Physical Hazards

A physical hazard is a physical component of a food that is unexpected and may cause illness or injury to the person consuming the food. Physical hazards, such as pieces of metal, sometimes occur because equipment has not been properly maintained. In some processes, such as raw—ground, product may be received that is contaminated by foreign material, which if not controlled, may subsequently become incorporated into the ground product. Foreign material would include non-animal objects such as metal, wood, rubber, glass, steel, lead, or other objects. For example, lead shot in a carcass may be considered by the establishment as a food safety hazard reasonably likely to occur in their operation, especially if the establishment historically receives animals containing such material. Another example might be a poultry operation that historically has a problem with metal shavings in its carcass chillers. Keep in mind that the foreign material we discuss here does not include things such as rail dust or rust, which would be covered by sanitation performance standards or SSOP requirements. The size, shape, and consistency of the foreign object should be considered in determining whether it is or is not a hazard.

Typical public health concerns associated with consuming products that contain physical hazards include broken teeth and damage, such as tears, to the mouth, esophagus, stomach, and intestines. These physical hazards may obstruct air passages or intestines. In some cases, death may result due to suffocation or infections (intestinal blockages). Small children are particularly susceptible to problems brought on by physical hazards since their body structures are smaller, and the physical objects may have a greater effect.

Methods that establishments use to control physical hazards include visual observation of product, sanitation procedures, SOPs for product handling, GMPs to ensure proper maintenance and inspections of facilities and equipment, and foreign materials detection equipment (inline magnets, screens, traps, filters, etc.) used during the production process.