

IEA, INC.

LAKEVILLE AREA PUBLIC SCHOOLS



Contact Us:

BROOKLYN PARK OFFICE
9201 W. BROADWAY, #600
BROOKLYN PARK, MN 55445
763-315-7900

MANKATO OFFICE
610 N. RIVERFRONT DRIVE
MANKATO, MN 56001
507-345-8818

ROCHESTER OFFICE
210 WOOD LAKE DRIVE SE
ROCHESTER, MN 55904
507-281-6664

BRAINERD OFFICE
13432 ELMWOOD DRIVE, STE. #5
BAXTER, MN 56425
218-454-0703

MARSHALL OFFICE
1420 EAST COLLEGE DRIVE
MARSHALL, MN 56258
507-476-3599

www.leasafety.com

info@leasafety.com

800-233-9513

Management Plan for Indoor Air Quality

CREATED: APRIL 2011

REVISED: DECEMBER 2014

IEA Project #201410558



Lakeville Area Public Schools

Management Plan for Indoor Air Quality

Table of Contents

Annual Review Form

1.0 Introduction..... 1
2.0 Indoor Air Quality Coordinator 1
3.0 Communication..... 1
4.0 Procedures for Handling IAQ Concerns 1
5.0 Building Walkthroughs 1
6.0 Indoor Air Quality Teacher Surveys 2
7.0 Operations & Maintenance 2
8.0 IAQ Investigations and Remediation 2
9.0 Parental Concerns 3
10.0 Related Guidelines 3
 10.1 Animals in the Classroom..... 3
 10.2 Food Services..... 3
 10.3 Pest Management 4
 10.4 Latex 4
 10.5 Fragrances..... 4

Appendices:

- A – IAQ Annual Notification to Parents/Staff
- B – Occupational Health and Comfort Questionnaire

Contact Person: Ed Nelson, Buildings & Grounds Supervisor
Phone Number: 952-232-2047
Email Address: ed.nelson@isd194.org

1.0 Introduction

Good quality indoor air contributes to a favorable learning environment for students, productivity for teachers and staff, and a sense of comfort, health, and well-being for all school occupants. These combine to assist a school in its core mission – educating children. This management plan describes procedures and guidelines relating to indoor air quality (IAQ) for Lakeville Area Public Schools and references the Tools for Schools Action Kit from the Environmental Protection Agency (EPA).

2.0 Indoor Air Quality Coordinator

The IAQ coordinator for Lakeville Area Public Schools is the Buildings & Grounds Supervisor. The role and authority of the IAQ coordinator is to oversee the implementation of the management plan, provide the resources needed to implement the plan, and determine if and when outside professional assistance is needed. In addition, it is the coordinator's responsibility to disseminate IAQ information, register IAQ complaints, and communicate IAQ issues and status to school administration and staff.

3.0 Communication

The Management Plan for Indoor Air Quality and other related reports are located at the district office with other health and safety programs. This location allows employees and parents easy access to any health and safety related documents relating to each individual building. The Buildings & Grounds Supervisor may be contacted at 952-232-2047 for more information or to review the plan.

A notification is distributed annually, through each schools' calendar or newsletter, informing the staff, students, and parents about the location of the Management Plan for Indoor Air Quality and how to contact the IAQ coordinator. The IAQ notification can be found in Appendix A.

4.0 Procedures for Handling IAQ Concerns

The following describes the process to be implemented if a building occupant is concerned about IAQ:

- A person who has concerns about IAQ contacts the building principal or head custodian in their building for reporting and assistance with concerns.
- After reviewing the information, the building custodian will conduct an investigation to try to resolve the problem internally. If the concern cannot be alleviated, the building custodian will notify the IAQ coordinator and an Occupant Health and Comfort Questionnaire (see Appendix B) will be provided to the affected person. The completed questionnaire will be returned to the IAQ coordinator.
- The IAQ coordinator will review the questionnaire and contact the appropriate outside firm to help investigate and/or remediate the problem, if deemed necessary.
- Remediation will be conducted by a district employee, if staff is adequately trained to handle the scope of the project, or by an outside contractor, if necessary. The project will be submitted to the Department of Education for approval if health and safety funding is to be used.
- If a problem is not identified after appropriate testing and investigation, the person may need to be moved to a different space based on availability.
- The IAQ coordinator, or designated consultant, will communicate with the initiating party during the process of investigating and remediating the issue.

