

BOMA BEST Version 2 Content:

BEST Practices



INTRODUCTION

PURPOSE

The purpose of this portion of the BOMA BEST Version 2 Application Guide is to identify the BEST Practices and provide additional guidance on meeting requirements for on-site verification.

FORMAT

The 14 BEST Practices will be presented by section: question with tip language, and an outline of required information to meet each BEST Practice.

ABOUT THE BEST PRACTICES

BOMA BEST Practices serve as the foundation of the BOMA BEST program. Originally ten questions (now 14), the BEST Practices originated with BOMA BC and are meant to establish the industry standard for good building management practices.

The BEST Practices are divided into six (6) sections – the key areas of energy and environmental assessment at the centre of the BOMA BEST program: **Energy**; **Water**; **Waste Diversion & Site**; **Emissions & Effluents**; **Indoor Environment**; and **Environmental Management System**.

All buildings undergoing the BOMA BEST assessment must first complete and meet the BEST Practices. Applicants are provided with the BEST Practices form prior to continuing to the full assessment survey. The BEST Practices are meant to be applicable to all buildings types, even those that fall outside of the scope of the specific building assessments for **Office**, **Shopping Centres**, **Light Industrial**, **Open Air Retail**, and **Multi-Unit Residential Buildings**.

BOMA BEST VERSION 2

Minor changes have been implemented to the BEST Practices component of BOMA BEST Version 2; contact your local BOMA Association with questions or comments you may have.

BEST PRACTICES: ENERGY

ENERGY

Q.1 Has the building had an energy assessment within the past three years that included recommendations with costs, savings and a payback period?

Tip: This is a prerequisite to achieve BOMA BEST certification. A minimum of an ASHRAE Level 1 Walk-through audit or equivalency is required that includes:

- Utility billing analysis with benchmarking observations;
- Summary of major equipment and type of lighting systems in the buildings; and
- List of potential energy conservation opportunities, estimated savings, and simple payback based on walk-through audit of the facility.

The assessment report must identify low-cost improvements and potential capital improvements as well as red flag issues for a future more-detailed audit. In particular situations, where the building meets criteria set out in the BOMA BEST Application Guide for an acceptable equivalent, mark “A BOMA-accepted equivalent”. Buildings that have been *occupied* for less than 2 (two) years may utilize an energy study report that was prepared during the design of the building in lieu of a post-construction energy audit report. This report must have shown simulated energy consumption for different design scenarios, and identify which options were chosen for the actual construction. Applicants must be able to demonstrate that these energy-reduction features were incorporated in the building.

Please see the BOMA BEST Application Guide (Revised July 2013) for more details.

Q.2 Is there a building-specific Energy Management (reduction) Plan to address issues raised in the energy assessment?

Tip: This is a prerequisite to achieve BOMA BEST certification. The Energy Management Plan should identify and document measures to improve building energy efficiency and reduce demand. These measures should be based on a clearly identified energy performance target, identified through the energy assessment or by the operational staff. The Plan should show allocated resources along with estimated payback, and implementation timelines for specific energy efficiency improvements. These energy projects must be building-specific and must address issues highlighted in the most recent energy assessment.

In situations where the building meets criteria set out in the BOMA BEST Application Guide for an acceptable equivalent, mark “BOMA-accepted equivalent”.

Q.3 Is there a preventive maintenance program for the HVAC (heating, ventilating, air-conditioning)?

Tip: This is a prerequisite for BOMA BEST. Preventive maintenance differs from regular maintenance in that it takes into account that certain systems components require overhauling or replacement after a certain age or at certain intervals or due to certain specific causes. The preventive maintenance program should include both review and corrective actions to be done monthly, quarterly, semi-annually, yearly and at five-year intervals.

Q1. ENERGY ASSESSMENT

An energy assessment report must be presented for on-site verification. Requirements are outlined in the tip language and must include the following information:

1. Owner/manager information;
2. Building name and address;
3. Building description;
4. Energy assessment (walk-through, analysis);
5. Utility billing analysis with benchmarking observations (e.g. a comparison of building performance indices such as MJ/m²/yr or kWh/ft²/yr for each energy source);
6. Summary of major equipment and type of lighting systems in the building; and
7. List of potential energy conservation opportunities, estimated savings, and simple payback based on walk-through audit of the facility.

