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| ***Instructions to complete the template for your Indoor Air Quality Monitoring Plan***  *All grey italic text with borders are instructions to help you prepare the required BEST Practice for your building.*   1. *Replace all* [blue text in brackets] *in the document with building specific information.* 2. *Where required, complete the necessary tasks, or engage a third-party consultant to complete the tasks so that you are able to fill the relevant sections of the template with building specific information.* 3. *Additional Resources[[1]](#footnote-2) can be found here:*  * [*IAQ Checklist*](https://www.epa.gov/sites/production/files/2014-08/documents/mgmtlist.pdf) *(US EPA)* * *Example of* [*IAQ Housekeeping Activities*](https://www.epa.gov/sites/production/files/2014-08/documents/housekeeping_tasks.pdf) *(US EPA)* * [*IAQ Maintenance Inspection Form*](https://www.epa.gov/sites/production/files/2014-08/documents/om_periodic_inspections.pdf) *(US EPA)* * [*Indoor Air Quality Guide*](https://www.ashrae.org/technical-resources/bookstore/indoor-air-quality-guide) *(US EPA)*  1. *Delete all grey italic text when you have filled all relevant sections with building specific information.* 2. *Complete the Checklist below to confirm your Indoor Air Quality Monitoring Plan meets the BEST Practice requirements.* |

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| ***Checklist***  *The Indoor Air Quality Monitoring Plan must contain the following elements:*  *Competency requirements for the person developing the IAQ Monitoring Plan*  *IAQ goals for the building including targets for air quality parameters*  *Identification of HVAC system impacted by IAQ goals*  *Schedule for HVAC inspection and preventative maintenance tasks (may overlap with BEST Practice 1: Preventative Maintenance Program)*  *Procedures for responding to occupant IAQ concerns (may overlap with BEST Practice 8: Occupant Service Request Program)*  *Identification of responsible parties and training requirements for property management and building maintenance staff relating to IAQ* |

**INDOOR AIR QUALITY MONITORING PLAN**

[Insert Building Name and / or Address]

[Insert Name of Organization]

[Insert Building Description – number of floors, tenants, parking spaces (underground or surface) and other distinguishing features]

[Insert date Plan was created / most recent date it was reviewed]

# Introduction and Purpose

Indoor Air Quality (IAQ) is achieved through the selection of appropriate and achievable air quality goals, regular surveillance and testing to verify HVAC performance and hygiene, efficient and effective procedures for addressing occupant IAQ concerns, and training for all property management and maintenance personnel.

# Responsibilities

[Insert Name], Property Manager ([Insert Name of Organization]) of [Insert Building Name], is responsible for the following:

* Identify appropriate person to prepare the Indoor Air Quality Monitoring Plan. [Insert Name], [Insert Title or Role of Specialist] from [Insert Name of Specialist Organization] has been identified to prepare the Indoor Air Quality Monitoring Plan

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| *Identify a specialist (may be a third-party consultant) to create the Indoor Air Quality Monitoring Plan. The following competencies are required at a minimum:*   * *Adequate qualifications: the person has a good working knowledge and understanding of the legislation surrounding indoor environmental quality (i.e., training certificates or educational background in hygiene, occupational health and safety, environmental engineering, building science or similar);* * *Suitable training: the person must have training that is appropriate to implementing an indoor environmental quality monitoring program and which comply with regional minimum safety training requirements; and* * *Sufficient experience: the person must have enough experience to safely perform the work without supervision or with only a minimal degree of supervision.* |

* Work with the appointed IAQ manager and building maintenance and operations staff to:
  + Prepare the IAQ Monitoring Plan,
  + Agree on the IAQ management approach implemented at the building, and frequency of executing associated tasks,
  + Identify the HVAC systems impacted by IAQ,
  + Define IAQ goals for the building,
  + Schedule HVAC inspection and preventative maintenance tasks.
  + Assign responsible parties to execute the IAQ Monitoring Plan’s implementation, see **Appendix**[[2]](#footnote-3).
* Establish procedures for timely response to occupant IAQ concerns (see BEST Practice 8: Occupant Service Request Program)
* Oversee the implementation of the IAQ Monitoring Plan, conducting annual reviews of the Plan’s effectivity and executing updates as required.
* Track evidence of training received and maintain training records.

## Training

[Insert Name], Property Manager ([Insert Name of Organization]) of [Insert Building Name] will identify training requirements for property management and building maintenance staff relating to the development and implementation of the IAQ Monitoring Plan.

[Briefly outline applicable staff training required / delivered.]

*Discuss with your building operations and maintenance team the type of training that may benefit staff members as it applies to the IAQ monitoring of building equipment and systems.*

*Check your staff’s current competencies in this area and identify additional training required and determine when it will need to be completed.*

# Strategy

## IAQ Management Approach

The building maintenance and operations team will:

[Delete or add bullets as applicable

* Collect and Review Existing Records
  + HVAC design data, operating instructions and manuals
  + HVAC maintenance and calibration records, testing and balancing reports
  + Inventory of locations where occupancy, equipment, or building use has changed
  + Inventory of complaint locations
* Conduct Regular Walkthrough Inspections of the building to
  + Identify areas where positive or negative pressure should be maintained
  + Record locations that need monitoring or correction
* Collect Detailed Information (as needed)
  + Inventory of HVAC system components needing repair, adjustment, or replacement
  + Record of control settings and operating schedules
  + Plan showing airflow directions or pressure differentials in significant areas
  + Inventory of significant pollutant sources and their locations
  + SDSs for supplies and hazardous substances that are stored or used in the building]

## IAQ Goals

[The following are suggested performance goals for IAQ for frequently occupied indoor spaces.

* Carbon dioxide not exceeding 700 ppm above ambient (ASHRAE 62.1);
* Carbon monoxide not exceeding 9 ppm (ASHRAE 62.1);
* Total volatile organic compound concentrations do not exceed 1000 µg/m3 (440 ppb) (Health Canada);
* PM10 does not exceed 50 µg/m3 (ASHRAE 62.1);
* Temperature in the range of 21 – 27 C°, taking into account seasonal variances, relative humidity (ASHRAE 55);
* Relative humidity in the range of 30-60% (USEPA I-BEAM) or more than 20% (CSA);
* HVAC system interiors are in good general condition, clean, free of standing water and debris, and have no visible suspect mould growth.]

*Modify the bullets above as applicable for your building. If other local regulations exist for IAQ management, the most stringent will apply.*

## HVAC Systems impacted by IAQ

Refer to Appendix in **BEST Practice 1: Preventative Maintenance (PM) Program**. The HVAC equipment and systems described in the PM Program include those that impact indoor air quality.

## Responding to Occupant Requests

Procedures for responding to occupant IAQ concerns are outlined in **BEST Practice 8: Occupant Service Request Program**.

## IAQ Monitoring and Testing

Conduct periodic maintenance inspections to monitor building IAQ performance.

Indoor air quality testing should be conducted at regular intervals as determined by the building management team. Testing should be conducted over a typical workday, taking into account fluctuations in contaminant levels that may occur. IAQ testing should be conducted, at a minimum, in the morning and afternoon.

# Time Period

This plan was implemented on [Insert Date] and will be reviewed and updated at least once a year.

Appendix: IAQ Management Plan[[3]](#footnote-4)

*Edit as applicable to your building*

| **Item** | **Date begun or completed (as applicable)** | **Responsible person (name, telephone)** | **Location ("NA" if the item is not applicable to this building)** |
| --- | --- | --- | --- |
| **Facilities Operation and Maintenance** | | | |
| Confirm that equipment operating schedules are appropriate |  |  |  |
| Confirm appropriate pressure relation- ships between building usage areas |  |  |  |
| Compare ventilation quantities to design, codes, and ASHRAE 62-1989 |  |  |  |
| Schedule equipment inspections per preventive maintenance or recommended maintenance schedule |  |  |  |
| Modify and use HVAC Checklist(s); update as equipment is added, re-  moved, or replaced |  |  |  |
| Schedule maintenance activities to avoid creating IAQ problems |  |  |  |
| Review SDSs for supplies; request additional information as needed |  |  |  |
| Consider using alarms or other devices to signal need for HVAC maintenance (e.g., clogged filters) |  |  |  |
| **Housekeeping** | | | |
| Evaluate cleaning schedules and procedures; modify if necessary |  |  |  |
| Review MSDSs for products in use; buy different products if necessary |  |  |  |
| Confirm proper use and storage of materials |  |  |  |
| Review trash disposal procedures; modify if necessary |  |  |  |
| **Shipping and Receiving** | | | |
| Review loading dock procedures  (Note: If air intake is located nearby, take precautions to prevent intake of exhaust fumes.) |  |  |  |
| Check pressure relationships around loading dock |  |  |  |
| **Pest Control** | | | |
| Consider adopting Integrated Pest Management methods |  |  |  |
| Obtain and review SDSs; review handling and storage |  |  |  |
| Review pest control schedules and procedures |  |  |  |
| Review ventilation used during pesticide application |  |  |  |
| **Occupant Relations** | | | |
| Establish health and safety committee or joint tenant/ management IAQ task force |  |  |  |
| Review procedures for responding to complaints; modify if necessary |  |  |  |
| Review lease provisions; modify if necessary |  |  |  |
| **Renovation, Redecorating, Remodeling** | | | |
| Discuss IAQ concerns with architects, engineers, contractors, and other professionals |  |  |  |
| Obtain SDSs; use materials and procedures that minimize IAQ problems |  |  |  |
| Schedule work to minimize IAQ problems |  |  |  |
| Arrange ventilation to isolate work areas |  |  |  |
| Use installation procedures that minimize emissions from new furnishings |  |  |  |
| **Smoking** | | | |
| Eliminate smoking in the building |  |  |  |
| If smoking areas are designated, provide adequate ventilation and maintain under negative pressure |  |  |  |
| Work with occupants to develop appropriate non-smoking policies, including implementation of smoking cessation programs |  |  |  |

1. *The additional resources presented above are suggestions and not intended as an endorsement by BOMA Canada of any method, process or specific product* [↑](#footnote-ref-2)
2. Source: Checklist in Appendix adapted from the US EPA’s [IAQ Management Checklist](https://www.epa.gov/sites/production/files/2014-08/documents/mgmtlist.pdf) [↑](#footnote-ref-3)
3. Source: Checklist in Appendix adapted from the US EPA’s [IAQ Management Checklist](https://www.epa.gov/sites/production/files/2014-08/documents/mgmtlist.pdf) [↑](#footnote-ref-4)