

# **Indoor Air Quality Management Plan**

**Randolph School District 195**

**2023-2024**



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## **1. INTRODUCTION**

The health, comfort, and learning environment of students and staff are important aspects of Randolph Public School's comfortable learning environment. IAQ is important for the following reasons<sup>1</sup>.

1. Indoor air pollutants can "cause or contribute to short- and long-term health problems, including asthma, respiratory tract infection and disease, allergic reactions, headaches, nasal congestion, eye and skin irritations, coughing, sneezing, fatigue, dizziness, and nausea<sup>1</sup>".
2. Indoor air pollutants and extremes in temperature and humidity may cause discomfort, which can affect students' ability to concentrate and learn.
3. Indoor air quality problems can hasten building deterioration, contribute to the closing of schools, create liability problems, and strain relationships among parents, teachers, and the school administration.

Randolph Public School has implemented an IAQ Management Plan that will help monitor and improve the quality of air in the school building. 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**

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<sup>1</sup> United States Environmental Protection Agency. "Indoor Air Quality Tools for Schools: Actions to Improve Indoor Air Quality". Publication # 402-F-99-008.

Randolph Public School has identified Michael Kelley as the Indoor Air Quality Coordinator for the District. The School Administration and School Board are committed to providing the necessary support to meet the School District's IAQ Management Plan objectives.

The Indoor Air Quality Coordinator's responsibilities include the following.

1. Acting as the key contact person within the District to respond to and address IAQ issues and concerns.
2. Acting as the lead staff person to develop and manage the district's IAQ Management Plan, in accordance with the Minnesota Department of Education requirements. This includes the Safety Committee, coordinating building walk-through inspections, coordinating the building systems evaluations, coordinating the investigations of reported IAQ issues and concerns, and modifying the IAQ Management Plan to fit the District's specific needs and objectives.
3. Attending the CFL IAQ Coordinator Certification training workshop.
4. Responding to reported IAQ concerns and issues.
5. Communicating with staff, parents, and other parties regarding the progress made with the Plan and the process of reporting IAQ concerns.
6. Obtaining School Board approval of the IAQ Management Plan after every major revision.
7. Coordinating the annual review of the Plan, which involves building walk-through inspections, building systems evaluations, and revising the Plan to include the new information obtained.

### 3. INDOOR AIR QUALITY TEAM

Randolph Public Schools has established an Indoor Air Quality Team to represent staff and parents. The IAQ Team assists the school district administration by reviewing IAQ-related information and recommending IAQ policies to maintain and improve the air quality within district facilities and school buildings.

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

<u>Name</u>	<u>Position</u>	<u>Telephone No.</u>	<u>Any Specific Duties</u>
Michael Kelley	Superintendent	507-645-7409	
Kosir, Reed	Maintenance	507-263-2151	
Wernimont, Regina	Board Member	507-298-1025	
Underdahl, Lori	Cook	507-263-2151	
Rutledge, Matt	Principal	507-263-2151	
LeDuc, Linda	Teacher	507-263-2151	
Mann, Bruce	Teacher	507-263-2151	
Rowan, Jared	Teacher	507-263-2151	
Lau, Susie	Teacher	507-263-2151	Recorder

The IAQ Team is involved in the following efforts.

Minnesota Department of Health  
Indoor Air Quality Management Plan Development Package

1. IAQ Team members contribute to the IAQ Management Plan creation and implementation. The IAQ Team is to review the United States Environmental Protection Agency's *Indoor Air Quality Tools for Schools* (TfS) Action Packet, found in the TfS kit. The Action Packet includes a backgrounder, memo, and checklist relevant to the Team members' professional duties.
2. The IAQ Team meets regularly to review IAQ issues.
3. The IAQ Team meets annually or as needed to review the IAQ Management Plan, which includes the completion of walk-through inspections of school buildings, key building systems evaluations, and the review of existing policies in the IAQ Management Plan.
4. The IAQ Team meets to evaluate and respond to IAQ concerns that have been reported to the District through the IAQ concern reporting procedure outlined in the IAQ Management Plan. The Team takes steps or recommends measures to resolve the reported concern.
5. IAQ Team meeting minutes, reports and other documents are kept on file.

#### **4. WALK-THROUGH INSPECTION OF SCHOOL BUILDINGS**

The IAQ Coordinator performs an IAQ walk-through inspection of the area and spaces that were areas of concern or comment by the participants if the IAQ survey completed in the spring. The walk-through inspections involve observations that assess the factors that affect indoor air quality, through the use of general human senses (sight, smell, touch, and hearing). During the walk-through, all physical components that affect the air quality of functional spaces are examined, including the flooring or carpet, walls, ceiling, furniture, air intake, building entrances, mechanical rooms, and the roof.