IMPORTANT NOTES:

- I. The Energy Assessment may be completed by 'in-house' technical staff or by a third party consultant (e.g. professional engineer or other appropriate energy consultant).
- II. Assessments are evaluated based on meeting the requirements outlined in the question tip language. Energy assessments **MUST BE DATED** and **SIGNED** by the person responsible for conducting the work.
 - ❖ BOMA BEST verifiers will look for signature and date. An Energy Assessment must have been conducted within the last three (3) years of the **date the BOMA BEST verification assessment was conducted.**

BOMA-ACCEPTED EQUIVALENTS

1. Energy Study Report

Buildings that have been occupied for less than two (2) years may utilize an energy study report that was prepared during the design of the building in lieu of a post-construction energy audit report. This report must have shown simulated energy consumption for different design scenarios, and identify which options were chosen for the actual construction. Applicants must be able to demonstrate that these energy-reduction features were incorporated in the building.

2. Energy Communications Plan

Where 75% or more of the building's energy is purchased directly by tenants (e.g. most Light Industrial and Open Air Retail buildings), applicants may prepare an Energy Communication Plan in lieu of an Energy Study Report.

This communication plan must document means of encouraging energy conservation initiatives by occupants. For example, the communication plan may include the following offerings by the landlord/management company:

- ❖ Providing walk through energy audit or assessment services.
- ❖ Delivery of “energy conservation tips” brochures to occupants.
- ❖ Energy conservation seminars for tenants / occupants.
- ❖ Other communication tools: posters, “turn it off stickers”, etc.

Evidence of implementation may include the following:

- ❖ Agendas and notes from tenant-building management meetings.
- ❖ Copies of marketing materials used to promote energy conservation within the building.
- ❖ Copies of communication to tenants/occupants regarding energy conservation.
- ❖ Copies of energy assessments or audits performed in tenant spaces.

IMPORTANT NOTES:

- I. Applicants must make available the communication plan and evidence of its implementation to the verifier, as part of the on-site tour.

Q2. ENERGY MANAGEMENT PLAN

The Energy Management Plan should identify and document building-specific measures to improve energy efficiency and reduce demand. These measures should be based on a clearly identified performance target (using quantifiable performance indicators), identified through the energy audit or the operational staff.

All actions must be evaluated for their technical feasibility and expected results (estimated energy savings and pre-feasibility study) as well as financial feasibility (through an economic cost/benefit analysis such as simple payback or ROI). These actions must be integrated into a timeline.

A documented plan for implementing energy conservation strategies is illustrated in the table below as an example of minimum requirements. A more detailed table is strongly encouraged, especially one which allows for continuous energy tracking.

Energy Management Plan – Sample Form

No.	Proposed Measure	Budget	Fiscal Year(s)	Expected Return on Investment (Payback)	Responsible Person(s)
1	Day time cleaning (reduces lighting requirements at night)	\$ --.00	2013	4 years	Joe Smith
2	Re-commissioning feasibility study	\$ --.00	2013 - 2014	18 months	Jane Smith

These practices are clearly stated as minimal best practices according to the *2011 ASHRAE Handbook HVAC applications* (chapter 36; chapter 41). If the energy reduction plan is done through an ESCO project, energy savings should be measured according to EVO Standards (Efficiency Valuation Organization) and *ASHRAE guideline 14-2002 Measurement of energy and demand savings*.

BOMA ACCEPTED-EQUIVALENT

Buildings that have been occupied for less than two (2) years can meet this BEST Practice by demonstrating that an Energy Commissioning Plan has been put into place. The intent of this BOMA-accepted equivalent is to ensure that the building's major systems and equipment are being optimized/fine-tuned for specific seasonal requirements, occupancy variability, etc.

The Energy Commissioning Plan must clearly demonstrate that the following actions have been considered and implemented in the previous twelve (12) months – as per *2011 ASHRAE Handbook HVAC applications* (chapter 36; chapter 41):

1. An energy measurement or assessment plan for major operating systems and equipment AND an energy bill evaluation and follow up plan;
2. If a deficiency report has been generated (from the construction process) in regards to building systems, plans to addresses these deficiencies must be included in the Energy Commissioning Report.
3. A person identified as responsible for the building energy performance;
4. Training for operations staff on performing the above.

