



## **An Internship report**

**On**

**Food Safety ,Quality Control and Hygiene**

**At**

**Biman Flight catering centre(BFCC)**

**Hazrat Shahjalal International Airport Kurmitola,1229 Dhaka**

**Submitted to**

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## LETTER OF TRANSMITTAL

**Date: 23 December 2018**

Professor Dr. Md. Bellal Hossain

Head

Department of Nutrition & Food Engineering

Daffodil International University.

**Subject: Submission of an internship report on Food safety, Quality control and Hygiene.**

Dear Sir,

It is a great pleasure and honor for me to have the opportunity to submit Internship report on on Food safety, Quality control and Hygiene as a part of the Nutrition & Food Engineering (NFE) program curriculum.

I have prepared this report based on the acquired taste knowledge during my internship period in Biman Flight catering centre BFCC. It is a great achievement to work under your active supervision. This report is based on Food safety, Quality control and Hygiene. I have got the opportunity to work in( BFCC) in “Hygiene and Food Safety” for sixty days, under the supervision of , Additional Abdur Rahman Faruki General Manager of BFCC.

This is the first times this project gave me both academic and practical exposures. First of all, I have gained knowledge about the organizational culture of a prominent consumer product producing organization of the country. Secondly, the project gave me the opportunity to develop a network with the corporate environment.

I therefore, would like to place this report to your judgment and suggestion. Your kind advice will encourage me to perform better planning in the future.

Sincerely Yours

Sadia zafrin

ID: 151-34-371

Department of Nutrition & Food Engineering

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## CERTIFICATE OF APPROVAL

I am pleased to certify that the internship report on Food safety, Quality control and Hygiene conducted by **Sadia Zafrin** bearing respectively **ID No: 151-34-371** of the Department of Nutrition and Food Engineering has been approved for presentation and defense/viva-voice.

I am pleased to hereby certify that the data and finding presented in the report are the authentic work of **Sadia Zafrin**. I strongly recommended the report presented by **Sadia Zafrin**, for further academic recommendations and defense/viva-voice, bears a strong moral character and a very pleasant personality. It has indeed a great pleasure working with him. I wish him all success in life.



**Professor Dr. Md. Bellal Hossain**

Head

Department of Nutrition & Food Engineering

Faculty of Allied Health Science.

Daffodil International University

# ACKNOWLEDGEMENT

In the preparation of this report .I would like to Acknowledge the encouragement and assistance Give to me by a number of people . First of all I express my deep gratitude and thanks to the almighty Allah for his infinite that allowed me to complete this report as a part of the NFE program. A lot of effort and study have been involved in preparing this report reality. The success and final outcome of this project required a lot of guidance and assistance from many people and I am extremely advantaged to have got this all along the completion of my project.

I am grateful to my parents without whom I can not be here .Without the support of my parents, I could not be able to achieve my objective and goals .

My Deep gratitude and sincere thanks to Honorable dean, **Professor Dr. Ahmed Ismail Mostafa** Faculty of Allied of Health Science, daffodil international university for his kind cooperation and to accept this Degree.

I respect and thank **Prof. Dr. Bellal Hossain** head of department of nutrition and food engineering daffodil international university for providing me an opportunity to do the internship work in Biman Flight catering centre(BFCC) and giving us all support and guidance which made me complete the project duly.

I also deep gratitude to our project guide Dr.Amir Ahmad, Associate Head department of nutrition and food engineering daffodil international university.who took keen interest on my project work and guided us all along, till the completion of our project work by providing all the necessary information for developing a good system.

I also grateful to all the other **NFE Faculty Member** For their grate help during university life .

I would not forget to remember my seniors, juniors, and my classmate and colleagues of for their help, advice and suggestions, inspiration and support .

I also thankful to **Abdur Rahman Faruki** Additional general manager of BFCC. For his permission to carry out this internship in his organization.

Finally I heartily thank our internal project guide Hygiene manager **Jafor Ahmed** of BFCC for his guidance and suggestions during this project work.