5.0 Building Walkthroughs

The district's environmental, health and safety consultant, conducts building walkthrough inspections annually (during the heating season) to identify potential IAQ issues. It is intended to be a quick overall assessment of each room for obvious issues that may impact indoor air quality. The walkthrough uses sight, sound, and smell to assess if there are obvious water intrusion problems (interior and exterior), obvious ventilation failures and/or problems, obvious building/structural failures and/or problems, overall cleanliness of buildings and classrooms, and operations and maintenance programs. In addition, air quality measurements for carbon dioxide, carbon monoxide, temperature, and relative humidity levels are taken in each room to determine how well the building HVAC system is performing. To document accurate measurements, it is imperative that the IAQ walkthroughs be conducted on a normal school day while classrooms are occupied.

The IAQ building walkthrough reports are reviewed by the IAQ coordinator and each building head custodian to determine appropriate action needed to address the issues that were found. The reports are maintained in the district office.

6.0 Indoor Air Quality Teacher Surveys

An online survey is distributed annually to give employees the opportunity to provide feedback on IAQ in their building, and to inform employees on what they can do to improve IAQ in their own work areas. The survey covers the following topics:

- Animals in the Classroom
- Chemical Handling Procedures
- General Cleanliness
- Thermal Comfort
- Ventilation
- Building Maintenance
- Drain Traps
- Excess Moisture
- Exhaust Fans
- Food Service Issues
- Locker Rooms
- Science, Industrial, and Art Supplies

The IAQ coordinator reviews each building's survey results and then forwards on to head custodians for corrective action, where necessary. The IAQ online survey summary reports are maintained at the district office.

7.0 Operations & Maintenance

The maintenance program is building specific. The minimum cleaning standards include:

- Carpeted areas are vacuumed daily to every other day and shampooed at least one time per year, and as needed.
- Areas with vinyl floor tile, terrazzo, wood floors are swept or dust mopped daily, and refinished at least one time per year, and as needed.
- General dusting is conducted by the custodial staff on non-student days; dusting of personal items is the responsibility of faculty and staff.
- A deep cleaning of furniture, lights, walls and flooring is conducted in each room annually.
- Trash and recycling bins are emptied daily by the custodial staff.

The custodial maintenance schedule is reviewed annually in conjunction with the IAQ building walkthroughs. This information is summarized in the Building Description section of those reports, and includes a review of:

- Maintenance Supplies
- Dust Control
- Floor Cleaning
- Drain Traps
- Moisture, Leaks, and Spills
- Combustion Appliances
- Pest Control
-

The district maintains a routine heating, ventilation, and air conditioning (HVAC) inspection and maintenance program that includes coil and drain pan cleaning and inspection, adjustment of motor operators and dampers, regular filter changes, unit cleaning, and checking of damper controls and settings.

8.0 IAQ Investigations and Remediation

Once it has been determined that a concern or issue cannot be handled at the building level, it will be brought to the IAQ coordinator for further action. The IAQ coordinator will determine if outside help is needed (i.e., an IAQ consultant) and will develop a scope of work to correct/resolve the issue. If health and safety money is needed, the project will be submitted to the Department of Education for approval. In the case of deferred maintenance items that have the potential to impact IAQ (e.g., roof leaks); the IAQ coordinator will prioritize and allocate expenditures to remediate issues.

An IAQ assessment and sampling may be conducted in response to symptoms experienced by a staff member or student. If the assessment and sampling does not identify a source that might account for the symptoms experienced by an individual, involvement of a physician is often warranted as the next step. It is recommended that an allergist or other specialist (not a general physician) conduct the examination and help to determine if there are specific triggers or allergens that might be affecting the individual. The specialist may show that the individual is sensitive to or affected by low levels of a specific contaminant that does not usually affect the general population. If a specific trigger or contaminant is identified, further sampling might then be warranted.

