

## **Dust Control Measures for Construction Projects** **Rev. November 2009**

These measures suggest methods for controlling dust and other construction-related airborne materials, which the Contractor should evaluate for applicability in preparing a dust control plan. The specific level of control selected should be based upon Project parameters, including the proximity to occupants of nearby buildings, with the highest level reserved for particularly sensitive populations (e.g., patient care areas, especially those with immuno-suppressed or compromised conditions). Contractors should manage dust that may contain Hazardous Materials with additional care to meet Applicable Law and industry standards and to avoid contamination of persons or property.

### **Control Level 1:**

For outdoor or other uncontrolled Projects distant from any sensitive populations, the Contractor should consider the following mitigation measures:

1. Provide misting water sprays sufficient to reduce airborne dusting from demolition work;
2. Apply additional water dust suppression applied during dry weather; and
3. Avoid dust-generating work must be avoided on high wind days.

### **Control Level 2:**

For indoor work areas adjacent to nearby non-sensitive occupied areas where extensive demolition or other dust-generating work is planned, consider the following mitigation measures:

1. Demarcate construction areas from adjacent spaces with appropriate signage;
2. Provide sticky floor mats at immediate entrances to the construction area to reduce dirt and debris transfer from the work area to surrounding halls and corridors;
3. Provide barrier protection at the entrance to the construction area, an exhaust fan within the project area vented to the outdoors, and seal return grilles;
4. Tape all doors except those essential for access;
5. Seal all penetrations in the demising walls prior to demolition;
6. Spray water (amended with a small amount of detergent) during demolition, as required, to reduce airborne particles;
7. Remove construction debris through approved route, covered, netted, or otherwise contained to prevent dust generation, or remove during off-hours times.

### **Control Level 3:**

For high sensitivity work areas typically involving special patient care areas (i.e., immuno-suppressed or otherwise vulnerable populations) adjacent to demolition or other dust-

generating work, mitigation measures should include all of the above steps, plus:

1. Providing an exhaust fan within the Project Site vented to the outdoors. Seal all air returns from construction area with plastic sheeting, installing plastic from top of demising walls to deck above during the period of “above ceiling” demolition. The exhaust fan should be sized so that a negative pressure of 0.02 inches of water pressure differential is maintained relative to outside pressure (as measured at the entrance to the construction area).
2. Evaluate the negative pressure of the entrance vestibule against surrounding areas to serve as a staging area. Workers should remove disposable coveralls and shoes covers (or clean their shoes) and any other contaminated clothing in this area before leaving the work area. The air flow into the vestibule should meet the same requirements as the ventilation within the Project Site itself. Additional ventilation needs should be evaluated on a project-by-project basis and may include mandatory HEPA filtration of all exhausted air and/or pressurization of adjacent patient care areas. The vestibule should be positioned as a transition zone between Work and patient areas, with air flowing through the vestibule (staging area) into the work area;
3. The exhausted air must either be HEPA filtered or the fan positioned so that exhausted particulate does not re-enter the building;
4. The work area and area immediately outside work area entrances should be vacuumed frequently (daily, if necessary) with HEPA-filtered industrial vacuum cleaners;
5. Perform demolition in stages:
  - a. Demolition below ceiling plane, leaving plane intact;
  - b. Thoroughly clean/vacuum;
  - c. Demolition of ceiling off-hours or weekends;
6. Perform air sampling pursuant to industry standards or as otherwise requested by Yale (prior to start and periodically throughout). A log should be maintained to ensure that controls are being used;
7. If warranted by job-specific review, additional measures to further isolate the space should be taken (such as vestibules under negative pressure, wiping down of tools and equipment leaving the space);
8. A thorough cleaning of the work area should be conducted prior to the removal of construction barriers. The cleaning procedures followed should include HEPA vacuuming and wet mopping, but the exact procedures followed will be based on a job-specific determination.