

Section 12

Renovation, Remodeling & Redecorating Activities

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Renovation, remodeling and redecorating activities have the potential for causing indoor air quality problems. Proper planning is important to minimize potential problems. Keep building occupants informed of the nature of these activities.

The most common concern which occurs during these activities are the release of volatile organic compounds from paint, stain, adhesives, sealants, new carpet and furniture.

If possible, these types of activities should occur when the building is not occupied. Many times, for a variety of reasons, these activities need to occur while the building is occupied.

During these activities, the building operator needs to increase the fresh intake air as much as possible. This increased ventilation needs to occur during these activities and for a short time after this work is completed.

If only limited areas of the building are being remodeled, adjust the HVAC system so that it does not distribute contaminated air throughout the rest of the building. Consider using temporary exhaust systems to remove contaminants during the work. It may be necessary to modify HVAC system operation during and after these activities (e.g., running air handling units on 100 percent outdoor air for some period of time or running the system for several complete air exchanges before occupants return to the building).

Most building ventilation systems change the air in the occupied spaces six times per hour, however, most of this air exchange is recirculated air (air does not leave the building). Normally, one air exchange per hour of outdoor air occurs in most well ventilated buildings. To remove 95 percent of the contaminated air from a building requires five exchanges of outdoor air into a building which is about 5 hours of building operation.

If possible, schedule activities, where solvents will be released, to occur late in the day or on Friday so the building can air out over night or for the weekend. Have carpeting installed on a Friday, so the solvents in the carpet and its adhesive have the weekend to air out before the tenants return to work.

FAQs

Is there guidance concerning how to design, building and/or remodel schools to avoid indoor air quality problems?

Yes. There are several voluntary guidance documents developed through consensus processes that can be helpful to encourage good indoor air quality through the design and construction or remodeling of schools:

- First, an interagency group of State of Minnesota industrial hygienists, public health officials, building code officials, facility managers, and others developed *Building Air Quality: A Guide for Building Owners, Facility Managers, and Agency Contacts* to guide state agencies and the State University System in the design, construction, leasing, purchase, operation and maintenance of facilities for good indoor air quality.
- Second, the Minneapolis Public Schools incorporation, with eight other organizations, developed two documents to help ensure good indoor air quality in the design, construction, and remodeling of schools:

Architectural Guidelines for Acceptable Indoor Air Quality (IAQ) for School Construction Projects. The contents of these guidelines include:

- general requirements
- site work
- concrete
- masonry
- metals
- wood & plastics
- thermal & moisture protection
- doors & windows
- finishes
- specialties
- furnishings
- pre-design, programming & design

Mechanical System Guidelines for Acceptable Indoor Air Quality (IAQ) for School Construction Projects. The contents of these guidelines include:

- design
- construction & commissioning
- operation & maintenance