BEST PRACTICES

FOR

HEALTH CARE

Introduction

BEST Practices represent minimum threshold requirements for all levels of certification.

Applicants are required to **upload** documentation to support **each BEST Practice** into the online assessment prior to requesting verification.

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Energy

1.3.2.1	Has the building conducted an energy assessment within the past five (5) years?
Tip:	This question is a BEST Practice and is required for all levels of certification. Documentation demonstrating this BEST Practice must be uploaded. 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 • 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 issues for a future more-detailed audit. The Accepted Equivalent is available for buildings where 75% or more of the building's energy is purchased directly by tenants or if the building has been occupied for fewer than two (2) years.

1.3.2.1 Energy Assessment

This question is a BEST Practice and is required for all levels of certification.

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.
   - Verifiers will look for signature and date. An Energy Assessment must have been conducted within the last five (5) years of the **date the verification was conducted.**

Accepted Equivalents

1. Energy Study Report

Buildings that have been occupied for fewer 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, 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.

1.3.3.1	Is there a building-specific Energy Management (reduction) Plan to address issues raised in the energy assessment?
Tip:	This question is a BEST Practice and is required for all levels of certification. Documentation demonstrating this BEST Practice must be uploaded. The Energy Management Plan must document building-specific measures to improve building energy efficiency and reduce demand based on the most recent energy assessment and targets. These measures should be based on a clearly identified energy performance target, identified through the energy assessment or by the operational staff. The Plan must show allocated resources, estimated payback, and implementation timelines for specific energy efficiency improvements. The Accepted Equivalent is available for buildings that have been occupied for fewer than two (2) years.

1.3.3.1 Energy Management Plan

This question is a BEST Practice and is required for all levels of certification.

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 mush 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	When	Expected Return	Responsible Person(s)
1	Day time cleaning	$ --.00	2017	4 years	Jean Paul Kim
2	Re-commissioning feasibility study	$ --.00	2018	18 months	Alexa Moreno

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.*

A comprehensive roadmap for developing and implementing an Energy Management Plan is available in the Energy Management Best Practices Guide – For Commercial and Institutional Buildings.

Accepted Equivalent

Buildings that have been occupied for fewer 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 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) regarding building systems, plans to address 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.

1.3.8.14	Is there a preventive maintenance program for the HVAC (heating, ventilating, and air-conditioning)?
Tip:	This question is a BEST Practice and is required for all levels of certification. Documentation demonstrating this BEST Practice must be uploaded. Preventive maintenance recognizes that certain systems and their components require scheduled periodic maintenance, as well as overhauling or replacement after a certain age, at certain intervals, or due to specific causes. The Preventive Maintenance Program is a systematic approach that outlines what equipment must be reviewed, the corrective action that must be taken and how frequently this must occur.

1.3.8.14 Preventative Maintenance Program

This question is a BEST Practice and is required for all levels of certification.

It is necessary to undertake preventative maintenance to maintain optimal performance of the building's mechanical, electrical, and ventilation systems and their components. The building systems require periodic maintenance throughout their life cycle in addition to the need for overhauling, or replacement, at a certain age or interval, or due to specific issues or causes. These must be outlined specifically in a Preventative Maintenance Program.

The Preventive Maintenance Program must include the methodology and record for all actions that are necessary to maintain the optimal functioning of the building' systems and their components. The required maintenance procedures will be unique to each property and the systems within these facilities. The Preventative Maintenance Program must contain the following:

1. An inventory of which system or component must be reviewed and the type of action that is required (e.g. by room or by equipment type);
2. Guidelines on how frequently these actions must be taken (e.g. monthly, quarterly, yearly, etc.). These guidelines should be based on standards such as manufacturer specifications, code requirements and industry best practices;
3. Documentation that these actions have been taken (e.g. via signature and date);
4. Confirmation that follow-up action has been taken when warranted; and
5. Record updates as new equipment is added or removed.

In addition to manual recording of this information many buildings may have online tracking software that outlines and tracks the Maintenance Program. These are acceptable if the software can monitor and track items 1-5, listed above.

The following is an example of a Preventative Maintenance Program. The items listed below constituted a sample only.

System	Component	Action Taken	Date Completed	Signature	Comments
Annually					
HVAC	Outdoor Air Intakes	Clear obstructions, bird droppings, standing water, proximity to cooling towers, trash compactors, exhausts and other pollutant sources.			

