



Indoor Air Quality (IAQ) Plan

Florida Institute of Technology (Florida Tech)

Environmental Health & Safety (EH&S)

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Contents

Revision History.....	3
Purpose.....	4
Scope.....	4
Responsibilities.....	4
Preventative Maintenance.....	5
Housekeeping.....	5
Symptoms of Poor IAQ	6
Poor IAQ Sources	7
Reporting IAQ Concerns	7
Investigating IAQ Concerns	8
Mold Remediation	8
Training	9
References.....	9

REVISION HISTORY

Revision Number	Revision Date	Revised By	Description of Change
00	2019-11-12	Charles Cherrito	Initial plan creation and implementation.
01	2022-07-20	Charles Cherrito	Periodic review.
02	2023-09-13	Charles Cherrito	Periodic review. Added reference to mold remediation SOP.

PURPOSE

Florida Tech strives to provide all building occupants with an environment that maintains acceptable indoor air quality. The Indoor Air Quality (IAQ) Plan is designed to protect the health and safety of building occupants and decrease exposure to indoor air contaminants.

All employees are required to follow the procedures outlined in this plan. Any deviations from this plan must be immediately brought to the attention of the EHS Office.

SCOPE

This plan applies to all buildings (owned and leased) by Florida Tech.

RESPONSIBILITIES

❖ **Management (Administration)**

Responsible for providing the tools and resources necessary to implement this program.

❖ **Supervisors (Departments)**

Responsible for addressing employee/occupant concerns and coordinating with EHS to mitigate air quality concerns. Additionally, department personnel may be asked to assist in IAQ investigations.

Most often, remediation and investigations will involve a collaborated effort between the reporting department, EHS Office, Facilities Department as well as a third-party vendor (e.g. custodial cleaning contractor).

❖ **Environmental Health & Safety (EHS) Office**

Responsible for investigating air quality concerns, documenting all findings, and recommending solutions to rectifying IAQ issues.

❖ **Employees/Occupants**

Responsible for reporting any concerns (including spills) of air quality to area supervisors. They should also pay attention to actions that can impact air quality (e.g., smoking, bringing animals to the workplace (separate from service animals), using portable air cleaning devices, bringing plants into the work area, etc.). Additionally, disposing of waste promptly into the correct waste container is vital to ensure a healthy indoor air environment.

PREVENTATIVE MAINTENANCE

Preventive maintenance plays a major role in maintaining the quality of air by ensuring that the building systems are operating effectively and efficiently. The Florida Tech maintenance personnel should perform regular inspections/maintenance on the below to prevent IAQ issues.

- Air-Handlers
- Boilers
- Condensing Equipment
- Pre-Filters
- Coils
- Fans and Motors
- Diffusers and Grilles
- Chillers
- Full Building Humidifiers and Dehumidifiers

Any issues identified during inspections or maintenance should be prioritized for rectifying. All remedial actions should also be recorded. Additionally, during times of renovation, construction, or repairs, an assessment should be performed to outline areas that may be problematic to air quality. It is at the beginning stages of major tasks when issues should be rectified.

HOUSEKEEPING

Housekeeping is an important element for maintaining quality indoor air. Housekeeping personnel should pay special attention to ensure the following:

- Outside entrance areas kept clean;
- Entrance mats are kept cleaned and dry, and are replaced as needed;
- Carpeted areas are vacuumed daily and deep-cleaned periodically;
- Hard-floor areas are damp mopped daily;
- Lint-free dust cloths should be used;
- Aerosol products will be used only on an as-needed basis;
- Cleaning products will be pH neutral if possible;
- All trash will be removed from the building daily;
- Restroom fixtures will be sanitized daily.