IMPORTANT NOTES:

- The Energy Commissioning Plan may be created and implemented by an “in-house” operational staff or by a third party consultant (e.g. professional engineer or other appropriate energy consultant).
- The energy measurement or assessment plan for major systems and equipment shall include all operating systems and equipment that represent the greatest proportion of energy consumption in the building (e.g. heating system; cooling system, etc).
- It is not always possible to assess the operations of major operating systems and equipment through the ongoing review of energy bills. Other methods of assessment include: tenant satisfaction surveys, control sequence review, etc.
- The Energy Commissioning Plan must specifically identify the individuals responsible for the energy measurement of major operating systems and equipment, as well as those individuals responsible for energy bill review.

One person must be identified as being responsible for the overall energy commissioning plan.

Q.3 PREVENTATIVE MAINTENANCE PROGRAM

Preventive maintenance differs from regular maintenance in that it takes into account that certain systems components require overhauling or replacement at or after a certain age, at certain intervals, or due to specific issues/causes. The Preventive Maintenance Program should include both a review and corrective actions to be done monthly, quarterly, semi-annually, yearly and at five-year intervals.

The following is a list of required review and corrective actions that must be included as part of the Preventive Maintenance Program:

Every Five Years:

Total quantity of outdoor air measured at minimum damper position, compared to total occupant requirements, based on published standards such as ASHRAE.

Annually:

Outdoor air intakes – obstructions, bird droppings, standing water, proximity to cooling towers, trash compactors, exhausts and other pollutant sources.

Minimum outdoor air damper setting.

Coil drain pans – cleanliness, presence of microbial growth, proper draining.

Minimum VAV box settings.

Duct and terminal coil cleanliness.

Duct insulation liner – cleanliness, adhesion, coating.

Ceiling plenum cleanliness (if used as a return air plenum).

Controls – ensuring continuous fan operation during occupancy, and correct positioning of dampers and VAV box valves.

Fire dampers – open.

Boiler combustion air – clear; sized per code requirement.

Cooling towers – water treatment functioning as intended.

Semi-annually:

Floor and equipment drain traps – properly sealed.

Air quality measurements in select occupied areas of the building.

Quarterly:

Operation of outdoor damper actuators.

Monthly:

Air filter loading.

Standing water in air handling units (esp. cooling coils).

Air handling unit interior cleanliness.

It is suggested that HVAC systems be re-commissioned every five years.

BEST PRACTICES: WATER

WATER

Q.4 Is there a written policy intended to minimize water use, and encourage water conservation?

Tip: This is a prerequisite to achieve BOMA BEST certification. A water conservation policy should express a commitment to reduce demand for water and to establish goals and strategies to reduce water consumption.

Q.5 Has a water assessment been done within the last three years?

Tip: This is a prerequisite to achieve BOMA BEST certification. The water assessment report must include:

- Water billing analysis with benchmarking observations;
- Summary of major water-consuming systems in the buildings; and
- List of potential water conservation opportunities including maintenance procedures and water-using equipment that should be upgraded, estimated savings and simple payback.

The water assessment report may be incorporated into the energy assessment report.

In particular situations, where the building meets criteria set out in the BOMA BEST Application Guide for an acceptable equivalent, mark "A BOMA-accepted equivalent". Buildings that have been *occupied* for less than five (5) years may utilize a water study report that was prepared during the design of the building in lieu of a post-construction water audit report. This report must have shown simulated water consumption for different design scenarios, and identify which options were chosen for the actual construction. Applicants must be able to demonstrate that these water reduction features were incorporated in the building. Mark "Not Applicable" if the building is less than five (5) years old.

Q.4 WATER CONSERVATION POLICY

A water conservation policy should express a commitment to reduce demand for water and to establish goals and strategies to reduce water consumption.

The water conservation policy may be a national, corporate policy for all buildings managed by a single company. However, to meet this BEST Practice, building management must demonstrate its awareness of the policy, and is implementing specific measures in accordance with its strategic guidance.

IMPORTANT NOTES:

- I. For on-site verification applicants must make available:
 - ❖ A copy of the required policy;
 - ❖ Examples of how the policy is being implemented on-site by property management; and
 - ❖ Documents demonstrating the policy's implementation must be dated.
- II. Policy should be an official document on a company's website (internal and/or external); and/or printed on company's letterhead with appropriate management signature.

