Re-B the safer and better quality products for

Continue sharing knowledge with related parties as the hygiene

as dynamic following the dynamism of the contaminants.

FOOD SAFETY MANAGEMENT IN AEROFOOD
ANGKASA CITRA SARANA (ACS) CATERING SERVICE*

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ABSTRACT

Historically ACS was part of Garuda Indonesia but then it was separated in
1970. The first plant was built in Kemayoran Airport, namely Garuda Airline
Flight Kitchen. On 23 December 1974, by the opening Halim Perdana
Kusuma, Garuda joined venture with Dairy Farm and form Aero Garuda
Dairy Farm Catering Service. Then in 1973, the company moved to
International Airport Cengkareng because of fast growing In-flight Industry
and changed the name to Aero Garuda Catering Service on 23 December
1981. Next, on 29 November 1982 it converted the name to PT Angkasa
Citra Sarana Catering Service and became one of subsidiary PT Aerowisata.
Now ACS has 3 division, namely In-flight Catering, Industrial Catering and
In-flight Service Total Solution. The branches of In-flight catering unit are in
Jakarta, Surabaya, Denpasar, Medan Balikpapan, Solo, and Jogja. They serve
both Domestic and International Flight of Garuda Indonesia and Foreign
Airline. Industrial catering has 15 units including town catering and mining
catering. Jakarta plant unit are able to produce 20.000 - 25.000 meal per
day, while the others are various. ACS has some of chef which provides
many type of food such as European food, Asian Food and Indonesia
traditional menu.

ACS with a new brand name Aero Food has ISO 9001:2008 and ISO 22000:
2005 certification. In addition ACS adopts the IFSB guideline as its standard.
IFS refersto International Flight Service Association. ACS also considers
some standards established by customer such as Medina (JAL Consultant on
Food Quality Assurance), Korean Standard, Saudi Arabian standard, Cathay
Pacific standard and others.

* This manuscript is prepared by the seminar committee based on the recorded
presentation of Mr. Satyagraha.
re food is processed, all ingredients are received in receiving area and stored into Storage. Ingredients will be prepared prior to cooking, such as slicing and cutting [beef and fish]; cutting for fruit and vegetables. After cooking process, all food will be chilled in blast chiller in short time. Next, foods are portioned with defined standard. To achieve the target temperature 5°C, the foods are transferred to holding room minimal 3 s. Then the foods are ready to be dispatched to Aircraft.

A HACCP team has defined 5 Critical Control Point (CCP) should be tightly monitored which are CCP 1 (Receiving Step), CCP 2 (Age), CCP 3 (Cooking Process), CCP 4 (Blast Chilling) and CCP 5 ( Holding ). At the receiving area, ACS only permit incoming material to eat food at temperature not more than -18°C (for frozen item) or not more than 8°C (for chilled item). Chillers must be kept at 5°C maximum and freezer at -18°C. Cooking temperature as CCP 3 defines the standard cooking temperature must be refer to the food type. CCP 4 (Blast Chill) that food must be chilled from 60°C to 5°C maximum 6 hours. Finally, it takes only 30 minutes by our machine. CCP 5 (portioning) not more than 45 minutes for employee to portion the food at food temperature limit 15°C. Beside 5 CCP, ACS also control some steps which defined as OPRP such as freezer for beef, chicken and fish, thawing, equipment wash and dispatch.

ANE ABOUT AEROFOOD ACS

Aerofood ACS stood under the flag of PT Aerowisata national. Other subsidiaries are Aerotravel, Aerotel, Aerotrans, Aerocargo. The vision of Aerofood ACS is to be one of the best in-service provider in ASEAN and a leading service provider in Beverages Industry. The missions are to achieve highest service quality in-in-flight and industrial food and beverages through operational excellence, to develop effective long-term ership through customer intimacy, and to implement 1-FRESH re to maximize company's value for the stakeholders.