# SUMMARY

Biman Flight Catering Centre (BFCC), a name of quality foods and services for airlines operating. It is equipped with most modern facilities to meet the International Standard. Highly sophisticated production machinery & equipment are used for production and presentation of food for its safe enlistment to flights with 100% HACCP requirement.

This report I prepared on my one-month practical experience at BFCC. This Internship program gives me a lot of knowledge about Hygiene and Food Safety products practically. This report has been presented based on my observation and knowledge gathered from hygiene.

The organization has many divisions and department but I got the opportunity to work in the production department and quality control department. This report mentions both raw and processed products qualities and processing knowledge.

My report is based on Food safety and quality control of BFCC. The first part of the report covers information of the organization. The second part of the report contains the raw product test and quality factors. The third part of the report covers production of products. The last part contains the concluding part. This research's result that found is much considerable.

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# Chapter one

## Introduction

**Biman Bangladesh Airlines** frequently familiar as Biman enunciate is the national flag conveyor of Bangladesh, having its major fulcrum at Hazrat Shahjalal international Airport in Dhaka and it created in 4th February 1972. The transporter is currently facing stiff competition from a number of domestic Bangladesh private airlines as well as some international carriers which offer greater flexibility targeting Bangladesh air transport sectors which is experiencing an 8% annual growth rate, thanks to a large number of tourists and non resident Bangladeshi travelers. The airline was wholly owned and managed by the government of Bangladesh until 23 July 2007 when it was transformed into the country's largest public limited company by the caretaker government of Bangladesh.



Biman have 5 subsidiaries and it associated with aircraft ground handling, aviation engineering, aviation training and flight catering and there are:

- I. Biman Ground Handling (BGH)
- II. Biman Engineering
- III. Bangladesh Airlines Training center (BATC)
- IV. Biman Flight Catering Center (BFCC)
- V. Biman Poultry Complex (BPC)

**Biman Flight Catering Center (BFCC)** is strategically located adjacent to the North Terminal of Hazrat Shahjalal international Airport in Dhaka Bangladesh. The unit operates their state of the art catering facility to provide excellent products and services to international and domestic schedules Airlines private Aviation, UN flights and VIP Aircraft. The catering unit is built with through knowledge and trade experience fully functional to facilitate our customers with a consistent high quality products and services to cover multiple Aircraft's operations simultaneously. The provide and operate Technologically sound and advanced facility, Stringent HACCP System, Hygiene, Health and Safety Standard. Experienced and qualified Q/A and Q/C Team. In-house Laboratory. Management and Operational Controls are supported by sophisticated computer systems. Biman Flight Catering Centre



(BFCC) was set up in October 1989, to produce in-flight meals. It is one of Biman's most profitable operations; employing 2000 people. BFCC has the capacity of producing 8,500 meals a day and along with Biman, it also provides meals to Saudia Airlines, Etihad, Malaysia Airlines, Thai Airways, Emirates, Dragon Air, China Southern Airlines and Regent Airways. Biman Flight Catering Centre (BFCC) was established in October, 1989. It is equipped with most modern facilities to meet the International Standard. It is one of Biman's most profitable operations; employing 2000 people. BFCC has the capacity of producing 8,500 meals a day and along with.



BFCC is a catering center of international standard hygiene in its promises in. its premise should abide by the same. It prepared to improve hygiene standard and grow awareness on hygiene among all employees/ food handlers.

BFCC maintain CCP there is:

- I. Temperature controls for receiving potentially Hazardous food
- II. Control of cold storage Temperature
- III. Control of rapid chilling of cooked food
- IV. Control of cooked food
- V. control of potentially Hazardous food processing

### **Mission of BFCC**

To produce safe and wholesome food for airlines passengers. Constantly seek to better serve their customers and be proactive in fulfilling their service-responsibilities. Working environment to be supportive of teamwork, enabling the employees to perform the best of their abilities. To review all service lines regularly and develop the best practices especially hygiene and HACCP in the production.

