

*Bristol Community College*  
**Indoor Air Quality Management Plan**

*Revised January, 2009*

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## 1. INTRODUCTION

Providing a healthy, comfortable learning environment for students, employees and visitors is important to Bristol Community College. Indoor air quality (IAQ) is a critical component of providing a healthy and comfortable learning environment. BCC has implemented an IAQ Management Plan for our buildings. The objectives of the IAQ Management Plan are the following.

1. Reduce the levels of indoor air pollutants through preventive measures such as routine maintenance activities, periodic building evaluations and inspections, and IAQ-specific policies.
2. Provide and maintain adequate air exchanges by repairing and maintaining ventilation equipment, which will promote a comfortable and healthy learning and working environment.
3. Respond to IAQ related concerns and problems in a thorough and prompt manner, and to effectively communicate the progress of investigations and their resolution to all interested parties.

## 2. INDOOR AIR QUALITY COORDINATOR

The Vice President of Human Resources and Affirmative Action serves as the Indoor Air Quality Coordinator for the College.

## 3. INDOOR AIR QUALITY TEAM

An Indoor Air Quality Team is responsible for addressing Indoor Air Quality concerns. The IAQ Team assists the IAQ Coordinator in responding to IAQ concerns through the procedure outlined below.

The Indoor Air Quality Team is composed of the following individuals:

<u>Name</u>	<u>Position</u>
Steve Hines	Interim Executive Director of Human Resources
Steven Kenyon	VP Administration and Finance
Mark Carmody	Associate VP Administration
Carl Anctil	Director of Facilities
Joe DeSa	Director of Buildings and Grounds Operations
Jo Ann Bentley	Director of Design and Construction
Mark Nataly	Director of Public Safety and Preparedness

## 4. EVALUATION AND RESOLUTION OF IAQ ISSUES

***Resolving Problems reported to the IAQ Coordinator:***

Problems are reported to the IAQ Coordinator through the IAQ Complaint Form, located in Outlook Public Folders. The IAQ Coordinator documents all IAQ concerns, works with the IAQ Team to perform an investigation, and documents and communicates the resolution to all interested parties.

If the problem cannot be identified, or persists despite the College's efforts to identify and remediate it, the IAQ Coordinator discusses the matter with the appropriate school official(s) in order to determine whether a contracted service provider is needed.

Once the problem is successfully identified, the IAQ Coordinator decides whether an immediate response is necessary, communicates with the relevant parties, documents the action taken, and keeps copies of the documents.

## **5. COMMUNICATION POLICY**

Communication is critical to successfully resolving IAQ issues. The IAQ Coordinator, the IAQ Team and other College personnel seek to limit misinformation and confusion through the use of effective communication. The IAQ Coordinator and other College employees communicate with relevant parties in a prompt, courteous, and consistent manner until the issue is resolved to the greatest extent possible.

Every time a concern is addressed or resolved, the IAQ Coordinator reports the measures taken and the resolution of the identified concern to the appropriate parties. This will ensure that all interested parties know what action(s) have been taken.

In addition, the IAQ Team and Coordinator will inform students and staff about the IAQ Management Plan, how to view the Plan upon request, and how to obtain an IAQ Concern Reporting Form.

## **6. IAQ CONCERN REPORTING AND RESPONSE POLICY**

BCC encourages the prompt reporting of IAQ concerns, regardless of how trivial the issue may seem. The IAQ Coordinator will require the concerned staff, students, and visitors to report their IAQ concern in writing. A written description of the concern should reduce misunderstanding and create a history that can be referred to at a future date. The "IAQ Concern Reporting Form" is located in Outlook Public Folders. This form should be completed and sent to the IAQ Coordinator to initiate an official IAQ concern reporting process. The resolution of the issue will be documented and the interested parties will be informed in writing about the measures taken.

## **7. EMERGENCY RESPONSE POLICY**

Emergencies are defined as situations that require immediate action. This includes situations that are potentially life threatening, such as spills of hazardous materials.