System	Component	Action Taken	Date Completed	Signature	Comments
HVAC	Ventilation	Minimum outdoor air damper setting.			
HVAC	VAV Box	Minimum VAV box settings.			
HVAC	Ventilation	Duct and terminal coil cleanliness.			
HVAC	Duct insulation liner	Check for cleanliness, adhesion, and coating.			
HVAC	Cooling towers	Water treatment functioning as intended.			
FIRE	Fire Systems	Open fire dampers.			
HVAC/ ELEC	Measurement Devices and Sensors	Calibration of sensors (temperature, humidity, pressure, occupancy, photocell etc.).			
ELEC.	Controls (digital, pneumatic)	Ensure the proper functioning of all controls systems.			
Semi-annually					
HVAC	Building Equipment	Floor and equipment drain traps – properly sealed.			
HVAC	HVAC	Air quality measurements in select occupied areas of the building.			
Quarterly					
ELEC	Controls (digital, pneumatic)	Operation of outdoor damper actuators.			
ELEC	Lighting	Ensure all emergency lighting is functioning properly.			
Monthly					
HVAC	Ventilation	Air filter loading.			
ELEC.	Lighting	Change lamps as required.			
ELEC.	Generator	Generator testing.			

Additional references: ASHRAE 62.1-2010 "The Standards for Ventilation and Indoor Air Quality".

Water

2.3.1	Is there a written policy intended to minimize water use, and encourage water conservation?
Tip:	This question is a BEST Practice and is required for all levels of certification. Documentation demonstrating this BEST Practice must be uploaded. A water conservation policy must express a commitment to reduce demand for water and to establish goals and strategies to reduce water consumption.

2.3.1 Water conservation Policy

This question is a BEST Practice and is required for all levels of certification.

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.

2.3.4	Has the building conducted a water assessment within the past five (5) years?
Tip:	This question is a BEST Practice and is required for all levels of certification. Documentation demonstrating this BEST Practice must be uploaded. The water assessment report must include: • Water billing analysis including cost and consumption history; • Water intensity benchmarks; • Water-using equipment inventory and end-use analysis; • List of potential water conservation measures including maintenance procedures and retrofit measures; • Estimated costs, savings and payback times for recommended measures. The water assessment report may be incorporated into the energy assessment report. The Accepted Equivalent is available for buildings where 75% or more of the building's energy is purchased directly by tenants or if the building has been occupied for fewer than two (2) years.

2.3.4 Water Assessment

This question is a BEST Practice and is required for all levels of certification.

A Water Assessment report must be reviewed by the verifier. Requirements are outlined in the tip language (noted in the BEST Practice questions table) and must include the following information:

Building Information

- Owner/manager information;
- Building name and address;
- Building description;
- Date of water assessment

Water Use Analysis

- Water billing analysis including cost and consumption history compiled from utility bills;
- Water intensity benchmarking which includes a calculation of annual water use divided by building area;
- Water-using equipment inventory and end-use analysis compared with consumption, such as:
    - Domestic water fixtures (faucets, toilets, urinals);
    - Water using appliances (dishwasher, washing machine etc.);
    - Cooling equipment including cooling towers, equipment "once-through" cooling and customized tenant cooling equipment;
    - Landscape irrigation equipment;
    - Water use for humidification equipment;
    - Water use from heating equipment (boiler blowdown, steam production and condensate management);
    - Any specialized equipment (including production use).

- Recommended Measures:
    - List of identified retrofit and operation and maintenance water conservation measures;
    - Estimated costs, savings and payback period of measures;
    - Explore sub-meter opportunities for large water-using tenants.

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 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.
    - Verifiers will look for signature and date. A Water Assessment must have been conducted within the last five (5) years of the **date the verification was conducted**.

III. The Water Assessment report may be combined with the Energy Assessment report.

Accepted Equivalents

1. Water-using equipment inventory

Buildings that have been occupied for fewer than two (2) years OR have buildings with no water meter may submit a Water-using Equipment Report which can be created with information contained in the building's Operation and Maintenance Manual, As Built Drawings and Commissioning Report.

The Water-using Equipment Report must include the following information:

Building Information

- Owner/manager information;
- Building name and address;
- Building description;
- Date of equipment inventory.

