**Central Michigan University**

**Indoor Air Quality Procedure**

This procedure has been developed for the purpose of preventing or reducing the incidence of indoor air quality concerns. The procedure provides an organized approach to addressing indoor air quality concerns.

The specific objectives of this Indoor Air Quality (IAQ) procedure and of the program resulting from its implementation are:

* To establish a pro-active policy and guidance in addressing issues that relate to indoor environments and will maintain good indoor air quality in the future;
* To reduce employee complaints, health related symptoms, and illness that may be due to indoor air quality problems;
* To reduce the frequency and number of employee lost-time incidents that can be attributed to indoor air quality problems;
* To improve the quality of the indoor work environment;
* Provide guidance on whom to contact when a concern about the indoor environment is raised, and on how to proceed in evaluating concerns.

The following sections of this procedure present general information regarding indoor air quality concerns as well as specific information relevant to the IAQ program at Central Michigan University (CMU). This policy is meant to be a working document that will be reviewed and updated periodically as new information or procedures become available.

Members of the University community are expected to follow the requirements and recommendations contained in the procedure and to recognize that indoor environmental quality issues may have multiple contributory causes and may, on occasion, not have a simple solution.

**IAQ Investigation**

1. Initial Response issued to a reported employee issue

Supervisor investigates reported issue and attempts to determine cause, and

1. Supervisor takes corrective action by initiating request for repair or maintenance services.

*OR*

If cause of IAQ issue is UNKNOWN or cannot be confirmed by visual inspection, then Supervisor contacts Risk Management, Environmental Health & Safety (RMEH&S).

*THEN*

1. RMEH&S will initiate IAQ Investigation within 3 business days utilizing a step by step approach. Supervisors and affected occupants will be kept informed of progress and/or results throughout the investigation process.
* **Phase I**
The first step in an IAQ investigation is a preliminary assessment. This assessment will include interviewing occupants using an ***employee questionnaire (see appendix)*** and performing a walk-through inspection of the building or area of complaint. The questionnaire is used to obtain information about the nature of the employee complaint(s) and symptoms, and to determine the magnitude of the problem.

During the walk-through, building ventilation systems are evaluated and potential sources of contamination are identified. If the immediate cause or source cannot be found, a Phase II assessment is required.
* **Phase II**
During the second step, common indoor air quality parameters including temperature, relative humidity, and carbon dioxide levels are measured. During this phase if any of the above parameters are out of acceptable levels, RMEH&S will contact & work in conjunction with Facilities Management.

The most commonly cited quantitative measurements of indoor air quality are provided by theAmerican Society of Heating Refrigerating and Air Conditioning Engineers (ASHRAE) standard 62.1-2016.
* **Phase III**
The third step is performed only when a definitive cause for the symptoms cannot be determined during the first or second step of the investigation.

Step 3 consists of extensive and more specific monitoring and sampling for chemical and/or microbial contaminants.  Before a Step 3 assessment is performed there must be a documented Accidental Personal Injury Report (APIR) through either Workers Compensation or Risk Management (in the case of a visitor or student) with a consulting recommendation from the appropriate physician. RMEH&S may contract Step 3 Assessments to professional indoor air quality consultants or may conduct them in house.

Several factors are recognized as being important towards contributing to an acceptable indoor environment. In general, an indoor environment is expected to be free of any noxious odors and dust and to be maintained at a comfortable temperature and humidity. More specific factors that must be present to assure an acceptable indoor environment include adherence to applicable ventilation guidelines and standards designed to maintain comfort factors acceptable to most occupants. Any significant sources of contaminant emissions must be kept isolated from occupied spaces and any major sources of contamination must be promptly controlled.

IAQ Flowchart

 

**Employee Questionnaire**

Employee Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Location: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Symptom Patterns

What kind of symptoms or discomfort is the employee experiencing?

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Is the employee aware of other people with similar symptoms or concerns? Yes \_\_\_\_\_ No\_\_\_

If so, what are their names and locations:

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Does the employee have any health conditions they wish to disclose that may make them susceptible to indoor air quality problems?

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Timing

When did the symptoms start? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Do they go away? If so, when?

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Spatial Patterns

Where is the employee when they experience symptoms or discomfort?

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Where does the employee spend most of their time in the building or lab?

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Additional information:

Does the employee have any observations about the building conditions that might need attention or might help explain their symptoms (e.g. temperature, humidity, drafts, stagnant air, odors)?

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Has the employees supervisor filed an APIR? Yes \_\_\_\_\_\_\_\_\_\_ No \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Has the employee sought medical attention for their symptoms/discomfort? Yes \_\_ No \_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Name Date