It is up to the discretion of the school administrators to determine emergencies on a case-by-case basis, using the above definition as a general guideline only. If doubt exists about whether exposure to a specific hazard constitutes an emergency, a precautionary approach may be used where the matter is handled as an emergency. College officials will respond to emergencies immediately. If the problem cannot be resolved with in-house resources, external resources will be requested. If a hazard poses an immediate health threat to the students and staff, the affected building areas will be evacuated. All avenues of communication will be utilized to warn and inform interested parties in a prompt manner.

## **8. PREVENTIVE MAINTENANCE AND OPERATIONS POLICY**

Preventive maintenance means the routine inspection, adjustment, and repair of building structures and systems, including the heating, ventilating, and air conditioning system (HVAC), unit ventilators, local exhaust, fresh air intakes, and flooring. Preventive maintenance plays a major role in maintaining the quality of air, by assuring that the building systems are operating effectively and efficiently. Moreover, it helps to maintain a comfortable temperature and humidity in occupied spaces.

BCC facilities personnel perform preventive maintenance on a routine basis. The schedule was established using the past experience of maintenance professionals, the availability of financial resources, and technical guides, including the manufacturer's specifications.

To the extent possible, facilities personnel maintain the buildings according to the American Society of Heating, Refrigerating, and Air-Conditioning Engineers (ASHRAE) recommended comfort parameters described in standards 55-1992 and 66-1999. If the parameters cannot be met, the staff makes ventilation adjustments that provide a fresh air delivery, temperature, and humidity level that are as close to the ASHRAE parameters as possible.

## **9. CONSTRUCTION AND RENOVATION POLICY**

BCC considers indoor air quality when planning construction and renovation projects. To the extent possible, major renovations are performed when classes are not in session. If renovation projects must be performed while classes are in session, the return air from any area being renovated is isolated from the main ventilation system. Engineering controls are used to contain and minimize the distribution of dust and other contaminants produced by construction activities. Cleaning operations are more frequent during and after renovation.

## **10. MICROBIAL MANAGEMENT POLICY**

Microbials, such as fungi (for example, mold), bacteria, and viruses, are a significant cause of illness, health symptoms, and discomfort. Because the easiest way to control microbial growth is to control moisture, school staff emphasizes moisture control to manage microbial growth.

BCC facilities personnel pay close attention to water intrusion and microbial growth during the walkthrough inspections, buildings systems evaluations, and other efforts. Their supervisors are informed about damaged buildings systems and components that cause water leaks and water condensation. Facilities personnel are expected to make the necessary repairs and adjustments in a prompt manner. Materials damaged by water are replaced when possible. Materials that cannot be replaced and must be kept (this could include carpets, padding, ceiling tiles, sheet rock, and insulation) are dried as quickly as possible.

Materials contaminated with microbials are promptly cleaned or replaced. Remediation projects that cannot be handled by College staff are contracted to a private company.

## **11. CLEANING AND CHEMICALS POLICY**

Regular and thorough cleaning is an important means for the removal of air pollutant sources; however the use of cleaning products may also contribute to indoor air pollution. To ensure that cleaning practices remove pollutant sources while using cleaning products appropriately, cleaning guidelines have been created.

- Custodial staff is instructed to only use cleaning agents approved by the College. The containers are clearly labeled and stored in a secure area. Containers must be closed tight when stored.
- All material safety data sheets are stored in an area available to all staff
- Building rooms are maintained at reasonable cleanliness. Areas of frequent use are cleaned more often than areas of infrequent use.
- Ammonia based cleaning agents and chlorine-containing cleaners (such as bleach) are never to be mixed because this generates toxic gases.
- During routine operations, pollutant-releasing activities are restricted by time of day, week, or year. For example, waxing of floors will be performed on Friday afternoons or vacations, to ensure that most gases are removed by the time classes resume. If pollutant-releasing procedures must be performed during school session, the minimum amount of chemical and local exhaust is used when available.
- Large walk-off mats are used to trap dirt and moisture at building entrances. These mats are cleaned according to manufacturers' guidelines to ensure optimal performance. Trapping dirt and moisture at building entrances helps to maintain the cleanliness of floors and carpets throughout the building.

