

Beginning on July 17th a series of four construction vibration tests was conducted to assess the impact of construction activities at the Advanced Protein Crystallization Facility (APCF) on the APS User community. While vibration testing will continue on an as-needed basis, tests so far have allowed some conclusions to be drawn about equipment operation during User run periods. As of 8/14/12 construction of the APCF may proceed under the guidelines which follow.

Equipment or processes found to be disruptive in testing:

- Use of vibratory rollers and compactors of 10 tons or more.
- Asphalt stripping by backhoe in the existing parking lot.

These activities must be conducted during Machine Studies or Shutdown periods.

Equipment or processes tested and found non-disruptive thus far:

- Use of a 3 ton vibratory roller.
- Operation of the Deere farm tractor with scraper/grader box.
- Operation of the Caterpillar 815 “sheepsfoot” compactor.
- Operation of the Caterpillar D5 bulldozer.
- Use of smaller tools, specifically pneumatic post drivers and electric demolition hammers.
- Operation of Caterpillar model 315 and Deere model 330 backhoes has been found non-disruptive in normal operation within the APCF building footprint. This equipment, as well as similar excavators at the same or lesser weight, may be used freely within the APCF footprint.
- Operation of certain large construction equipment in combination, for example the 330 backhoe and the 815 “sheepsfoot” compactor.

These activities have been found non-disruptive in initial testing. They may be engaged in freely during User Studies periods. However, if beamlines experience disruption believed to result from construction activity, have a beamline representative contact the Floor Coordinator group at 2-0101 to report it.

Equipment or processes yet to be determined:

- Use of certain small tools, particularly one-man compactors.
- Use of large equipment or vehicles in combinations not already tested.
- Use of vibratory rollers and compactors between 3 and 10 tons.

These activities may be the subject of future vibration testing to determine their suitability for use during User Studies.

The Task Force wishes to thank everyone who has participated in vibration testing to date. The detailed feedback about which equipment was disruptive and which was not, as well as under what conditions, was invaluable.