

## INDOOR ENVIRONMENTAL QUALITY MANAGEMENT PLAN (11/01/2016)

### I. Background

According to the US Centers for Disease Control (CDC), *“Indoor environmental quality (IEQ) refers to the quality of a building’s environment in relation to the health and wellbeing of those who occupy space within it. IEQ is determined by many factors, including lighting, air quality, and damp conditions. Workers are often concerned that they have symptoms or health conditions from exposures to contaminants in the buildings where they work. One reason for this concern is that their symptoms often get better when they are not in the building. While research has shown that some respiratory symptoms and illnesses can be associated with damp buildings, it is still unclear what measurements of indoor contaminants show that workers are at risk for disease. In most instances where a worker and his or her physician suspect that the building environment is causing a specific health condition, the information available from medical tests and tests of the environment is not sufficient to establish which contaminants are responsible. Despite uncertainty about what to measure and how to interpret what is measured, research shows that building-related symptoms are associated with building characteristics, including dampness, cleanliness, and ventilation characteristics.*

*Indoor environments are highly complex and building occupants may be exposed to a variety of contaminants (in the form of gases and particles) from office machines, cleaning products, construction activities, carpets and furnishings, perfumes, cigarette smoke, water-damaged building materials, microbial growth (fungal, mold, and bacterial), insects, and outdoor pollutants. Other factors such as indoor temperatures, relative humidity, and ventilation levels can also affect how individuals respond to the indoor environment.*

*Understanding the sources of indoor environmental contaminants and controlling them can often help prevent or resolve building-related worker symptoms. Practical guidance for improving and maintaining the indoor environment is available.*

*Workers who have persistent or worsening symptoms should seek medical evaluation to establish a diagnosis and obtain recommendations for treatment of their condition.”*

## II. IEQ Concerns

The Centers for Disease Control recommends the following actions be taken when health problems are believed to be caused by exposure to dampness or mold in the workplace:

- A. Always respond when occupant health concerns are reported.
- B. Establish clear procedures for recording and responding to IEQ complaints to ensure an adequate and timely response.
  - 1. Log all complaints or problem reports.
  - 2. Collect information about each complaint. This information should include, but not be limited to: what symptoms are people reporting; What conditions in the facility are suspected of causing problems; Where and when were the problems noticed and/or reported?
  - 3. Ensure confidentiality.
  - 4. Develop and communicate a response plan.
  - 5. Identify appropriate resources for response.
  - 6. Apply remedial action.
  - 7. Provide timely feedback to building occupants regarding the complaint and response actions until complete.
  - 8. Follow-up to ensure that remedial action has been effective.
- C. Regularly inspect building areas for evidence of dampness; initiate prompt steps within 48 hours to identify and correct the causes of any dampness problems found.
- D. Conduct regularly scheduled heating, ventilating, air-conditioning (HVAC) system inspections and walkthroughs. Use the Walkthrough Inspection Checklist or Teacher's Classroom Checklist to document findings. Problem areas should be entered into the work order system for scheduling and correction.
- E. Prevent high indoor humidity through the proper design and operation of HVAC systems.
- F. Dry any porous building materials that have become wet from leaks or flooding within 48 hours.
- G. Clean and repair or replace any building materials that are moisture-damaged or show evidence of visible mold growth.
- H. Encourage occupants who have developed persistent or worsening respiratory symptoms while working in the building to see a health care provider.
- I. Follow health care provider recommendations for relocation of occupants diagnosed with building-related respiratory disease.
- J. Establish an indoor environmental quality (IEQ) team consisting of a coordinator and representatives of the building employees, employers, and building management who would oversee implementation of an IEQ program.

### III. MISSION

The health, comfort and learning environment of staff and students are important aspects of the Issaquah School District's mission. An Indoor Environmental Quality (IEQ) Management Plan has been developed that will help monitor and improve the quality of the indoor environment in school buildings. The objectives of this IEQ Management Plan are:

- A. Reduce the level of indoor air pollutants through preventative measures such as routine maintenance activities, periodic informal building inspections, pollutant source control and other IEQ-specific or non-specific actions.
- B. Provide and maintain adequate airflow by repairing and maintaining ventilation equipment, which will promote comfortable and healthy working and learning environment.
- C. Respond to IEQ-concerns and problems in a prompt and thorough manner and provide timely progress reports to all interested parties.

### IV. ROLES AND RESPONSIBILITIES

#### A. The IEQ Coordinator

The Issaquah School District has identified the Director of Facility Services as the Indoor Environmental Quality Coordinator for the District. The IEQ Coordinator bears the following responsibilities:

1. Coordinating the development and management of the district's IEQ Management Plan. This includes establishment and overseeing an IEQ Team.
2. Coordinating the IEQ Team's activities and meetings, including distribution of the designated IEQ checklist forms.
3. Coordinating the annual review of the Plan. *Accordingly, this is a living document that can and will be changed as improvements are discovered. Suggested changes and improvements should be submitted to the IEQ Coordinator.*
4. Maintain IEQ Team meeting minutes, reports and other documents.
5. Notify staff if construction will occur that disturbs asbestos or lead. The communication will include relevant dates and details including the certification of contractors.

#### B. Assistant IEQ Coordinators

The Issaquah School District has identified the Facility Services Maintenance Supervisor, Custodial Supervisors and the designated Capital Projects Coordinator as Assistant IEQ Coordinators.