Aerofood ACS development began in 1970 with the birth of Airline Flight Kitchen in Kemayoran. In 1974, it changed into Garuda Dairy Farm Catering Service in Halim. It developed into Garuda Catering Service in 1981, and in 1982, the Angkasa Citra Sarana Catering Service was developed in Cengkareng. Now, Aerofood ACS has certifications on food safety (ISO 22000), quality management system (ISO 9001), Halal food, HSE implementation, and internal and aviation security system. Aerofood ACS has around 4000 employees, 4 international chefs, and 60 units high lift trucks. Total production everyday is around 75,000 meals.

Aerofood ACS business is divided into 3 main businesses. The first one is in-flight service. We are the in-flight service total solution (ISTS) for Garuda Indonesia airways. We also provide in-flight catering for 20 other airlines. Our in-flight catering units spread all over Indonesia and a new unit in Jeddah will be open in 2010. Some of our awards and recognitions were from JAL (Achieving on time performance target 2008, reducing above 10% complaints in 2007, and ramp incident free for 8 year), EVA Air [catering service excellence performance June 2008-June 2009], Garuda Indonesia [OTP], and Cathay Pacific (hygiene award). The second business is industrial which includes town catering and oil and mining catering. There are five oil and mining companies and 14 other town companies (hospitals and companies) which we cater to everyday. The last business is the retail business which consists of cafe, executive lounge, restaurant and laundry units. We have 5 cafe and restaurants around Jakarta.

FOOD SAFETY MANAGEMENT SYSTEM

Aerofood ACS takes the food safety seriously. We have a Senior Manager Of Quality Management And Health, Safety And Environment (QMSHE) who report directly to the Finance and Human Capital Director. First step to maintain the food safety of the meals that Aerofood ACS produces, we ensure the visitor health by filling our health questionnaire and ensure employee health by doing medical checkup for the first employment and for existing employees. There are mandatory trainings for all our employees on food safety, HACCP, personal hygiene, K3/HSE, and service excellence once a year.

To ensure that the raw materials we use are of good quality, we evaluate and classify our suppliers into 2 categories which are
approved and rejected suppliers through screening by price, audit result, performance (quality, quantity, late delivery), responsiveness, and administration criteria. Our workplace is free of pests and rodents because we use certified third company to conduct pest control and sanitation programs which can identify potential pest/rodent, use the appropriate method and approved chemical, employ qualified staff and work with certain frequency/schedule. Some preventive maintenance is put in place by making sure of the availability of maintenance officer, scheduled maintenance, the preventive methods and the record of the preventive maintenance itself. Our food process is shown below.

The second verification is in audit with certified auditor with flexible frequency based on complexity, complain or other criteria which needs us verification. The third one is by customer satisfaction survey. The fourth one is the calibration of thermometers, scales, chillers and fridges that we use in Aerofood ACS area.

Aerofood ACS has emergency response and preparedness case of flood, earthquake or fire. During flood, all food and ant materials will be discarded. While during earthquake or fire, food can be saved. The employees need to check the quality and safety, if the food temperature is accepted, move to other area or otherwise contaminated with foreign objects, food temperature exceed critical limit), discard the food.

Management review is conducted every six months, and the attendance list includes the Director, Vice President, General Manager, Management Representative, Quality Assurance.

Our verification program is divided into four. The first one is microbiological tests on raw material, cooked food, equipment and utensils, employers hand swab, water and air in our preparation area.
The approach for food safety management is based on screening and rejected suppliers through screening by price, audit, performance (quality, quantity, late delivery), responsiveness. Administration criteria. Our workplace is free of pests and sanitation programs which can identify potential pest. We conduct pest and sanitation programs which can identify potential pest. Some preventive maintenance is put in place by making sure of the maintenance officer, scheduled maintenance, the effective method and approved chemical, employed staff and work with certain frequency/schedule. Some preventive maintenance is put in place by making sure of the bility of maintenance officer, scheduled maintenance, the effective methods and the record of the preventive maintenance.

Our food process is shown below.

The tests are for TPC, Coliform, E.coli, Staphylococcus aureus, Bacillus cereus, Salmonella and Shigella. The second verification is internal audit with certified auditor with flexible frequency based on complexity, complain or other criteria which needs us to do verification. The third one is by customer satisfaction survey. The last one is the calibration of thermometers, scales, chillers and freezers that we use in Aerofood ACS area.

