

Development of a HACCP Plan for Formed Meat Production Line at Gills Food Product (Pvt) Ltd.

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Over the past decade several food poisoning outbreaks have been reported with meat products. Hence implementation of a proper quality assurance system is important for meat products to ensure the product safety during their long shelf life. Hazard Analysis Critical Control Point (HACCP) is a systematic approach to identify and assess the hazards and risks associated with food operation in defining the means of their control. It eliminates or reduces the biological, chemical and physical hazards to an acceptable level to ensure a safe product to consumers. Formed chicken drumstick is one of the formed meat product manufactured at Gills Food Product (Pvt) Ltd. Therefore the main aim of this study is to develop a HACCP plan for the processing line of formed chicken drumstick. Based on existing production line, process flow diagram was developed. Good Manufacturing Procedure (GMP) manual was studied and Standard Operation Procedures (SOP) manual was developed to fulfill the pre-requisite program. Entire potential hazards associated with each processing step from raw material reception to dispatch of the end product were identified. Then weighing of additives, deep frying, metal detection and blast freezing were identified as the Critical Control Points (CCPs) in the processing line using CODEX CCP decision tree. Monitoring of CCPs, correction action and verification procedure were developed and documented. Control limits were established for the identified CCPs. Critical limit for nitrate was 100 mg/kg. During deep frying minimum core temperature of the product was estimated to be 71.1 °C for 10 seconds. A critical limit of blast freezer temperature was between -32°C and -35°C within 4 hours. The metal detector should detect 1.0 mm for Ferrous, 1.5 mm for stainless steel and 2.0 mm for non ferrous fragments. Once the proposed HACCP plan is implemented, it is expected to produce formed meat products at Gills Food Product (Pvt) Ltd. under internationally accepted food safety standards.

Key words: CCPs, Chicken drumstick, Nitrate, Deep frying, Blast freezing