Q.5 WATER ASSESSMENT

A Water Assessment report must be presented for on-site verification. Requirements are outlined in the tip language (noted in the BESt Practice questions table) and must include the following information:

1. Owner/manager information;
2. Building name and address;
3. Building description;
4. Date of water assessment (walk-through, analysis);
5. Water billing analysis with benchmarking observations;
6. Summary of major water-consuming systems in the buildings;
7. List of potential water conservation opportunities including maintenance procedures and water-using equipment that should be upgraded, estimated savings and simple payback; and
8. An assessment should provide recommendations for maintenance procedures that may need to be revised, and identify water-using equipment that should be upgraded. It is 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 a whole, as well as sub-meters for tenant spaces, especially for large water users such as restaurants, gyms, and so on.

IMPORTANT NOTES:

- I. The Water Assessment may be completed by 'in-house' technical staff or by a third party consultant (e.g. professional engineer or other appropriate energy/water consultant).
- II. Assessments are evaluated based on meeting the requirements outlined in the tip language and by date. Water assessments MUST BE DATED and SIGNED by the person responsible for conducting the work.
 - ❖ BOMA BEST verifiers will look for signature and date. A Water Assessment must have been conducted within the last three (3) years of the **date the assessment was conducted**.
- III. The Water Assessment report may be combined with the Energy Assessment report.

BOMA-ACCEPTED EQUIVALENTS

1. Water Study Report

Buildings that have been occupied for less than five (5) years may utilize a Water Study report that was prepared during the design of the building in lieu of a post-construction energy audit report. This report must have shown simulated water consumption for different design scenarios, and identify which options were chosen for the actual construction. Applicants must be able to demonstrate that these water-reduction features were incorporated in the building.

2. Water Communications Plan

Where 75% or more of the building's water is purchased directly by tenants (e.g. most Light Industrial and Open Air Retail buildings), applicants may prepare a Water Communication Plan in lieu of a Water Assessment report.

This communication plan must document means of encouraging water conservation initiatives by occupants. For example, the communication plan may include the following offerings by the landlord/management company:

- ❖ Providing walk through water audit or assessment services of tenant spaces.
- ❖ Delivery of "water conservation tips" brochures to occupants.
- ❖ Water conservation seminars for tenants/occupants.
- ❖ Other communication tools: posters, "shut-it-off stickers", etc.

Evidence of implementation may include the following:

- ❖ Agendas and notes from tenant-management team meetings.
- ❖ Copies of marketing materials used to promote water conservation measures.
- ❖ Copies of communication to tenants/occupants regarding water conservation tips/opportunities.
- ❖ Copies of water use assessments or audits done in tenant spaces.

IMPORTANT NOTES:

- I. Applicants must make available the communication plan and evidence of its implementation for review to the verifier, as part of the on-site tour.
- II. Note that if a building's age is less than five (5) years old – mark question "Not Applicable".

BEST PRACTICES: WASTE REDUCTION

WASTE REDUCTION	<p>Q.6 Is there a waste diversion program that incorporates the recycling of materials such as: paper & cardboard; bottles and cans; food waste; and plastics for occupants, visitors and operations at the site, to the extent that local infrastructure is available to accommodate these materials?</p>
	<p>Tip: This is a prerequisite to achieve BOMA BEST certification. The property must have an active recycling program. A BOMA-accepted equivalent may suffice in particular situations as per the conditions and criteria set out in the BOMA BEST Application Guide.</p>
	<p>Q.7 Is there a written policy intended to minimize construction waste being sent to landfill?</p>
	<p>Tip: This is a prerequisite to achieve BOMA BEST certification. Construction and demolition waste - which accounts for about 30% of Canada's landfill - can be reduced by implementing a source separation and recycling program on-site. The program should meet the minimal requirements of the jurisdiction (e.g. 3R Code of Practice). The waste specifications should address recycling of corrugated cardboard, metals, concrete blocks, clean dimensional wood, plastic, glass, gypsum board and carpet.</p>

Q.6 WASTE DIVERSION PROGRAM

To meet this sixth BEST Practice, applicants must implement a waste diversion program that aims to reduce total volume of waste generated, and divert as much volume of materials from landfill as possible. Waste minimization and diversion is done through a reuse and recycling program available on-site to all building occupants.