The product recall simulation is conducted one per year to ensure that our employees know how to react when there are contaminated products released to our clients. The simulation can be traced forward and backward. The speed of the product recall effectiveness is monitored and measured. The information can come from supplier, customer, and our employees. Every steps of product recall is recorded. The product recall flow chart is shown below.

Aerofood ACS has emergency response and preparedness in case of flood, earthquake or fire. During flood, all food and raw materials will be discarded. While during earthquake or fire, if the food can be saved, the employees need to check the quality and food safety, if the food temperature is accepted, move to other chiller, otherwise (contaminated with foreign objects, food temperature exceed critical limit), discard the food.

Management review is conducted every six months. The attendance list includes the Director, Vice President, General Manager, Management Representative, Quality Assurance, and...
8°C. If receiving temperature is higher than -8°C or showing thaw sign, the item is rejected.

The second CCP is storage. The critical limits for core temperature are passable for 0-5°C, for 5-8°C, the chiller needs fixed, and if the temperature rises to more than 8°C, the chiller to be fixed and the product temperature needs to be checked. If product temperature is less than or equal to 8°C, it is still pass2 product temperature is more than 8°C, move the product to chiller. The critical limits for freezer temperature are less than or equal to -18°C, it is okay and more than -18°C, the freezer needs fixed and product needs to be checked. If there is no sign of thaw, the product is okay, if there is thawing sign, move the product to other freezer.

The third CCP is cooking process. The critical limit for core temperature (core temperature) for beef and chicken is at least 71°C for shell fish, fish and prawn is at least 65°C for egg is at least 71°C and the surface temperature of beef steak is at least 63°C. If critical limit is not met, re-cook the product until limit is met.

The forth CCP is blast chilling. The critical limit is the chiller can decrease the food core temperature from 60°C to 5°C maximum 6 hours. If critical temperature is not met, discard the food.

The fifth CCP is portioning. The critical limits are the portion is at room temperature (15-21°C), the portioning duration is 30 minutes at maximum, and the food temperature is 15°C at maximum. The corrective action for more than 45 minutes portioning duration, the food temperature needs to be checked. If it is more than discarding the food. If it is less than or equal to 15°C, keep it in chiller.

The operational prerequisite programs (OPRPs) are essential for 4 different processes. The dishwashing process needs to clean dishwashing machine with 71°C for the rinsing temperature and 8°C for final rinse. The chemical used is quaternary ammonium (300ppm). The second process is thawing. Use chiller with temperature maximum 10°C and final product surface maximum 6°C. Washing vegetable process uses chlorine (50-100 ppm) for 3 minutes. Dispatch process maintains the food temperature at maximum.

HACCP PROGRAM

The first critical control point (CCP) that we identified is the receiving point. The ready-to-eat chilled item has to be less than or equal to 5°C. If receiving temperature is higher than 8°C, the item is rejected. The ready-to-eat frozen item has to be less than or equal to -
ment Head/Manager. The discussion includes evaluation of up of previous meeting, audit result (certificatory, customer, audit), customer feedback or complain, quality target their inputs. To ensure that all information about quality and safety is socialized to all stakeholders, the management are ed to conduct management meeting twice per week and department meeting once a week. Managers can use this unication to request suggestions from their subordinates. All igs and the attendance list must be recorded for complete

'0 monitor and evaluate the food safety management system, es out assurance must ensure that all procedures are in place in, updated and correct. Quality assurance team needs to the documents (which include approval, revision and sion of the use of old version documents) and the records fication, record keeping, access to and the retention of the. Non conformance must be documented which includes at problem identification, problem investigation, corrective and tive action, time frame to solve the problem, and verification lity Assurance. The sources of non conformance can be from er complaint, audit, QC inspection, microbiology test, and ent.

be supporting facilities to ensure the personal hygiene of all ployees are hairnet, hand glove, laundry to wash the uniform ly the production staff: uniform, lockers for all personal ties (jewelry, watch, etc.). Other infrastructures are hot water, shing machine, thermometer gun, thermometer probe, scale, for store, plastic cover, insect killer, master scale for‘ion, stainless steel equipment, garbage bin with foot pedal, nitizer (quaternary ammonium) in every area, and dry ice.

