



A Union of Professionals

WORK SHOULDN'T HURT

School Renovation: Protecting Staff and Students

The good news: Your district or school may be the recipient of stimulus funding for badly needed school renovation and repairs. The not-so-good news: This work should be “shovel-ready” or nearly so which means that renovations will likely be performed when school is in session.

The prospect of safer, healthier and technologically up to date schools is heartening. However when renovation is performed while school is in session, precautions should be taken to spare students and staff from uncontrolled exposure to the by-products of construction – noise, dust, dirt, roofing fumes and solvents among others. There are now established industry standards for protecting occupants during school renovations. And there is no reason why schools benefitting from stimulus funding should not adhere to these standards even when work plans are accelerated.

Below, is an outline of good practice standards for maintaining indoor environmental quality recommended by specialists and the National Institute for Occupational Safety and Health (NIOSH).

- Develop a construction or renovation impact assessment describing anticipated work activities and associated contaminants as well as areas (classrooms) most likely to be affected by the release of contaminants.
- Contain a detailed budget for the contaminant control methods to be utilized.



In the Beginning: Guidelines for

Planning

The school district, contractor and union should meet to develop a site and activity specific plan to control contaminants. The plan should:

- Identify all key personnel responsible for renovation activities and airborne contaminant control. The concept of a site job committee of the responsible school district official, the contractor, principal, building engineer, custodial staff, union representative, parents and students should be established in the plan.

Bid Specifications

It is important that all control measures be spelled out in the bid specifications. At a minimum, bid specifications should contain:

- Specific controls needed for the construction or renovation project along with methods for monitoring the effectiveness of the controls (esp. air monitoring etc.).
- Requirements to minimize noise levels so that teaching and classroom activities will not be disrupted and/or scheduled plans to perform any work that causes excessive noise after normal operating hours.

The **American Federation of Teachers** is a union of 1.7 million professionals that champions fairness; democracy; economic opportunity; and high-quality public education, healthcare and public services for our students, their families and our communities. We are committed to advancing these principles through community engagement, organizing, collective bargaining and political activism, and especially through the work our members do.

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- Requirements that the general contractor designate a representative to handle indoor environment or air quality issues and establish appropriate channels of communication with sub-contractors.
- Specific renovation conditions that would require an emergency response (such as a release of roofing fumes into occupied classrooms).

Control Measures

Here are some examples of control methods and strategies that can help minimize or prevent exposures to students and staff:

- Scheduling renovation work during periods of low building occupancy or low occupancy adjacent to the work areas such as weekend work or work after school hours.
- Isolation of work areas from occupied areas using critical barriers and high-efficiency particulate air (HEPA) filtration as necessary.
- Negative pressurization of work areas (air not allowed to leak or migrate into occupied classrooms and offices) so that air contaminants will not migrate into occupied areas.
- Modifying heating, ventilation and air conditioning (HVAC) operations such as increasing the HVAC outdoor air intake filtration efficiency and temporarily relocating the HVAC outdoor air intakes serving the occupied area. The HVAC system serving the work area should be shut down. Return air grilles should be blocked or sealed in the work area.
- Maintenance of an adequate unoccupied buffer zone around the work areas. This could require temporarily relocating classrooms and offices in the immediate vicinity of the work areas.
- Increasing housekeeping activities in adjacent occupied areas during the renovation project.
- Specification of low-emitting materials for use in construction and renovation such as local volatile organic compound (VOC) carpet adhesives and paints

Good Work Practices

- Local exhaust ventilation with HEPA filtration where dust generation is anticipated. If local exhaust is not feasible, portable air cleaning devices could be used.
- Using work practices that generate little or no dust such as wet methods.

- Establishing routes for renovation workers through unoccupied areas and away from building openings to occupied areas.
- Using HEPA vacuums and damp mop regularly to clean floors and ledges during construction.
- Removal of all construction debris through demolition chutes on the exterior of the building.
- Location of dumpsters away from operating HVAC outdoor air intakes and exterior doors to occupied areas.

Implementation of Project Control

Specifications

The general contractor's indoor environmental quality (IEQ) designee must demonstrate adequate training and or expertise in controlling contaminant exposure. In addition, the designee must have the authority to immediately correct problems affecting IEQ as they arise.

There must be regularly scheduled meetings of the **site job committee** (see planning section above) to ensure that the occupants are being protected.

Prior to work beginning, the contractor should inform the committee of the scope of the work and the precautions that will be used to control the release of contaminants.

During the project, the contractor or contractor designee should update building occupants on the progress of the renovation.

Routine monitoring for airborne contaminants in the occupied areas to ensure acceptable air quality.

The contractor or contractor designee should respond to complaints from school occupants immediately.



Commissioning

Many times, the proper steps are not taken to ensure that a classroom or other school area is adequate for occupancy after renovation work is completed.

Contractors should be required to undergo occupancy-ready procedures or “commissioning” of the area to make sure everything is in working order. Some important methods include:

- Ventilating the newly renovated area with 100% outdoor air before and during initial occupancy of students and staff.
- Ensuring that the HVAC system in the classroom or other area is tested and balanced before occupancy.
- Performing “clearance” monitoring for airborne contaminants before initial occupancy.

For more information, contact the AFT health and safety team at 4healthandsafety@aft.org [June 2022]