

Environmental Monitoring

Definition:

An environmental monitoring program (EMP) is a program that includes pathogen or indicator swabbing as appropriate to detect risks in sanitary conditions in the processing or food handling environment.

Applicable Code Requirements

- 2.4.8

Review Glossary Terms

- High-Risk Area
- High-Risk Food
- High-Risk Food Processes

Implementation & Audit Guidance

What does it mean?

An environmental monitoring program must be in place for food processes that are handled, exposed, stored, processed, or packed. This program should be included for food processes of all risk levels. This element outlines the specific conditions required in areas where food is processed or handled. Conditions like these may contain pathogenic microorganisms and will support the formation of toxins or growth of pathogenic microorganisms and has a likelihood of growth causing illness or injury to a consumer if not properly produced, processed, distributed, and/or prepared for consumption. It may also apply to a food that is deemed high risk by a customer, declared a risk by the relevant food regulation, or has caused a major foodborne illness outbreak (refer to the SQF Code, Appendix 2: Glossary).

Why is it in the Code & why is it important?

The process flow is particularly relevant for high-risk processes where the product is subject to handling or exposure after a “kill-step.” This includes (refer to 2.3.1.5) segregation of the post-process end from the raw material end of the process, controlling pedestrian walkways to avoid personnel contamination, dedicated tools and equipment post-process, dedicated staff servicing the post-process end, and dedicated uniforms for staff working post-process.

The reference to the environmental monitoring program is self-explanatory but is worth repeating as it is considered mandatory for areas in which high-risk food is processed, handled, or exposed. Failure to have an effective environmental monitoring program will result in a major non-conformance.

An environmental monitoring program (EMP) is a program that includes pathogen swabbing to detect risk in the sanitary conditions of the processing environment and is a verification of the effectiveness of the pathogen controls that a management site has in place for high-risk foods (refer Appendix 2: Glossary of Terms).

Swabbing must include not only the smooth, accessible parts of the process but also, the transfer points, bearings, etc., where product is likely to build up.

RIO Road to Audits (Records, Interviews, and Observations)

Records	Interviews	Observations
<p>The SQF auditor may review the following or similar documents or records:</p> <ul style="list-style-type: none"> ▪ <i>Completed risk assessment that details the required pathogens</i> ▪ <i>Site map indicating zones or locations in which samples are to be taken</i> ▪ <i>Results of tests including trends and actions taken when unsatisfactory results are observed</i> ▪ <i>Swabbing procedure</i> 	<p>The SQF auditor may interview the following site personnel:</p> <ul style="list-style-type: none"> ▪ Quality/Technical manager ▪ Technical staff responsible for conducting environmental monitoring <p>The SQF auditor may ask the following questions:</p> <ul style="list-style-type: none"> ▪ When/ where/ how was the last test conducted? ▪ What was the action on the results of the test? ▪ How/ when was the person conducting the test trained? ▪ How was the test/ location/ frequency of the test determined? 	<p>The SQF auditor may observe the following or similar activities:</p> <ul style="list-style-type: none"> ▪ Using the map, observe where swabs are pulled ▪ Observe the technique of mock or actual sampling of swabs

Additional References

- (1) "Online training program" Zosi learning [EMP program Zosi](#)
- (2) EMP assessment [EMP assessment tool 3M](#)