

Summary of Construction Equipment Tests and Activities

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Construction Equipment Tests

- A series of tests were conducted by the APS Construction Vibration Measurement Task Force using various pieces of construction equipment at the APCF site. (Summary from CVMTF 8/20/2013 memo.)
- **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
 - It should be noted that ‘normal’ forklift traffic is detectable by the sensor array
 - Seen at Sector 21 as forklift went by.
 - Vibrations readings return to background after the pass by (<30 sec)



Construction Equipment Tests

- **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.



Construction Equipment Tests

- Construction equipment or activities that are outside the scope of the tests above would have to be identified to the CVMTF chair and reviewed on an individual basis.
- Construction activities that could result in detrimental vibrations of the Experiment Hall Floor need to be properly scheduled to reduce any impacts on APS and User operations.
- The recommended days for these activities are on studies days during a user run or during APS shutdown periods.