Waste diversion programs should strive to achieve high diversion rates of standard fibre and container streams, as well as hazardous materials such as toner cartridges, fluorescent lamps and electronic equipment. Composting of organic material, either on site or through an off-site contractor, should also be included in this program, where possible.

BOMA-ACCEPTED EQUIVALENTS

1. Tenant Coordinated Waste Diversion

Where tenants are directly managing their own waste removal (typically applicable for Light Industrial and Open Air Retail properties), the building applicant must confirm tenant(s)' waste diversion efforts.

In the absence of tenant material recycling/reuse, the applicant must demonstrate it has made an effort to provide recycling facilities.

- ❖ For example, in retail plazas, each individual tenant (retail unit) may produce a small volume of recyclables; the property manager may provide a common recycling area for tenants as a value-added service (and to make recycling more cost-effective).

2. Lack of Recycling Facilities

Where recycling facilities may not be available, the applicant must provide a confirmation letter from the local municipality, provincial government, or other appropriate body as evidence. Where recycling facilities are available but the local municipality does not collect recyclables, the applicant must demonstrate that reasonable efforts to contract a commercial hauler were made.

Q.7 CONSTRUCTION WASTE POLICY

The construction waste policy must clearly identify the applicant's commitment to reducing construction and demolition waste from being sent to landfill. The Policy should meet the minimal requirements of the jurisdiction (e.g. 3R Code of Practice) by implementing a source separation and recycling program on-site. The waste specifications should address recycling of corrugated cardboard, metals, concrete blocks, clean dimensional wood, plastic, glass, gypsum board and carpet.

The Construction Waste Policy may be a national, corporate policy for all buildings managed by a single company. However, to meet this BEST Practice, building management must demonstrate awareness of the policy and show that it is implementing specific measures in accordance with its strategic guidance.

IMPORTANT NOTES:

- I. For on-site verification, applicants must make available:
 - ❖ A copy of the required policy;
 - ❖ Sample specification must be made available for review and specification may include:
 - Documentation of a recent renovation contract that specifies materials for reuse, resale and diversion.
 - Tenant design guidelines that specify materials for reuse, resale and diversion.
 - Corporate or on-site program specifications for the diversion of demolition, construction and renovation materials.
 - ❖ Examples of how the Policy is being implemented on-site by property management; and
 - ❖ Documents demonstrating the Policy's implementation must be dated.
- II. The Policy should be an official document on a company's website (internal and/or external); and/or printed on company's letterhead with appropriate management.

BEST PRACTICES: EMISSIONS & EFFLUENTS

Q.8 Is there a documented management plan for Ozone Depleting Substances (ODS) that includes:

Tip: This is a prerequisite to achieve BOMA BEST certification. Maintenance of the refrigeration system can reduce operating costs by improving the chiller performance, avoiding costly repairs, and reducing the need for refrigerant replacement. If there are no ODS, mark “not applicable”.

i) Inventory of refrigerants and records?

Tip: Inventory should show the present ODS and records should show the historical quantities of ODS.

ii) Maintenance reports, loss reports, and leak test results?

iii) Operational staff training

Tip: Environmental awareness courses should include course content on “Refrigerant Control” or “CFC Handling” that has been developed by the Heating, Refrigeration and Air Conditioning Institute of Canada (HRAI) and Environment Canada. These courses are typically one day in length. When the maintenance of the equipment is outsourced, the contractor should provide evidence of meeting the staff training requirements.

iv) Periodic leak testing?

Q.9 Is there a phase-out plan for ozone-depleting refrigerants?

Tip: This is a prerequisite to achieve BOMA BEST certification. Until December 31, 2009, charging a chiller with CFCs following an overhaul was still allowed if the owner agreed to convert or replace the system within 12 months after it had been charged so that it no longer contained CFCs. Effective January 1, 2015, operating or allowing the operation of a chiller containing CFCs will be prohibited. If there are no ODS, mark “Not Applicable”.

Q.10 Has a hazardous building materials survey been completed and has an inventory of these materials been reviewed and updated (where applicable) within the last three years?

