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# Management Plan for Indoor Air Quality

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# Fridley Public Schools

## Management Plan for Indoor Air Quality

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## **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 Fridley Public Schools and references the Tools for Schools Action Kit from the Environmental Protection Agency (EPA).

## **2.0 Indoor Air Quality Coordinator and Team**

The IAQ coordinator for Fridley Public Schools is Jason Bichler (Director of Buildings and Grounds). 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 organize the IAQ team, disseminate IAQ information, register IAQ complaints, and communicate IAQ issues and status to school administration, staff, students, parents, and media.

## **3.0 Communication**

The Management Plan for Indoor Air Quality and other related reports are located at the high school in the Buildings and Grounds office with the district's 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 IAQ coordinator may be contacted at 763-502-5088 for more information or to review the plan.

A statement is distributed annually, usually through a school 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. This information is documented along with this program.

## **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 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 head engineers, or a designated consultant, conduct building walkthrough inspections annually to identify potential IAQ issues. 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. It is intended to be a quick overall assessment of each room for obvious issues that may impact indoor air quality. The district uses the Indoor Air Quality Walkthrough Inspection Form to record any problems that are found and to document cleaning or repairs. These inspection forms are maintained at the high school in the Buildings & Grounds office, along with the Management Plan for Indoor Air Quality. The forms are reviewed by the IAQ coordinator or designated consultant, who will then take appropriate action to address issues that were identified.

## **6.0 Indoor Air Quality Teacher Surveys**

An IAQ survey ("checklist") is distributed annually to provide an avenue for reporting any IAQ concerns and to inform employees on what they can do to improve IAQ in their own 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, or designated consultant, reviews these checklists and any concerns discovered are directed to the head engineer in the appropriate building. The surveys are completed online, and a final report for each year is maintained in the Buildings and Grounds office.

## **7.0 Building and Grounds Maintenance Checklist**

A building and grounds maintenance checklist is completed annually by the head engineers. The building and grounds maintenance checklist covers the following topics:

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

The completed building and grounds maintenance checklists are maintained with the Management Plan for Indoor Air Quality.

## **8.0 Ventilation Checklist**

A ventilation checklist is completed each year by the head engineers or designated consultant. The ventilation checklist is maintained with the Management Plan for Indoor Air Quality and covers the following topics:

- Outdoor Air Intakes
- System Cleanliness
- Control for Outdoor Air Supply
- Air Distribution
- Exhaust Systems

## 9.0 Schedule to Remediate Known IAQ Issues

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 review, who will then determine if outside help is needed (i.e., an IAQ consultant) and will also develop a scope of work to correct/resolve the issue. If health and safety money is needed, the project will then 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.

Fridley Public Schools will often have an IAQ assessment and sampling performed in an area in response to symptoms experienced by a staff member or student. If the assessment and sampling does not identify a condition or concern 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.

## 10.0 Operations and Maintenance

The current maintenance program involves daily to every-other-day vacuuming of carpeted rooms. General dusting is conducted by custodial staff on non-student days, although dusting of personal items is the responsibility of the classroom teacher. A deep cleaning of furniture and flooring is conducted in each room over the summer break.

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.

Addressing other topics for O&M is a goal for Fridley Public Schools to complete during the upcoming school year.

## 11.0 Parental Concerns

Parents may address their IAQ concerns to the building principal or IAQ coordinator. Information that may be helpful to parents is included in this plan (IAQ Home Assessment Form) and can be made available as requested. Additional information may be found on the Department of Health's website at <http://www.health.state.mn.us/divs/eh/air/index.htm>

## 12.0 Related Guidelines

### 12.1 Animals in the Classroom

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

- Before bringing an animal into the building, the teacher will notify the principal, the custodian, and the students of the type and location of the animal. All animals will 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.
- Concerns regarding the health issues or care of the animal should be brought to the building principal for immediate consideration.

## 12.2 Food Services

Cooking activities generate odors, moisture, food waste, and other trash, which, if not managed carefully, can lead to IAQ problems. Fridley 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 followed are as recommended by the district and 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.

## 12.3 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 fall newsletter per the Janet B. Johnson Parents' Right-to-Know Act of 2000.

## 12.4 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).\*

Many staff and students of Fridley Public Schools have mild latex allergies. Because gloves and balloons are the most common and accessible sources of latex, the district has chosen to prohibit their use in district buildings. If an employee or student has a severe latex allergy, other forms of latex will be assessed in that particular building.

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

## 12.5 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.

## 13.0 Annual Review

The IAQ coordinator, along with a designated safety consultant, reviews the IAQ plan on an annual basis. Changes to the plan are identified on the annual review form found at the beginning of this plan.

# **Appendix A**

*Indoor Air Quality Building Walkthrough*

# **Appendix B**

*Indoor Air Quality Home Assessment Form*

# **Appendix C**

## *Occupant Health and Comfort Questionnaire*