## **1.1 Definition of Hygiene**

Hygiene is the practice of keeping yourself and your surrounding clean, especially in order to prevent illness or the spread of diseases.

## **1.2 Origin of the Report**

Daffodil International University & Department of NFE provide an Internship opportunity for students in a different company and different sectors. The internship program is a graduation requirement for NFE students. Its main purpose is to give the student knowledge about practical experience and real work place. It gives an opportunity to the student to get closer to job seekers. Main challenge for an intern student is to use theoretical concepts in real life experience.

## **The study and internship program has the following purposes:**

1. Might Find my Future Employer, and think what work prefer for me.
2. To come out from textbooks and learn about the real world.
3. To help students to express dependability, initiative, and professionalism and tasks they are assigned
4. To fulfill the requirement of NFE Program
5. To compare the real scenario with the lessons learned in DIU
6. To know about BFCC how to they work.
7. To learn about production and quality control of BFCC
8. To learn Different types of products.
9. Find my role-models
10. Test-Drive my knowledge and skills.
11. Strengthen my CV
12. If I do well, I have a network.
13. It can be the Experience of a lifetime.

This report is the result of one month's long internship program directed in BFCC is prepared as a requirement for the completion of the NFE program of Daffodil International University. As a result, I need to submit this report based on the "BFCC.

## **1.3 Objective of the Study**

The objective study is divided into two types.

- General Objective.
- Specific Objective.

### **General Objective:**

- To know how to control Hygiene and Food safety, Quality control
- To know how they maintain capacity of producing 8,500 meals a day.

## **Specific Objective:**

More specifically contains :

- To know how to they HACCP and food safety Maintain in the production house.
- To to know how they maintain the hygiene in the production.

## **1.4 Scope of the study**

Over widespread discussion, this report has been prepared. The main objective of this study is the Production and Quality Control of preparing Products com-positional standard and quality and processing of products by the BFCC. The report covers details about the Production and Quality Control under Hygienic Condition. However, I got an opportunity to work in both the Production & Quality Control Assurance Department.

## **1.5. Methodology**

A methodical process is required for the research of the final report. The methodology starts from the selection of topic, data source, interpreted results in a systematic manner and key points are to be found out. The overall process of the methodology is as follows:

### **Selection of the topic:**

The topic selection for any research is very important. It depends on expanded knowledge and on-practical skill from the assigned organization. so carefully select the topic cause it will help knowledge gain.

### **Source of data:**

Important data can be collected from both primary and secondary source.

### **Primary Source of data:**

- Primary data collected from the practical work
- Data collected from the employee.

### **Secondary Source of data:**

- From official and officers of the organization
- From newspaper, journal, articles etc.
- Different websites related to Hygiene science.
- From manuals and files of the organization.

**Tools Used:**

Some mathematics, graphical tools are used in this report for analyzing the data and to classify different types of data.

**1.6 Limitation of the report:**

Every report have some limitation so my report has also some limitation. These are given below:

- Due to some limitation, some information, especially from ultimate employees could not be collected
- Due to some rules and regulation, they did not give me some information because that is against their policy
- All of them was not filled up the feedback properly which cause insufficient data
- Due to insufficient time, they were unable to give me information.

# CHAPTER-TWO

## OVERVIEW OF THE ORGANIZATION

### 2.1 Historical Background of the BFCC

Biman Flight Catering Centre (BFCC) was set up in October 1989, to produce in-flight meals. The catering unit is built with through knowledge and trade experience fully functional to facilitate our customers with a consistent high quality products and services to cover multiple Aircraft's operations simultaneously. The provide and operate Technologically sound and advanced facility ,Stringent HACCP System, Hygiene, Health and Safety Standard.Experienced and qualified Q/A and Q/C Team.In-house Laboratory.Management and Operational Controls are supported by sophisticated computer systems