9.0 Parental Concerns

Parents may address their IAQ concerns to the building principal or IAQ coordinator. Additional information may be found on the Department of Health's website at <http://www.health.state.mn.us/divs/eh/air/index.htm>

10.0 Related Guidelines

10.1 Animals in the Classroom

The goal of Lakeville Area Public Schools is to decrease student and staff exposure to potentially harmful animal allergens. Bringing animals into the buildings is discouraged. If animals are to be allowed in the classroom, the protocol will be as follows:

- The teacher/student must get approval from the principal. Prior to making a decision, principals should consult the IAQ coordinator, head custodian, and school nurse to determine what impact the animal will have on indoor air quality and student allergies.
- Concerns regarding health issues or care of the animal should be brought to the principal for immediate consideration.
- All animals must be properly vaccinated.
- The location of the habitat for the animal will include consideration of HVAC components. Animal habitats will not be placed near air supply or return air vents and will not be kept near unit ventilators. The habitat will be placed on a hard floor surface. The animal will not be allowed to wander around the room (especially on carpet).
- A cleaning schedule will be implemented for the habitat and surrounding area. The classroom teacher is responsible for regularly cleaning the cage, as well as the table or floor the cage rests upon. Students will not be allowed to clean cages or equipment.
- The teacher will ALWAYS be present when animals are handled by a student.
- All staff and students will wash their hands before and after handling animals, cage debris, or animal supplies.

10.2 Food Services

- Cooking activities generate odors, moisture, food waste, and other trash, which, if not managed carefully, can lead to IAQ problems. Lakeville Area Public Schools have assigned the following responsibilities to food service staff to assist with IAQ management:

- Cooking Area

- The exhaust fans are inspected to make sure they are working properly. If problems are noted, the building custodian is contacted.
- Exhaust fans are operational whenever cooking, washing dishes, or cleaning.
- Any leaks or odors of combustion gas are reported immediately to the building custodian.
- The kitchen is cleaned after use as required by the district and Department of Health policy.
- Signs of mold, mildew, or algae are reported to the building custodian.
- Pest problems are reported to the building custodian.

Food Handling and Storage

- Food service areas are regularly checked for signs of insects or vermin.
- Food handling and storage practices that are followed are recommended by the Department of Health.
- General cleanliness is maintained.

Waste Management

- The district's policy of recycling waste is followed.
- Waste is stored in appropriate sealed containers.
- Dumpsters are located away from air intake vents and operable windows.

10.3 Pest Management

Integrated Pest Management (IPM) is a coordinated approach to pest control using the most cost effective means to prevent unacceptable levels of pests, while causing the least possible hazard to people, property, and the environment. IPM uses a combination of methods that include:

- Reducing or not allowing food or snacks in the classroom, especially when the room is carpeted
- Inspection and monitoring of pest population sites
- Managing waste by keeping refuse in tight containers and locating waste containers away from buildings, if possible
- Maintaining structures (fixing leaking pipes promptly, sealing cracks)
- Adding physical barriers to pest entry and movement (screens for chimneys, doors, and windows)
- Modifying habitats (removing clutter, relocating outside light fixtures away from doors)
- Using traps (light traps, snap traps, and glue boards)
- Using pesticides judiciously

The district contracts a pest control service who utilizes IPM methods. Employees, parents, and community members are notified of pesticide applications each fall through the school calendars/newsletter per the Janet B. Johnson Parents' Right-to-Know Act of 2000.

10.4 Latex

Latex allergy is a reaction to certain proteins in latex rubber. The amount of latex exposure needed to produce sensitization or an allergic reaction is unknown. Increasing the exposure to latex proteins increases the risk of developing allergic symptoms. In sensitized persons, symptoms usually begin within minutes of exposure; but they can occur hours later and can be quite varied. Mild reactions to latex involve skin redness, rash, hives, or itching. More severe reactions may involve respiratory symptoms such as runny nose, sneezing, itchy eyes, scratchy throat, and asthma (difficult breathing, coughing spells, and wheezing).*

* *Information from NIOSH Publication #98-113: Latex Allergy, A Prevention Guide.*

Lakeville Area Public Schools does not have a formal policy on latex. The decision as to which latex items are allowed in our schools is up to each site administrator. However, it is the practice of the health services department to not order any medical supplies known to contain latex. Currently, Kenwood Trail Middle School and Lakeville North High School are the only two schools in the district that have posted signs prohibiting latex in the building.