1. Act as key contact persons within the district to address and respond to IEQ issues and concerns.

2. Assist with the management of the district's IEQ Management Plan including: coordinating building walkthrough inspections, coordinating the building system inspections, coordinating the investigations of reported IEQ issues and concerns, and modifying the IEQ Management Plan to fit the district's specific needs and objectives.
3. Respond to IEQ concerns and issues that are discussed or reported.
4. Communicate with building Principal regarding the progress made with the reported IEQ concerns.

### **C. The Indoor Environmental Quality (IEQ) Team:**

The District has identified an Indoor Environmental Quality Team to represent staff and students. The IEQ Team assists the district administration by reviewing IEQ-related information and making recommendations for maintaining and improving the health of our buildings.

1. Support the IEQ Coordinators to ensure good IEQ in all facilities and areas.
2. Participate in joint walk-through inspections using the Walkthrough Inspection Checklist.
3. Contribute to the IEQ Management Plan review and implementation.
4. Meet as necessary, but at least once every three (3) months, as agreed upon by the IEQ Team, during school session, to review and resolve IEQ issues and concerns, review the plan, conduct building walk-throughs, and review existing policies in the Management Plan.
5. Meet to discuss actions taken in response to IEQ specific concerns that have been reported to the district.
6. Review IEQ Team meeting minutes, reports, and other documents.
7. The Team will consist of the IEQ Coordinator, Assistant IEQ Coordinators, members of the Issaquah Education Association (IEA) appointed by the IEA President and any other employee representative(s) elected or appointed by their organizations.

### **D. Maintenance Personnel:**

Maintenance personnel shall utilize best available work practices that avoid releasing irritants and pollutants into the air. The primary responsibilities of maintenance personnel with respect to the indoor environment program include:

1. Treat all formal Indoor Environmental Quality concerns as legitimate and as their top priority.
2. Treat all potential IEQ work orders as high priority and respond within 24 hours.
3. Report any occurrence, to the Assistant IEQ Coordinators, where irritants are released or disturbed.
4. Utilize engineering controls and work practices that guard against release of irritants that could affect building occupants.
5. Change HVAC filters, clean condenser coils, and perform and document equipment preventive maintenance as recommended by the equipment manufacturer.

#### **E. Custodial Staff responsibilities include:**

Custodial staff shall employ cleaning procedures and cleaners/chemicals that protect and don't degrade the indoor environment. The primary responsibilities of the custodial staff with respect to the indoor environment program include:

1. Immediately clean-up, report and submit work orders for water leaks/intrusions.
2. Use cleaning procedures that control dust, mold and bacteria build-ups while not placing irritants and contaminants in the air.
3. Submit work order if HVAC filters are dirty.
4. Replace lights immediately as needed.
5. Submit work orders to replace ballasts as needed.
6. Submit work orders for any equipment repairs that affect the indoor environment.
7. Follow prescribed cleaning procedures and correct solution mixture.
8. The responsibilities of the custodial supervisors are to select cleaning chemicals that are appropriate for the job, but present the lowest health and environmental hazard. Scented materials or those that contain volatile organic compounds (VOCs) shall not be used.

#### **V. IEQ POLICIES AND PROCEDURES**

##### **A. Animals on District Property – ISD Policy 2029 and 2029P**

In order to maintain air quality; to provide a healthy, safe, respectful environment for all people who may use the public space; and to preserve the general cleanliness and condition of facilities, the Issaquah School District limits animal access to its buildings and property to the purposes specified in the ISD's Animal Policy No. 2029 and 2029P. An "animal" is a living, non-human mammal, reptile, insect, bird, fish, or amphibian.

Animals are only permitted on District premises within the limitations specified in the ISD's Animal Policy.

##### **B. Idling Procedure**

The Issaquah School District is committed to providing a healthy and productive environment for all persons using our schools. In light of the risk posed by school bus exhaust emissions, especially to children, the Issaquah School District has implemented the following no-idling procedure.

1. When a school bus driver drops off students at schools, they are to turn off the bus' engine. At pick-up, school bus drivers shall only turn on engines when all students are in the vehicle and there is a clear path to exit the pick-up area.
2. In colder weather, if warmth of the bus is an issue, idling is to be kept at a minimum and will occur outside the pick-up/drop-off zone whenever possible. When warmed, the bus is to enter

the school zone as close to pick-up/drop-off time as possible and shut down until all students are on or off the bus.

3. At the bus garages, limited idling time during early morning warm-up, as recommended by the manufacturer, will be permitted. If block heaters are available, they will be used to help avoid starting difficulties and shorten warm-up times.

## **VI. REPORTING OF HEALTH AND COMFORT CONCERNS PROCESS**

Concerns can be classified into two categories; comfort concerns and health concerns. The **Indoor Environmental Quality Concern Reporting** and **Indoor Environmental Quality Process** flowcharts should be utilized when determining the correct process for submitting IEQ or comfort concerns.