### 2.2 Objective of the BFCC

The provide and operate Technologically sound and advanced facility ,Stringent HACCP System, Hygiene, Health and Safety Standard.Experienced and qualified Quality control Team.In-house Laboratory.Management and Operational Controls are supported by sophisticated computer systems

### 2.3 Products and Services:

to produce in-flight meals. It is one of Biman's most profitable operations; employing 2000 people. BFCC has the capacity of producing 8,500 meals a day and along with Biman, it also provides meals to Saudia Airlines, Etihad, Malaysia Airlines , Thai Airways, Emirates, Dragon Air, China Southern Airlines and Regent Airways



## **CHAPTER-THREE**

### **DESIGN OF THE STUDY**

#### **3.1 Study Area**

Study area divided into 2 areas. Such as

1. Laboratory
2. Production

#### **3.2 Laboratory**

Microbiological lab test of raw items food, ice and water, Microbiological swab test of hand equipment and utensils are carried out as per laboratory test Schedule prepared by BFCC. Preparation of Culture media chemicals reagents for lab test purpose by lab technician / hygiene officer. Collection of sample to be tested by lab technician /hygiene officer. Necessary microbiological chemical and physical examination are done by lab technician /hygiene officer as per lab test procedure. Lab test reports prepared by hygiene officer. Hygiene officer also keep and maintain lab test report and other relevant document.

#### **3.3 Production**

Maintain the storage room temperature and keep high risk perishable foods out of the danger zone. Ensure proper sacking of items so that it does not fall down and ensure easy counting and cleaning. Raw materials must be purchased from reputable suppliers with acceptable hygiene standards.

To ensure raw fruit and vegetables are thoroughly washed in order to reduce physical , chemical, microbiological surface contamination of all unwashed fruit and vegetables.

To control the growth of pathogens during the thawing of raw and ready to eat food. To ensure that ready to eat food is not contaminate by microorganisms during thawing. Raw and ready to eat food must be thawing in an approved and safe manner to ensure that the product surface.

## CHAPTER-FOUR

### PROCESSING SECTION

**4.1 Receiving :** The product or raw materials should be sated production date and shelf -life where relevant and should be wrapped or covered be in clean containers and made from approval food contact materials and transported in clean vehicle



Control food Safety at food receiving fresh meat and poultry shall be received at a temperature of + 5°C and permissible up to +8°C. Frozen food shall be hard frozen and must not display sign of previous thawing at time of receiving. All packaged food shall be labeled with expiry date and for the widest possible extend be received within first third of shelf life. All foods shall be labeled with the receiving date when storage to ensure satisfactory stock rotation. Frozen products must be keep frozen they are not allowed to thaw pially. All frozen products should have been received frozen it is forbidden for the unit to freeze products. unwrapped food should be kept covered. No food may be storage or placed directly on the floor at any circumstance. In receiving time one hygiene officer monitor are notes all this thing and they are not satisfy they rejected this products.

**4.1 Storage:** After receiving products they send the products in the storage. Receiving have four storage room two is freezing temperature and two is refrigerator temperature dairy products storage room and meat and fish product freezing temperature or egg storage, Fruit storage refrigerator temperature. To prevent growth of pathogenic microorganisms to harmful levels during storage and to maintain the temperature of each refrigeration unit within acceptable limits. The temperature to each refrigerators must be maintained at all times between 0°C to 5°C and corrective action should be taken when the temperature of a refrigeration unit about exceed +8°C. Temperature control procedure for refrigerators must require that the temperature to each refrigerators in the unit is recorded minimum to twice a day. if the temperature of a refrigeration unit is about to exceed 8°C the surface temperature of representative sample of food should be check. If food temperature rises above 5°C all food items must be transferred into a refrigerator that is chilled within acceptable limits and action should be taken unit the temperature of the refrigerator is restored to acceptable limit.