10.5 Fragrances

Exposure to fragrances and scents can cause some staff and/or students to experience asthma or allergic reactions, including upper respiratory irritation, headaches, and other symptoms. All district employees are encouraged to use personal products (such as perfume, cologne, after-shave, hairspray, and body lotion) that are low odor or fragrance free. In addition, the district selects maintenance and cleaning products that are low in odor.

Appendix A

IAQ Annual Notification to Parents/Staff



**Indoor Air Quality (IAQ) Annual Notification
2014-2015 SY**

Lakeville Area Public Schools has developed and implemented an Indoor Air Quality Management Plan that addresses indoor air quality issues throughout the District. Walkthroughs and inspections of the buildings are performed annually to identify current issues and prevent future problems from occurring. Information is also available from the Minnesota Department of Health at <http://www.health.state.mn.us/divs/eh/indoorair/schools/index.html> . If you have any questions or concerns regarding indoor air quality, please contact the District's IAQ Coordinator, Ed Nelson, at (952) 232-2047.

Appendix B

Occupational Health and Comfort Questionnaire

Occupant Health and Comfort Questionnaire

Note: This questionnaire will be used to aid in the development of an indoor air quality assessment.

1. Name: _____
Job Title: _____ Building: _____

2. Area or room where you spend the most time in the building: _____
If you work in more than one primary area, please provide an approximate percentage of time spent in each room.

3. Do you notice excessive dust or unusual odors in your work area? Yes No
Describe: _____

4. Do any of your work activities produce dust or odor? Yes No
Describe: _____

5. Gender: Male Female
Age: Under 25
 25-34
 35-44
 45-54
 55 and over

6. Do you smoke? Yes No
Have hay fever/pollen allergies? Yes No
Have skin allergies/dermatitis? Yes No
Have a cold/flu? Yes No
Have sinus problems? Yes No
Wear contact lenses? Yes No
Have other allergies, such as mold, dust, animal dander, etc? Yes No
Specify: _____

Take medication currently? Yes No
Reason: _____

7. Room characteristics:
_____ Number of persons/students in the room/work area during normal occupancy
_____ Number of windows in room/work area
_____ Please rate air movement in the room on a scale of 1-5 with 1 being poor and 5 being excellent.
_____ Please rate room temperature on a scale of 1-5 with 1 being poor and 5 being excellent.
_____ Number of windows in area
Floor Finish:
 Carpet
 Tile
 Other _____

8. Have there been any recent or ongoing moisture issues in your area? Yes No
Describe: _____

9. How long have you worked:
 In this room/area? _____ Months _____ Years
 In this building? _____ Months _____ Years

10. Symptoms: Select symptoms you have experienced in this building. This is a random list – not all symptoms listed have been noted in this building.

Symptom	Occasionally	Frequently	Not related to building	Appeared after arrival	Increased after arrival
Skin irritation					
Itching					
Nausea					
Noticeable odors					
Sinus congestion					
Sneezing					
Coughing					
High stress levels					
Chest tightness					
Eye irritation					
Fainting					
Hyperventilation					
Problems with contacts					
Headaches					
Fatigue/drowsiness					
Temperature too hot					
Temperature too cold					
Other (specify)					

Have you seen a doctor for any or all of these symptoms? Yes No

11. When do these problems usually occur?

Time of Day: *Morning* *Afternoon* *Evening*
 Day of Week: *Sun* *Mon* *Tues* *Wed* *Thurs* *Fri* *Sat*
 Month: *Jan* *Feb* *Mar* *Apr* *May* *Jun* *Jul* *Aug* *Sep* *Oct* *Nov* *Dec*
 Season: *Spring* *Summer* *Fall* *Winter*

12. Do symptoms disappear? Yes No
 When? _____

13. In your opinion, is there a possible indoor air quality problem in your work area?

14. Comments: Please take this opportunity to comment on any factors you consider being important concerning the quality of your work environment:

Thank you very much for your cooperation.