- A. A comfort concern can be defined by temperature too warm, too cold or a room feels stuffy. These concerns should be reported to a custodian or building secretary, as applicable at each location, who will document the actual temperature and submit a work order if the temperature is above or below the designated temperature levels. Serious or potentially serious issues should also be followed up with a phone call to the Facility Services Department at extension 5050. These will be handled as priority and HVAC staffing levels allow.
- B. Health concerns, unlike comfort concerns, are situations in which someone suspects the conditions within the facility may cause illness. An Indoor Environment Quality Concern Form should be submitted for Health concerns. The process of addressing these concerns is as follows:
  1. Any employee, student, or community member who has a concern about indoor environmental quality presents this issue to the school custodian or secretary, as applicable, in writing on the designated reporting form. This form shall be available in each school office and on the District Intranet.
  2. The custodian and/or secretary, as applicable, must enter a work order in School Dude (designated work order software program) using "IEQ Concern" as the purpose code. The work order includes names of concerned parties, room/areas affected, description of concern(s), and a timeline that includes any history of the problem. In addition, the custodian or secretary, as applicable, must immediately make a phone call to the Facility Services Department, extension 5050, reporting that an Indoor Environment Quality Concern Form is being submitted.
  3. The Facility Services Department will investigate and communicate with school custodian, principal, IEQ Team, and the concerned party with status within one working day. All groups shall have access to the submitted concern form.
  4. The Facility Services Department will develop an appropriate action plan and update all concerned parties, including the person who raised the issue and the IEQ Team everyone with the plan, status or resolution.
  5. The IEQ Concern is closed upon completion and history of work performed is documented.

6. The IEQ Team will review and monitor official concerns at their joint meetings.
7. If there is any concern that an IEQ concern has not been completed to satisfaction, it will remain open or be reopened if closed.

## **VII. MOLD RESPONSE AND CONTROL**

- A. The key to mold control is moisture control. All confirmed moisture problems should attempt to be solved when they are identified and before they become mold problems.
- B. Fix leaky plumbing and leaks in the building as soon as possible. The goal is to fix the leaks and dry wet surfaces within 48 hours.
- C. Watch for condensation and wet spots. Attempt to fix the source of moisture within 48 hours.
- D. Prevent moisture due to condensation by increasing temperature or reducing the moisture level in air, as appropriate.
- E. Keep heating, ventilation and air conditioning drip pans clean, flowing properly, and unobstructed.
- F. Vent moisture-generating appliances, such as dryers, to the outside where possible.
- G. Maintain low indoor humidity, below 60% relative humidity (RH), ideally 30-50%, if possible.
- H. Perform regular building HVAC inspections and maintenance as recommended by the manufacturer and staff levels permit.
- I. Do not use humidifiers.
- J. The following information has been issued by the CDC. "CDC does not recommend routine sampling for molds. Generally, it is not necessary to identify the species of mold growing in a building. Measurements of mold in air are not reliable or representative. If mold is seen or smelled, there is a potential health risk; therefore, no matter what type of mold is present, action should be taken for its removal. Furthermore, sampling for mold can be expensive, and standards for judging what is and what is not an acceptable or tolerable quantity of mold have not been established."

## **VIII. REVIEW OF HEALTH CONCERNS**

Recognizing that it is not possible to ensure that the indoor environment at a given facility will always be acceptable to all occupants, the following procedure will be used to address concerns of those individuals who cannot be accommodated at a given facility:

- A. Staff: The information gathered during the investigation will be sent to the department of Personnel Services. The Executive Director of this department and/or designee will review the information and will make recommendations that could result in further accommodations and/or reassignment if practicable.
- B. Students: All appropriate information and records will be forwarded to the office of the Executive Director of Special Services. This office, upon review of the information, can direct further accommodation at the site or possible relocation if required.

## IX. EMERGENCY RESPONSE

- A. An emergency is defined as an unforeseen circumstance that requires immediate action, assistance, or relief. This includes situations that are potentially life threatening, such as:
  - 1. Spills of hazardous materials.
  - 2. Complaints of severe headaches, nausea, and combustion odors.
- B. In the case of an emergency, the Facility Services Department will respond immediately upon receipt of the concern.

## X. RESOLUTION of IEQ CONFLICTS

In order to minimize the impact that indoor environmental concerns may have on health, all IEQ concerns will be taken seriously and the District will do the following in an effort to solve IEQ issues:

- A. The District IEQ Coordinator or designee will notify all members of the IEQ committee upon receipt of an official **Indoor Environmental Quality Concern Form**.
- B. Within 24 hours of receipt of the formal IEQ concern, the District IEQ Coordinator or designee will visit the location to talk to the person who submitted the concern and to conduct an initial investigation to determine the scope of the problem. Sensitivity to the submitters concern is an important aspect of the response.
- C. The IEQ Coordinator or designee will promptly advise all members of the IEQ committee of the initial investigation findings and the proposed course of action, including a tentative plan for resolution if one can be determined. All subsequent questions should be directed to the IEQ Coordinator or designee for review and response.
- D. District maintenance personnel will first attempt to resolve all problems using District resources.
- E. If the situation is beyond the scope of the ability of Maintenance personnel, if satisfactory results are not attained or if District personnel cannot discover cause of the complaint, the Department of Facility Services will first seek professional industrial hygienist support from the PSESD Worker's Compensation Trust or other reliable qualified contractors in the field. Every reasonable effort shall be made to find contractors whose skills, training and business practices are acceptable to all members of the IEQ Team. If one is developed, contractors will be first selected from a list of industrial hygiene consulting vendors that are pre-approved by the IEQ Team. The contractors will conduct a formal investigation and written response. The investigation results and written response may be reviewed by the IEQ Team if desired. If the results of this independent contractor are not acceptable, the IEA may contract, at its expense, a vendor of its choice to conduct additional tests.
- F. All questions concerning the contractor's response shall be referred to the IEQ Coordinator or designee for response. Only the IEQ Coordinator or designee will correspond with the

contractors. Specific legitimate concerns about the qualifications of contractors should be addressed to the IEQ Coordinator.