Tip: This is a prerequisite to achieve BOMA BEST certification. An inventory of hazardous material present at the facility should include both building related hazardous materials and use-related products and chemicals. The survey should indicate whether the following are present: asbestos-containing materials (e.g., insulation coverings, putties and caulking, older equipment), polychlorinated biphenyls (PCBs) (e.g., old fluorescent lighting ballasts), lead (e.g., lead paint, batteries), mercury (e.g., thermostats, lighting lamps) or pesticides. Surveys for hazardous materials are performed typically room by room, or by area. A comprehensive report should show the type of hazardous materials, the extent, quantities and condition and a list of recommended actions to meet regulatory requirements. Note if the hazardous survey was done at the time of acquisition and if *no* hazardous materials were found.

Q.11 Is there a Hazardous Products (hazardous chemicals) Management Plan?

Tip: This is a prerequisite to achieve BOMA BEST certification. A hazardous products management plan should indicate how controlled products are received at the facility, how they are to be used and safe disposal procedures. It should also include the provision of WHMIS sheets for all products identified in the inventory. Chemicals used in buildings that are classified as hazardous include oils, biocides, solvents, insecticides, pesticides and herbicides. They should be stored in rooms with proper ventilation, controlled temperatures, drain protection and adequate shelf space. Containers should be capped to avoid possible spills and fumes, properly labelled and kept in securely locked areas.

Q.8 MANAGEMENT PLAN FOR OZONE DEPLETING SUBSTANCES

Ozone Depleting Substances (ODS) may be found in buildings and include CFCs, HCFCs, halons and other substances used in refrigerants, fire extinguishing systems and chemicals (sterilizing agents and solvents).

Applicants must present a management plan for ODS that includes the following:

1. Inventory of refrigerants and records;
2. Maintenance reports, loss reports, and leak test results;
3. Operational staff training; and
4. Periodic leak testing.

Applicants may opt to implement the elements of their ODS management plan using either in-house staff or using third-party contractors. Personnel (in-house or third-party) performing any ODS related work must be appropriately trained to manage associated risks.

Q.9 PHASE-OUT OF OZONE DEPLETING REFRIGERANTS

Applicants must be able to provide an implementation plan that demonstrates a phase-out of ozone depleting refrigerants in accordance with *Canada's Strategy to Accelerate the Phase-Out of CFC and Halon Uses and to Dispose of the Surplus Stocks* (Phase-Out Strategy).

Federal regulations under the Canadian Environmental Protection Act (CEPA) - *Ozone-depleting Substances Regulations, 1998 (SOR/99-7)* – specify a complete phase-out of CFCs in all refrigeration and chillers by 2030. Canada's Phase-Out Strategy is part of the on-going process to fulfill Canada's commitment to protect the earth's ozone layer.

To learn more about the Phase-Out Strategy: download the official document at the following link: www.ccme.ca/assets/pdf/cfc_halons_dspslstrtg_e.pdf

IMPORTANT NOTES:

- I. Applicants must make reference to the Canadian federal regulation with regards to phasing out of all ODS by 2030.
 - ❖ For more information see Environment Canada's Ozone Depleting Substances webpage: <http://www.ec.gc.ca/ozone/default.asp?lang=En&n=D57A0006-1>.
- II. A plan to use HCFCs such as refrigerant R-123 is acceptable as an interim solution, until a viable substitute with zero ozone depletion potential becomes available.

Q.10 HAZARDOUS BUILDING MATERIALS SURVEY

An inventory of hazardous material present at the facility should include both building related hazardous materials and use-related products and chemicals. The survey should indicate whether the following are present:

- ❖ Asbestos-containing materials (e.g., insulation coverings, putties and caulking, older equipment);
- ❖ Polychlorinated biphenyls (PCBs) (e.g., old fluorescent lighting ballasts);
- ❖ Lead (e.g., lead paint, batteries);
- ❖ Mercury (e.g., thermostats, lighting lamps); and
- ❖ Pesticides.

A comprehensive report should show the type of hazardous materials, the extent, quantities and condition and a list of recommended actions to meet regulatory requirements.

IMPORTANT NOTE:

- I. If the hazardous survey was done at the time of acquisition and if no hazardous materials were found mark "Not Applicable".
 - ❖ Provide a copy of the hazardous survey conducted at time of acquisition.