SYMPTOMS OF POOR IAQ

Employees may be able to recognize the symptoms that may be attributed to poor IAQ. Poor IAQ can cause acute and chronic health conditions. Identifying the root causes early is vital. It is common for people to report one or more of the following symptoms:

- Dryness and irritation of the eyes, nose, throat, and skin
- Headache
- Fatigue
- Shortness of breath
- Hypersensitivity and allergies
- Sinus congestion
- Coughing and sneezing
- Dizziness
- Nausea

People generally notice their symptoms after several hours at work and feel better after they have left the building or when they have been away from the building for a weekend or a vacation. Many of these symptoms may also be caused by other health conditions including common viral/bacterial infections, outdoor air quality (pollen/mold), and behavioral actions; therefore, may not necessarily be due to poor IAQ—making identifying IAQ problems even more difficult.

POOR IAQ SOURCES

Per OSHA, the qualities of good IAQ should include comfortable temperature and humidity, adequate supply of fresh outdoor air, and control of pollutants from inside and outside of the building. There are many sources of indoor air pollution. These can include:

- Mold
- Radon
- Pesticides
- Fuel-burning combustion appliances
- Tobacco products
- Deteriorated asbestos-containing insulation
- Newly installed flooring, upholstery, or carpet
- Cabinetry or furniture made of certain pressed wood products
- Products for household cleaning and maintenance, personal care, or hobbies
- Central heating and cooling systems and humidification devices
- Excess moisture

Some sources, such as building materials, furnishings, and air fresheners, can release pollutants continuously. Other sources, related to activities like smoking, cleaning, or redecorating may release pollutants intermittently and can remain in the air for long periods after some activities.

REPORTING IAQ CONCERNS

It is the responsibility of all employees to notify their appropriate supervisor of any IAQ concerns. When making a report, they should denote as much detail as possible so that the individual(s) investigating the concern can do so with accuracy and thoroughness. Although not exclusive, some examples of factors to denote are:

- Were there any abnormal activities going on at the time of concern?
- What are your symptoms or reason for concern?
- What were the environmental conditions (e.g., temperature/humidity/precipitation)?
- Were there any odors?
- Were there any unusual noises?
- What is the concerns appearance/description?

If the supervisor is not able to identify and rectify the issue, they should submit a [Facilities Service Ticket](#) so that a more in-depth investigation can be conducted.

INVESTIGATING IAQ CONCERNS

Upon being notified of an IAQ concern, an investigation will be initiated and may include representative from various departments (e.g., Facilities, Housing, etc.). Aside from interviewing any parties involved (or liaisons) the site where the complaint originates may be visited. Although there is no exclusive, single test to find an IAQ problem, if necessary, field tests will be performed that may involve the below actions (but are not limited to):

- Humidity levels;
- Temperature;
- Moisture saturation;
- Air particulate count;
- Visual and odor observation;
- Photographs;
- HVAC observation;
- Other sampling as deemed necessary (e.g., mold sampling).

Upon the investigations' completion, the reporting party will receive notice of the outcome and any recommendations for remediation, if applicable. Results will usually be in the form of communication through the service ticket system, however, email or in-person correspondences may also be involved, or a combination of all avenues—depending on the seriousness and complexity of the case. Each incident is taken on a case-by-case basis; however, all reported concerns will be documented in some fashion and retained for a minimum of 3 years, regardless of the intensity of the case.

MOLD REMEDIATION

Remediation of mold shall be conducted per the Florida Tech SOP titled, “Mold Remediation in the Workplace”.

TRAINING

All supervisors must make every effort to ensure their employees understand what IAQ is, what the signs of poor IAQ are, and how to report their concerns. They should be given a copy of this plan and the ability to take the online training titled, Indoor Air Quality on Florida Tech's online platform. The records of all trainings should be retained by each department.

REFERENCES

The below references are not exclusive; however, they are reputable resources regarding indoor air quality.

OSHA

<https://www.osha.gov/SLTC/indoorairquality/>

American Conference of Governmental Industrial Hygienists (ACGIH)

<https://www.acgih.org/>

The American Industrial Hygiene Association (AIHA)

<https://www.aiha.org/>

ASHRAE 62.1-2019

https://www.techstreet.com/ashrae/standards/ashrae-62-1-2019?product_id=2088533