- G. If this step does not result in an acceptable solution, the IEQ Team will convene in an effort to find a mutually-acceptable solution.
- H. The IEQ Coordinator or designee will provide regular updates on the IEQ progress.
- I. When the IEQ Coordinator or designee believes the concern is completed, the submitter will be contacted to determine if he or she believes the IEQ is complete. If everyone agrees the IEQ concern has been satisfactorily completed, it can be closed. All members of the IEQ Team will be notified when the IEQ is closed.
- J. The Facility Services Department will archive all IEQ records.

## **XI. STAFF RESPONSIBILITIES FOR MAINTAINING IEQ**

### **Maintenance and Housekeeping**

A. HVAC Systems Maintenance: HVAC systems maintenance is an integral part of eliminating problems. Routine preventive maintenance on HVAC systems will assure adequate delivery of ventilation air and thermal comfort to occupants while minimizing contaminant sources within the systems. The following items are recommended as a minimum for HVAC maintenance:

- 1. Air filter change schedule will be developed by the HVAC Technicians based upon the manufacturer's recommendations and reviewed annually by the Maintenance Supervisor for adequacy. Filter changes shall occur during non-instructional times whenever possible, staffing levels permitting.
- 2. The coils and condensate drain pan will be cleaned regularly, staffing levels permitting. The condensate drain line of each unit should be checked during the cooling season to assure that it is not plugged and that water is draining properly. Fan coil units, unit ventilators, and heat pump units should be inspected and cleaned at least annually. A record of inspection dates and results will be kept on file and available for review.
- 3. The interior surfaces of air handling units will be inspected at each filter change. Where visible microbiological growth is evident, the contamination should be removed and/or cleaned with appropriately designated cleaners. A record of inspection dates and results will be kept on file and available for review.
- 4. The mechanical integrity of control sensors, motors, and dampers will be checked annually, staffing levels permitting. A record of inspection dates and results will be kept on file and available for review.

B. Pesticide applications:

- 1. May only be done in by licensed technicians in accordance with the current Pesticide Notification Posting and Record Keeping Plan 6512 and 6512P and RCW 17.21.415.

2. Use only pesticides which degrade relatively quickly and avoid the use of products that have extended residual times.
  3. Use pesticides in their proper dilution.
  4. Preference should be given to pesticides that have low odor formulations.
  5. Wherever possible, pesticides should be applied after normal work hours and ventilation systems should be in operation for at least one hour before the first occupants arrive to work the following day.
  6. The responsible Landscape Technician will post the required notices of planned pesticide application at the front of the school 48 hours before the scheduled application. The responsible Pest Control Technician will post the required notices of planned pesticide application at the each interior site location 48 hours before the scheduled application.
  7. All staff members that have indicated they want to be notified before any pesticides are applied will be notified as directed in accordance with the current Issaquah School District policy.
  8. Pesticides should be applied in their minimum effective dose.
- C. General Housekeeping: General housekeeping is everyone's responsibility. The **General Checklist** is provided as a general source of good information that can be used by anyone. The **Teacher's Classroom Checklist** may be used by teachers to provide information on their classroom.
1. Housekeeping tasks performed by the custodial staff, such as vacuuming, floor stripping and polishing, carpet cleaning, dusting, and use of odorous cleaning agents should be done after normal work hours, as much as practical and staffing levels permit.
  2. Preference should be given to the use of cleaning agents that contain the lowest concentrations of toxic or irritating chemicals.
  3. Care should be taken to assure that cleaning agents are properly diluted before use.
  4. Candles and plug-in air fresheners present a fire and/or electrical safety hazard and are prohibited.
  5. Do not use chemical products such as disinfecting sprays, "air Fresheners," potpourri or additional cleaning products or chemicals beyond what the District purchases.
  6. Follow directions when using District provided cleaners.
  7. Keep all air vents (supply and exhaust) and heating elements clear at all times. Make sure that flags, banners, plants, garbage cans, containers, shelving, piles of papers/books, visual aids, beanbags etc., do not block them.
  8. Never adjust the heating/cooling/ventilation system on your own. Ask for assistance from the custodian or the maintenance personnel. Classrooms/offices are typically part of the building's HVAC system and any change needs to be carefully considered and monitored to make sure that the whole system stays balanced and functions at optimum level. It is usually permissible to open doors or windows if you need more fresh air.

