ENHANCE YOUR HACCP PROGRAM USING IEST RECOMMENDED PRACTICES

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The current FDA's GMP's (current Good Manufacturing Procedures) in 21 CFR 110 are the accepted practices and guidelines for the food processing industry. These principles are the foundation of the HACCP programs at these industries. So also, are the IEST (Institute of Environmental Sciences and Technology) recommended practices, the "best practices" of the industries concerned with contamination control. The IEST recommended practices are exactly as stated "recommended best practices". They provide guidance but do not mandate compliance.

The Institute of Environmental Sciences and Technology (IEST) is a volunteer professional organization that develops "Recommended Practices" for the contamination control, design, test and evaluation, and product reliability industries. For over 50 years, this society of volunteer industry professionals has developed these recommended practices based on their industries' best practices. Many of the same professionals also assist in the development of international (ISO) standards. These industry professionals contribute a vast amount of knowledge and resources to the contamination control industry.

There are several recommended practices in contamination control that are used various industries that require increased levels of control. The one common thread in all the industries is consistent, constant contamination control. Referencing these recommended practices would enhance the consistency and clarity of the standard operating procedures in the established HACCP programs of the food processing industry.

For example all food processing operations have HVAC (heating, ventilation, air conditioning) systems operating throughout the facilities. The extent to which the operation decides to control air flow and cross contamination varies for each food processing plant. If a food processing plant was experiencing cross contamination nonconformances, the IEST-RP-CC001, "HEPA and ULPA Filters" would be a recommended reference for selecting the appropriate filters to prevent further incidences of cross contamination. Additionally, IEST-RP-CC021, "Testing of HEPA and ULPA Filter Media" describes test methods for physical and filtration properties (i.e. Resistance to Airflow, Penetration Test, Particle Count Test, Basic Weight Test, Thickness Test, Tensile Strength Test, and Elongation Test) to assure you are selecting the appropriate filter media for your operation. Additionally, this document includes a table providing guidelines on filter-testing frequency. IEST-RP-CC034, "HEPA and ULPA Filter Leak Tests" is a valuable reference to determine filter leakage and subsequent consequences of the filter leakage.

All food processing industries are concerned with controlling the microbial population in production areas. ISO 14698 - 1 and 2, “Cleanrooms and associated controlled environments – Biocontamination control” was published in 2000. In Part 1 of this international standard all general principles in biocontamination control are reviewed. In Part 2 of this international standard methods for evaluating and interpreting biocontamination data are provided. Many of the food processing operations in the United States supply food products internationally.

The associated IEST recommended practices that assist contamination control professionals in achieving the principles in these ISO standards and writing procedures for monitoring the controlled environments are IEST-RP-CC013, “Procedures for the Calibration or Validation of Equipment” and IEST-RP-CC023, “Microorganisms in Cleanrooms”.

There are several IEST recommended practices that specifically address contamination control during production to prevent cross contamination and protect the product and process from contamination by the people who are performing the operations within the controlled environment. IEST-RP-CC003, “Garment System Considerations for Cleanrooms and Other Controlled Environments” is referenced in many purchasing specifications to select garments that ensure that the product, the process and the personnel are protected from contaminants. IEST-RP-CC004, “Evaluating Wiping Materials Used in Cleanrooms and Other Controlled Environments” is referenced in many purchasing specifications to select the appropriate wipers used to clean surfaces of the production areas. The wipers should be selected based on their intended usage in the production areas. IEST-RP-CC005, “Gloves and Finger Cots Used in Cleanrooms and Other Controlled Environments” is referenced in many purchasing specifications to select gloves that will ensure that both the product and the personnel are protected from contaminants or hazardous materials. It should be noted that it is impossible to design and manufacture gloves to meet all applications; therefore it is incumbent upon the user to select appropriate gloves based on requirements of the process. Gloves should be selected for their mechanical, structural and thermal properties. This IEST document describes methods to test glove properties, and provides guidance on donning and doffing the glove. IEST-RP-CC018, “Cleanroom Housekeeping-Operating and Monitoring Procedures” provides practical information regarding cleaning techniques, equipment, cleaning compounds, housekeeping checklists, and methods for auditing housekeeping.
IEST-RP-CC027, “Personnel Practices and Procedures in Cleanrooms and Controlled Environments” reviews behavior requirements for personnel working inside the Cleanroom and other controlled environments to protect the product and the process.

The volunteers on the ISO and IEST working groups have already spent many hours devoting their personal time and talent to publish these ISO standards and IEST recommended practices. However, there is more work ahead for these dedicated professionals to complete the work in progress and review the existing documents on a regular basis and make the changes required to keep the contamination control industry informed. The contamination control concerns of the food industry are similar to the contamination control concerns in the Cleanroom industries.

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