Tips for Effective Environmental Monitoring

Effective Environmental programs ensure you can spot trends in air quality and process hygiene within your production facility. Check out our quick reference resources to help you along the way.

Air Sampling

Air sampling can take many forms. Here we show the best practice and basic techniques required for the preparation of settle plates for analysis.

Settle plates are used to directly sample the likely number of microbes depositing onto a product or work surface over a set time period.

7 Steps to an Effective Environmental Monitoring Plan

Microbiological sampling is a useful tool for verifying the effectiveness of your sanitation program and cleanliness of the production environment.

Systematic microbiological testing will give you a clear understanding of the microbial condition of your plant and help you to identify and monitor areas of greatest concern. An effective Environmental Monitoring plan will incorporate the following principles and elements:

1. **Identifying the organisms to be tested for**: these could be specific pathogens of concern to the product (e.g. Salmonella, Listeria monocytogenes) or indicator organisms (e.g. E Coli)

2. **Strategic identification of sampling points**, for example based on the ICMSF Zone Concept (the highest risk Zone 1 including food contact surfaces, such as racks, utensils, slicers, preparation tables etc; Zone 2 consisting of equipment close to the product flow, such as floors, refrigeration units etc; Zone 3 being areas that are less likely to contaminate product, but still within the processing area, such as walls, drains, internal phones etc; and Zone 4 being outside of the food production area, but which could nevertheless lead to transfer of pathogens into the production area if not properly controlled, such as staff areas, hallways etc)

3. **Establishing a baseline** that demonstrates the production environment is under hygienic control – this will enable you to compare results over time and quickly spot any variations

4. **Designing a sampling plan** that allows all areas of concern to be sampled over a period of time

5. **Regular review and comparison of test results** to identify long term trends and potential weaknesses in the sanitation program

6. **Recording any corrective actions or investigations** that you may undertake when results indicate that the risk of contamination has increased

7. **Ensure that sampling** is undertaken with **careful regard to aseptic techniques** and that only trained and responsible persons are permitted to engage in sampling

For more information on establishing or reviewing your Environmental Monitoring program, please contact:

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