**4.2 Wash/ Sanitizing:** To ensure raw fruit and vegetables are thoroughly washed in order to reduce physical, chemical, microbiological surface contamination of all unwashed fruit and vegetables. Raw fruit and vegetables shall undergo the following step

1. Raw fruit and vegetables must be washed in vegetables washing machine or clearly labeled and designed sink.
2. Remove damaged part, major foreign bodies, dead leave, roots etc,
3. chlorine solution use for sensitization and allow contact time 1- 5 minutes based on item.
4. Inspect the final product to ensure it is visually clean, free from debris and dirt.
5. Each batch of products must be recovered to verify washing has taken place. All prepared fruits and vegetables must then be labeled and stored under refrigerator condition.

#### **4.3 Thawing & Raw Food preparation:-**

To control the growth of pathogens during the thawing of raw and ready to eat food. To ensure that ready to eat food is not contaminated by microorganisms during thawing. Raw and ready to eat food must be thawing in an approved and safe manner to ensure that the product surface does not exceed 8c upon completion. Under refrigeration below 8c at ambient temperature the surface temperature of food must not exceed 8c and must be recorded. Under cold running potable water the product must be in sealed packaging. The surface temperature of the food must not exceed 8C and must be recorded. To prevent the risk of cross contamination the sink must be clean and sanitized. Thawing shall be performed in the cold room at temp. +8C and surface temperature must not exceed +5c during the entire thawing period. Raw meat and fish are processed in a room where the temperature is maintained between 15c and 21c. The temperature of the room must not exceed 45 minutes.

#### **4.4 Pre- Preparation:**

During processing of meat fish temperature should not exceed +13c. Keep time/temperature records of processing with quantity. After cutting cover them and mark them with date. It must be used within 24h. Put processed meat and fish in cold room as soon as cutting of one batch is complete. In between two uses wash, clean and sanitize hands, knives and cutting boards. Ensure

cutting boards, knives and trays are washed and sanitized before start work. Use vegetable dryer machine for drying spinach and lettuce should be strained to get it dried. For vegetable to be used in hot kitchen cut them and send to hot kitchen directly.





**4.5 Storage(chilling) :** Maintain the storage room temperature at +22c and keep high risk perishable foods out of the danger zone+5 to +63c.Ensure proper sacking of items so that it does not fall down and ensure easy counting and cleaning.Raw materials must be purchased from reputable suppliers with acceptable hygiene standards.

#### **4.6 Cooking/Boiling/Baking/Frying/Heating:**

Ensure cleanliness of cooking pan and accessories before start work.Always follow the correct recipe and cooking process.Ensure production dead line at least 6 hours before the departure of a flight.Food should not be cooked too far in advance to cause food poisoning. Core temperature to cooked food should be maintain not less then +75c during cooking.Keep cooking time/temperature record. Cooked food should not be left in the Danger Zone (+5cto +63c).



#### **4.7 Rapid Chilling & Storage:**

For rapid chilling place the hot food above +63c into the blast chiller and bring temperature down to +10c or less within 90 minutes and keep it in cold room.Keep blast chilling time/ temperature record. All high risk foods including stew and gravies should pass through the blast chiller.After blast chilling all cooked food must be covered and marked with production date place them in cold room immediately.The chilling capacity and production scheduling must be carefully correlated. In Case there is along queue for rapid chilling and chance of going down food temperature to danger zone below +63c place the extra trolleys into cooked meal freezer till their turn to pass through blast chiller. Storage of different food in cold rooms should be organized to avoid any risks of cross contamination. If it is to be stored keep in refrigerator and use within 24 hours.

#### **4.8 Preparation/ portioning/Tray set Assemble :**

During food preparation hands must be washed and sanitizes raw vegetable and fruits wash and clean peeling machine processor and dryer after use.Use two cups 140g of mikro chlor powder in the tub water 200L for sanitisation and rinses with water thoroughly.During portioning food temperature should not exceed +13 c and maximum time for one batch 25 minutes.Random check of casserole against weight and quantity of meal components once for each batch.Arrange all equipment and meal carts required for one

complete flight. Line up and label them with flight number and date and number trays or meals. During tray set up loading on the hi lifter and aircraft temperature of food component should not exceed +13c. Keep time/temperature recorded during tray set up loading on the hi lifter and loading on the aircraft. During assembly at the loading bay meal carts and other items should not stay more than 30 minutes. due to security reasons all meal carts and boxes or container should be sealed. ensure that on objectionable items is concealed inside and sealing record is kept.