Water-using Equipment Information

- Inventory/survey of all water consuming equipment on facility premises and their locations throughout the building, such as:
    - Domestic water fixtures (faucets, toilets, urinals);
    - Water using appliances (dishwasher, washing machine etc.);
    - Cooling equipment including cooling towers, equipment "once-thru" cooling and customized tenant cooling equipment;
    - Landscape irrigation equipment;
    - Water use for humidification equipment;
    - Water use from heating equipment (boiler blowdown, steam production and condensate management);
    - Any specialized equipment (including production use).
- Baseline consumption of this equipment based on data from the building automation system and water sub-meters OR based on equipment performance estimates informed by manufacturer specifications PLUS an estimated calculation of the equipment's annual consumption, such as:
    - Sinks and faucets: aerator output multiplied by estimation of annual use;
    - Toilets and urinals: flush output multiplied by estimation of annual use;
    - Showerhead: output of the showerhead multiplied by estimation of annual use;

- Cooling towers: estimate make-up water required to compensate for losses due to evaporation, drift and splash-out, leaks and overflow, and bleed or blowdown.
    - Evaporation: Directly related to heat transfer and operational management. Assume approximately 1.8 GPH (centrifugal) or 3.7 GPH (absorption) per ton of cooling multiplied by the load percentage.
    - Bleed/blowdown: Losses represent a non-linear function of the concentration cycles (purity of make-up water over the purity of the recirculating water). Higher cycles mean fewer blowdowns are needed.
    - Drift and splash-out: Losses are not significant for well-maintained towers under normal conditions. Assume approximately 0.014 GPH per ton of cooling or about 0.008% of recirculating water.
    - Leaks and overflows: These are difficult to measure or estimate and losses are not significant in well-maintained towers. Visual inspection for leaks should be performed.
  - Irrigation system: output of the sprinklers multiplied by operating hours.

- Recommended Measures:
  - List of identified retrofit and operation and maintenance water conservation measures;
  - Estimated costs, savings and payback period of measures;
  - Establish water reduction target.
  - Explore feasibility of installing base building meter if not present
  - Explore sub-meter opportunities for the cooling tower make-up line.

2. Water Communications Plan

Where 75% or more of the building's water is purchased directly by tenants, 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.

Waste Reduction

3.1.1.1	Is there a waste diversion program that incorporates the recycling of materials such as: paper and 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?
Tip:	This question is a BEST Practice and is required for all levels of certification. Documentation demonstrating this BEST Practice must be uploaded. The property must have an active recycling program. The Accepted equivalent may suffice in particular situations.

3.1.1.1 Waste Diversion Program

This question is a BEST Practice and is required for all levels of certification.

To meet this 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.

Accepted Equivalents

1. Tenant Coordinated Waste Diversion

Where tenants are directly managing their own waste removal, the building applicant must confirm tenant(s)'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 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.

3.1.2.13	Is there a written policy intended to minimize construction waste being sent to landfill?
Tip:	This question is a BEST Practice and is required for all levels of certification. Documentation demonstrating this BEST Practice must be uploaded. Construction and demolition waste be reduced by implementing a source separation and recycling program on-site. The program must 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.

3.1.2.13 Construction Waste Policy

This question is a BEST Practice and is required for all levels of certification.

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.

Emissions and Effluents

4.2.2	Is there a documented management plan for Ozone Depleting Substances (ODS) that includes the following?
Tip:	This question is a BEST Practice and is required for all levels of certification. Documentation demonstrating this BEST Practice must be uploaded. 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 Air-Conditioning, Heating & Refrigeration Institute (AHRI), or equivalent. 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?

4.2.2 Management Plan for Ozone Depleting Substances

This question is a BEST Practice and is required for all levels of certification.

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.

4.2.2.5	Is there a phase-out plan for ozone-depleting refrigerants?
Tip:	This question is a BEST Practice and is required for all levels of certification. Documentation demonstrating this BEST Practice must be uploaded. In accordance with the Montreal Protocol on ozone depleting substances, 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 is prohibited. If there are no ODS, mark "Not Applicable".

This question is a BEST Practice and is required for all levels of certification.

