



G|PRO Construction Management

CM Doc. #5.3: Construction Indoor Air Quality Plan (CIAQP)

This plan describes the measures to be taken to provide good indoor air quality (IAQ) during construction and after construction is complete when occupants have moved into the building. This plan is based on the Sheet Metal and Air Conditioning Contractors' National Association (SMACNA) standard "IAQ Guidelines for Occupied Buildings under Construction" and the requirements of the LEED (NC) New Construction Rating System.

The following describes the specific measures to be performed:

HVAC Protection

1. During construction, provide Minimum Efficiency Reporting Value (MERV) 8 filters for supply air intake and at the return system openings when in use. Perform frequent maintenance when the HVAC system is being used and replace filters as needed, prior to building flushout, and prior to occupancy.
2. When performing construction activities that produce dust, such as drywall sanding, concrete cutting, masonry work, wood sawing or adding insulation, seal off the supply diffusers and return air system openings completely for the duration of the task.
3. Shut down and seal off the supply diffusers and return air ducts during any demolition operations.
4. Whenever the HVAC system is not used during construction, seal off the supply diffusers and return air system openings to prevent the accumulation of dust and debris in the duct system.
5. Do not use the mechanical rooms to store construction or waste materials. Keep rooms clean and neat.
6. Provide periodic duct inspections during construction; if the ducts become contaminated due to inadequate protection, clean the ducts professionally in accordance with NADCA (National Air Duct Cleaning Association) standards.
7. Take photographs to show HVAC protection measures in place.

Source Control

1. Use low VOC products as indicated by the specifications to reduce potential problems.
2. Restrict traffic volume and prohibit idling of motor vehicles where emissions could be drawn into the building.
3. Utilize electric or natural gas alternatives for gasoline and diesel equipment where possible and practical. Use low-sulfur diesel in lieu of regular diesel.
4. Cycle equipment off when not being used or needed.
5. Exhaust pollution sources to the outside with portable fan systems. Prevent exhaust from recirculating back into the building.
6. Keep containers of wet products closed as much as possible. Cover or seal containers of waste materials that can release odor or dust.
7. Protect stored on-site or installed absorptive building materials from weather and moisture; wrap with plastic and seal tight to prevent moisture absorption.
8. Take photographs to show source control measures in place.

Pathway Interruption

1. Provide dust curtains or temporary enclosures to prevent dust from migrating to other areas when applicable.
2. Locate pollutant sources as far away as possible from supply ducts and areas occupied by workers when feasible. Supply and exhaust systems may have to be shut down or isolated during such an activity.
3. During construction, isolate areas of work to prevent contamination of clean or occupied areas. Pressure differentials may be utilized to prevent contaminated air from entering clean areas.
4. Depending on weather, ventilate using 100% outside air to exhaust contaminated air directly to the outside during installation of VOC emitting materials.

Housekeeping

1. Provide regular cleaning concentrating on HVAC equipment and building spaces to remove contaminants from the building prior to occupancy.
2. All coils, air filters, fans and ductwork shall remain clean during installation, and, if required, will be cleaned prior to performing the testing, adjusting and balancing of the systems.
3. Suppress and minimize dust with wetting agents or sweeping compounds. Use efficient and effective dust collecting methods such as a damp cloth, wet mop, or vacuum with particulate filters, or wet scrubber.
4. Remove accumulations of water inside the building. Protect porous materials such as insulation and ceiling tile from exposure to moisture.
5. Thoroughly clean all interior surfaces prior to replacing filters and running HVAC system for system balancing, commissioning and building flushout.

Scheduling and Construction Activity Sequence

1. Schedule high pollution activities that utilize high VOC level products (including paints, sealers, insulation, adhesives, caulking and cleaners) to take place prior to installing highly absorbent materials (such as ceiling tiles, gypsum wall board, fabric furnishings, carpet and insulation, for example). These materials will act as 'sinks' for VOCs, odors and other contaminants, and release them later after occupancy.

SAMPLE TEMPLATE: Construction Indoor Air Quality (CIAQ) Inspection Checklist

Project Name:	Project Number:
Contact:	Date:

Instructions: Use this template on your routine project walk-throughs to monitor trade compliance on CIAQ. Take pictures for back-up record-keeping as appropriate. On the template, mark "C" for compliant and "D" for deficient for each inspection item on each inspected floor.

ITEMS	CELLAR			FLOORS									
	3	2	1	1	2	3	4	5	6	7	8	9	10

INDOOR AIR QUALITY

1	Trades are not smoking on the floor.													
2	Ductwork is stored vertically on pallets with ends wrapped in plastic. None is touching ponded water.													
3	All HVAC supply openings are sealed with 6 mil plastic or metal cover.													
4	The bottom of the exhaust riser is accessible for end of job cleaning.													
5	All smelly products confirmed to be as approved and work is segregated from absorptive material.													
6	Area is clean and free of dust. If area is being cleaned, dust is suppressed.													

MOISTURE PROTECTION & MOLD PREVENTION

1	No materials, including ductwork, are touching ponded water.													
2	There are no signs of mold on sheetrock.													
3	Sheetrock near windows and hoist is dry and protected from rain.													

INTEGRATED PEST MANAGEMENT

1	Top of sheetrock is covered with secured plastic to protect it from drink spills etc.													
2	Floor is clean of food waste. Food waste is deposited in trash bags that are provided.													

Comments on Deficiencies: