



**Go Green**  
*Visez vert*

# ***Go Green***

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## **Guide to Certification**

## INTRODUCTION

This guide is intended to help building owners or managers prepare for Go Green certification. It highlights the minimum conditions that must be met, suggested practices to follow, as well as useful resources for each of the ten program standards.

The Go Green program addresses five categories of environmental responsibility in building management and operation:

1. Resource Consumption (Energy and Water)
2. Waste Reduction & Recycling
3. Building Materials
4. Interior Environment
5. Tenant Awareness

This guide provides information on suggested practices, required documentation and useful resources related to these five categories. Applicants are not required to submit supporting environmental documentation with the application. The supporting documentation, however, must be available to the evaluator at the time of the on-site review.

BOMA-Québec will be issuing periodic updates to this guide and the program requirements. Please take note of these updates on the BOMA-Québec web site ([www.boma-quebec.org](http://www.boma-quebec.org)).

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## Standard 1: Reduction in Energy Consumption

### Minimum Requirements

1. An energy audit of the applicant's building must have been performed within the last three years.
2. Building management must have a documented plan to address recommendations raised in the audit.

**Note:** There are particular requirements for new buildings. Please consult BOMA Québec for details.

### Suggested Practices

#### Energy Audit

Use the energy evaluation guide provided by the Office of Energy Efficiency of Canada ([www.oeec.nrcan.gc.ca/ibf/pdfs/verification.pdf](http://www.oeec.nrcan.gc.ca/ibf/pdfs/verification.pdf)). The energy audit report must include the following information:

1. **Information concerning the owner or manager**
  - a. Building name and address
  - b. Date of energy study completion
2. **Summary**
  - a. List of energy improvements
  - b. Total energy savings in power and in energy quantity, in kWh, in kW or in Gigajoules
  - c. The estimated capital investment of energy improvements and the investment recuperation period.
3. **Building description**
  - a. Age
  - b. Total floor surface and number of floors
  - c. General state of the building
  - d. Type of doors and windows
  - e. Window glass (type and percentage)
  - f. Uses and schedule of occupancy

#### 4. Energy supply and consumption history

- a. Rates
- b. Graph of energy consumption distribution based on principal uses
- c. Graph of prior consumption, month-by-month
- d. Target for energy consumption

#### 5. Description of building systems

- a. Mechanical installations and processes
  - I) System types and area served
  - II) Equipment inventory
  - III) Comments on the efficiency of the equipment
- b. Electrical systems
  - I) Description of usage, location and strength
  - II) Estimate or inventory of charges linked to power surges
- c. Lighting systems
  - I) System types
  - II) Lighting Equipment Inventory
  - III) Lighting Levels
  - IV) Operation schedule
- d. Automatic regulation systems
  - I) Inventory of control points
  - II) Description of control sequences

## 6. Recommended energy improvements

- a. Description of initiatives
- b. Number of units affected
- c. Evaluation of the useful life expectancy of the proposed equipment
- d. Annual energy savings
- e. Estimated capital investment
- f. Investment recuperation period
- g. Description of the method used for calculation of savings
- h. Activities and schedule of maintenance

## 7. Implementation strategy

- a. Summary and justification of measures imposed
- b. Total investment required
- c. Implementation schedule

A "walk-through" type audit summary does not meet the Go Green program criteria.

## Implementation Plan

The plan for implementing energy improvement strategies should correspond to the model presented in Table 1.1:

**Table 1.1** : Sample Implementation Plan for Energy Improvement

No	DESCRIPTION OF PROPOSED MEASURES Investment budget Implementation Date (fiscal year)
1	_____
	_____
2	_____
	_____
Etc.	_____

## Documentation

The applicant should have the following documentation available for review by BOMA Québec:

1. Energy audit report
2. Energy reduction implementation plan

## Resources

1. Agence de l'efficacité énergétique du Québec (Office of Energy Efficiency of Québec) ([www.aee.gouv.qc.ca/](http://www.aee.gouv.qc.ca/))
2. Office of Energy Efficiency of Natural Resources Canada ([www.oeenrcan.gc.ca](http://www.oeenrcan.gc.ca))

Department of Energy in the United States ([www.energy.gov/engine/content.do](http://www.energy.gov/engine/content.do))

## New Buildings

Buildings where the date of acceptance is less than twelve months from the date of the request for certification are exempt from the minimal conditions outlined above; instead, the following conditions must be met:

1. The building must include energy improvements currently in place in existing buildings of a similar nature for items such as lighting, CVC and automatic regulators.
2. A report of the fine-tuning of installations (and not of putting into service) must have been prepared by an independent professional.
3. The recommendations of the report must be part of a short-term implementation plan.

## Tips

Investigate incentive programs from your energy suppliers, from the Office of Energy Efficiency of Natural Resources Canada and from the Office of Energy Efficiency of Québec.

Ensure that equipment run times appropriately match occupancy schedules.

Encourage tenants to turn off computers when not in use.

For further information on methods to reduce greenhouse effect gas emissions, register to the Éco-geste program ([www.ecogeste.gouv.qc.ca](http://www.ecogeste.gouv.qc.ca)).

## Standard 2: Reduction in Water Consumption

### Minimum Requirements

1. An audit of the building's water consumption must be included in a policy on water conservation issued within the three years prior to the request for certification.
2. Building management must have a written policy to minimize water use and encourage water conservation.

### Recommended Practices

#### Plan to reduce water consumption

The plan must include the following information:

1. **Information on the owner or manager**
  - a. Building name and address
2. **Summary**
  - a. List of water conservation measures
  - b. Total water savings
  - c. Estimated capital expenditure for these measures
3. **Water billing analysis with benchmarking observations (if applicable)**

#### Rates

Pie chart of water consumption based on principal usage

Monthly chart for past consumption

Water consumption targets (ie. litre/occupant)

#### 4. Description of major water-consuming systems

- a. Domestic usage
  - I) Types of systems (ie. reservoir or flush faucets for toilets)
  - II) Inventory of appliances and flow rate
- b. Usage in the processes (ie. entry-point water in the boilers, running-water chiller systems, kitchens)
  - I) Inventory of systems
  - II) Evaluation of flow
- c. Exterior irrigation
  - I) Controls
  - II) Evaluation of flow

#### 5. Water conservation measures applicable to the building

- a. Description of measures
- b. Number of units affected
- c. Annual water savings
- d. Estimated cost of fixed assets
- e. Investment recuperation period, if applicable
- f. Type of maintenance

#### 6. Water consumption reduction plan

- a. List of measures
- b. Investment granted
- c. Schedule of implementation

It is strongly suggested that cooling systems using domestic water be converted to use either ground or air heat dissipation for condensing circuits.

Water meters should be installed for the building as well as for tenants with large water consumption potential (ie. restaurants, etc.).

## Policy

A sample water conservation policy is noted in Table 2.1:

**Table 2.1** : Sample Water Conservation Policy

The XXX organization is committed to reducing the demand for water in its facilities to help conserve natural resources. To that end, our organization shall establish goals to help reduce water consumption. The building manager shall establish a water efficiency program to include specific strategies designed to help both owner and tenants use water more efficiently. The building manager or designated representative will regularly inspect the facility and operations and make recommendations for maintenance and capital expenditures that may help the organization reach its water conservation goals.

**Note** : This policy must be signed by the most senior building manager in Quebec.

## Documentation

The applicant should have the following documentation available for review by BOMA Québec:

1. Water conservation policy
2. Water consumption reduction plan\*

\* The water audit report may be incorporated in the energy audit report.

## Resources

The Ministry of Environment – Water Management: [http://www.mddep.gouv.qc.ca/eau/inter\\_en.htm](http://www.mddep.gouv.qc.ca/eau/inter_en.htm)

The North Carolina Division of Pollution Prevention and Environmental Assistance web site has both water-saving ideas and auditing resources:

<http://www.p2pays.org>

Canadian Water and Wastewater Association has a large database of water conservation projects undertaken to date:

[http://www.cwwa.ca/home\\_e.asp](http://www.cwwa.ca/home_e.asp)

## Tips

Install a meter on the building's water entrance to produce water reports and measure the results of the water conservation program.

Consider changing water-cooled air conditioning and refrigeration systems.

Consider adopting sanitation systems recognized for significantly reducing water consumption.

Have janitorial staff report on running toilets and leaky faucets. Continuously leaking fixtures can consume an enormous amount of water.

## Standard 3: Construction Waste Management

### Minimum Requirements

Building management must have a documented policy and confirmed practices that minimize construction waste being sent to landfill.

### Recommended Practices

Recyc-Québec is a good reference for the management of construction waste (see Resources section below). A policy on the management of construction waste should address the reduction of residual materials and the recycling of corrugated cardboard, metals, concrete block, clean dimensional wood, as well as other residual materials for which outlets exist such as plastic, glass, gypsum board and carpet.

### Documentation

The applicant must be prepared to provide the written policy on construction waste management to BOMA Québec for review.

### Resources

Information sheet on construction, renovation and demolition waste:

[http://www.recyc-quebec.gouv.qc.ca/upload/Publications/zFiche\\_456.pdf](http://www.recyc-quebec.gouv.qc.ca/upload/Publications/zFiche_456.pdf)

Index of the recovery and recycling organizations in Quebec:

<http://www.recyc-quebec.gouv.qc.ca/client/fr/repertoires/rep-recupereurs.asp>

Regroupement des récupérateurs et des recycleurs de matériaux de construction et de démolition du Québec (3R MCDQ):

[www.3rmcdq.qc.ca](http://www.3rmcdq.qc.ca)

The Canadian Construction Association provides a guide of environmental best practices for construction sites:

[www.cca-acc.com](http://www.cca-acc.com)

### Tips

A requirement to recycle construction waste according to environmental best practices and the recommendations of Recyc-Québec should include in any request for tenders for construction or renovation work.

The manager should require that contractors submit confirmation of recycling with their request for payment.

All pollutant or highly noxious waste should be entrusted to specialized firms: products containing refrigerant gas, asbestos (isolating steel structures or piping), PCB's (old transformers or electric condensers, lighting ballasts purchased before 1974), and fluorescent tubes.

## Standard 4: Recycling

### Minimum Requirements

Building management must have implemented a recycling program that includes all fibrous and consumable products such as paper, newspaper, cardboard and packaging; glass, metal and plastic products; as well as containers that are designated for refund in Québec. This program must apply to both tenants and building operations personnel. In addition, there must also be a policy on the management of recyclable and dangerous materials such as used oil (contaminated or not), fluorescent tubes, batteries, etc.

### Suggested Practices

Recyc-Québec is a good reference for the reduction, recuperation and reuse of residual materials (see Resources section below).

### Documentation

The applicant should provide a list of materials collected for reuse or recycling as well as the name of the organization entrusted with the collection and transport to the recycling centre.

### Resources

Recyc-Québec:  
[www.recyc-quebec.gouv.qc.ca](http://www.recyc-quebec.gouv.qc.ca)

Business managers guide to the management of residual materials:  
[http://www.pro-recyc.com/docs/GuideGest\\_PME\\_final.pdf](http://www.pro-recyc.com/docs/GuideGest_PME_final.pdf)

Proposed movement for institutional, commercial and industrial organizations:  
<http://www.recyc-quebec.gouv.qc.ca/upload/Publications/zzzzFiches391.pdf>

Environmental certification program ICI ON RECYCLE! :  
<http://www.recyc-quebec.gouv.qc.ca/client/fr/programmes-services/prog-reconnaissance/ici.asp>

Case studies and research on the management of residual materials in the work environment:  
<http://www.recyc-quebec.gouv.qc.ca/client/fr/rubriques/documentation.asp?idTypeLib=56>

Information sheets on materials that can be recuperated and reused:  
<http://www.recyc-quebec.gouv.qc.ca/client/fr/industrie/materieres.asp>

### Tips

It is recommended to first proceed with an audit. The program "ICI ON RECYCLE!" from Recyc-Québec will enable you to conduct a detailed waste audit of the recycling activity in your building.

Also consider recycling programs for ink cartridges from printers, fluorescent tubes and ballasts, and computer components. Used lubricating oil or oil from restaurants can also be recycled or transformed into fuel.

Consider starting a composting program for you're the building's cafeteria. The end product will likely be in high demand from your tenants.

Check with your municipality for charity organizations and social service businesses that may accept your used goods for job development programs.

Ensure that the contents provided for recycling are of sufficient size and quantity.

Contracts with housekeeping companies should include bringing recycled products to collection areas.

Consider placing compactors and shredders near the loading docks to ease the volume of recycled paper and cardboard.

# Standard 5: Hazardous Materials Management

## Minimum Requirements

1. Building management must complete and maintain a current inventory of hazardous materials that are present in the building.
2. Where hazardous materials (controlled products) are present in the building, a documented plan for the management of these materials must be in place.

## Suggested Practices

### 1. Building Materials

The list of hazardous materials present in the building must include materials containing asbestos (insulation, putties and caulking, older equipment, etc.), polychlorinated biphenyls (PCBs - old fluorescent lighting ballasts, etc.), lead (paint, batteries), mercury (thermostats, lamps and lighting tubes, etc.) as well as pesticides.

### 2. Inventory

A current inventory of hazardous materials should include not only construction materials, but also chemical products and substances used in the building.

### 3. Management Plan – Construction Materials

The plan for management of hazardous materials should indicate the procedures to follow for handling and, ultimately, disposing of materials that contain hazardous substances.

### 4. Management Plan – Chemicals

The plan for management of hazardous chemicals should indicate the appropriate procedures for receiving the products in the building. The procedure for handling and use of the products in the building must be detailed (with the objective to limit the exposure to workers and tenants). Finally, the storage and disposal of these products must be controlled.

The management plan should also include Workplace Hazardous Materials Information System (WHMIS) sheets for all hazardous materials identified in the inventory of products used in maintenance and operation of the building.

## Documentation

The applicant should have the hazardous materials inventory and controlled products management plan available for review.

## Resources

The Workers Health and Safety Commission (CSST): [www.csst.qc.ca/portail/fr/lois\\_politiques/](http://www.csst.qc.ca/portail/fr/lois_politiques/)

The Ministry of Environment – Water Management: [http://www.mddep.gouv.qc.ca/eau/inter\\_en.htm](http://www.mddep.gouv.qc.ca/eau/inter_en.htm)

WHMIS: <http://www.reptox.csst.qc.ca/SIMDUT.htm>

## Tips

The hazardous chemicals management plan should include the following elements:

- Product usage, quantities stored and identification of the storage areas
- Adequate ventilation for the storage areas
- Training for the people who will be using the products
- An emergency plan in case of an accident (shower, eye bath, telephone list for external specialized assistance)

# Standard 6: Use of Safe and Recycled Materials

## Minimum Requirements

Building management must have a written policy for the selection of building materials that would minimize the impact on removing and redeveloping resources or that may harm the indoor air quality.

## Suggested Practices

Table 6.1 provides an example of a policy for the selection of building materials:

**Table 6.1 :** Sample Policy for the Use of Safe and Recycled Material

The XXX organization is committed to using low environmental impact building materials and equipment in its facilities. Our organization shall encourage the use of environmentally friendly materials such as products with high-recycled content, products that are produced with minimal impact on the environment, as well as carpeting and furnishings with low emission of harmful chemicals. The Tenant Handbook will encourage that the same standards be applied as those implemented by our organization.

## Documentation

The applicant should have the use of safe and recycled materials policy available for review.

## Resources

Environment Canada's toolbox for environmentally friendly construction

Environmental Choice Program (Ecologo): [www.environmentalchoice.ca](http://www.environmentalchoice.ca)

Energy Star Program: [www.energystar.gov](http://www.energystar.gov)

Environment Canada distributes information on purchasing policies that respect the environment: <http://www.ns.ec.gc.ca/udo/reuse.html>

The United States Environmental Protection Agency has established a list of recycled products that are contained in building and landscaping materials: <http://www.epa.gov/cpg/products.ht>

The Oikos d'Iris Communications website contains a variety of information on green building materials: <http://oikos.com/library/index.html#Downloads>

The United Kingdom's Association for Environmentally Conscious Buildings (AECB) also has documentation on green building materials: <http://www.aecb.net/books.php>

## Tips

### Recycled Materials

Promote space reorganization practices that maintain a maximum of elements such as interior walls, doors, resurfacing of floors and ceiling systems.

Encourage the selection of building materials, furnishings or products that have been salvaged, renewed or reused.

Encourage the selection of building materials or fittings that contain recycled materials, thereby reducing the demand for new materials and the energy for their transformation. Recycled materials may be of an industrial nature but overall the result of post-consumption recycling.

Promote the use of regional materials and resources that require less transport, and therefore less energy.

Encourage the use of rapid-renewal materials over materials where the cycle of renewal is long and therefore the availability is limited (ie. panels with a high content of straw or bamboo instead of wood).

Use wood that has been forested according to recognized principles of long-term (durable) management (label FSC).

Have a long-term building plan (CSA 5478-95), which is a method to manage the replacement of materials based on their life cycle. Be aware that the choice of rapidly deteriorating materials may affect the life cycle of the entire building or important parts of the building because their replacement may be complicated or unexpected.

### **Safe Materials**

Use adhesives, waterproof products, coatings and paints that generate either no or low odors that may potentially be irritating or noxious to the comfort and well-being of workers and tenants, for example products that contain COV properties known to be inferior to market standards.

Use carpeting with low COV emission and particleboards or laminate adhesives that contain little or no urea-formaldehyde.

### **For Tenants**

While building managers cannot dictate every element of tenant construction, they can take the lead in environmentally friendly construction practices in their common area renovation and construction projects. They can also provide guidance and information on this matter.

# Standard 7: Ozone Depleting Substances

## Minimum Requirements

Building management must have a documented plan for identifying ozone-depleting substances that may be present in the building, and ultimately eliminating the use and storage of these substances.

## Suggested Practices

Table 7.1 illustrates a plan for the reduction and elimination of ozone depleting substances:

<b>Table 7.1</b> Sample Ozone Depleting Substances (ODS) Reduction & Elimination Plan		
Equipment Data		
Equipment tag	Unit 1	Unit 2
Usage of equipment		
Date of initial installation		
Type of ODS originally used		
Type of ODS currently used		
Current quantity of ODS		
Reduction & Elimination Plan		
Date for completion of the engineering study on alternatives (schedule date of realization)		
Summary of actions taken		
Recommended capital budget		
Planned completion date		

The plan must inventory CFCs, HCFCs, halons and other substances used in refrigerants, fire-extinguishing systems and chemical products such as sterilants and solvents. The use of HCFCs such as refrigerant R-123 is acceptable under this program as an interim refrigerant until a viable substitute with zero ozone depletion potential becomes available.

## Documentation

The applicant organization should have the ODS Reduction & Elimination Plan available for review.

## Resources

The Government of Canada's regulations on halocarbons is available on their website:

<http://www.laws.justice.gc.ca/en/C-15.31/SOR-99-255/>

The Government of Canada has issued proposed new regulations on halocarbon use:

<http://canadagazette.gc.ca/part1/2002/20021207/html/regle-e.html#reg1>

The United States Environmental Protection Agency lists designated Class I (CFCs and halons) and Class II (HCFCs) substances on their website:

<http://www.epa.gov/cpg/products.htm>

British Columbia's Ministry of Water, Land and Air Protection has a stratosphere ozone depletion web site that includes BC's Ozone-Depleting Substances Regulation:

<http://wlapwww.gov.bc.ca/air/ozone/#regulation>

## Tips

It is vital to keep up-to-date on the issue of refrigerants. These receive particular attention given the impact not only on ozone protection but also on the greenhouse effect. The Kyoto Protocol is vague on the issue of refrigerants that will undoubtedly be reviewed in the future.

The most commonly used refrigerants for large building air conditioning applications, HFC-134a and HCFC-123, are allowed or approved for use by Environment Canada. HFC-134a can achieve high-energy efficiency and is ozone-safe, although refrigerant emissions are relatively potent greenhouse gases. HCFC-123 can achieve high-energy efficiency and is not a greenhouse gas, but does have an ozone-depleting potential, albeit low. Energy efficiency is the main environmental consideration in the selection of a chiller as long as equipment is carefully maintained and refrigerant emissions are kept near zero.

# Standard 8: Indoor Air Quality

## Minimum Requirements

Building management must have a documented procedure to ensure good indoor air quality for its occupants, and must demonstrate conformity to current municipal regulations as well as issues relating to workplace quality for commercial and public buildings.