#### **4.9 Final Holding & Dispatch:**

To prevent growth of pathogenic microorganism during dispatch. All potentially hazardous food for consumption on aircraft. Dispatch cold Food ensure that temperature of food prior to dispatch does not exceed 5c and frozen meals are hard frozen. Hot food ensure that core temperature prior to dispatch is not lower than 63c.



#### **4.10 Transportation and Aircraft Loading :**

To prevent growth of pathogenic microorganism during dispatch. All potentially hazardous food for consumption on aircraft. transportation and loading of food is expedited cold Food ensure that temperature of food does not exceed 10c and frozen meals are hard frozen. Hot food surface temperature is not lower then 60c.

# CHAPTER-FIVE

## Processing Section of Bakery Products

### 5.1 Receiving :

After receiving products they send the products in the storage. Receiving have four storage room two is freezing temperature and two is refrigerator temperature dairy products storage room and meat and fish product freezing temperature or egg storage, Fruit storage refrigerator temperature. To prevent growth of pathogenic microorganisms to harmful levels during storage and to maintain the temperature of each refrigeration unit within acceptable limits. The temperature to each refrigerators must be maintained at all times between 0°C to 5°C and corrective action should be taken when the temperature of a refrigeration unit about exceed +8°C. Temperature control procedure for refrigerators must require that the temperature to each refrigerators in the unit is recorded minimum to twice a day. if the temperature of a refrigeration unit is about to exceed 8°C the surface temperature of representative sample of food should be check. If food temperature rises above 5°C all food items must be transferred into a refrigerator that is chilled within acceptable limits and action should be taken unit the temperature of the refrigerator is restored to acceptable limit.



### 5.2 Storage(chill and ambient):

After receiving products they send the products in the storage. Receiving have four storage room two is freezing temperature and two is refrigerator temperature dairy products storage room and meat and fish product freezing temperature or egg storage, Fruit storage refrigerator temperature. To prevent growth of pathogenic microorganisms to harmful levels during storage and to maintain the temperature of each refrigeration unit within acceptable limits. The temperature to each refrigerators must be maintained at all times between 0°C to 5°C and corrective action should be taken when the temperature of a refrigeration unit about exceed +8°C. Temperature control procedure for refrigerators must require that the temperature to each refrigerators in the unit is recorded minimum to twice a day. if the temperature of a refrigeration unit is about to

exceed 8°C the surface temperature of representative sample of food should be check. If food temperature rises above 5°C all food items must be transferred into a refrigerator that is chilled within acceptable limits and action should be taken unit the temperature of the refrigerator is restored to acceptable limit.

**5.3Preparation:**Dough hing vessel,whisk,knives,brushes etc must be washed cleaned and sanitized. All equipment and accessories which are used in bakery must be washed cleaned and covered.Ensure sieving/straining flour before making dough.In case metal mould are used they must be properly washed cleaned and sanitized before use.It is advisable to use disposable mould for cream caramel and similar item.Be extra careful taking cream caramel out of the mould and place them in cold room immediately as because it has not been cooked and it is high risk item.All the hot dessert to be portioned hot and pass through the blast chiller for rapid chilling to bring temperature down to +10c or less and keep in refrigerator.

**5.4Baking/ Heating :** In the backing section they maintain Hygiene and all the storage temperature freezing temperature bellow 5C.All equipment and accessories which are used in bakery must be washed cleaned and covered.Ensure sieving/straining flour before making dough.In case metal mould are used they must be properly washed cleaned and sanitized before use.It is advisable to use disposable mould for cream caramel and similar item.Be extra careful taking cream caramel out of the mould and place them in cold room immediately as because it has not been cooked and it is high risk item.All the hot dessert to be portioned hot and pass through the blast chiller for rapid chilling to bring temperature down to +10c or less and keep in refrigerator.

