

Independence Day celebration



Independence Day celebration at N.E.S., Bhandup

Learn with Fun



New Publication



Customer's Platform



ISO Certification Award function of Commissionerate of Police, Chennai

QM Reader's Platform

DEAR EDITOR

QMS for service Industries, the last issue of Quality Mantra was very much interesting. I was happy to note the experiences shared by the implementers. In the hospital case it is very important that you consider a patient as your customer and try to redesign your services, improve your infrastructure, train your staff and then expand your business.

It is also interesting to note that ICS has certified Police Station for QMS. That means now Public services are also becoming public focused or in other words their customer focused. Indeed a best effort! Keep doing .

SHIRISH GONDHALEKAR.

DEAR EDITOR

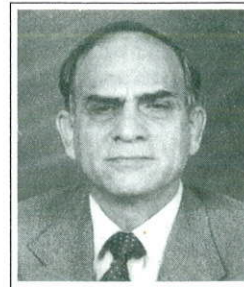
I have gone through the last issue of Quality Mantra-QMS for Service Industries. I was searching for the Feature called "Second Opinion". I am a regular reader of your newsletter & the first thing which I go through is the Question And opinions expressed by the experts under the same column. I Think this is the beauty of QMS standard that it can be interpreted in different ways, so also the implementation will differ from industry to industry only thing is the intention of the standard Requirement should be understood properly and met. Please do not stop this feature.

Message from Mr. Kataria was very informative. Please let me know whether this issue of Quality Mantra is available on your Website so that we can browse through.

MADAN A. DHADPHALE.



Editorial



MESSAGE FROM MD

Food Safety Management System

India is known as agriculturist country and farming in the small tiny field to very large field follows very primitive farming method to very advance technology. India has very large food processing industry catering not only to large continent

but exporting to many countries. Green & White revolution in the country has definitely given opportunity to many entrepreneurs however, this revolution is limited to few states like Punjab, Gujarat & Maharashtra only.

Advanced technology, research in high breed variety of seeds, fertilizers, pesticides, irrigation, food processing machinery, packaging and government thrust has brought the sea change & our food production yield has increased manifold. In absence of food standards based on the international good practices, Government of India has decided to bring the FOOD SAFETY AND STANDARDS BILL, 2005 that has been recently tabled in the house for review and approval.

The food safety segments awareness has been increasing day by day worldwide due to new disease & problems like mad cow. Acceptance criteria for toxic substance in food has been changing fast. Food Safety is no more limited to food processing but from the farm to fork i.e the consumer.

International Certification Services has been contributing to the Nation through development of certification, technology based on the food safety, risk, HACCP and Management System.

Certification of HACCP, Hazard and Critical Control Point / Food Safety Management System will bring the excellent results towards the improvement of the food safety processing to make it safe for human consumption thus enhancing health of the consumer/user in the country and overseas.

Inspite of India; being one of the largest manufacturer of Agriculture products; in the world we are unable to support the Century's economy. India's more than 50 % agriculture products perish due to poor harvesting, transportation, method of preservation, inadequate infrastructure, cold storage system, old technology, and packaging , untrained manpower etc.

We need to develop and have holistic approach in the food processing industry using advanced technology and food safety management system. Thus we will be in a position to increase the export of Agro products and improve the economy of country.

SUNDAR KATARIA

Feature

CAUSES OF FOODBORNE DISEASE

By: Krishna Datta

Activity Manager Food Safety

INTRODUCTION

In risk management of foodborne disease, there are two components.

1. Proper diagnosis of the technical causes of foodborne disease and specification of simple, effective controls by the worker on the line.
2. Specification of a management system that enables / empowers the worker on the line to do the control 100% of the time. In effective retail HACCP, there should be 100% "inspection" by employees. If they are taught to check each item and not sell it if they would not eat it themselves.

One contributing factor to the foodborne disease problem is an overemphasis on the seven HACCP principles that were specified in 1992 by the National Advisory Committee on Microbiological Criteria for Foods (NACMCF).



REAL CAUSES OF FOODBORNE DISEASE

What are the real causes of foodborne diseases in retail food operations? These causes are based on epidemiological data from outbreaks. HACCP says that the goal is zero foodborne disease. Therefore, I have listed the causes in order of the flow of food through the retail food facility. I start at purchasing, which includes a probable incoming contamination level, and I consider each step until we get to the point of consumption (i.e., from "farm to fork"). The following is my rearrangement of the factors into the flow analysis of a retail / home food operation. All of the following factors have contributed to / caused foodborne illness. One must be sure that they cannot do so in the system, under analysis.