4.4.1.1	Has a hazardous building materials survey and a use-related chemical inventory been completed within the last three years?
Tip:	This question is a BEST Practice and is required for all levels of certification. Documentation demonstrating this BEST Practice must be uploaded. A **Hazardous Materials Survey** should include only building-related hazardous materials and must indicate, at a minimum, whether the following four hazardous building materials are present in the building: Asbestos-containing materials (e.g., insulation coverings, putties and caulking, older equipment); Polychlorinated biphenyls (PCBs) (e.g., old fluorescent lighting ballasts, transformers); Lead (e.g., lead in paint); and Mercury (e.g., thermostats, lighting). The survey must indicate the type of hazardous materials present in the building, its location, the quantity, its condition, and a list of recommended actions to meet region-specific regulatory requirements with respect to maintenance, inspection, training and abatement. In addition, **a Hazardous Chemicals or Use-Related Products Inventory** must also be conducted and include pesticides, at a minimum. This Inventory must include a list of chemicals or use-related products brought into the building for use, handling and storage; location, Safety Data Sheets for each chemical or use-related product; approximate quantities; and a live index of the chemicals or use-related products including the chemical name and page reference for easy access to Safety Data Sheets (SDS) and other relevant information related to each chemical.

4.4.1.1 Hazardous Building Materials Survey and Hazardous Chemicals or Use-Related Products Inventory

This question is a BEST Practice and is required for all levels of certification.

1. **Hazardous Materials Survey**

A survey of hazardous building materials present at the facility should include only building-related hazardous materials. As a minimum requirement for meeting this BEST Practice, the hazardous materials survey must 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, transformers);
- Lead (e.g., lead in paint); or
- Mercury (e.g., thermostats, lighting).

Hazardous Materials Survey Requirement:

The survey for hazardous building materials are performed typically room by room, or by area. Samples may be required to confirm presence of hazardous building materials. All building owners or tenants must verify sampling requirements with the province specific regulation governing sampling methodology for hazardous building materials. A comprehensive survey should have the following information at a minimum for verification purposes:

- Type of hazardous materials present in the building;
- Location of the hazardous materials;
- The extent of the hazardous material within the building;
- The approximate quantity of hazardous material in each area;
- The condition or state of the hazardous material (i.e. poor, fair, good); and

- A list of recommended actions to meet province specific regulatory requirements with respect to maintenance, inspection, training and abatement.

The survey should be reviewed at least annually and updated as necessary.

IMPORTANTE NOTES:

I. If the hazardous materials survey was done at the time of acquisition and, if no other hazardous building materials were brought into the building, or found, and, if no changes in building materials have been implemented since the original survey, then a formal statement to this effect will be sufficient for verification purposes. The statement must clearly reference the previous hazardous materials survey and the policies that have been put in place to ensure that no additional hazardous materials have been brought into the building and that existing building materials have not been replaced.

II. Buildings with multiple tenants must have a Hazardous Building Materials Survey that includes all tenant spaces. Building owners are responsible for ensuring that the building in its entirety is represented in the Hazardous Building Materials Survey.

III. The following criteria applies to establish competency with respect to the person(s) or organization (internal or external to the building), that has completed the Hazardous Building Materials Survey:
    - Has a good working knowledge and understanding of the legislation surrounding hazardous materials (i.e. training certificates or educational background in hygiene, occupational health and safety, environmental engineering, building science or similar);
    - Has at least one year of work experience conducting hazardous building materials surveys; and
    - Has led the completion of at least five Hazardous Building Materials Surveys.

2. Hazardous Chemicals or Use-Related Products Inventory

Every building that uses hazardous chemicals or use-related products shall keep and maintain a record of the chemicals or use-related products in the work place that are used, handled, or stored in the building.

A use-related product is defined as anything that is brought into the building and can include a hazardous chemical. A hazardous chemical is defined as a dangerous good which could be a solid, liquid, or gas that can harm people, other living organisms, property, or the environment.

Hazardous Chemicals or Use-Related Products Inventory Requirement:

As a minimum requirement for meeting this BEST Practice, the Hazardous Chemicals or Use-Related Products Inventory must indicate whether pesticides are present. In addition, although not required in this BEST Practice, best management practices dictate that all other Hazardous Chemicals or Use-Related Products brought into or used in the building should also be included in this Inventory.

The hazardous chemical or use-related product inventory must include at a minimum the following information for verification purposes:

- A list of chemicals or use-related products brought into the building for use, handling and storage;
- The location where the chemical(s) or use-related products are used, handled and stored;
- Safety Data Sheets for each chemical or use-related product used, handled and stored;
- The approximate quantities of each chemical or use-related product stored on site; and
- A live index of the chemicals or use-related products including the chemical name and page reference for easy access to Safety Data Sheets (SDS) and other relevant information related to each chemical.