The "Walk-through Checklist" is used during the walk-through inspection. All observations, recommendations and comments received from students and staff during the walk-through inspection are noted on the "Walk-through Checklist". All "Walk-through Checklists" have been signed and dated by the staff performing the walk-through inspections. Copies of the checklists and associated notes are kept with the IAQ Management Plan.

IAQ issues identified during the walk-through inspections are noted and addressed by the IAQ Coordinator during the development of the IAQ Management Plan. Where appropriate, potential and existing problems will be investigated and resolved; this is described in the "Evaluation and Resolution of Potential Problems" section 6 of the Plan.

#### **5. BUILDING SYSTEMS EVALUATION**

The IAQ Coordinator has coordinated the distribution, collection, and evaluation of the TfS checklists. These checklists serve to educate staff about IAQ, and help the *IAQ* Coordinator or designee to obtain IAQ-related information from the district staff that are most familiar

with their respective areas. The following checklists are to be distributed, returned, and evaluated: “Teacher’s” “Maintenance”, and “Ventilation” checklists, (but additional MDH checklists may be used.)

A memo will accompany the distributed checklists that identifies the purpose of the checklists, and will explain how to effectively fill out the checklists. The checklists are not to be used to address individual problems; rather, the staff’s experience and knowledge to identify and evaluate potential IAQ issues that may be associated with building system or operational failures.

The IAQ Coordinator keeps a log of the checklists, using the TfS log. During the evaluation of the checklists, obvious or likely IAQ problems were identified and the IAQ Team established specific policies or procedures to correct the problems. The same checklists or equivalent evaluations are completed annually to assess the district’s changing IAQ issues and concerns. The IAQ Coordinator will try to recover and evaluate at least 50 percent of the checklists distributed.

## **6. EVALUATION AND RESOLUTION OF IAQ ISSUES**

### **Walk-through Inspection and Building System Evaluations Findings:**

During the walk-through inspections and building systems evaluations, the IAQ Coordinator identifies IAQ problems and issues. The issues identified are addressed according to the plans or policies outlined in the “IAQ Issue Resolution Table”. The issues are prioritized from most important to least important. For urgent or simple issues, the proposed solutions and their outcomes are described in the table. Issues that require continual attention are described in the issue-specific policies of this IAQ Management Plan.

The district determines which IAQ issues have to be deferred. Issues are deferred if:

- they are suspected to take more than three months to resolve;
- they are “big ticket” item(s) that require re-appropriation of money; or
- time restraints limit the district’s ability to respond promptly.

The deferred maintenance issues are described in the “Deferred Maintenance Table”. Issues are organized by priority and by who does the work (district staff or a contracted service provider). The district administration expects to complete the necessary maintenance, renovations, and construction by the date indicated.

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

Problems are reported to the IAQ Coordinator through the IAQ Concern Reporting Form. The IAQ Coordinator documents all IAQ concerns, performs an initial investigation, and documents

and communicates the resolution to all interested parties. All concerns are investigated and documented, reflecting the district's commitment to addressing all IAQ related concerns.

The IAQ Coordinator or designee uses the IAQ Concern Reporting Form and TfS "Problem Solving Wheel," or the "Problem Solving Checklist" to help identify IAQ problems. If the problem cannot be identified, or persists despite the District'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.

When 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. When the problem is not urgent but requires a policy change, the IAQ Coordinator organizes a meeting with the IAQ Team to develop and recommend specific policy changes. These policy changes are presented to the appropriate school officials for review and adoption. All new or revised policies are added to the existing IAQ Management Plan. All interested parties are informed about the measures taken to resolve the problem and of any policy changes.

## **7. COMMUNICATION POLICY**

Communication is a critical element to successfully manage IAQ issues. The IAQ Coordinator and other district authorities try to limit misinformation and confusion through the use of effective communication. The IAQ Coordinator and other district employees communicate with relevant parties in a prompt, courteous, and consistent manner until the issue is resolved to the greatest extent possible. It is the goal of Randolph Public School to develop and maintain the trust of the community and staff.

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 parents and staff about the following.

1. The IAQ Management Plan, how to view the Plan upon request, and how to obtain an IAQ Concern Reporting Form.
2. How to contact the IAQ Coordinator about IAQ issues and learn:
  - a. where to find self-help information to evaluate IAQ in the home; and
  - b. how to obtain information about the structural features and operational practices of the school buildings; and
  - c. how to obtain information on what parents can do to address IAQ issues that cannot be resolved through the concern reporting process.