Q.11 HAZARDOUS PRODUCTS MANAGEMENT PLAN

A Hazardous Products Management Plan should indicate how controlled products are received at the facility, how they are to be used and safe disposal procedures. It should also include the provision of Workplace Hazardous Materials Information System (WHMIS) sheets for all products identified in the inventory. Chemicals used in buildings that are classified as hazardous include oils, biocides, solvents, insecticides, pesticides and herbicides.

Hazardous products should be stored in rooms with proper ventilation, controlled temperatures, drain protection and adequate shelf space. Containers should be capped to avoid possible spills and fumes, properly labelled and kept in securely locked areas.

BEST PRACTICES: INDOOR ENVIRONMENT

INDOOR ENVIRONMENT

Q.12 Does building management have in place a documented means for addressing tenant/occupant concerns regarding indoor air quality (such as a complaint form and incident log)?

Tip: This is a prerequisite to achieve BOMA BEST certification. Building management must have in place a documented means for addressing tenant/occupant concerns regarding indoor air quality. Complaint logs can provide evidence of occupant dissatisfaction and its causes. Trends in complaint rates over time may indicate occupant reactions to changes in building operation. The incident log should provide fields to capture the following information:

- Incident log number; Form completed by [Date].
- Occupant Name; Company & Department; Location in Building.
- Date complaint was received; Description of Complaint; Suggested cause; Summary of problem.
- Actions completed; date of occupant interview.
- CO2 measurements; ventilation rate assessment (if required); ventilation system inspection; airborne contaminant sampling (if required).
- Remedial action report completed.
- Occupant advised of actions taken.

Q.12 INDOOR AIR QUALITY

1. To meet this BEST Practice follow the specific tip instructions specifying what an incident log for tenant/occupant indoor air quality concerns must capture.
2. Refer to occupational health and safety regulations that may be in effect in your jurisdiction.
3. It is suggested that the building manager develop standards and specifications for controlling indoor air quality during construction activities. Remedial procedures for water damage are also suggested to reduce the risk of molds.
4. It is recommended that an integrated approach to indoor air quality be implemented by involving service technicians, building operators, consulting professionals and tenants.

BEST PRACTICES: ENVIRONMENTAL MANAGEMENT SYSTEM

Q.13 Does building management have a written policy for the selection of building materials that attempts to reduce any potential negative impact on the environment?

Tip: This is a prerequisite to achieve BOMA BEST certification. The policy committing the organization to using low environmental impact building materials and equipment in its facilities should be part of the tenant construction guidelines or in an appendix to a lease where tenant improvement restrictions are mentioned. Examples of low impact building materials include materials with high recycled content or low off-gassing carpeting and furnishings. See section 5.6 Indoor Air Quality - Control of Pollutants at Source referring to the checklist of items to be discussed with architects etc. Consider the following criteria:

- Avoiding materials that will result in excessive scrap material because of sizing needs;
- Salvaging reusable materials during demolition;
- Selecting materials that have recycled content;
- Selecting renewable materials; and
- Selecting materials with low embodied energy and low maintenance requirements.

Management should be able to demonstrate that the policy is actually implemented and put into practice in projects.

Q.14 Has a documented Communications Work Plan been developed and/or updated for tenants/occupants regarding environmental initiatives and practices in the building within the past 12 months?

Tip: This is a prerequisite to achieve BOMA BEST certification. Building management must have in place a building-specific Communications Work Plan, which must include evidence of communication strategies, activities, responsibilities and timelines for implementation. Tenants should be provided with information, and should have a forum or hotline to discuss their environmental concerns and to coordinate their activities. The key aspects of effective communication are frequency, accuracy, comprehensiveness and inclusiveness. To ensure that building occupants work together with building owners to achieve environmental goals, there must be frequent communication. Please see the Application Guide (BEST Practices section) for details on the core components of a Communications Work Plan required by this BEST Practice.

Q.13 POLICY ON SELECTION OF BUILDING MATERIALS

The policy committing the organization to using low environmental impact building materials and equipment in its facilities should be part of the tenant construction guidelines or in an appendix to a lease where tenant improvement restrictions are mentioned.

Examples of low environmental impact building materials include materials with high recycled content and/or low off-gassing carpeting and furnishings.

