

[Note to AE: Include an example IAQ plan which includes the following:]

1.0 INTENT

Prevent indoor air quality problems resulting from the construction/ renovation process in order to help sustain the comfort and well-being of construction workers and building occupants.

2.0 OBJECTIVES

Implement means and methods to protect the integrity of the indoor air quality during construction by developing an efficient approach of protection for following areas:

1. HVAC Equipment and Systems
2. Indoor Spaces
3. Construction Teams and Building Occupants
4. Building Materials

3.0 METHODS AND RESPONSIBILITIES

HVAC PROTECTION

All HVAC equipment will be protected from collecting both dust and odors. Each of the systems will be evaluated to determine how best to protect the systems from construction dust and odors. Specific methods will be implemented on either the return or supply side and central filtration of the system.

A. **Return Side Protection**

1. To minimize dust and odor, pay special attention to the location of:
 - A. Return vents, ducts and shafts
 - B. Ceiling Plenums
 - C. VAV Plenum Intakes
2. Seal all return system openings in the construction area with dust barriers.
3. Do not store or allow any subcontractors to store waste or construction materials in Air Handling Rooms.
4. 100% of the HVAC system filtration media will be replaced after the construction and building flush-out phases.

B. **Supply Side Protection**

- To minimize dust and odor,
1. Seal diffusers when the system is not operating during construction.
 2. Clean the diffusers and ducts after construction.

C. **Central Filtration Protection**

Upgrade filters if major dust loading is expected to impact operating HVAC systems. Consider options such as activated charcoal or potassium permanganate if upgrading the filters is not effective.

SOURCE CONTROL

Adopt measures to control the spread of VOC throughout the project.

1. Monitor subcontractors to verify products containing VOCs will meet the project specification requirements. Specific products will include but are not limited to the following.
 - A. Paints
 - B. Carpets

- C. Composite Woods
 - D. Clean Products
 - E. Adhesives
 - F. Sealants
 - G. Caulks
 - H. Wall coverings
2. Modify equipment operations either by substituting the equipment with “cleaner” equipment or simply changing operating procedures.
 3. Restrict idling of motor vehicles where the emissions could be drawn into the building or occupied areas.
 4. Cycle equipment off when not needed.
 5. Locate the building contaminated exhaust away from the building intake.
 6. For areas where exhaust is not feasible, circulate the air through a portable air cleaner.
 7. Cover or seal tanks and containers that have adhesives, paints, caulk etc when not in use.

PATHWAY INTERRUPTION

Isolate areas of work to prevent contamination of clean or occupied spaces. The following measures will be implemented to reduce pathway interruption.

1. Establish positive and negative pressured work areas to control contamination. Exhaust air at a rate of 10% greater than the supply rate, or for positive spaces, increase the supply air rates.
2. Areas with contaminated air will be ventilated with 100% outside air and the contaminated air will be directly exhausted to the outside.
3. Erect temporary barriers between work areas and non-work areas.
4. Isolate work areas and materials to prevent cross contamination of clean and occupied spaces.
5. Identify and mark the major indoor construction walkways and pathways for the project.

HOUSEKEEPING

Institute cleaning activities during the construction phase. The activities will concentrate on the HVAC and building spaces. The intent of the housecleaning will be to remove contaminants from the building prior to occupancy of the building by controlling construction dust, material spills and VOC compounds. The following measures will be implemented to ensure contaminant control.

1. In order to reduce dust accumulation, all work areas and surfaces will be swept or cleaned on a regular basis. If required, a wetting agent will be applied to reduce airborne contaminants, or a vacuum with a high efficiency particulate filter will be used.
2. All material spills will be removed and the surface cleaned with cleaning agents as soon as possible.
3. Only low odor emitting compound cleaning supplies will be used.
4. All indoor accumulated water will be removed on a daily basis to prevent mold.
5. All building materials will be protected from weather and stored in a clean area prior to unpacking.
6. All HVAC coils, air filters and fans shall be cleaned before test and balancing procedures.

SCHEDULING

Schedule construction to reduce absorption of VOCs by porous materials. The following measures will be implemented to reduce absorption:

1. Complete the installation of all wet and odorous materials before installing absorbent materials.
2. All VOC emitting materials and installation areas will be provided proper drying and ventilation time.

3. Schedule the delivery, storage and installation of materials to reduce cross product contamination.

Plan Verification Signatures

Upon completion of the project, the site manager will sign the Construction IAQ Management Plan to indicate field compliance.

I, _____ declare that an Indoor Air Quality (IAQ) Management Plan has been developed and implemented for the construction and pre-occupancy phase of the project.

Signature: _____

Organization:

END OF EXHIBIT 01 35 46-1