9. When you open doors or windows for fresh air consider the following:
  - a) Are flowering trees and plants in the immediate area that might cause allergies;
  - b) Are vehicles idling nearby;
  - c) Is any landscaping activity in progress that might produce allergens.
10. Reduce clutter and the amount of posted materials in the room by storing non-essential items in plastic containers with a lid. It is much easier to wipe dust off a lid than to clean each item separately.
11. Create a rotating art exhibit of the students' work. Take old items down and gently wipe off the accumulated dust, preferably outside. Store the art and craft items in transparent plastic containers with lids. Wipe the wall surfaces clean before arranging the next exhibit. The custodians do not clean or dust personal belongings or student work.
12. Do not store and pile non-essential papers on desktops or other surfaces. Not only do they attract dust, but paper also decomposes with time, creating small particles of cellulose that become airborne which can cause respiratory irritation. Cellulose can also serve as a food source for mold.
13. Clean dusty surfaces on a regular basis, preferably by damp wiping with clean water. Take care not to raise the dust, but gently collect and eliminate it. There is usually no need for special cleaners when dusting and cleaning surfaces.
14. Be aware of the wet cloths, rags or sponges used for cleaning. If not washed regularly in hot water, they can quickly become infected with mold. This is especially true for sponges used to clean desks or tables after lunch, since they pick up small pieces of food. Store sponges in a closed plastic container and wash them with hot water in a washer or dishwasher. You can also heat them in the microwave on high for a few minutes although this may create an unpleasant smell in the room.
15. Keep the rooms "custodian friendly" by clearing desk surfaces and stacking chairs so the custodians can maximize productivity with their very short cleaning time in each room.
16. Clean up small water spills immediately and report large spills and leaks.
17. Classrooms and offices are business locations. Do not have excessive or unnecessary personal belongings, decorations or soft materials in the room, including sofas, stuffed chairs, pillows, cushions, area rugs, and stuffed animals. They tend to collect dust, dust mites and smells. If you choose to keep soft materials in the classroom, the property owner needs to properly wash and/or clean them on a regular schedule. Stuffed animals should be dusted outside and placed in plastic bags in the freezer to kill dust mites. ***The custodians are not responsible for cleaning or dusting personal belongings or any items not purchased with District funds.***
18. Limit the use of scented markers, paints, and markers that have a strong smell. Regardless of what the manufacturer claims, most of these emit some solvents and

may contribute to the discomfort of sensitive individuals. Choose water-based markers and art materials.

19. Select your art materials carefully. Some materials that are acceptable for use by adult artists in their own studio and at their own risk may not be appropriate for students. Some examples of potentially hazardous art materials are oil-based paints, solvents, turpentine, spray paint, lacquers, pottery clay, glazes and rubber cement.
20. Be aware that science experiments may require hazardous chemicals or biologically active materials. Choose your projects carefully and never assume that consumer products sold in stores will not be hazardous or detrimental to health. Questions should be addressed to the building administrator, school's Chemical Hygiene Officer (CHO), or the science TOSA.
21. Science teachers, science TOSAs and school Chemical Hygiene officers are responsible for the proper and safe usage, storage and disposal of chemicals used in their classrooms.
22. Live plants may improve indoor air; however, dust collects on the leaves and mold may grow on the plants, in the soil and on the pots. Choose easy to clean plants with large leaves and use plastic containers with a drip base. If water regularly gets on the carpet, it may create a mold problem. Promptly prune or remove dead or dying plants. Custodians are not responsible for cleaning the leaves of plants.

# Indoor Environmental Quality

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## General Checklist

### PREVENT MOLD & MILDEW

*Mold can trigger asthma and lead to other health problems; dampness leads to mold growth*

- Check for mold and mildew, especially water-damaged materials
- Check for persistent dampness; musty or earthy smells
- Check for leaks (plumbing, roofs, windows)
- Report and fix leaks promptly

### CONTROL DUST

*Dust may contain heavy metals and other potentially harmful toxins. Dust mites can trigger asthma and allergy attacks*

- Use approved and designated cloths and mops to clean surfaces;
- Remove excessive personal items and classroom clutter; store projects in clear containers with tight-fitting lids
- Use walk-off floor mats at all entrances to trap dirt and toxins
- Leave classrooms ready-to-clean at the end of the day

### ENSURE FRESH AIR FLOW & EFFECTIVE VENTILATION

*Poor ventilation allows pollutants to accumulate indoors*

- Check for odd, unpleasant odors; “clean doesn’t have a smell”
- Clean air supply vents regularly
- Keep air flow pathways clear - remove plants, flags, banners, books, papers, and student projects from areas in front of vents; windows may be opened if designed to be opened
- Use local or hooded exhaust fans for water-intensive areas (lavatories, kitchens, gyms) and pollution-generating areas (chemistry, art, science labs, copier rooms, vocational education classrooms, etc.)

### PREVENT TOXIC FUMES/REDUCE CHEMICAL EXPOSURES

*Many conventional products contain respiratory irritants and other hazards*

- Inventory and properly dispose of outdated hazardous and/or flammable chemicals
- Buy and use non-toxic products, computers, interior paints, furnishings and art supplies
- Use certified green cleaning products screened by an independent third party (Green Seal or Eco Logo); these are cost-neutral and effective
- Air fresheners and room deodorizers are not authorized

- Use disinfectants only as required and in targeted areas

### **PREVENT PESTS AND PESTICIDES, INDOORS AND OUT**

*Pests, such as cockroaches and mice, can trigger asthma and spread disease. Pesticides kill living organisms and can spread through the air, seep into soil and water, and tracked into schools.*

- Keep plants properly trimmed away from buildings
- Move dumpsters away from buildings, keep lids closed and secured, and place on a concrete slab
- Seal cracks and crevices and other pest entry points. Make sure window screens are in good repair and that door sweeps are installed on outside doors
- Clean up spills and crumbs quickly; store food in containers with tight fitting lids
- Remove clutter, and other pest hiding and nesting areas
- Properly identify pests, and use preventative measures as a first line of defense. Regularly monitor and report any pest sightings to the appropriate person
- Adopt least toxic pest control practices and protocols such as those outlined in an integrated pest management (IPM) program; notify in advance of pesticide applications

