Modernizing the preparation of the Malaysian mixed rice dish (MRD) with cook-chill central kitchen and implementation of HACCP

ABSTRACT

This paper demonstrated the implementation of a Cook-Chill central kitchen to automate the preparation of traditional mixed rice dish (MRD) and its food hazard analysis based on Hazard Analysis and Critical Control Point (HACCP) program. The preparation of the MRD is commonly associated with the traditional home-style kitchen, tedious manual processes and uncontrolled food hazards that caused serious illness including fatalities. In this paper, the conventional preparation of the dishes was transformed into a central kitchen operation with the Cook-Chill technologies that are able to prepare up to 600 meals/day with a shelf-life of 5 days and no meals wastage. With the HACCP plan, eight critical control points (CCPs) were determined at the thermal processing, portioning, rapid chilling, product storage and dispatch, whereby all CCPs were concerned with the microbiological hazards. The results indicate the possibility to modernize the local dish preparation into efficient mass production without compromising food safety through the HACCP plan. The study was also meant to demonstrate the feasibility of turning the complicated traditional cooking preparation into a modern gastronomy system with three-fold higher in productivity/day and create the awareness on the importance of setting up a systematic food safety system. Importantly, during the set-up, correct food hazards were identified and control measures were implemented for preventing the foodborne illness problem.

Keyword: Central kitchen; Cook-chill; Food safety; Foodservice; Hazard analysis and critical control point (HACCP)Mixed rice dishes (MRD)