Cause (Referenced to Actual Cases)

1. Purchasing, receiving, and food storage factors
 - a. Contaminated ingredients
 - b. Unapproved source / obtaining food from unsafe sources
 - c. Natural toxicant / mistaken for edible variety

- d. Contaminated water
- e. Toxic container
- f. Growth during seed germination
- g. Poor dry storage
2. Pre-prep and preparation factors
 - a. Toxic containers / pipelines
 - b. Cross-contamination
 - c. Hand contact with implicated food / colonized person handling implicated food
 - d. Unclean equipment / improper cleaning of equipment and utensils
 - e. Inadequate thawing
 - f. Inadequate cooking / canning / heat processing
 - g. Inadequate acidification
 - h. Slow, inadequate drying
 - i. Improper fermentation
 - j. Incorporating contaminated, raw food into foods that receive no further cooking
3. Transport and serving factors
 - a. Preparation several hours before serving
 - b. Inadequate hot holding
 - c. Added poisons, chemicals; intentional additives, incidental additives
 - d. Consumption of raw or lightly cooked food of animal origin
 - e. Post-processing contamination
4. Leftover factors
 - a. Improper cooling
 - b. Anaerobic packaging
 - c. Lapse of 12 or more hours between preparing and eating / use of leftovers
 - d. Inadequate reheating
 - e. Flies on food

Learn with Fun



This is a result of value added process based Auditing

A HACCP-BASED TOTAL QUALITY MANAGEMENT FOOD BORNE DISEASE PREVENTION PROGRAM

The seven principles of HACCP provide reasonable guides for identifying scientific causes and control, but they do not include the management component that is necessary to make HACCP happen. What is preventive HACCP, then? It is a company program that protects the company from the liability of contaminated food, employees, and the environment such as city water (i.e., the sources of the hazards). The government is not supposed to, and does not, have any responsibility for protecting operators who make mistakes that cause foodborne illness or death. Operators must show due diligence and defend themselves to lawyers, defenders, and juries. Therefore, the hazard control system that we need to discuss is not one that pleases regulatory officials, but is one that provides a defense in case of an employee error that causes a foodborne illness or death. The following is an abbreviated list that is used when audit of a unit is carried out to validate that it has an effective, HACCP-based, due diligence program that would provide adequate defence in case of a lawsuit.

1. Validate the management QA program.
 - a. Is management using operating data from monitoring of processes and employee behavior to continuously improve all processes?
 - b. Can the CEO "walk the operation" and identify all hazards and technical and behavioral controls?
 - c. Are all employees trained according to validated, safe operating procedures before given food-handling tasks to perform? (Remember, FDA does not validate its controls that it includes in the retail code.)
 - d. Is training from written, validated, correct, HACCP-based policies, procedures, and standards in order to be uniform, reproducible, and capable of being improved?
 - e. A written test is not adequate. Are employees tested for mastery of HACCP tasks and then coached by supervisors until critical behaviors are a habit?
2. Validate that the food system description is up to date. Each time there is any change, the new procedures must be validated as safe by someone with adequate HACCP competencies.
 - a. Are the environment, facilities, & equipment correctly described? What does the establishment plan to add? Is management making adequate provisions?



- b. Is each menu item correctly described, and how it is made?
- c. Are all styles of service described, to include take-out, home delivery, catering, etc.?
3. Validate that GMPs are up to date:
 - a. Are procedures for cleaning, sanitizing, and maintenance of environment, facilities, and equipment up to date?
 - b. Is employee personal hygiene up to date?
 - c. Are all emergency situations considered?
4. Validate full HACCP control over all ingredients; their source; and microbiological, chemical, and hard foreign object hazards.
5. Validate that recipes are safe.
 - a. Ingredients and amounts.
 - b. Procedures to make food safe.
 - c. Customer handling of food.
 - d. Leftovers.
6. Validate operations. Check operating data. Check for opportunities to improve, based on:
 - a. Daily operating reports.
 - b. Customer feedback.
 - c. Employee team feedback.
 - d. Self-audits.
 - e. Outside audits.
7. Validate the improvement program /change.
 - a. Does the unit have a list of opportunities?
 - b. Are these opportunities prioritized?
 - c. Is the unit doing R&D to determine exactly what to change? Does it validate that the new procedure is better than the old?
 - d. Does management schedule change, fund, and allow time?