### **REMAIN VIGILANT**

- Watch for children whose health worsens throughout the school day
- Use a suggestion box for people to submit observations and concerns
- Fix small problems before they become big, expensive problems

# Teacher's Classroom Checklist

Name: _____	
School: _____	
Room or Area: _____	Date Completed: _____
Signature: _____	

## 1. GENERAL CLEANLINESS

	Yes	No	N/A
1a. Ensured rooms are dusted and vacuumed regularly.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1b. Ensured rooms are free of clutter.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1c. Ensured that trash is removed daily.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1d. Ensured that no food is stored in classroom overnight.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1e. Ensured that animal food is stored in tightly sealed containers.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1f. Ensured room is free of pests and vermin.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1g. Used unscented, school-approved cleaners and air fresheners, if any, in rooms.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## 2. ANIMALS IN THE CLASSROOM

2a. Minimized exposure to animal allergens.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2b. Ensured that animals are kept in cages (as much as possible).....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2c. Ensured that cages are cleaned regularly.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2d. Placed animal cages away from supply and return vents.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2e. Consulted school nurse about student allergies or sensitivities (privacy laws may limit the information that health officials can disclose).....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2f. Identified potential allergies of students.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2g. Moved sensitive students away from animals and habitats.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## 3. DRAIN TRAPS IN THE CLASSROOM

3a. Ensured that water is poured down floor drains once per week (approx. 1 quart of water).....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3b. Ensured that water is run in sinks at least once per week (about 2 cups of water)....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3c. Ensured that toilets are flushed once each week, especially if not used regularly....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## 4. EXCESS MOISTURE IN CLASSROOMS

4a. Ensured that condensate is wiped from windows, windowsills, and window frames.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4b. Ensured that cold water pipes are free of condensate.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4c. Ensured that indoor surfaces of exterior walls are free of condensate.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4d. Ensured areas around and under classroom sinks are free of leaks.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4e. Ensured classroom lavatories are free of leaks.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4f. Ensured ceiling tiles and walls are free of leaks (discoloration may indicate periodic leaks).....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4g. Ensured that spills are cleaned promptly.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Instructions**

1. Read the *IAQ Backgrounder* and the Background Information for this checklist.
2. Keep the Background Information and make a copy of the checklist for future reference.
3. Complete the Checklist.
  - Check the “yes,” “no,” or “not applicable” box beside each item. (A “no” response requires further attention.)
  - Make comments in the “Notes” section as necessary.
4. Return the checklist portion of this document to the IAQ Coordinator.

## 5. THERMAL COMFORT

- |   | Yes                      | No                       | N/A                      |
|---|--------------------------|--------------------------|--------------------------|
| 5a. Ensured moderate temperature (should generally be 68°F–72°F) .....                                | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 5b. Ensured there are no signs of draftiness .....  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 5c. Ensured that students are not seated in direct sunlight .....                                     | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 5d. Ensured that indoor humidity is maintained at acceptable levels (between 30 and 60 percent) ..... | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

## 6. VENTILATION

- |  |                          |                          |                          |
|--|--------------------------|--------------------------|--------------------------|
| 6a. Located unit ventilator .....  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 6b. Located air supply and return vents .....  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 6c. Ensured air is flowing from supply vent.....   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 6d. Ensured the air supply pathway is not obstructed.....  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 6e. Ensured there are no vehicle exhaust, kitchen/food, and chemical odors in the classroom .....                      | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 6f. Ensured there are no signs of mold or mildew (refer to <b>Appendix H</b> of the <i>IAQ Reference Guide</i> ) ..... | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 6g. Determined operability of windows.....   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

## 7. EDUCATIONAL SUPPLIES (Art, Science, Industrial/Vocational)

- |   |                          |                          |                          |
|---|--------------------------|--------------------------|--------------------------|
| 7a. Reviewed supplies and their labels .....  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 7b. Ensured that Material Safety Data Sheets are accessible.....  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 7c. Developed and implemented spill clean-up procedures.....  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 7d. Labeled all chemicals accurately with date of receipt/preparation and pertinent precautionary information ..... | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 7e. Ensured that supplies are stored according to manufacturers' recommendations .....                              | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 7f. Understood and followed recommended procedures for disposal of used substances .....                            | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 7g. Ensured that compressed gas cylinders are stored securely .....   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 7h. Separated storage areas from main classroom area and ensured they are ventilated separately .....               | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 7i. Used diluted substances rather than concentrates, wherever possible .....                                       | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 7j. Minimized exposure to hazardous materials (i.e., used non-hazardous materials and pre-mixed products).....      | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 7k. Ensured that fume hoods capture respirable particles, gases, and vapors released within them .....              | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

## 8. LOCAL EXHAUST FANS

- |  |                          |                          |                          |
|--|--------------------------|--------------------------|--------------------------|
| 8a. Identified major pollutant-generating activities, if any ..... | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 8b. Located exhaust fan(s), if any .....                           | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 8c. Determined that fans operate .....                             | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 8d. Ensured that adjacent rooms or halls are free of odor.....     | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