Randolph Public Schools announces this information and the availability of resources to parents and staff using the school newsletter.



In the unlikely event of an IAQ emergency, the district will accommodate the needs of students, parents, and staff. The media will be alerted when it is necessary to provide information to a broader audience. Every effort will be made to share appropriate information as soon as it becomes available to the school district.

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

Randolph Public Schools encourages the reporting of IAQ concerns. The prompt reporting and resolution of IAQ issues has the potential to prevent serious problems from developing, which should prevent potential health effects, discomfort, and unnecessary costs. This makes the investigation of all reported concerns worthwhile.

The IAQ Coordinator may require the concerned staff, students, and parents 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”, has been made available to district staff and parents. This form should be completed and sent to the IAQ Coordinator to initiate an official IAQ concern reporting process. The IAQ Coordinator investigates the concern using TfS documents and the “IAQ Concern Reporting Form”. The resolution of the issue will be documented and the interested parties will be informed about the measures taken. Information collected is processed and stored according to the school district’s data practices policies.

## **9. EMERGENCY RESPONSE POLICY**

Emergencies are defined as situations that require immediate action. This includes situations that are potentially life threatening, such as:

- complaints of headaches, nausea, and combustion odors;
- diagnosed Legionnaire’s disease or tuberculosis; and
- spills of hazardous materials.

In addition, emergencies include situations where there is limited time available to prevent serious property damage or health problems, such as flooding in a carpeted area.

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. Non-emergency situations are addressed according to the “Concern Reporting and Response Policy,” section 8.

District officials will respond to emergencies immediately. If the problem cannot be resolved with in-house resources, external help 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 (see Communication Policy, section 7).

## **10. 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.

Randolph Public Schools' preventive maintenance is specific to areas. The schedule was established using the past experience of school district maintenance professionals, the availability of financial resources, and technical guides, including the manufacturer's specifications. The person performing the preventive maintenance follows the checklist strictly, and appropriate staff person monitors its completion.

To the extent possible, school officials try to maintain the school 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 district staff makes ventilation adjustments that provide a fresh air delivery, temperature, and humidity level that are as close to the ASHRAE parameters as possible.

## **11. CONSTRUCTION AND RENOVATION POLICY**

Randolph Public Schools considers indoor air quality when planning construction and renovation projects. The IAQ Coordinator, IAQ Team, superintendent and school board discuss major structural changes that may impact IAQ. The findings from the walk-through inspections and building systems evaluations are considered when planning renovations. These plans are summarized in the "IAQ Issue Resolution Table" and "Deferred Maintenance Table".

To the extent possible, major renovations are performed when school is not in session. If renovation projects must be performed while school is 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.

## **12. 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.

Randolph Public Schools officials will pay close attention to water intrusion and microbial growth during the walk-through inspections, buildings systems evaluations, and other efforts.

The maintenance staff has been informed about identifying damaged buildings systems and components that cause water leaks and water condensation. School staff is 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 are dried, preferably within 24 hours, but no later than 48 hours, (these could include carpets, padding, ceiling tiles, sheet rock, and insulation).

Materials contaminated with microbials are promptly cleaned or replaced. Mold growth is removed from non-porous surfaces with a strong brush and non-ammonia containing detergent, and then by thorough drying. [MDH's "Best Practices for Mold Investigation in Minnesota Schools" is used as a guideline for addressing microbial growth]. Remediation projects that cannot be handled by district staff are contracted to a professional. Large-scale remediation projects follow the guidelines in the "Construction and Renovation Policy" section 10, and additional control and protection measures may be necessary.

### **13. ANIMALS IN SCHOOL BUILDINGS POLICY**

Since animals can be a source of allergens, asthma triggers, and microorganisms that can cause infectious diseases, Randolph Public Schools has instituted an animal policy. Information gathered from walk-through inspections, building systems evaluations, IAQ concern reports, and staff meetings has been used to create this policy.

Animals should be kept in an appropriate habitat when they are not being used for education. They should be kept away from carpeted areas in order to minimize the transfer of allergens to the carpets, and the possibility of soiling the carpets.

Specific types of animals will be restricted if a concern is expressed by staff, students or parents. The district reserves the right to ban certain animals if they pose a threat to the safety or comfort of staff and students.

The presence of animals is restricted in the district. Animals may be brought into school only if the animal is a certified therapeutic animal (Seeing Eye dog) or the following conditions are met:

- The principal/supervisor is consulted.
- There is a specific learning objective(s) identified.
- The animal is under the control of the owner (leash, cage, etc.) and not allowed to roam.
- The school notifies parents regarding plans to have the animal at school and students with allergies are protected.
- The owner/teacher accepts responsibility for all clean-up associated with animals in the classroom (to the satisfaction of the head custodian, principal, and superintendent).
- Animals are located away from ventilation system vents to avoid circulating allergens throughout the room or building.