IMPLEMENTING HACCP-BASED TQM

Just how long does it take to do a HACCP? If the owner knows all of his or her recipes, then he can set up a basic recipe HACCP in four hours, because most controls are common from unit to unit. The more important question is, "When does the HACCP become effective?" It could be as little as four additional hours, if there is an employee meeting and all employees do what they are told. This never seems to happen. So far, people want to write HACCPs, but then, they file them away and ignore them, and say they have a HACCP. They may have a HACCP program, but they are not doing HACCP. The retail food industry educates it does not train employees to build habits. The probability of correct employee task performance is the correct measure. One final factor is keeping the written HACCP program up to date in a unit. This is the difficult part. First and foremost, the manager must list the job of each employee so that each employee can be taught to do the critical tasks. Currently, only the chain restaurants have this level of organization and training. They do not follow through, however, and the government does not hold them accountable for pre control using HACCP. So, let's get started using HACCP. Let's recognize, though, all of the parts to the control of the contamination of food, people, and environment:

1. Correct government information
2. Government personnel who are well trained in HACCP process analysis
3. An industry that is held accountable for using the information.

Corporate News

International Certification Services has been working towards upgradation of the "Food Safety Management System" in India giving due consideration to globalization, competition and need of the government & public at large. Concentrated effort by the ICSIAN has given edge & could develop the certification system.

We have developed "Food Safety Management System" standard based on Risk Management, Codex and Management system integrating with ISO 9001 : 2000. The above documents have been reviewed by our accreditation body as well as Technical Advisory Committee.

International Certification Services is organising two days Seminar on "National Sensitization of Food Safety Management at Mumbai on 27th & 28th September, 2005.

International Certification Services has accomplished number of assignments on food safety management system covering manufacturing of dyes, beverages, oil extraction & food grains, etc.



The 59th Independence Day of the world's biggest democracy was celebrated in a grand manner at N.E.S. Ratnam College of Arts, Science and Commerce, Bhandup (West), Mumbai. Shri. R. K. Prasad, General Manager of ICS, Mumbai, was the Chief Guest of the Function.

Feature

HACCP: A State of Art Approach to Food Safety Mr. P. V. Anturkar

The Food and Drugs Administration has adopted a safety programme developed 30 years ago for astronauts & is applying it to seafood and juice. The agency intends to eventually use it for much of U.S. Food supply. The programme for astronauts focuses on prevention of hazards that could cause food-borne illness by applying science based controls, from raw material to finished products. FDA's new system will do the same.

Space age technology designed to keep food safe in outer space may soon become standard on earth. Traditionally, industry and regulators depended on spot checks of manufacturing conditioning and random sampling of final products to ensure safe food. The approach, however, tends to be reactive, rather than preventive & can be less efficient than the new system Guidelines for Application of HACCP principles

Introduction

Prerequisite programs

Education and training

Developing a HACCP plan

Assemble the HACCP team

Describe the food and its distribution

Describe the intended use and consumers of the food

Develop a flow diagram, which describes the process

Verify the flow diagram

Conduct a hazard analysis (Principle 1)

Determine critical control points (Principle 2)

Establish critical limits (Principle 3)

Establish monitoring procedures (Principle 4)

Establish corrective actions (Principle 5)

Establishing verification procedures (Principle 6)

Establish record keeping and documentation procedures

(Principle 7)

HACCP involves seven principles

Analyze Hazards: Potential hazards associated with a food and measures to control those hazards are identified. The hazard could be biological such as microbe; chemical, such as toxin; or physical, such as ground glass or metal fragments

Illustrations

Raw material used for making Bread Maida is the major ingredient if it is infected by bacteria these bacteria will burn in the process but after certain level of infection the food cannot be digested by human being so this becomes a hazard Reaction of metal of process equipment with food. A South African company ordered a Juicer to process 30 tons of Pineapples per day to a Pune company Since it was not possible to get huge amount of Pineapples, It was decided to crush 30 Kg of Tomatoes in the machine. The trial was successful but next day screw to lead raw material for crushing was rusted because Stainless steel material was not used. It was not specifically mentioned in the order nor the designer did take to use stainless steel. So metal coming in contact with food becomes a hazard In many cases glass bottles are used as packing material. At many stages of packing like washing cleaning filling corking and

handling at every stage there is possibility that a small broken piece of glass can go into the packed food. So packing in glass becomes a hazard Two thousand packets were ordered to a renowned Sweet shop When people received the packet they found greenish blew stains on white sweets they thought it must be very stale and infected sweet but actually packing was done hurriedly before drying of ink used for printing on the box. This ink was touched the sweets. So this becomes a hazard

Identify critical control points: these are points in a food's production from its raw state through processing and shipping to consumption by consumer at which potential hazard can be controlled or eliminated. Examples are cooking packing, & metal detection.