## 9. LOCKER ROOM

- |   |                          |                          |                          |
|---|--------------------------|--------------------------|--------------------------|
| 9a. Ensured locker room and showers are cleaned regularly and properly.....                 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 9b. Checked that soiled clothes are removed regularly.....                                  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 9c. Ensured that wet towels are removed from locker room .....                              | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 9d. Ensured that there is water in the drain trap.....                                      | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 9e. Verified that the local exhaust fan is functioning properly and used consistently ..... | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

# Walkthrough Inspection Checklist

Name: _____	
School: _____	
Room or Area: _____	Date Completed: _____
Signature: _____	

**Instructions**

1. Read the *IAQ Backgrounder* and the Background Information for this checklist.
2. Keep the Background Information and make a copy of the checklist for future reference.
3. Complete the Checklist.
  - Check the “yes,” “no,” or “not applicable” box beside each item. (A “no” response requires further attention.)
  - Make comments in the “Notes” section as necessary.
4. Return the checklist portion of this document to the IAQ Coordinator.

## 1. GROUND LEVEL

- |   | Yes                      | No                       | N/A                      |
|---|--------------------------|--------------------------|--------------------------|
| 1a. Ensured that offices are dusted and vacuumed regularly .....  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 1a. Ensured that ventilation units operate properly .....   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 1b. Ensured there are no obstructions blocking air intakes.....   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 1c. Checked for nests and droppings near outdoor air intakes.....   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 1d. Determined that dumpsters are located away from doors, windows, and outdoor air intakes .....   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 1e. Checked potential sources of air contaminants near the building (chimneys, stacks, industrial plants, exhaust from nearby buildings)..... | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 1f. Ensured that vehicles avoid idling near outdoor air intakes.....  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 1g. Minimized pesticide application .....   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 1h. Ensured that there is proper drainage away from the building (including roof downspouts) .....  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 1i. Ensured that sprinklers spray away from the building and outdoor air intakes.....   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 1j. Ensured that walk-off mats are used at exterior entrances and that they are cleaned regularly .....                                       | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

## 2. ROOF

*While on the roof, consider inspecting the HVAC units (use the Ventilation Checklist).*

- |  |                          |                          |                          |
|--|--------------------------|--------------------------|--------------------------|
| 2a. Ensured that the roof is in good condition .....   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 2b. Checked for evidence of water ponding .....  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 2c. Checked that ventilation units operate properly (air flows in).....                                | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 2d. Ensured that exhaust fans operate properly (air flows out).....                                    | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 2e. Ensured that air intakes remain open, even at minimum setting.....                                 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 2f. Checked for nests and droppings near outdoor air intakes.....                                      | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 2g. Ensured that air from plumbing stacks and exhaust outlets flows away from outdoor air intakes..... | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

## 3. ATTIC

- |  |                          |                          |                          |
|--|--------------------------|--------------------------|--------------------------|
| 3a. Checked for evidence of roof and plumbing leaks..... | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 3b. Checked for birds and animal nests .....             | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

## 4. GENERAL CONSIDERATIONS

- |   |                          |                          |                          |
|---|--------------------------|--------------------------|--------------------------|
| 4a. Ensured that temperature and humidity are maintained within acceptable ranges ..... | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 4b. Ensured that no obstructions exist in supply and exhaust vents .....                | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

**4. GENERAL CONSIDERATIONS (continued)**

- |  | Yes                      | No                       | N/A                      |
|--|--------------------------|--------------------------|--------------------------|
| 4c. Checked for odors .....                                      | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 4d. Checked for signs of mold and mildew growth .....            | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 4e. Checked for signs of water damage .....                      | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 4f. Checked for evidence of pests and obvious food sources ..... | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 4g. Noted and reviewed all concerns from school occupants .....  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

**5. BATHROOMS AND GENERAL PLUMBING**

- |  |                          |                          |                          |
|--|--------------------------|--------------------------|--------------------------|
| 5a. Ensured that bathrooms and restrooms have operating exhaust fans .....     | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 5b. Ensured proper drain trap maintenance:                                     |                          |                          |                          |
| Water is poured down floor drains once per week (approx. 1 quart of water).... | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Water is poured into sinks at least once per week (about 2 cups of water)..... | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Toilets are flushed at least once per week.....                                | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

**6. MAINTENANCE SUPPLIES**

- |  |                          |                          |                          |
|--|--------------------------|--------------------------|--------------------------|
| 6a. Ensured that chemicals are used only with adequate ventilation and when building is unoccupied .....   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 6b. Ensured that vents in chemical and trash storage areas are operating properly.....   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 6c. Ensured that portable fuel containers are properly closed .....  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 6d. Ensured that power equipment, like snowblowers and lawn mowers, have been serviced and maintained according to manufacturers' guidelines ..... | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

**7. COMBUSTION APPLIANCES**

- |  |                          |                          |                          |
|--|--------------------------|--------------------------|--------------------------|
| 7a. Checked for combustion gas and fuel odors .....                        | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 7b. Ensured that combustion appliances have flues or exhaust hoods.....    | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 7c. Checked for leaks, disconnections, and deterioration.....              | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 7d. Ensured there is no soot on inside or outside of flue components ..... | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

**8. OTHER**

- |   |                          |                          |                          |
|---|--------------------------|--------------------------|--------------------------|
| 8a. Checked for peeling and flaking paint (if the building was built before 1980, this could be a lead hazard)..... | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 8b. Determined date of last radon test .....  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

## **INDOOR ENVIRONMENT QUALITY CONCERN FORM**

For any employee, student, or community member who has a concern about indoor  
environmental quality

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***1. To be filled out by concerned party and given to school secretary and/or Lead Custodian as designated at each school/department.***

Date \_\_\_\_\_ Name \_\_\_\_\_

List any other concerned parties \_\_\_\_\_  
(for notification of findings)

School \_\_\_\_\_ Room#/Location \_\_\_\_\_

**NATURE OF CONCERN:**

Include a timeline and any history of the problem: Be as detailed as possible. Use additional sheets if necessary.

