work on scaffolding.
2. Workers involved in erecting, using, or dismantling scaffolds shall be provided with fall protection when working six (6) feet or more above a lower level.

3. The Contractor’s designated representative should inspect and document the condition of all scaffolds before each work shift and provide the inspection report and information to the Contractor on a daily basis. Each scaffold should be tagged to indicate inspection date, approval, and the name of the inspector.

4. The following are prohibited on all Yale Projects:
   a. Ladder jack scaffolds;
   b. Use of scaffold cross bracing as a substitute for guardrails; and
   c. Nominal grade lumber for scaffold planking.

P. Steel Erection

If the Work will involve steel erection, Contractor shall develop, implement, and enforce an effective safety plan that addresses the hazards presented by steel erection, assures that all steel erection equipment, materials, and operations meet Applicable Law and industry standards. Contractors or Subcontractors of Any Tier shall provide their employees involved in steel erection with fall protection when working six (6) feet or more above a lower level.

Q. Safety Inspections

Contractors should conduct and document regular safety inspections of the Project Site, their Work areas and practices, and those of their Subcontractors of Any Tier. Contractors should immediately correct any hazardous or otherwise non-compliant conditions identified and provide written confirmation to the Yale Project Manager of the corrective action taken.
Appendix A
Local Emergency Response Resources

Emergencies (fire or police)  911

City of New Haven
   Fire Department – Non-Emergency  (203) 946-6237
   Police Department - Non-Emergency  (203) 946-6316
   Health Department  (203) 946-6999

Local Hospitals
   Yale-New Haven Hospital
      Emergency Room, 20 York Street  (203) 688-2222 (FAX 203-688-3027)
   St. Raphael Hospital
      Emergency Room, 1450 Chapel Street  (203) 789-3464

State of Connecticut
   DEP Hazmat Response  (860) 424-3338 (FAX 860-424-4062)
   Poison Control Center  (800) 343-2722

Federal
   National Spill Response Center  (800) 424-8802
   OSHA - Bridgeport Area Office  (203) 579-5581

Other Agencies and Organizations
   Regional Water Authority  (203) 562-4020
   Southern Connecticut Gas  (203) 777-7311 (Leaks)
   United Illuminating  (203) 499-3333

Key Campus Contacts
Main Campus
   Yale Police (non-emergency)  (203) 432-4400
   Yale Security  (203) 785-5555
   Yale Fire Code & Compliance  (203) 432-9923 (203-432-9920 for shutdowns)
   Environmental Health & Safety  (203) 785-3555 (FAX 203-785-7588)
   Risk Management  (203) 432-0140 (FAX 203-432-7520)
   Facilities Customer Service  (203) 785-4620 (Medical School)
      (203) 432-6888 (Central/Science)
   Central Control Center  (203) 432-6899 or 432-7096
   Utilities Control Center  (203) 432-7507
   Yale Public Affairs  (203) 432-1345

West Campus
   Yale Security  (203) 479-1414 or (203) 737-3111
   Utilities Control Center  (203) 737-3010
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<th>Websites</th>
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<tr>
<td>Yale University Front Door</td>
<td><a href="http://www.yale.edu">www.yale.edu</a></td>
</tr>
<tr>
<td>Yale Office of Emergency Management</td>
<td><a href="http://www.yale.edu/secretary/emergency">www.yale.edu/secretary/emergency</a></td>
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<td>State-wide CBYD</td>
<td>1-800-922-4455 or 811</td>
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