



Indoor Air Quality (IAQ) Plan

Florida Institute of Technology (Florida Tech)

Environmental Health & Safety (EH&S)

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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.
03	2024-07-16	Charles Cherrito	Periodic review. Added examples of factors impacting IAQ not related to building issues.
04	2025-04-08	Charles Cherrito	Periodic review. Added information regarding utilizing third-party vendor as well as Indoor Environmental Quality (IEQ). Added student dorms section.

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.

SPECIAL NOTE

The term Indoor Air Quality (IAQ) will be used throughout this plan and is also synonymous with Indoor Environmental Quality (IEQ).

SCOPE

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

RESPONSIBILITIES

❖ **Management (Administration)**

Responsible for providing the resources necessary to implement this program.

❖ **Supervisors (Departments)**

Responsible for addressing employee/occupant 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, or professional remediator).

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

Serving in an advisory role for assisting in investigating air quality concerns and recommending solutions to rectifying IAQ issues.

❖ **Employees/Occupants**

Responsible for reporting any concerns 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, utilizing cosmetics or scented products, etc.). Additionally, disposing of waste promptly helps 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. Florida Tech maintenance personnel may conduct regular inspections/maintenance procedures of the following 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 rectified to the extent possible. All 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 (THIRD-PARTY VENDOR)

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 regularly;
- 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.

STUDENT DORMS

Student housing units (dorms) make up many indoor areas at Florida Tech. Tenants should be aware of actions that impact IAQ negatively and must ensure they avoid these actions to maintain the safest housing environment possible. The Student Residence Life and/or Housing Departments publish guidance (and rules) to assist tenants in fostering a safe living environment. These can be found in the [University Housing Living Guide](#). This document must strictly be followed.

Mold Indoors.... Is This Normal?

Short answer... YES! Mold is indeed found indoors and is considered normal to an extent. Mold is part of the natural environment. Outdoors, mold plays an important part in nature by breaking down dead organic matter such as fallen leaves and dead trees. Mold reproduces by means of tiny spores; the spores are invisible to the naked eye and float through outdoor AND indoor air.

It is impossible to get rid of all mold spores indoors; therefore, concentration should be directed to not fostering an environment in which mold can readily grow. Although out of the control of tenants, it's important to point out that toxic mold and high pollen counts are found commonly outdoors and can not only migrate indoors, but they can also be problematic to some individuals.

Some actions or points to consider that impact IAQ:

- Ensure trash is taken out regularly, and not allowed to accumulate beyond the trash bin top.
- Ensure food is not left out on tables, nightstands, desks, counter-tops, etc.
- Ensure wet towels or clothes are allowed too fully dry.
- Ensure floors are regularly vacuumed and mopped (if non-porous).
- Ensure dorms are dusted and kept free of insect fragments or webs.
- Ensure all spills are properly and promptly cleaned.
- Indoor plants do decay, and as such, do contribute to mold spores.
- Know that pets can introduce contaminants indoors, which impacts IAQ.
- The use of tobacco products, incense, aerosol products, or perfumes can impact IAQ.
- Maintain a thermostat temperature of 74F. This is effective to avoid breaking dewpoint or fostering an environment leading to increased moisture.
- Mold (or mildew/grime) is commonly found in showers, toilets, or window seals. The excess in moisture makes these areas more prone. This is not a cause for alarm and can be cleaned using a soap/water solution or general household cleaner as a part of routine cleaning.

Housekeeping practices.... Housekeeping practices.... Housekeeping practices....

It cannot be overstated that general housekeeping practices play a very important role to ensure good IAQ is maintained. The lack of housekeeping often leads to unsanitary conditions, and can foster an unhealthy environment (mold growth, bacteria, dust, pollen, etc.). Tenants must adhere to regular housekeeping practices.

SYMPTOMS OF POOR IAQ

Individuals may 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.

SPECIAL NOTE

Although IAQ issues can cause some of the above symptoms, many of these symptoms may also be caused by other factors not related to IAQ—making identifying IAQ problems even more difficult.

Some examples may include:

- Health conditions including common viral/bacterial infections
- Preexisting health conditions (e.g., asthma)
- Outdoor air quality (pollen/mold/temperature/humidity/seasonal changes)
- Behavioral actions (e.g., lack of housekeeping)
- Improper adjustments to thermostats by tenants
- Stress

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. Just a few examples include:

- Mold
- 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/scented candles, 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 individuals 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 more 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, EHS, etc.). Individuals impacted by the concern may be interviewed (or liaisons), and the site where the complaint originates may be visited. Although there is often no exclusive, single test to diagnose an IAQ problem, if necessary, field tests will be performed that may involve the below actions (but are not limited to):

- Humidity readings;
- Temperature readings;
- Moisture saturation;
- Visual and odor observation;
- Photographs;
- HVAC observation;
- Other sampling as deemed necessary.

Upon the investigations' completion, the reporting party will receive notice of the outcome and any recommendations for actions, if applicable. Notices will usually be in the form of communication through the electronic 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 IAQ case.

If actions are warranted beyond the tenants' responsibility to rectify any issues, they are either conducted by Florida Tech facilities trades personnel, or a third-party vendor is utilized.

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.

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. The records of any trainings should be retained by each department.

REFERENCES

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

EPA

<https://www.epa.gov/mold/brief-guide-mold-moisture-and-your-home>

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