**5.5Quick chilling:**The temperature to each refrigerators must be maintained at all times between 0°C to 5°C and corrective action should be taken when the temperature of a refrigeration unit about exceed +8°C.Temperature control procedure for refrigerators must require that the temperature to each refrigerators in the unit is recorded minimum to twice a day.if the temperature of a refrigeration unit is about to exceed 8°C the surface temperature of representative sample of food should be check. If food temperature rises above 5°C all food items must be transferred into a refrigerator that is chilled within acceptable limits and action should be taken unit the temperature of the refrigerator is restored to acceptable limit.

### **5.6Addition of Fillings/Toppings:**

During portioning food temperature should not exceed +13C and maximum time for one batch 25 minutes.Random check of casserole against weight and quantity of meal components once for each batch.Arrange all equipment and meal carts required for one complete flight.Line up and label them with flight number and date and number trays or meals.

### **5.7Portioning/ wrapping:**

During portioning food temperature should not exceed +13C and maximum time for one batch 25 minutes.Random check of casserole against weight and quantity of meal components once for each batch.Arrange all equipment and meal carts required for one complete flight.Line up and label them with flight number and date and number trays or meals.

### **5.8 Storage:**

The temperature to each refrigerators must be maintained at all times between 0°C to 5°C and corrective action should be taken when the temperature of a refrigeration unit about exceed +8°C. Temperature control procedure for refrigerators must require that the temperature to each refrigerators in the unit is recorded minimum to twice a day. if the temperature of a refrigeration unit is about to exceed 8°C the surface temperature of representative sample of food should be check. If food temperature rises above 5°C all food items must be transferred into a refrigerator that is chilled within acceptable limits and action should be taken unit the temperature of the refrigerator is restored to acceptable limit.

### **5.9 Tray set/ Assemble:**

During tray set up loading on the hi lifter and aircraft temperature of food component should not exceed +13c. Keep time/temperature recorded during tray set up loading on the hi lifter and loading on the aircraft. During assembly at the loading bay meal carts and other items should not stay more than 30 minutes. due to security reasons all meal carts and boxes or container should be sealed. ensure that on objectionable items is concealed inside and sealing record is kept.

### **5.10 Final Holding (chill storage), Dispatch:**

To prevent growth of pathogenic microorganism during dispatch. All potentially hazardous food for consumption on aircraft. Dispatch cold Food ensure that temperature of food prior to dispatch does not exceed 5c and frozen meals are hard frozen. Hot food ensure that core temperature prior to dispatch is not lower than 63c.

### **5.11 Transportation/ Aircraft loading:**

To prevent growth of pathogenic microorganism during dispatch. All potentially hazardous food for consumption on aircraft. transportation and loading of food is expedited cold Food ensure that temperature of food does not exceed 10c and frozen meals are hard frozen. Hot food surface temperature is not lower then 60c.

# CHAPTER SIX

## Quality Control Section

### Quality control check of final products:,

- Microbial test &
- Sensory evaluation check.

### 6.1 Microbial test

Procedure of microbiological analysis of food:

Purpose: To verify the effectiveness and reliability of in house control system and safe procedure

Scope: microbiological analysis includes:

I. In house produced ready to eat foods

II. Purchased foods or food ingredients

III. Microbiological cleaning control

Procedure: Random sampling and analysis of a limited number of potentially hazardous ready to eat foods may provide information regarding effectiveness and reliability of in house control procedures.

Testing frequency is attached microbiological analysis are done in house .

Microbiological testing of purchased ready to eat food or food ingredients is the most appropriate option for verification of safety of products as alternatively may be costly audits of remotely located manufacturing.

Frequency of testing should be determined primarily by performance history such as alleged or complaints or in house observation.

