

OPP Mobile Crane Safety Guidelines

Purpose:

To establish rules for safe crane work on PSU University Park Campus and to prevent crane accidents.

Scope:

This guideline applies to OPP work that requires the use of a crane at Penn State University Park.

Definition of a Crane:

For this guideline, a crane is defined as any power-operated equipment, when used in construction that can hoist, lower and horizontally move a suspended load. Such equipment includes, but is not limited to: mobile cranes (such as wheel-mounted, rough-terrain, all-terrain, commercial truck-mounted, and boom truck cranes); multi-purpose machines when configured to hoist and lower (by means of a winch) a suspended load.

Exceptions:

1. Digger Derrick(pole truck)
2. Bucket truck hoists
3. Any other boom truck cranes under 2000lb

General Procedures:

1. Only Certified Crane Operators are permitted to operate any mobile crane on campus.
2. All crane jobs must have at least 1 additional NCCCO Certified Rigger1/Signal Person on site, along with the crane operator, to facilitate the safety of the lift.
 - a. There may be minor tasks (lifts no more than 6 foot from the ground), such as loading and unloading of equipment or materials, etc., where a Qualified rigger can be used in lieu of a Certified rigger. This is based on the crane operator's evaluation of the task.
3. Crane Contractors must be on the approved bidders list. (See PSU Procurement Services)
4. Lifts shall not be made over occupied spaces.
 - a. At a minimum, for loads not exceeding 250 lbs, the occupied area of a building directly under the swing area of a crane lift shall be vacated by all students, employees, faculty and staff for the duration of the lift. (notifications to occupants via Shutdown scheduling office)
 - b. For any loads over 250 lbs, Structural Engineering will need to evaluate the lift in order to:
 1. Determine if evacuation of the work zone is necessary, and
 2. Determine the size of the evacuation area.
5. The work zone, including crane swing lift areas shall be attended, barricaded, or fenced to prevent unauthorized personnel from entering.
6. Only the riggers and the operator shall be permitted in the work zone.
7. All persons operating any mobile crane for the Office of Physical Plant will adhere to the Pennsylvania seat belt law.
8. It is the owner / operator's responsibility to make sure that all safety procedures are being followed on any crane job.
9. **Hard hats, high visibility vests or clothing and safety glasses are required of the operator and the riggers on any crane jobsite.**
10. All cranes used at Penn State University must be properly inspected, all deficiencies corrected and noted on report, and the inspection reports must be made available if requested.
11. PA One Calls are required for all OPP job crane lifts. See Utility Construction Supervisor for exceptions.

Crane Job Specific Procedures:

For OPP in house crane work there are two options

Option 1:

Crane Service: Use of Utility Construction in-house crane service

Contact / Lift Coordinator: Planner Estimator/Civil

Responsibilities: - Responsible for all communication and coordination of the lift including evacuations, etc.

Supervisor, Utility Construction

- Responsible for providing the labor and the equipment
- Initiate PA One Call
- Develop the lift plan

Safety review / oversight: OPP Safety Coordinator for work area

Responsibilities: - Review / Approve lift plan

Structural engineering review / approval: Consulting Structural Engineer, or Contractor Structural Engineer

Responsibilities: - Responsible for review and approval of the lift plan and make determination on evacuation of occupied space.

Operator: NCCCO Certified and PA licensed operator

Riggers / Signal: Minimum 1 additional NCCCO Certified Rigger 1/Signal Person with crane operator

**Option 2:**

Crane Service:	Contracted from approved provider list
Contact / Lift Coordinator:	<u>Planner Estimator/Civil</u>
Responsibilities:	Responsible for all communication and coordination of the lift including evacuations, etc. Responsible for acquiring the crane service
Crane Contractor:	<u>Crane Contractor Representative</u>
Safety review / oversight:	<u>OPP Safety Coordinator for work area</u>
Responsibilities:	Review lift plan / provide input
Structural engineering review / approval:	<u>Consulting Structural Engineer, or Contractor Structural Engineer.</u> (This may require further review by OPP Structural Engineering.)
Responsibilities:	Responsible for review and approval of the lift plan and make determination on evacuation of occupied space.
Owner / Operator:	NCCCO Certified and PA licensed operator
Responsibilities:	Initiate PA One Call Provide operator and rigger Identifying and barricading of the work site or otherwise making it safe for the community.
Riggers / Signal:	Minimum 1 additional NCCCO Certified Rigger 1/Signal Person with crane operator (These can be provided by the crane service or PSU)