## **12. FLOORING AND FURNISHING POLICY**

Flooring can be a trap for allergens, and can be a source of potentially hazardous gases called “volatile organic compounds”, especially following installation. Carpets can be more difficult to properly maintain than hard flooring, and as a result carpets may accumulate more pollutants.

When performing building systems evaluations, walkthrough inspections, and reviewing concern reports, the possibility of the carpet acting as the primary source of pollutant is considered. If a persistent problem is associated with carpeting, it is replaced with hard flooring, unless there is a compelling reason to install a new carpet.

Furniture can also be a source of volatile organic compounds and trap allergens. The College Buyer must approve the purchase of furniture for College use.

### **13. OTHER IAQ-RELATED ENVIRONMENTAL POLICIES**

BCC has established the following environmental policies and programs to help improve and maintain the quality of air within our schools.

#### **Integrated Pest Management Program**

Integrated Pest Management (IPM) is utilized by BCC as an important strategy for maintaining good IAQ.

#### **Tobacco Ban**

BCC prohibits tobacco use inside all college facilities and vehicles.

#### **Animals in Buildings Policy**

Since animals can be a source of allergens, asthma triggers, and microorganisms that can cause infectious diseases, BCC has instituted an animal policy. Specific types of animals will be restricted if a concern is expressed by staff or students. The College reserves the right to ban certain animals if they pose a threat to the safety or comfort of staff and students.

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## Indoor Air Quality Complaint Form

This form can be filled out by the building occupant or by a member of the building staff.

Occupant Name: \_\_\_\_\_ Date: \_\_\_\_\_

Department/Location in Building: \_\_\_\_\_ Phone: \_\_\_\_\_

Completed by: \_\_\_\_\_ Title: \_\_\_\_\_ Phone: \_\_\_\_\_

This form should be used if your complaint may be related to indoor air quality. Indoor air quality problems include concerns with temperature control, ventilation, and air pollutants. Your observations can help to resolve the problem as quickly as possible. Please use the space below to describe the nature of the complaint and any potential causes.

We may need to contact you to discuss your complaint. What is the best time to reach you? \_\_\_\_\_

So that we can respond promptly, please return this form to:

Bristol Community College  
The Office of Human Resources  
D Building, Room 208a  
777 Elsbree Street  
Fall River, MA 02720

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OFFICE USE ONLY

Received By: \_\_\_\_\_ Date Received: \_\_\_\_\_



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## Occupant Interview

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Building Name: \_\_\_\_\_

Address: \_\_\_\_\_

Occupant Name: \_\_\_\_\_ Work Location: \_\_\_\_\_

Completed by: \_\_\_\_\_ Title: \_\_\_\_\_ Date: \_\_\_\_\_

Sections 4 discusses collecting and interpreting information from occupants.

### SYMPTOM PATTERNS

What kind of symptoms or discomfort are you experiencing?

Are you aware of other people with similar symptoms or concerns? Yes \_\_\_\_\_ No \_\_\_\_\_

If so, what are their names and locations? \_\_\_\_\_

Do you have any health conditions that may make you particularly susceptible to environmental problems?

- |   |   |  |
|---|---|--|
| <input type="checkbox"/> contact lenses | <input type="checkbox"/> chronic cardiovascular disease | <input type="checkbox"/> undergoing chemotherapy or radiation therapy        |
| <input type="checkbox"/> allergies      | <input type="checkbox"/> chronic respiratory disease    | <input type="checkbox"/> immune system suppressed by disease or other causes |
|   | <input type="checkbox"/> chronic neurological problems  |  |

### TIMING PATTERNS

When did your symptoms start?

When are they generally worst?

Do they go away? If so, when?

Have you noticed any other events (such as weather events, temperature or humidity changes, or activities in the building) that tend to occur around the same time as your symptoms?

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## **Occupant Interview**

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### **SPATIAL PATTERNS**

Where are you when you experience symptoms or discomfort?

Where do you spend most of your time in the building?

### **ADDITIONAL INFORMATION**

Do you have any observations about building conditions that might need attention or might help explain your symptoms (e.g., temperature, humidity, drafts, stagnant air, odors)?

Have you sought medical attention for your symptoms?

Do you have any other comments?