***2. To be completed by school secretary or Lead Custodian***

- \*Work order number \_\_\_\_\_ (must use **IEQ Concern** as purpose code)
- \*Mail, email or fax (5093) a copy of this form to Maintenance, a copy to the Lead Custodian, and keep a copy for your records.
- \*This form should not be used as a substitute for routine work orders such as temperature control, equipment repair, etc.
- \*Call or email Karen Miller, Facility Services Department, at extension 5081 if you have questions

Form Submitted By: \_\_\_\_\_ Extension \_\_\_\_\_

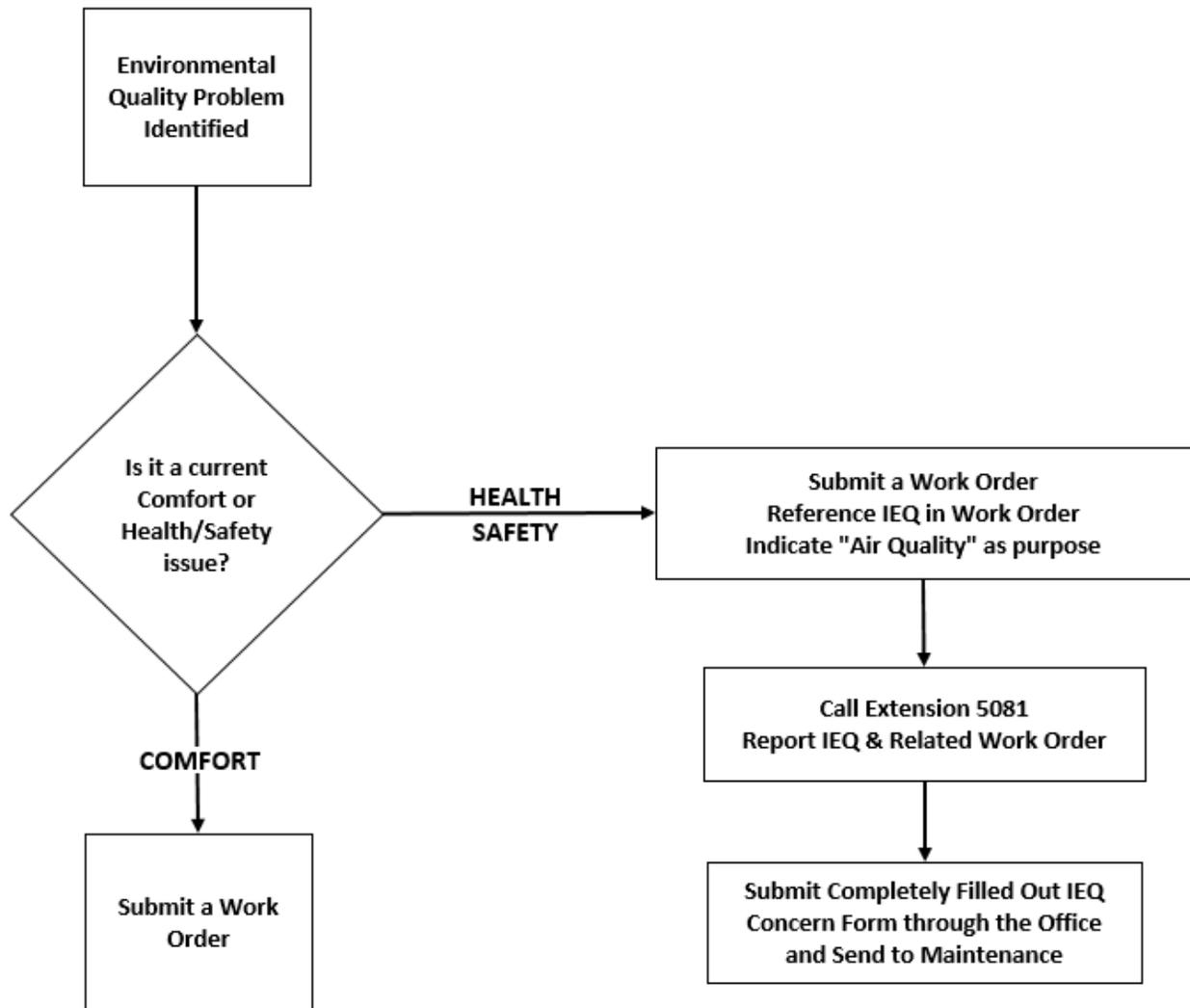
Date: \_\_\_\_\_

cc: Maintenance Department, Lead Custodian and IEA

# Indoor Environmental Quality

## Concern Reporting

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# Indoor Environmental Quality Process Flowchart

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