Illustrations

At the time of setting and adjustment or at the time of maintenance non-rotating part rubs with stationary part & metallic powder is mixed with food. So providing metal detectors and ensuring no rotating part rubs with stationary part this becomes a control point. Milk changes its flavor after 48 hours even after keeping in refrigerator so if the pack has time and date of packing Consumer can avoid old milk. This becomes a control point Certain preservatives are not mixed with food but kept near the food inside packing But these preservatives are toxic if consumed This is a control point

Establish critical limits: Establishing preventive measures with critical limits for each control point. For cooked food for example this might include setting of minimum cooking temperature and time required to ensure the elimination of any harmful microbes

Illustrations

Establish critical limits: Establishing preventive measures with critical limits for each control point. For cooked food for example this might include setting of minimum cooking temperature and time required to ensure the elimination of any harmful microbes

Illustrations

- 1) For preservation of milk pasteurization is done here at each stage of operation it is necessary to decide temperature with tolerance and time for retention of that temperature. These limits are to be decided similarly for some other food pasteurizing temperature and retention time can different
- 2) Some foods are vacuum packed value of the vacuum pressure is to be defined with limits Similarly Nitrogen filled packs pressure has to be little more than atmospheric pressure. This pressure is to be defined with limits because pressure is too high then aluminum foil may burst.
- 3) In some cases in raw material certain level of microbes will be there then it is necessary to define that level

Establish monitoring procedures: Establishing procedures to monitor the critical control points such procedures might include setting the minimum cooling temperature and time required to ensure the elimination of any harmful microbes.

Illustrations

- 4) When partially dehydrated vegetables are to be produced then we should have detail procedure to monitor temperature and time for dehydration and packing
- 5) When tea leaves are dried or roasted temperature and time are

to be maintain properly so tea does not loose test or burn to ashes so there has to be establish procedure to monitor this process

6) Same case with bakery items Pizza base is to be partially cooked so it be cooked completely after putting necessary ingredient before delivering to customer. So time & temperature control with proper procedure is essential to produce correct quality Pizza

Establish corrective actions: establish corrective actions to be taken when monitoring shows that a critical limit has not been met. For example, reprocessing or disposing of food if the minimum cooking temperature is not met.

Illustrations

A batch of cake if found half cooked there has to be corrective action to complete the process of cooking with a defined set of temperature and time. Similarly because sudden environmental changes if any corrective action is necessary to modify the setting then such provisions should be in the procedures If some sand or mud particles are found in mango pickle then corrective action is to be taken after studying handling of mangoes at each stage to find out what stage this contamination is taking place further process of storing, cleaning process are to be studied to eliminate this contamination

If food is spoiled in the process then there has to procedure of disposal so that it does not affect public health or can contaminate other good food

Establishing verification procedures: Establish procedures to verify the system is working properly- for example testing time- and temperature recording devices to verify that a cooking unit is working properly

Illustrations

System of calibration of temperature and time recorders is to be in operation

For tinned food there has to be method of printing batch number on each tin and at least one tin is preserved till the last date of consumption of that batch so in case of any complaint food inside the tin can analyzed similarly if the tin shows bulging within few days after packing from top or bottom them there is development of microbe & in this case it is necessary to call back whole batch immediately.

Biscuits are baked in oven its crispness depends upon baking if these biscuits are not evenly heated they will develop different colour ranging from light yellow to dark brown so as maintain same colour control of temperature and even distribution heat is necessary. We should verify process time to time taking into consideration quality of product and environment

Establish record keeping and documentation procedures: Establish effective record keeping to document the HACCP system. This would include records of hazards and their control methods, the monitoring of safety requirements and action taken to correct potential problem. Each of principle backed by sound scientific knowledge for example published microbiological studies on time and temperature factors for controlling food borne pathogens.

Illustrations

7) It is necessary to write down procedures of process giving details of time and temperature to be maintained
 8) There has to be continuous improvement on these processes by getting information from food processing and research institute so that preservation is possible by keeping natural test and odor as it is.

9) Documentation should be adequate to trace back the process and raw material quality etc.

10) Effective system of continuous improvements has to be in written form and it should explain scientific background for each improvement

Need for HACCP

New challenges to US food supply have prompted to consider adopting a HACCP based food safety system on wider basis. One of the most important challenges is the increasing number of new food pathogens. For example, between 1973 and 1988, bacteria not previously recognized as important causes of food borne illness-such as Escherichia coli O157:H7 and Salmonella enteritidis became more wide spread. There, also is increasing public health concern about chemical contamination of food for example, the effect of lead in food on the nervous system. Another important factor is that the size of the food industry and the diversity of products and processes have grown tremendously- in the amount of domestic food manufactured and the number and kinds of foods imported. At the same time, FDA, state, and local agencies have the same limited level of safety. The need for HACCP in United States, particularly in seafood & juice industries, is further fueled by the growing trend in international trade for worldwide equivalence of food products & the Codex Alimentarius Commission's adoption of HACCP in international standard for food safety.

