

Research Article

Food Safety Management System in Star Hotel and Safety Hazards Countermeasures

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Abstract: Star hotel is a representative of high-end dining place and its food safety and management regulation are particularly important. Taking Star hotel as research object, the article analyzes food safety problems existing in five-star hotel and proposes food safety management measures and strategies for star hotels.

Keywords: Food security, management measures, star hotel

INTRODUCTION

With the improvement of people's living standard, consumption level and the rapid development of tourism, star hotel with high service quality and high consumption gradually becomes an indispensable part of most cities (Zhengxi, 2012). Compared to traditional hotels, star hotel also has paid more attention to the brand value and the characteristics of corporate culture. Among all factors affecting brand value of hotels, food safety is the most important and the most fundamental. It has already been proved by relevant researches in America long before (Zhiyan, 2014). Therefore, it is of great importance to deeply study management means for food safety in star hotel and propose effective management strategy.

CHARACTERISTICS OF FOOD SAFETY IN STAR HOTEL

Catering industry is the support of star hotel. There are lots of procedures between raw material purchasing and sales. Early, medium and later stages generally include purchasing, processing and sales. Every step is closely connected and of great significance. Food safety can be ensured only when hotels take it seriously. Moreover, catering brand of star hotel and hotel brand and reputation are in a close correlation. A good catering environment and brand effect will also promote the development of other components of hotels.

Star hotel catering hazard possesses uncertain factors, such as chemical poisoning, food poisoning caused by seasonal variation, globefish poisoning and poisoning caused by poisoned fish blood. Food safety hazard exists in various steps, procedures and positions, which may lead to terrible outcome any time.

It is generally thought that the level of hotel is different from snacks around road. When food safety accident happens in hotel catering, such as food poisoning, hotel catering image will be damaged, which not only affect the hotel brand, but also influence the image and reputation of chain hotels. As a result, its reputation and image will be ruined in the whole hotel industry. The chain reaction produced is inevitable and its negative effects are also immeasurable (Wei, 2014).

STAR HOTEL RESTAURANT FOOD SAFETY HAZARDS

Restaurant raw material supply channels security is not guaranteed: In general, hotel catering staff should purchase raw materials from reputable and cooperate with the optimal one. But at present, many hotels prefer to consider price, thus suppliers are not fixed and quality of raw materials also fluctuate. At the same time, most hotels fail to do inspection on raw material and some even do not have basic verification procedures.

Flaws existing in storage of raw materials: There are two principles for catering material storage: firstly, Raw materials must be clearly classified and separately stored; secondly, degenerative materials must be timely disposed. But quite a number of hotels have not attached importance to these two principles. Warehouse for storing food is in poor condition. As to warehouses in the south, food quality is greatly affected due to the climate condition.

Weak safety awareness of catering staff: Catering staff is the key factor determining hotel food safety; whether their operation is normative or not directly affects the quality of the final food. But now some star hotels in China ignore it thoroughly. Staff's food safety

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Table 1: Analysis of key factors of food safety in star hotel

Source	Key factors of safety
Purchasing step	Pesticides and fertilizers, animal medicine and feed additives, environmental pollution and transgenic technology
Cooking step	Food additives, chef hygiene, microbial pollution, new processing method
Sales step	Fake and poor quality food, overdue food, unedible chemicals
Consumption step	Limited non food information, poor eating habits, lack of food safety knowledge

Table 2: Influence degree of various factors on food safety

Factors	Weight	Sequence	Factor	Weight	Sequence
Food additive	0.27	1	Unhealthy diet habit	0.05	7
Microbial contamination	0.18	2	Fake and poor quality	0.04	8
Animal medicine and feed additive	0.12	3	Environmental pollution	0.03	9
Pesticides and fertilizers	0.12	3	New processing method	0.03	10
Non-edible chemical substance	0.08	5	Transgenic technology	0.01	11
Chef hygiene	0.08	6	Lack of food safety knowledge	0.01	12

Table 3: Comparison of catering area before and after establishment of HACCP

Period	Total area	Dining place	Food processing area	Ratio of food processing area and dining area
Before establishment of HACCP	3,500 m ²	2,600 m ²	900 m ²	1:2.9
After establishment of HACCP	3,600 m ²	2,600 m ²	1,000 m ²	1:2.6

Table 4: main problems existing in health facilities

Examination object	Main safety hazard
Prevention facilities	Quarantine measures of outfall of sewer are not in place
Changing room	Incomplete facilities for hand washing and disinfection
Waste storage	Non hermetic containers for waste
Storeroom	Irregular material storage
Cold storage facility	Incomplete temperature demonstration equipment
Rough processing area	Unobvious distinguished labels for containers and tools used in processing room
Tableware cleaning and disinfection room	Too small water pool
Clean-keeping room for tableware	Floor drain is not equipment with water seal
Dining room	Insufficient storage cabinets

awareness is weak and they only pay attention without considering the standard of food safety; nonstandard operation of some staff such as nonstandard hand washing and ignorant of vegetable cleaning is of high possibility to result in food safety problems.