Microbiological cleaning control visual assessment may verify whether cleaned food contact surfaces such as table top, processing machines, cutting boards, flight equipment and utensils etc are visually clean.

Microbiological method used: FAO/WHO recommended testing method should be use

I. microbiological guidelines for ready to eat foods. E.Coli, coliforms, staphylo aureus, B.cereus, salmonella, etc

II. Microbiological guidelines for hand Swab and food contact surface swab. Coliforms, F.Coliforms, Staph.pyogenis.

### 6.1 Determination of Coliform

Purpose: To have basis understanding of the occurrence of coliform contamination in food. To display the correct method to test and identify coliform and Escherichia Coli in the food sample.

Instrument material

Auto-clave, Microbiological Incubator, Quebec Colony Counter, Vortex Mixer, Microscopes, Photometer, Computers, Test tube, conical flask, Spreader, Petra dish, Lamp, Biker, Micro Pipet, measuring slender, distil water, nutrient agar

procedure

in media preparation .first measure the nutrient agar in electric measuring machine. take 90 ml of distil water in conical flask. Which is mixed in vortex mixture . when it totally mixed, then close the upper portion of conical flask with the cork .then Petra dish , spoon , spreader , agar mixture, Micro Pripet , distil water put in auto clave for 20 minutes in auto modes.

After 20 mines take out all the equipment from the auto clave .then pour the hot mixture of nutrient agar in the Petra dish and kept for cooling.dilute the 10 gm sample in 90 ml distil water .take the sample micro pirpt .5ml and spreader it with spreader in 3 Petra dish. before spread it heat the speeder in the lamp. after heat wait for few second for cooling. Put Petra dishes in the incubator for 24 hours.

## **6.2Determination of total viable count (TVC)**

Purpose: To have basis understanding of the occurrence of E-colai contamination in food. To display the correct method to test and identify Escherichia Coli in the food sample.

Instrument material

Auto-clave, Microbiological Incubator, Quebec Colony Counter, Vortex Mixer, Microscopes, Photometer, Computers, Test tube ,conical flask, Spreader, Petra dish, Lamp ,Biker, Micro Pripet ,measuring slender, distil water, nutrient agar

procedure

in media preparation .first measure the nutrient agar in electric measuring machine. take 90 ml of distil water in conical flask. Which is mixed in vortex mixture . when it totally mixed, then close the upper portion of conical flask with the cork .then Petra dish , spoon , spreader , agar mixture, Micro Pripet , distil water put in auto clave for 20 minutes in auto modes.

After 20 mines take out all the equipment from the auto clave .then pour the hot mixture of nutrient agar in the Petra dish and kept for cooling.dilute the 10 gm sample in 90 ml distil water .take the sample micro pirpt .5ml and spreader it with spreader in 3 Petra dish. before spread it heat the speeder in the lamp. after heat wait for few second for cooling. Put Petra dishes in the incubator for 24 hours.

## **Sensory evaluation check:**

Sensory evaluation check by Head sheaf.

## Conclusion

My report is based on Food safety and quality control of BFCC. The first part of the report covers information of the organization. The second part of the report contains the raw product test and quality factors. The third part of the report covers production of products.

The last part contains the concluding part. This research's result that found is much considerable. they maintain high standards hygiene every one. Every food handler has a legal responsibility to safeguard food so that it does not cause illness or harm. poor food hygiene threatens.

The benefits of good hygiene are satisfied customer good reputation increase business compliance with the law less food waste good working conditions better job security. preventing contamination is major part of food safety .

High standard of personal hygiene helps prevent food poisoning and food borne diseases.

Knowledge on basic hygiene is mandatory for all personnel of catering center. A single mistake by a careless and unaware food handler even in the most modern food premises can result in a serious outbreak of food poisoning.

The resulting effect of food poisoning is definitely high and therefore there is no alternative but follow the rules . Since BFCC is a catering center to international standard Hygiene in its premise should abide by the same.



## **Reference:**

"Catering". Biman Bangladesh Airlines. Retrieved 1 December 2013