Procedure for HACCP Plan

1.0 Purpose

To establish and maintain a uniform approach to establish HACCP Plan.

2.0 Scope

This Procedure applies to all activities related to raw material, storage, manufacturing as per process flow steps for product manufactured by us from all the plants.

3.0 Responsibility

Responsibility for follow up of this procedure lies with the HACCP team.

Description Of Activity

Preparation of HACCP Details:

a) Each step identified in the Process Flow Charts is transferred to the Hazard Identification and control chart.

b) For each step the following are identified:

- Significant Hazards
- Control Measures
- CCPs (if any)
- Critical Limits (in case of CCP)
- Monitoring methods / procedures (in case of CCP)
- Corrective Actions (in case of CCP)
- Records (in case of CCP)
- Verifications (in case of CCP)
- Point of attention or pre requisite programme (POA / PRP)

Significant Hazard

Hazard identified in the hazard identification process are analysed for its severity and occurance to determine its impact on food safety.

To identify the significant Food Safety Hazards, Risk – Severity analysis is conducted.

OCCURANCE :

Every Hazard identified in the process is evaluated for the probability of its occurrence. Occurrence has been given a valuer from 1 to 5 depending on the probability of occurrence in the following manner :

Probability Of Occurance	Frequency	Occurance Factor
Very High	Daily	5
High	Weekly	4
Moderate	Fortnightly	3

Low	Monthly	2
Negligible	Yearly	1

SEVERITY

Each identified hazard is also evaluated for its potential to cause food safety problems and its impact on the human health.

Each Hazard is given a Severity Factor from 1 to 5 depending on the severity it can cause to the health of a person consuming the product in prescribed manner. The severity Factor is determined in the following manner :

Impact On Health	Severity Factor
Very Sever (Causing death)	5
Sever (Long Term Illness)	4
Moderate (Short term Illness)	3
Low impact (Momentary sickness feeling)	2
Negligible	1

The Risk Factor is then calculated as follows :

Risk factor (RF) = OCCURANCE (O) X SEVERITY (S)

Following table is used to find out significant of hazards and which can be put as decision to determine CCPs.

Rank	Risk Factor	Level of Control
R1	18-24	Avoidance/Special Process
R2	12-17	Physical Control/Monitoring
R3	7-11	Formal Control
R4	5-6	Informal Control
R5	1-4	Training

- **Avoidance:** Precluding the possibility of a given hazard, it may be the modification of the process if necessary.
- **Physical Control:** Continuous control & monitoring of the actual physical process.
- **Formal Control:** It is the management of the conditions of an operation to maintain compliance with documented criteria.
- **Informal Control:** It is the monitoring/check of the process without formal recording.

- **Training:** It is the teaching of the staff responsible for the process about what is to be done in order to prevent the hazard.

If Rick factor found fall in between 24 – 12 (R1 and R2) the same is considered as CCPs and others are consider as CPs.

Control Measures

a) For each identified hazard at least one control measure is identified.

Determining Critical Control Points

a) A CCP is defined as any point, step or procedure at which control can be applied and a food safety hazard can be prevented, eliminated or reduced to an acceptable level.

b) The determination of critical control points (CCPs) is based upon the assessment of severity and likely occurrence of hazards and upon what can be done to eliminate, prevent or reduce the hazards at a process step.

c) The selection of CCPs are made on the basis of:

- Identified hazards and likely occurrence in relation to what constitutes unacceptable contamination;
- Operations to which the product is subjected to during processing and preparation, and;
- Intended use of the product.

d) Control measures for significant hazards are identified on the HACCP Plan as a CCP/CQP.

e) The CCP Decision Tree as given in Annexure-1 is used for CCP determination.

Critical Limits (Principle – 3)

A) For each Critical Control Point critical limits are established. For each CCP, establish Critical Limits i.e. a criterion that must be met for each preventive measure associated with a CCP. For establishing CLs, refer to regulatory standards guidelines, literature, surveys, and experimental studies or experts views as necessary.

B) Critical limits are defined as values that separate acceptability from unacceptability. These parameters, if maintained within permissible limits, will confirm the safety of the product.

C) As far as possible, provide appropriate tolerance levels, to the CLs. While establishing CLs, ensure that the Critical Limits can be measured relatively easily & quickly. As far as possible avoid limits e.g. time consuming, non-conform / linear tests.

C One or more critical limits may be set to control an identified hazard. Critical limits may be set

for factors such as:

- Temperature- cold store/heating/sterilization
- Time (minimum time exposure), etc.

