Northwestern Contractor Safety Environmental Health and Safety

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I. Purpose

This program establishes minimum guidelines for safety and accident prevention during construction, renovation, and maintenance activities at Northwestern University, in accordance with Northwestern's Environmental Health and Safety (EHS) Policy and programs.

II. Scope

The Contractor Safety Program applies to all contractors who perform construction or maintenance activities on behalf of Northwestern. The term "Contractor" is to be construed liberally to apply to all vendors and service providers who perform on-site construction or maintenance activities as identified below. For the purposes of this program, the term "Contractor" does not apply to subcontractors.

Construction and maintenance activities include, but are not limited to: plumbing; electrical; carpentry; landscaping; telecommunications; recycling; elevator repair and maintenance; window washing; roofing; machinery/equipment installation or removal; crane operations; hot work operations; utility plant services; heating, ventilation, and air conditioning work; custodial services; painting; pest control; hazardous and universal waste handling and disposal; survey and investigation activities; and other similar activities.

Contractors retain primary responsibility for the safety of their worksites, employees, and safety of any Northwestern staff, faculty, or students they may come in contact with. Contractors are accountable for regulatory compliance, implementing effective safety programs, adequate training, and adherence to all reporting requirements.

Contractors must coordinate all work with their Northwestern Project Manager, which is defined as their main point of contact for the work being performed on University property (e.g., Northwestern Chief Engineer, Chief Electrician, Project Manager, Building Manager, other University Representative).

III. Responsibilities

A. Contractors

- i. Adhere to this program and Northwestern's EHS Policy.
- ii. Responsible for following their own safety and health program and complying with all federal, state, and local laws, in addition to any site-specific requirements established by this program or Northwestern.
- iii. Provide a safety representative or designate an individual responsible for addressing worksite EHS concerns.
- iv. Depending on the nature of the work and potential hazards, and upon request, submit a plan detailing the scope of work to EHS for review.
- v. Ensure all employees have the proper knowledge and training (e.g., OSHA 10-hour or 30-hour, the general safety requirements for the project, as well as any task-specific training required) and access to required personal protective equipment. Proof of training must be available upon request.
- vi. Ensure subcontractors adhere to all safety and health requirements.
- vii. Report all incidents to Northwestern Project Managers and OSHA, if applicable.

B. Northwestern Project Managers

- i. Adhere to the requirements of this program.
- ii. Notify EHS of all incidents, injuries, and near misses.
- iii. Coordinate shutdowns, lockout/tagout, hot work permits, confined space entries, fire protection or detection system impairments, or any other tasks requiring authorization, permitting, support, or intervention.
- iv. Notify and collaborate with EHS to address environmental health and safety concerns (e.g., potential asbestos, lead-based paint, working at heights, working in confined spaces).
- v. Notify contractors of known hazardous conditions and provide site-specific information (e.g., confined space assessments, asbestos testing results, rooftop anchor certifications).
- vi. Contact the laboratory representative when work involves access into laboratory spaces to obtain hazard information, personal protective equipment requirements, and any other critical information to ensure the work can be performed safely.

C. Northwestern Environmental Health and Safety (EHS)

- i. Adhere to the requirements of this program.
- ii. Review and update this program, as necessary.
- iii. Provide guidance and technical assistance as needed, including assistance in reviewing and accepting contractor safety and work plans.

IV. General Requirements

The following general requirements apply to all contractors subject to this program:

A. Housekeeping

- i. Work areas, passageways, and doors must be maintained free of debris and hazards to allow for unobstructed egress at all times.
- ii. Debris should be removed daily and eliminated in all areas where there is not an active sprinkler system.
- iii. Separate waste containers must be maintained for waste, oily and used rags, and other flammable or hazardous wastes.
- iv. At the completion of projects, remove all debris and equipment, restore work areas, and inform the Project Manager that the work is complete.