## Suggested Practices

Table 8.1 illustrates a sample indoor air quality complaint form, and Table 8.2 suggests a sample incident log:

<p><b>Table 8.1 :</b> Sample Indoor Air Quality Complaint Form</p> <p>Occupant name:</p> <p>Date of complaint:</p> <p>Company and department:</p> <p>Location in building:</p> <p>Form completed by:</p> <p>Telephone number:</p> <p>Description of complaint:</p> <p>Probable cause:</p> <p>Please return this form to XYZ</p>
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<p><b>Table 8.2 :</b> Sample Incident Log</p> <p>Incident number:</p> <p>Incident date:</p> <p>Date complaint form received:</p> <p>Description of complaint:</p> <p>Actions taken:</p> <p>Start Date</p> <p>Interview with occupant</p> <p>Level of carbon dioxide measured</p> <p>Assessment of ventilation rate (if required)</p> <p>Inspection of ventilation system</p> <p>Sampling of airborne contaminants (if required)</p> <p>Report of corrective measures</p> <p>Occupant advised of corrective measures</p>
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## Documentation

The applicant should have the procedure to ensure air quality as well as the indoor air quality complaint form and a copy of the incident log available for review.

## Resources

Provincial and Municipal regulations on issues of ventilation and indoor air quality.

ASHRAE 62-1999 and ASHRAE 55-199 air quality standards: <http://www.ashrae.org/>

Practical guide for maintaining good indoor air quality, AQME 2004: [www.AQME.org/pros2003/amenu.asp](http://www.AQME.org/pros2003/amenu.asp)

ASP Construction, Parity Association for Health and Safety in Construction Work. Free membership for the newsletter "Prévenir Aussi": <http://www.asp-construction.org>

## Tips

The building manager should develop standards and specifications for controlling indoor air quality during construction activities. For example: increasing the rate of ventilation both during the work and after, to eliminate noxious fumes emitted by construction materials (glue, paint, carpeting, new furnishings, etc.).

Remedial procedures for water damage are also suggested to reduce the risk of moulds.

The control of indoor air quality should take an integrated approach, involving service technicians, building operators, consulting professionals and tenants. Service technicians and systems operators should receive specialized training on maintaining good indoor air quality.

An indoor air quality reference base with measurements of key indicators should be determined and can be used for comparison purposes should complaints regarding air quality arise. Statistics should be recorded on a regular basis for future reference on the following:

- Ventilation systems (volume, condition of the filters, temperature distribution, percentage of relative humidity, etc.);
- In specific reference sites (volume of air in diffusers, ambient temperature, percentage of relative humidity). Record the level of CO<sub>2</sub> taking into account the time and the number of occupants in the specific area.
- Ensure diffusers and air supply grilles are functioning correctly. As well, ensure that periodic cleaning is included in the janitorial tasks.
- Ensure that janitorial services use low-emission, environmentally friendly cleaning agents. Janitorial carts, which often contain many products, should be stored in areas that are ventilated with an air release system (toilet or others) whenever possible.
- It is equally important to promote the use of materials with little or no COV emissions during renovations.

# Standard 9: HVAC Maintenance

## Minimum Requirements

Building management must have a heating, ventilation and air conditioning (HVAC) preventative maintenance program in place.

## Suggested Practices

A preventative maintenance program should include both review and corrective actions, particularly those relating to indoor air quality. Therefore, it is important to ensure there are no cooling towers, trash compactors, exhaust for contaminated air, layers of stagnant water, parking zones for receiving merchandise, or any other source of pollution close to the air entrance. The program should also include the following points:

1. **Every five years:**
    - a. Measure the total quantity of outdoor air minimum damper position compared to total occupant requirements, based on ASHRAE (American Society of Heating, Refrigerating and Air-Conditioning Engineers) standards.
    - b. Measure the total air volume that each system should deliver and verify the functioning and calibration of each of its elements:
      - Measurements (temperature, humidity, CO<sub>2</sub>, pressure, etc.);
      - Automatic valves (maximum opening, air tightness);
      - Dampers (maximum opening, air tightness).
  2. **Annually:**
    - a. Air intakes: Verify there are no obstructions, bird droppings, dead insects, obstructed drains or dried or stagnant water.
    - b. Upon calibration of the ventilation system, ensure that the outdoor air damper supplies good quality air at a minimal setting.
    - c. Coil drain pans: Verify cleanliness, presence of microbial growth and proper drainage.
  3. **Every six months:**
    - a. Verify that floor and equipment drain traps are properly sealed in all areas of the building, including mechanical rooms and ventilation systems.
    - b. Measure the CO<sub>2</sub> air quality in select occupied areas of the building and record the time and statistics in the reports.
  4. **Every three months:**
    - Verify the operation of outdoor air dampers.
  5. **Monthly:**
    - a. Verify the cleanliness of the air filters
    - b. Verify the presence of stagnant water in air handling units, especially in the cooling coils.
- d. Variable air valve system: Ensure that at all times during occupancy minimum quantities of fresh air are supplied.

Cleanliness of the air ducts: Ensure that the walls, floors and ceilings of all internal ventilation system compartments are free of dust, stagnant water, or others (it is recommended that walls, floors and ceilings be washed with bleach and water).

Ensure that that heating coils, of cooling and recovery of heat are clean and that each differential of pressure is inside the specifications of the system (if the fall of pressure are higher, it is necessary to carry out their cleaning, if not the total flow of the system will be affected).Duct insulation liner: Cleanliness, adhesion and coating.
  - h. Ceiling plenum: Verify cleanliness, if used as a return air plenum.
  - i. Controls: Ensure continuous fan operation during occupancy and verify calibration of control devices.
  - j. Fire dampers: Verify that they are in an open position.
  - k. Boiler air combustion: Verify that conduits are clear and sized according to building code requirements.
  - l. Boilers: Verify the efficiency of combustion and the calibration of control devices.
  - m. Cooling towers: Verify the proper functioning of water treatment devices.

## **Documentation**

The applicant's organization should have maintenance records (verification lists and logs) with relevant indoor air quality aspects available for review.

## **Resources**

NADCA standards for maintenance of ventilation systems:  
[www.nadca.com](http://www.nadca.com)

ASHRAE Standard 62: [www.ashrae.org/](http://www.ashrae.org/)

Practical maintenance guide for good indoor air quality  
(2004 Edition):  
<http://www.AQME.org/pros2003/amenu.asp>

# Standard 10: Communication Program

## Minimum Requirements

Building management must have established a basic system for communicating with occupants on environmental issues specific to the building.

## Suggested Practices

The key aspects of effective communication plan are to be frequent, accurate, comprehensive and inclusive. Building managers and occupants must work together and communicate frequently in order to achieve environmental goals. The more comprehensive the information provided, and the broader the audience included, the better the chance that change will occur.

Possible communication techniques include the following:

1. **For initial environmental program development:**
  - a. Create a management / tenant task force
  - b. Nominate a dynamic and motivated team leader
2. **For program launch stage:**
  - a. Send a letter to each tenant announcing the launch of the program
  - b. Organize tenant meetings
  - c. Organize information sessions to explain the benefits of a green operation for the tenants and for environment
3. **For relaying building management's activities and results:**
  - a. Post and/or distribute notices of audit results, new programs and new policies
  - b. Send the same information by electronic mail
  - c. Create a building web site
4. **For new tenants/occupants:**
  - a. Modify the lease agreement
  - b. Create a continuing education program for tenants
  - c. Prepare a tenant handbook
5. **By means of an internal quarterly building communiqué, inform tenants of all the activities closely or distantly related to the development of an environmental program, the results, the news, accomplishments and suggestions for over the year.**

## Documentation

The applicant should have evidence of past and current communication practices.

## Resources

BOMA International has a publication entitled, "BOMA's Do It Yourself Guide to Producing a Tenant Handbook", which is available at the top of page 5 of the 2004 catalogue at <http://www.boma.org/ProductsAndResearch/PropertyManagement/BOMADoItYourselfGuideToProducingATenantHandbook.htm>

Office of Energy Efficiency: [www.oeenrcan.gc.ca](http://www.oeenrcan.gc.ca)

## Use of Resources

- Reduction in waste and recycling
- Certificate of Achievement
- Construction Materials
- This award certifies that
- Name of Building
- Interior Environment
- Building Address