Monitoring CCP (Principle– 4)

A) Monitoring of critical limits by observation and/or test determines if the process step is in

control.

B) For each critical limit the following shall be defined:

- What –defines the target of the control measure
- How – defines the methodology used to monitor the critical limit
- Where – defines the location for undertaking the activity
- When – defines the timing or frequency of the activity
- Who – defines the responsibility for undertaking the monitoring

4.1.5 Corrective Action (Principle – 5)

a) Where the monitoring function detects a non-conformance where critical limits have been exceeded corrective action shall be taken.

b) Corrective actions need to address:

Reworking Of the products/Disposal of the products.

- Disposition of affected product
- Correction of the process

c) The required corrective action is noted on the HACCP Plan.

d) Details of non-conformances and the action taken will be recorded on Non-conformance Reports.

e) If the prescribed verified corrective action does not take care of the deviation, relevant people at plant will analyse the problem and will take corrective action. This will be documented on corrective action report.

f) Product Recall

1) If any Product after Being Dispatched is found to be unsafe for human consumption the batch is identified and recalled from the market.

2) To recall the identified batch , customers shall be informed about the batch number and shall be asked to send the material back to the plant.

3) At production in charges, packing in charges and Q.A. in charges with relevant personnel shall analyse the problem and find out the cause of non conformity. After analysis they shall identify the food safety hazard and shall decide weather the product could be re-processed or not.

4) If the product could be re-processed and food safety can be eliminated/reduced to acceptable levels the product shall be re-processed considering the financial implications of it.

5) If it is not possible to eliminate/reduce the food safety hazard level to an acceptable level the product shall be destroyed in a safe manner after securing the M.D 's permission.

Establish Record Keeping (Principle – 6)

For each CCPs identify the records to be maintained, considering the monitoring mechanism, detailing components to be observed & recorded the responsibility for

monitoring & record keeping update CCP work sheet accordingly. Train / inform concerned personnel for monitoring & record keeping to ensure effectiveness of the HACCP System.

Verification (Principle – 7)

The purpose of verification is to ensure that HACCP system is operating and effective control for food safety is established and done at least once in a year. The verification is done by HACCP team members and identified internal auditors. The HACCP system shall be verified during internal audits or special verification checks by

a) Reviewing of the HACCP system and its records.

b) Reviewing of deviations and product dispositions. Ensure that the verification methods are different from monitoring procedure & evidence of verification is available through appropriate records.

c) Conformation that CCPs are kept under control.

c) Following the validation the HACCP Plan shall be signed and dated.

d) Analysis of recalls(If any) and product dispositions.

e) Assessment of all specific control measures, deviations and corrective actions taken to seek confirmation of implementation and effective control of CCP's.

f) Assessment of all general control measures to seek confirmation of implementation and to demonstrate and effective control of associated hazards.

g) Compliance of the actual flow diagrams and layout with the documented situation. The same is reviewed once in a year.

h) Compliance of the PRP documents with the operational situation.

i) Evaluation of conformity with applicable legislation and regulations (as well as conformity to foreseeable changes in legislation and regulations) and identification of changes in legislation and regulations concerning food safety.

j) Review of gaps between current and desired level of knowledge, awareness and training of staff with respect of hygiene and food safety, resulting in effective (on-the-job) training sessions.

k) Consistency of the current documentation.

l) Product test records and analytical verification for sampling methods followed.

m) Analysis of customer and consumer complaints related to hygiene and food safety

Records of verification are maintained with HACCP co-ordinator.

Validation

a) Reviewing of the HACCP system and its records

b) Reviewing of deviations and product dispositions

c) Conformation that CCPs are kept under control.

d) Scientific data or other information demonstrating the particular control measures that address specific hazard

Documentation & Records: Records in prescribed formats are kept for each C.C.P. for verification & to take corrective action in case of deviation.

References

ISO 22000 : 2005 Food safety Management System Requirements

Product Description, flow chart and HACCP analysis as per HACCP Guidelines

Factory Floor Plan.

ISO-9001:2008 Quality Management System requirements

5.10 All Quality assurance procedures.

6.0 Enclosures

Nil

7.0 Formats / Exhibits

7.1	F/HACCP/01	Format for Hazard identification and control chart.
7.2	F/HACCP/02	Format for Hazard analysis and determination of critical control points.
7.3	F/HACCP/03	Format for HACCP Plan.
7.4		Inhouse testing and outside testing records

Annexure-1 CCP determination tree.