

DIVISION 31 – Earthwork

31 23 16.26 – Blasting

PENN STATE UNIVERSITY BLASTING PROCEDURE UNIVERSITY PARK CAMPUS

The University does not allow blasting contractually without special permission. It is recognized that under certain site conditions it is desirable to allow blasting. The University reserves the right to deny or reject any request to blast.

If, during the course of a construction, the site conditions dictate that blasting would increase the efficiency or reduce the scheduled time for project completion, the University may allow blasting provided that the following steps are taken:

1. The construction manager or contractor performing the work must submit a written request to the University for permission to blast. The request should state the intention to blast and give a general description of the planned work. This request should be forwarded to the University at:
Manager, Construction Services
Design and Construction Division
Office of Physical Plant
The Pennsylvania State University
106 Physical Plant Building
University Park, PA 16802

No blasting may be done before written permission is given.

2. The blasting contractor will comply with all Federal, State, and Local regulations.
Note: The regulations include, but are not limited to, The Pennsylvania DEP. regulations as published in the PA Bulletin, Doc. No. 01-1271 and the OSHA section on loading of explosives or blasting agents -1926.905. In addition, the contractor shall comply with the following:
 - The contractor is responsible for all blasting safety at the site.
 - The contractor is responsible for all blasting communications, warnings, and maintaining/updating a blasting schedule. The contractor shall submit a copy of the blasting plan and schedule to the Construction Services Representative or Project Manager prior to any blasting. The blasting plan shall consist of a list of qualifications, certificates, and training for individuals performing the work, explosive handling, storage, and shot loading procedures, and blast safety/warning procedures.
 - The contractor must coordinate with the local municipal authorities and utilities and comply with their procedures and directives.
 - The contractor shall obtain and pay for all required permits. The contractor shall submit a copy of all permits to the Construction Services Representative or Project Manager prior to any blasting.

3. The area within a 300-foot radius of any blasting location shall be studied for identification of any critical University or non-University assets. The contractor shall provide seismographic monitoring of all critical structures and/or any structures designated by the PSU Construction Services Representative or the responsible Project Manager.

Before any blasting takes place, the University must agree to the seismographic monitoring locations. At a minimum, seismographs shall be located in buildings adjacent to the blast site, the Breazeale Nuclear Reactor, and the Millennium Science Complex.

If blasting is to take place within 300 feet of any natural gas pipeline, Columbia Gas MUST be notified in order to review the existing site conditions. Columbia's local representative shall be given a copy of the contractor's blasting plan and Columbia MUST sign off on the blasting plan before blasting may take place. Due to the location, type, or condition of adjacent natural gas pipelines, Columbia Gas may require additional precautions/procedures prior to blasting; the contractor MUST comply with these precautions or procedures.

Advanced communications with the appropriate Facility Coordinators shall be completed to notify them of the planned blasting activity.

The contractor shall perform a detailed pre-blast survey to document existing conditions of adjacent structures prior to any blasting. The survey shall be submitted to the Construction Services Representative or Project Manager.

4. The Construction Services Representative or Project Manager may, at their discretion, require communication, prior to each shot, with the Facility Coordinator of critical structures. This will give them an opportunity to monitor the readings at their buildings.
5. The blaster on site must furnish the University with copies of their Pennsylvania Blaster's license and insurance certificates before any blasting proceeds.
6. The contractor shall discuss anticipated underground peak particle velocities with the University and shall limit the first shot to a maximum of 30 holes (unless otherwise directed) in order to establish a PPV baseline. After the baseline is established, the shot limit may be adjusted after further discussion with the University.
7. The contractor shall furnish the University with hard copies and electronic copies of the blaster's reports and all of the monitoring reports.
8. The University reserves the right to direct the blaster to reduce the numbers of holes, the impact of the shots, or stop the blasting program at its discretion.