B. Pandemic Safety Plans and Procedures

- i. During public health crises (e.g., COVID-19), contractors must develop project-specific safety plans and procedures that address guidelines and best practices provided by the Centers for Disease Control and Prevention (CDC) and the Occupational Safety and Health Administration (OSHA), and must be in accordance with any ordinances and executive orders set forth by federal, state, or city governments.
- ii. Plans and procedures must comply with applicable Northwestern policies or procedures and be implemented prior to the commencement of work.
- iii. Plans and procedures must be communicated to employees and any other affected personnel (e.g., subcontractors, Northwestern Project Managers, staff, faculty, students).

C. Site Safety

- i. Have and adhere to a safety program applicable to the work being performed.
- ii. Establish and enforce site specific personal protective equipment requirements for all personnel, subcontractors, visitors, and Northwestern employees.
- iii. Smoking, including the use of electronic cigarettes and vaping, is prohibited in Northwestern buildings, including buildings under renovation, and within 25-feet of building entrances, as well as in designated outdoor facilities.
- iv. Safety Data Sheets (SDS) must be readily available for all hazardous materials present at the worksite.
- v. Hazardous chemicals must be handled and stored in accordance with the SDS and applicable regulations (e.g., OSHA, DOT).
- vi. Propping or leaving doors open in work areas when not attended is prohibited.
- vii. On construction and renovation worksites:
 - a. An emergency action plan must be developed for the worksite;
 - b. A sign must be posted in a conspicuous location indicating the worksite EHS representative's contact name and phone number; and
 - c. Appropriately classed (e.g., A,B,C) fire extinguishers are readily available.

D. Stop-Work Authority

- i. Northwestern employees have the authority to stop work if unsafe acts or conditions are observed.
- ii. Contractors are required to stop work immediately if requested and must notify their Northwestern Project Manager.
- iii. It is the responsibility of the contractor to take corrective actions to ensure conditions are safe prior to resuming work.

V. Specific Requirements

The following specific requirements apply to contactors subject to this program who are performing work related to any of the following categories:

A. Anti-Idling Ordinance

Adhere to the City of Evanston's <u>Anti-Idling Ordinance</u> while on the Evanston Campus and the City of Chicago's <u>Anti-Idling Ordinance</u> while on the Chicago Campus.

B. Asbestos

Adhere to Northwestern's <u>Asbestos Management</u> program when service, maintenance, renovation, or construction activities have the potential to encounter or disturb asbestos-containing material (ACM) or presumed asbestos-containing material (PACM).

C. Confined Spaces

- i. Notify the Northwestern Project Manager prior to any activities involving confined spaces.
- ii. Contractors must have a program that meets or exceeds Northwestern's <u>Confined Spaces</u> program and adhere to the <u>Guidelines for Contractors Working</u> in Confined Spaces, which is an appendix of the program.
- iii. No entry may be performed until EHS evaluates the space and identifies the hazards and the evaluation is communicated to the contractors.
- iv. The Northwestern Project Manager must authorize entry by signing and dating the entry permit.
- v. For construction projects, adhere to OSHA construction standards and notify the

Northwestern Project Manager of the addition, removal, or change to confined spaces on Northwestern property.

D. Control of Hazardous Energy (Lockout/Tagout)

- Coordinate all lockout/tagout activities with Northwestern Project Managers and adhere to Northwestern's <u>Control of Hazardous Energy (Lockout/Tagout)</u> program for all service and maintenance requiring the isolation and deenergization of hazardous energy sources.
- ii. All lockout/tagout activities must be completed in the form of group lockout/tagout. Northwestern will shut down machines, equipment, and systems prior to any work beginning, then all parties will apply their locks.
- iii. Contractors and subcontractors are not permitted to shut down machines, equipment, and systems.
- iv. Responsible for supplying their own locks and tags. These devices must meet the requirements outlined in Northwestern's Control of Hazardous Energy (Lockout/Tagout) program.