Consider the following criteria:

- ❖ Avoiding materials that will result in excessive scrap material because of sizing needs.
- ❖ Salvaging reusable materials during demolition.
- ❖ Selecting materials that have recycled content.
- ❖ Selecting renewable materials.
- ❖ Selecting materials with low embodied energy and low maintenance requirements.

Management should be able to demonstrate that the policy is being implemented and put into practice in various projects.

IMPORTANT NOTES:

- I. For on-site verification applicants must make available:
 - ❖ A copy of the required policy;
 - ❖ Examples of how the policy is being implemented on-site by property management; and
 - ❖ Documents demonstrating policy's implementation must be dated.
- II. Policy should be an official document on a company's website (internal and/or external); and/or printed on company's letterhead with appropriate management.

Q.14 TENANT COMMUNICATIONS

Building management must have in place a Communications Work Plan for communicating with tenants/occupants on environmental issues specific to the building to comply with this BEST Practice.

The core components of this work plan include communication strategies, activities, responsibilities and timelines for implementation. Evidence of each of these components must be clear in the Communications Work Plan. The components of the Communications Work Plan must have been put into place in the last 12 months and evidence of this implementation must be available.

The core components include the following:

1. Communication strategies: clearly describe the communication strategies that will be used with tenants/occupants.

2. **Activities:** clearly describe the activities/events that will be communicated to tenants/occupants (ex: Earth Day event or energy awareness campaigns with “turn off your monitor” stickers).
3. **Responsibilities:** clearly describe who will be responsible for each aspect of the Communications Work Plan.
4. **Timeline for implementation:** clearly describe the timeline for implementation of all activities, events, and strategies put in place in the context of the Communications Work Plan.

The key aspects of effective communication are: **frequency, accuracy, comprehensiveness and inclusiveness**. To ensure that building occupants work together with building management to achieve environmental goals, regular communication must be executed.

A well-understood system for communicating with tenants/occupants on environmental issues specific to the building can include a combination of the following techniques (the table below should be used for guidance purposes only):

Possible Communications Techniques	Possible Implementation Ideas
Initial Environmental Program Development	<ul style="list-style-type: none"> • Create a Management-Tenant task force or Green Team. • Designate one or more of the Management Team to be the property’s Environmental Ambassador to lead the program. • Develop a calendar that highlights the year’s planned engagement opportunities with tenants or building occupants.
Initial Program Launch	<ul style="list-style-type: none"> • Send an announcement letter to each tenant. • Hold tenant meetings to educate them about the new environmental program. • Establish an awareness program explaining the benefits of green operation for the occupants and the environment. • Create new events or coincide events with existing environmental celebrations. Examples include: <ul style="list-style-type: none"> ○ Sweater Day in February ○ Earth Hour in March ○ Earth Day and Earth Week in April ○ Energy Conservation Week in May ○ Waste Reduction Week in October
Relaying Management's Activities and Results	<ul style="list-style-type: none"> • Post and/or distribute and/or e-mail notices of audit results, new environmental programs and policies, performance summaries (for building energy or water consumption).

	<ul style="list-style-type: none"> • Create a building website highlighting the environmental performance of the building. • Consider active and passive communications, as available, and discern their frequency. Examples include: <ul style="list-style-type: none"> ○ Newsletters ○ eNewsletters ○ Memos ○ Green Team Meetings ○ Lobby/Common Area Posters, Screens, etc. ○ Elevator Messaging (e.g. ENN) ○ Central Communications Board ○ Website ○ Social Media (e.g. Twitter, Facebook) ○ Tenant-Landlord Collaboration Opportunities (e.g. Natural Resource Canada Sustainability Initiatives-metering reporting)
<p>New Tenants/Occupants</p>	<ul style="list-style-type: none"> • Modify lease agreements to include green lease considerations. • Provide continuing education in environmental awareness. • Create a tenant handbook/manual which highlights environmental awareness. • Modify Tenant Fit Up Manual/Design Criteria to include green building considerations (e.g., low VOC paint, energy STAR appliances, etc).

Applicants must be able to provide copies of the environmental Communications Work Plan and samples of the material provided to tenants/occupants as part of the plan. If materials are provided by corporate head-office and are generic to be used nationally, the on-site building management is expected to demonstrate how the environmental communications plan and generic materials, if any, are specifically targeted to building tenants/occupants and integrated to address building-specific environmental issues.