PROGRAM

The first critical control point (CCP) that we identified is the g point. The ready-to-eat chilled item has to be less than or 5°C. If receiving temperature is higher than 8°C, the item is The ready-to-eat frozen item has to be less than or equal to 8°C. If receiving temperature is higher than -8°C or showing thing sign, the item is rejected.

The second CCP is storage. The critical limits for chiller temperature are passable for 0-5°C, for 5-8°C, the chiller needs to be fixed, and if the temperature rises to more than 8°C, the chiller needs to be fixed and the product temperature needs to be checked. If the product temperature is less than or equal to 8°C, it is still passable. If the product temperature is more than 8°C, move the product to another chiller. The critical limits for freezer temperature are less than or equal to -18°C, it is okay and more than 0°C, the freezer needs to be fixed and product needs to be checked. If there is no sign of thawing, the product is okay. If there is thawing sign, move the product to other freezer.

The third CCP is cooking process. The critical limit for cooking temperature (core temperature) for beef and chicken is at least 74°C, for shell fish, fish and prawn is at least 65°C, for egg is at least 70°C and the surface temperature of beef steak is at least 63°C. If the critical limit is not met, re-cook the product until it is met.

The forth CCP is blast chilling. The critical limit is the blast chiller can decrease the food core temperature from 60°C to 5°C in maximum 6 hours. If critical temperature is not met, discard the food.

The fifth CCP is portioning. The critical limits are the portioning is at room temperature (15-21°C), the portioning duration is 45 minutes at maximum, and the food temperature is 15°C at maximum. The corrective action for more than 45 minutes portioning duration, the food temperature needs to be checked. If it is more than 15°C, discard the food. If it is less than or equal to 15°C, keep it into the chiller.

The operational prerequisite programs (OPRPs) are established for 4 different processes. The dishwashing process needs to use dishwashing machine with 71°C for the rinsing temperature and 82°C for final rinse. The second process is thawing. Use chiller with room temperature maximum 10°C and final product surface maximum 8°C. Washing vegetable process uses chlorine (50-100 ppm) for 1 to 5 minutes. Dispatch process maintains the food temperature at 8°C maximum.
CONCLUSION

Aerofood ACS with its I-FRESH culture will strive to give the customers Integrity, Fast, Reliable, Effective and Efficient. Service Excellent and Hygiene services. By implementing food safety management system and HACCP, the food from Aerofood ACS is safe to eat. The certifications we get ensure that all food is safe and tasty. Aerofood ACS, one team one spirit one goal!

FORMALIN CONTAMINATION IN CHILDREN STREET FOODS AT SCHOOLS IN SURAKARTA CENTRAL JAVA, INDONESIA

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ABSTRACT

Formalin is one of the chemical agents that is sometimes abused as a preservative. Formalin has a negative effect on human health, especially children. This present study investigated the contamination of children’s street foods at schools with this substance.

This study was held in 12 schools in Surakarta, Central Java, Indonesia. The schools chosen included 4 elementary schools, 4 high schools, 3 senior high school and a vocational school. The children’s street school food were fried foods, pasta, dim sum, chips, cake, and drinks. Food samples collected and their formalin content was analysed using a formalin quantative test (AHMT). Of the 57 children’s meal tested, 28 (49%) were positively contaminated with formalin.

These results are very important for food safety programs in children street foods. Accordingly, the organizational structure required to minimize the risk of food contamination using a Total Management (TQM) approach.

Key word: formalin, street food

INTRODUCTION

Formaldehyde is a nearly colorless gas with a pungent, irritating odor even at very low concentrations (below 1 ppm [http://www.atsdr.cdc.gov]). Formaldehyde can be used for many purposes and is popular because of its lot of uses. Formaldehyde is found in cigarette smoke and can be found in the environment during the burning of fuels or household.