No unified management specification of food management in star hotel: Kitchen conditions in the current Chinese star hotel are at different levels. There are no unified operation procedures and hotels are flexible in formulating regulation. It is correlated to diverse dish styles and different cooking methods.

Analysis of key factors of food safety management in star hotel: Taking one star hotel at some place as an example, factors of hotel food safety can be roughly divided into three broad categories, i.e., biological, chemical and physical (Table 1).

Biological category is the key factor. By identifying Critical Control Points (CCP), we conclude that factors influencing hotel food safety mainly appear in the purchasing, cooking, sales and consumption link, thus analysis of food safety incidents should focus on analyzing the influence of purchasing, cooking, sales and consumption influence to food safety accidents (Table 2).

It can be concluded from Table 2 that, food additives, microbial pollution (Xiaoyan *et al.*, 2014), pesticides and fertilizer, feed additive, non-edible chemical substances and chef health are all the possible main factors influencing the hotel food safety.

Analyzing HACCP system factor with analytic hierarchy process is helpful to improvement and implementation of the whole HACCP plan.

POTENTIAL SAFETY HAZARD EXISTING ON THE SPOT

Architectural structure and place setting in hotel: The hotel totally covers 3,600 m² and dining place is 2,600 m². Total area for food processing increases from 900 m² before establishment of HACCP system to 1,000 m² and the ratio of area of food processing and dining place reaches 1:2.6. Besides, area for cutting and matching increases from 700 m² before establishment of HACCP system to 800 m² and area for tableware cleaning and disinfection also increases (Table 3).

Health facility: Prevention facilities, changing room, rest room, waste storage, storeroom and cold storage facility, rough processing area, cooking room, dessert preparing room, tableware cleaning and disinfection room and clean-keeping room are examined. Eight key items have been equipped before establishment of HACCP system (Table 4).

Sanitary conditions of special processing room: Special processing room is basically equipped with critical items before establishment of HACCP system, but individual items cannot meet practical requirements or are improperly used (Table 5).

Table 5: Main problems existing in special processing room

Place	Safety hazard
Cold food room	Unreasonable installment of UV lamp and floor drain without water seal
Dish preparation room	Unreasonable installment of UV lamp, with no record of usage
Decorating room	UV lamps have no record of usage and non-manual type faucet is not used
Barbecue room	Cooling room is not set up separately

Table 6: Main problems existing in equipment and tools

Examination items	Safety hazard
Tools and containers	Raw materials, semi-finished products and finished products are not labeled obviously and the amount is not sufficient
Low water pool	Amount is not conforming to the scale of food processing area

Equipments and tools: There are totally two test items and no key items (Table 6).

One month after establishment of HACCP system, all hazards are eliminated. Tools and containers of different kinds are supplemented and they can be distinguished by color and appearance. In addition, they are labeled with obvious mark by suppliers.

FOOD SAFETY MANAGEMENT COUNTERMEASURES

Establishment of monitoring system: Countries should strengthen food safety legislation in catering industry and try to develop legal terms to enable the legal provisions cover every corner of food safety in catering industry. As Chinese dish styles are diversified and different between different dish styles are great, customs and traditions of every dish style should be considered when we formulate food safety regulation of catering industry. Therefore, perfection of the national food safety law needs the effort of legal workers and hotel staff (Yunlong *et al.*, 2014).

Moral training and management of star hotel:

- The hotel must organize employee training regularly or irregularly. Training should be purposeful, planned, organized, thus to convey training spirit to every staff clearly (He, 2010) and avoid to deal with sanitary inspection (Zhiqi and Haiyan, 2007).
- The training should be targeted. We should train staff with useless words. But a part of hotels still train staff in form of meeting, which not only results in bad consequence, but also easy to make employees feel tired and even antagonistic.
- Raw material storage and operation in kitchen should be strictly implemented based on regulations. We should pay attention to the environment and atmospheric conditions of warehouse and assign specialized staff to be responsible for storage (Yongqian, 2013). Health conditions of warehouse should be inspected to prevent mosquito and rats. But it should be noticed that chemicals are forbidden to be used to kill

insert and rats. Degenerative food should be disposed timely, especially for hotels in the south. Staffs are required to wear hat and mask and wash hands carefully before entering into kitchen. Kitchen should be inspected by specially-assigned person to ensure implementation effect.

CONCLUSION

To sum up, star hotel is increasingly becoming an important part of urban life today, while food hygiene still has many hidden hazards in Chinese star hotels. But western countries perform well in this respect, providing experience for reference. Thus we should improve food safety quality in China by strengthening the legislation system, reforming management system and carrying out education training, based on the conditions in China.

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