E. Cranes and Rigging

- i. Contractor-controlled worksites must develop and implement a crane program that meets or exceeds Northwestern and OSHA requirements.
- ii. Critical crane lift and logistics plans must meet the requirements of Northwestern's <u>Mobile Crane Critical Lift Operations Checklist</u> and be submitted by Northwestern Project Managers to EHS for review. Critical crane lifts are defined as:
 - a. Hoisting loads 75% or more of the rated crane capacity,
 - b. 2 or more cranes required to perform a lift,
 - c. Movement of crane carriage with a load,
 - d. Use of personnel platforms,
 - e. Hoisting sensitive loads,
 - f. Hoisting loads over occupied buildings,
 - g. Hoisting loads outside construction areas, and
 - h. Work involving encroachment on a public right-of-way.

F. Dust/Odor Control

In the event demolition and construction activities may potentially create dust and odors that adversely affect contractor personnel as well as people in adjacent areas, contractors must:

- i. Evaluate the spaces and areas they will be working in and identify activities and conditions that will contribute to airborne particulates or odors.
- ii. Develop and implement a dust control plan.
- iii. Utilize the appropriate personal protective equipment for dust and particulate related work.
- iv. Identify and implement effective dust and odor control methods (e.g., water, ventilation, tools equipped with dust collection systems, sweeping compound, barriers) prior to the start of work.
- v. Monitor adjacent areas as work proceeds. Modify dust and odor control measures if found to be ineffective.
- vi. When using products with crystalline silica, contractors must have a crystalline silica exposure control plan.

G. Electrical

- i. All electrical work must be performed de-energized; if not feasible, contact EHS.
- ii. All electrical work must adhere to Northwestern's <u>Control of Hazardous Energy</u> (<u>Lockout/Tagout)</u> program, where applicable.
- iii. Barrier or guard passageways, mechanical rooms, and other worksites where electrical work is being performed.

H. Fall Protection

- i. Adhere to Northwestern's <u>Fall Protection</u> program when personnel are exposed to fall hazards (e.g., rooftops).
- ii. Establish and implement a fall protection plan, including rescue procedures, under the supervision of a competent person, and provide fall protection when workers will be exposed to fall hazards 4-feet or greater in height (e.g., roofing work, steel erection).
- iii. Protect employees from fall hazards with the use of guardrails, gates, covers, personal fall protection systems, lifelines, or other effective means deemed appropriate to eliminate or reduce the hazard.

I. Fire Detection and Protection Impairments

- i. Impairments to existing sprinkler systems, fire detection systems, fire pumps, special fire protection systems, or similar must be performed by Northwestern personnel, and may not be performed by contractors and subcontractors.
- ii. Adhere to Northwestern's <u>Fire Watch</u> program during fire alarm and system impairments.
- iii. Notify the Northwestern Project Manager if any impairment is necessary.
- iv. When possible, plan impairments when the building or affected area is not occupied.
- v. Plan for temporary protection as necessary including, but not limited to, a fire watch and extra fire extinguishers.
- vi. Hot work is prohibited while fire detection and protection systems are impaired. Exceptions must be submitted to the Northwestern Project Manager and approved by EHS.
- vii. Rated wall, partition, and ceiling penetrations must be sealed with the appropriate fire stop sealant.

J. Fire Prevention

- i. General
 - a. Adhere to Northwestern's Fire Prevention program.
 - b. Provide fire extinguishers appropriate for the conditions and hazards present in construction and renovation areas.
 - c. Remove all trash and refuse from worksites daily.
 - d. If a fire prevention deficiency is noted by EHS, the Northwestern Project Manager, or other authority, work shall be stopped until the deficiency is addressed.
 - e. Temporary heating devices on construction sites must be located at least 10-feet from combustible materials (e.g., tarpaulins, canvas, similar coverings). Fresh air must be supplied in sufficient quantities to maintain the health and safety of workers. Contractors must adhere to manufacturer guidelines for safe use on worksites. Solid fuel salamanders are prohibited in buildings and scaffolds.