The inventory should be reviewed at least annually and updated as necessary.

IMPORTANTE NOTES:

I. A Safety Data Sheet (SDS), as required by this BEST Practice, is a document that contains information on the potential hazards (health, fire, reactivity and environmental) and how to work safely with the chemical product. It is an essential starting point for the development of a complete health and safety program. It also contains information on the use, storage, handling and emergency procedures related to the hazards of the material.

II. Tenants, as well as building owners, are required to have an up-to-date Hazardous Chemical or Use-Related Product Inventory. It is the responsibility of every tenant to provide the Building Owner with an up-to-date Use-Related Product Inventory records for Pesticides only (for the purposes of this BEST Practice). It is the responsibility of every Building Owner to provide the most up-to-date building operations Use-Related Product Inventory records for Pesticides only to verifiers. It is an industry best management practice for building owners to keep an up-to-date record of all tenant Hazardous Chemical or Use-Related Product Inventories; however, it is not necessary to meet this requirement.

III. There are no specific competency requirements for compiling a Hazardous Chemical or Use-Related Product Inventory however, the individual conducting the inventory must have good working knowledge and understanding of the applicable regulatory requirements, including at a minimum, the Globally Harmonized System of Classification and Labeling of Chemicals (GHS).

4.5.2.2	Is there a Hazardous Products (hazardous chemicals) Management Plan?
Tip:	This question is a BEST Practice and is required for all levels of certification. Documentation demonstrating this BEST Practice must be uploaded. 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 information sheets, consistent with the Globally Harmonized System of Classification and Labeling of Chemicals (GHS), Hazard Communication Standard (HCS), or Workplace Hazardous Materials Information System (WHMIS), for all products identified in the inventory. Chemicals used in buildings that are classified as hazardous include oils, biocides, solvents, insecticides, pesticides and herbicides. Biomedical waste (including cytotoxic waste) and pharmaceutical waste must also be included. 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.

4.5.2.2 Hazardous Products Management Plan

This question is a BEST Practice and is required for all levels of 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 labels in accordance with the Globally Harmonized System of Classification and Labeling of Chemicals (GHS) 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.

Indoor Environment

5.1.8.1	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 question is a BEST Practice and is required for all levels of certification. Documentation demonstrating this BEST Practice must be uploaded. Building management must have in place a documented means for addressing patient and staff 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 must 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 • CO_2 measurements; ventilation rate assessment (if required); ventilation system inspection; airborne contaminant sampling (if required) • Remedial action report completed • Occupant advised of actions taken

5.1.8.1 Indoor Air Quality

This question is a BEST Practice and is required for all levels of certification.

To meet this BEST Practice, follow the specific tip instructions specifying what an incident log for tenant/occupant indoor air quality concerns must capture.

- Refer to occupational health and safety regulations that may be in effect in your jurisdiction.
- 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.
- It is recommended that an integrated approach to indoor air quality be implemented by involving service technicians, building operators, consulting professionals and tenants.

Environmental Management Systems

6.2.5	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 question is a BEST Practice and is required for all levels of certification. Documentation demonstrating this BEST Practice must be uploaded. 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* in the questionnaire 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.

6.2.5 Policy on Selection of Building Materials

This question is a BEST Practice and is required for all levels of 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 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.

6.4.1.1	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 question is a BEST Practice and is required for all levels of certification. Documentation demonstrating this BEST Practice must be uploaded. 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.

6.4.1.1 Tenant Communications

This question is a BEST Practice and is required for all levels of certification.

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.

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.

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	• 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	• 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:
	  ○ 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	• 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).
	• Create a building website highlighting the environmental performance of the building.
	• Consider active and passive communications, as available, and discern their frequency. Examples include:
	  ○ Newsletters, eNewsletters, Memos
	  ○ Green Team Meetings
	  ○ Lobby/Common Area Posters, Screens or central Communications Board
	  ○ Elevator Messaging (e.g. ENN)
	  ○ Website and Social Media (e.g. Twitter, Facebook)
	  ○ Tenant-Landlord Collaboration Opportunities

New Tenants/Occupants	• 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.)