## **14. 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 district for school use. The bottles are clearly labeled, and stored in a secure area. Bottles of cleaning agents must be closed tight when stored.
- All safety data sheets are stored in an area available to all staff, and the location of this information is discussed in the district's "Employee Right to Know" annual training.
- Building rooms are maintained at reasonable cleanliness. Slightly damp cloths are used to remove dust from surfaces—however, wiped surfaces should not be left damp or wet for extended periods of time, since this can cause mold growth.
- 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, the 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.
- Areas of frequent use are cleaned more often than areas of infrequent use.
- Large walk-off mats are used to trap dirt and moisture at building entrances. Trapping dirt and moisture at building entrances helps to maintain the cleanliness of floors and carpets throughout the building.

## **15. 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, walk-through 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. It is recommended that staff not bring personal furniture to school. The school district approves and purchases furniture that is used on school property.

All carpets are cleaned with hot water extraction at a minimum of twice a year. Carpeting is not cleaned during summer months unless the carpet can be dried within 24 hours.

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

The Randolph Public Schools has established the following environmental policies and programs to help improve and maintain the quality of air within our schools.

### **Asbestos Hazard Emergency Response Act (AHERA) Management Plan**

The AHERA Management Plan reduces the likelihood of the district staff's exposure to asbestos during general operation and maintenance activities. It describes the location and condition of asbestos containing building materials, and their removal and repairs if necessitated by AHERA. The AHERA Management Plan also describes the proper record keeping practices that school officials follow. The AHERA Management Plan is located in the superintendent's office.

### **Integrated Pest Management Program**

Integrated Pest Management (IPM) is an important strategy for maintaining good IAQ because both pest generated substances (such as cockroach fecal matter) and pesticides can act as irritants and trigger allergies and asthma. The district's IPM program should reduce the frequency and magnitude of both pesticide use and pest problems. The school district's IPM file is located in the superintendent's office.

### **Lead**

Lead can affect the nervous system, and young children are particularly susceptible. If lead is present in existing school building paint coatings, renovation procedures will be employed that minimize the exposure of building occupants to airborne lead-based paint particles.

### **Radon Gas**

Radon is a naturally occurring gas that can enter into school buildings from the underlying soils, and build-up to levels that increase occupants' risk for developing lung cancer. A contracted environmental specialist will perform radon testing and mitigation.

### **Tobacco Ban**

The Minnesota Clean Indoor Air Act prohibits tobacco use in all public school facilities and vehicles. Information about the law and the school district's implementation of the law is located in the high school principal's office. This prohibition does not apply to the lighting of tobacco by an adult as a part of a traditional Indian spiritual or cultural ceremony.

## **17. EDUCATION OF STAFF POLICY**

All district employees play an important role in maintaining and improving air quality since their behavior can affect the quality of the air present in school buildings. For example, placing heavy objects on unit ventilators, adjusting the room thermostats, or turning off noisy unit ventilators can worsen the quality of air in a room. An educated employee is more likely to take steps that maintain good air quality. In addition, an employee with an understanding of IAQ is more likely

to report IAQ concerns quickly and accurately. For these reasons, the district staff is educated about IAQ.

Randolph Public School performs an annual IAQ training session, as part of the health and safety in-service. The IAQ Coordinator or environmental designee performs the training.

The TfS checklists distributed annually are also educational tools. The staff is encouraged to complete the following checklists: teachers, ventilation, and building maintenance.

## **18. DOCUMENTATION OF SCHOOL BOARD APPROVAL**

The Independent School District 195 School Board approved the initial District IAQ Management Plan on April 17, 2023, with exception that more details and checklists would be provided by the IAQ Coordinator. School Board approval is sought after every major change to the Plan, or every year, whichever comes first.

## **19. ANNUAL REVIEW**

Randolph Public Schools performs an annual review in order to make changes to the IAQ Management Plan. The annual review is necessary because changes may occur in the building systems, components, occupants, and the administration's attitudes and priorities.

The annual review involves:

- building systems evaluations;
- walk-through inspections;
- reviewing IAQ Concern Reports and other information;
- discussing new issues with the IAQ Team; and
- changing the IAQ Management Plan as needed.

A brief description of the changes to the Plan is written and included in all future versions of the Plan. This creates a history of IAQ that should reduce the likelihood of repeating policies and procedures that were ineffective or inefficient.