- ii. Welding, Cutting, and Brazing (Hot Work)
 - a. Adhere to Northwestern's <u>Welding, Cutting, and Brazing (Hot Work)</u> program.
 - b. Notify the Northwestern Project Manager to request a hot work permit. Follow the instructions and safeguards on the permit, and post the permit at the work site.
 - c. A signed copy of the permit must be posted near the work site.
 - d. Completed permits must be returned to the Northwestern Project Manager.
 - e. For renovations or work on existing buildings, coordinate with the Northwestern Project Manager to verify fire protection systems are operational and available.
 - f. Utilize a trained and competent fire watch with appropriate extinguishers for one hour after the completion of work.

K. Food Trucks

Adhere to Northwestern's <u>Guidelines for Food Trucks</u> when operating food trucks on Northwestern property.

L. Hazard Communication

- i. Adhere to Northwestern's Hazard Communication program.
- ii. Chemical inventories and SDSs for any hazardous chemicals stored or in use on Northwestern property must be readily available upon request.
- iii. Properly handle and store chemicals.
- iv. Properly remove all unused and waste chemical products.

M. Hazardous Waste/Universal Waste

- i. Responsible for all hazardous and universal waste on projects and work sites and must adhere to Northwestern's <u>Hazardous Waste</u> program.
- ii. Hazardous and universal waste must be labeled, handled, stored, and disposed of in accordance with applicable regulations.
- iii. Permits must be obtained when required (e.g., asbestos abatement) and a copy of the hazardous waste manifest must be provided to EHS.

N. Heat Illness Prevention

Adhere to Northwestern's <u>Heat Illness Prevention</u> program when personnel are exposed to heat hazards.

O. Helicopters

Adhere to Northwestern's <u>Helicopter Critical Lift Operations Checklist</u> when operating helicopters on or above campus property.

P. Material Handling Equipment

- i. Adhere to Northwestern's <u>Material Handling Equipment</u> program when operating material handling equipment.
- ii. Operators must be trained and authorized.
- iii. Material handling equipment must be inspected by the authorized operator prior to operation, and must be maintained in accordance with manufacturer guidelines and applicable regulations.
- iv. Prohibited from operating Northwestern-owned equipment unless approved by EHS and Risk Management.

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Q. Mobile Elevated Work Platforms (MEWPs)

 Adhere to Northwestern's <u>Mobile Elevated Work Platform</u> program when operating MEWPs.

- ii. Operators must be trained and authorized.
- iii. Mobile elevated work platforms must be inspected by the authorized operator prior to operation, and must be maintained in accordance with manufacturer guidelines and applicable regulations.
- iv. A site risk assessment must be conducted prior to use and must include rescue plans.
- v. Prohibited from operating Northwestern-owned equipment unless approved by EHS and Risk Management.

R. Portable Ladders

- i. Adhere to Northwestern's <u>Portable Ladder Safety</u> program when personnel are using portable ladders.
- ii. Responsible for supplying and using their own portable ladders.
- iii. Prohibited from using Northwestern portable ladders unless approved by EHS and Risk Management.
- iv. Users must be trained, applicable to the work being performed and portable ladder type(s) used.

S. Scaffolding and Job-Made Ladders

- i. Adhere to Northwestern's <u>Fall Protection</u> program when personnel are exposed to fall and dropped object hazards.
- ii. Erect and disassemble scaffolding under the direction of a competent person; scaffolding must support 4 times the intended load.
- iii. Employees must be protected from falling on scaffolds 4-feet or greater in height.
- iv. Falling object prevention must be utilized including, but not limited to, guardrails, toeboards, netting, or barricading.
- v. Job-made ladders must be constructed and maintained to current ANSI standards.

T. Trash Compactors

- i. Adhere to Northwestern's General <u>Compactor Safety Guidelines</u> and manufacturer guidelines.
- ii. Operators must be trained and authorized.
- iii. Report any compactor operation or maintenance issues to the appropriate Northwestern department (e.g., Residential Services, Facilities).