ICS Publication

**ISO 9001-2000 QMS IN GUJRATHI.
 'PRAGATINA PANTHE' IS AVAILABLE
 FOR SALE AT ALL ICS-STATIONS.**



Diary Notes

From	To	Place	Training course	Contact details
24/09/05	25/09/05	Nashik	IQA-ISO 9001-2000	Ravindra Chandorkar ics_nashik@icsasian.com 0253-2422392 / 5601349
24/09/05	24/09/05	Panvel Navi Mumbai	OHSAS Awareness	Mahesh Jadhav. info@icsasian.com 022 2650 7777 to 82
27/09/05	28/09/05	Mumbai	Haccp Based Food Safety Management System Requirements.	Ajay Badalia / Krishna Datta info@icsasian.com krishna@icsasian.com 022 2650 7777 to 82
30/09/05	01/10/05	Banglore	IQA-ISO 9001-2000	Jayashankar N. icsapld@vsnl.net 080-22384620 098452162618
04/10/05	08/10/05	Nashik	Lead Auditor Course (5 days) QMS	Ravindra Chandorkar ics_nashik@icsasian.com 0253-2422392 / 5601349
21/10/05	22/10/05	Manglore	IQA-ISO 9001-2000	Jayashankar N. icsapld@vsnl.net 080-22384620 098452162618
22/10/05	26/10/05	Ludhiana	Lead Auditor Course (5 days) QMS	Mr. P. K. Sharma. ics_ludhiana@icsasian.com 0161-3956578 / 5578206 9417268296
24/10/05	28/10/05	Srilanka	Lead Auditor Course (5 days) QMS	Mahesh Jadhav. info@icsasian.com 022 2650 7777 to 82
14/11/05	18/11/05	Pune	Lead Auditor Course (5 days) QMS	Ashok Ohol ics_pune@vsnl.net ics_pune@icsasian.com 020-25455206 / 25424204 9850895709 / 9881477059

Station's Highlights

- **ICS Nagpur** : has certified following prestigious clients for ISO 9001:2000
Mahabal Enviro Engineers Pvt. Ltd., Nagpur
 has certified following prestigious clients for ISO 14001:2004
Vicon Automobiles (I) Pvt. Ltd. (Akshay Toyota), Raipur
Frontier Vehicles & Motors Ltd. (Frontier Toyota), Jabalpur

- **ICS Belgaum**: has certified following prestigious clients for ISO 9001:2000
Herald Publication Pvt. Ltd., Goa
Press Metals, Hubli

- **ICS Mumbai**: has certified following prestigious clients for ISO 9001:2000
Meltron Industries
Harsh Engineering Components Co.
Allied Electronics Corporation
ARCS Industries
Incoach Builder
Zenith Multiple Wires P. Ltd.

- **ICS Pune** : has certified following prestigious clients for ISO 9001:2000
Darode Jog Builders Pvt. Ltd.
Dhananjay Datar & Associates

- **ICS Kolhapur** : has certified following prestigious clients for ISO 9001:2000
Sawant Agro Machineries Pvt. Ltd.

Customer's Platform



ISO Certification Award function of Commissionerate of Police, Chennai Hon'ble Chief Minister of Tamil Nadu Ms. Jayalalita attended the said function Chennai Station Manager Mr. G. Venkataraman is also seen.



Mr. Ratanraj Pirgal of M/s M.J. Switch Gears received the Udhog Bharathi Award for the Year 2004 in presence of Uganda & Fizi High Commissioner, Ex. Uttar Pradesh And Orissa Governor, Ex. Chief Election commissioner of India, at 33rd National Seminar of DRA Delhi.

M/s M.J. Switch Gears has been Certified by ICS Recently

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Reg. Office : E-7; Chand Society, Juhu Road, Juhu, Mumbai 400 049. Maharashtra, India.

Corp. Office : 22/23, Goodwill Premises, Swastik Estate, Kalina, Santacruz (E) Mumbai 400 098. MH, India.

Tel.: +91 22 26507777 to 82 E-mail: info@icsasian.com URL: www.icsasian.com

Feedback / suggestions are welcome at: qualitymantra@icsasian.com

If you would like to share any article for quality mantra, please feel free to contact editorial team at ics_pune@vsnl.net / uday@icsasian.com

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