Trenching and Excavations

- i. Notify the Northwestern Project Manager prior to any trenching or excavation.
- ii. Adhere to all requirements of the <u>Illinois Underground Utility Facilities Damage</u>

 <u>Prevention Act</u> and OSHA 1926 Subpart P Excavations.
- iii. Mark out the planned excavation site with white paint or flags (black when snow is present).
- iv. The contractor performing the digging must contact <u>JULIE</u> by dialing 811 or (800) 892-0123. Utilities must be located at the worksite prior to the start of work.
- v. The Northwestern Project Manager will provide written or verbal approval to commence digging once utilities have been located and the contract between Northwestern and the contractor is fully-executed.
- vi. Trenching and excavating activities must be performed under the supervision of a competent person.
- vii. Identify material for protection of personnel (e.g., bracing, shoring, shielding,

- trench boxes) as determined by soil type.
- viii. Barricades must be in place to protect equipment, pedestrians, workers, and vehicles from fall hazards.

U. Unmanned Aircraft Systems (UAS) 'Drones'

- i. Adhere to Northwestern's <u>Unmanned Aircraft Systems</u> program when operating UAS on or above Northwestern property.
- ii. Adhere to the Federal Aviation Administration (FAA) and any other applicable regulations (e.g., city).

V. Water Intrusion

Adhere to Northwestern's <u>Water Intrusion</u> guide when responding to and/or are affected by water intrusion events on Northwestern property.

VI. Research Laboratory Access

- A. Northwestern research laboratories may contain chemical, radiological, biological, laser, or magnetic field hazards. Spaces containing these potential hazards will have signage where applicable. It is imperative that contractors and subcontractors obey all signage requirements, restrictions, and follow all protocols set forth by Northwestern to ensure a safe working environment at all times.
- B. Contractors must obtain authorization from a laboratory representative (e.g., principal investigator, lab manager, safety designate) prior to entry into any laboratory space and before any work can commence. If contractors are working under the direction of a Northwestern Project Manager, the Northwestern Project Manager is responsible for obtaining the aforementioned authorization for contractors prior to entry and commencement of work.
- C. Do not leave doors to research lab areas open/unsecured when not attended.
- D. Contractors are not to disturb or move any materials or equipment in the laboratory space unless a laboratory representative provides specific approval to carry out such tasks.
- E. If hazardous or unexpected conditions become present in the laboratory space, stop all work, exit the space, and notify Northwestern Research Safety (Evanston campus: 847-491-5581, Chicago campus: 312-503-8300) and laboratory representative immediately.

VII. Incident Reporting

- A. Report all incidents (e.g., injuries, near misses, property damage) to the Northwestern Project Manager.
- B. Conduct incident investigations to determine root cause and corrective actions and submit to EHS. EHS will contact the contractor with any questions related to the investigation.
- C. All contractors and subcontractors are responsible for cooperating with Northwestern incident investigations and reporting injuries, medical emergencies, fires, property damage, or any other reportable incidents to Northwestern and regulatory authorities, if applicable.
- D. All incidents, including near misses, must be reported within 24 hours.

VIII. Emergencies

- A. Evacuate buildings immediately upon an evacuation alarm, or as instructed by emergency responders (e.g., police or fire department).
- B. If feasible, secure any dangerous equipment or processes that could impede emergency response.
- C. Comply with all instructions provided by their Northwestern Project Manager or emergency responders.
- D. Worksite supervisors (e.g., foremen):
 - i. Must account for their personnel and report any missing personnel to emergency responders and their Northwestern Project Manager.
 - ii. Must inform emergency responders and their Northwestern Project Manager if the emergency is in their area of operation and must provide information as necessary to support response and recovery efforts.
- E. Encouraged to enroll in Northwestern's <u>Emergency Notifications</u> to receive timely campus community information in the event of a crisis affecting the University.

IX. Recordkeeping

Northwestern and contractors must follow all regulatory requirements for recordkeeping.

X. Regulatory Authority

Northwestern and contractors will comply with the Occupational Health and Safety Administration's (OSHA) standards and other applicable codes and standards.

XI. Contact

For questions, contact Environmental Health and Safety at ehs@northwestern.edu.