SPICES BOARD INDIA
Ministry of Commerce & Industry, Govt of India
स्पाइसेस बोर्ड भारत
वाणिज्य एवं उद्योग मंत्रालय, भारत सरकार

REGULATORY PROCEDURES FOR THE GRANT OF SPICE HOUSE CERTIFICATION TO THE SPICE PROCESSING ESTABLISHMENTS

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INTRODUCTION

Spices Board India (Ministry of Commerce, Government of India) is the flagship organization for the development and worldwide promotion of Indian spices. The Board is an international link between the Indian growers & exporters and the importers abroad. The Board has been spearheading activities for excellence of Indian spices, involving every segment of the industry. The Board has made quality and hygiene the corner stone's for its development and promotional strategies. Quality marking and Spice House certification launched by the Board have clear mandate of assuring safety and quality of Indian spice products in the world markets besides enhancing the image of the country.

As a part of Board's continuous effort to comply with the international as well as the national food safety requirements the rules and the procedures for the grant of

the certification has been revised incorporating the current components of food safety and food control system.

Any food control system shall be based on science and a scientific risk assessment. The objective of food control system shall be to protect public health and facilitate fair practices in trade. It is strongly recommended that the standards shall be in line with the Codex or any other acceptable international ones as they have been already developed and applied through a thorough risk assessment process.

The standards shall also meet the country's obligations under SPS and TBT as a WTO signatory. The current document satisfies the above requirements and incorporates the domestic as well as the export standards in a very transparent and enforceable manner.

REFERENCES AND REGULATIONS

Food Safety and Standards Act 2006 and the Rules 2011(FSSA)

General Principles of Food hygiene- 2009- Food Hygiene – Basic Tests - Fourth Edition (CAC)

EUReg.178,852/2004,853/2004,882/2004,1881/2006, 406,166, 333 (amended by 178/2010,105/2010, 669/2009, 212/2010) and other relevant regulations of US FDA CFR on GMPs and GHPs.

Standards FSSA, BIS, EU, USFDA, ASTA, Codex, etc.

Policy

It is the policy of Spices Board India to provide the best services to the Spice processing and export facilities to consistently produce quality and safe products and export to the global markets meeting the national and international statutory and regulatory requirements.

The Board as well as its professionals is totally committed to facilitate the trading of safe and quality spice products through the promotion of its quality making and the grant of Spice House Certification (SHC) as a symbol of safe food and meeting the country's SPS and TBT obligations under WTO.

The management has been providing all the required resources by way of technical and financial to ensure the application of a well designed food safety system based on the principles of GMP, GHP & HACCP with a food chain

approach and to effectively monitor its application to ensure the maintenance of the same in the Spice processing and export establishments.

Continuous improvement is the base of the policy and as such regular review and updating of the system will be ensured by a team of experts so that the regulatory control will be line with the scientific developments happening in the area.

An emergency response system to prevent the entry of unsafe spice products to be placed on the market will be in operation under the Spices Board as part of its policy to ensure Consumer safety.

A risk based, transparent and enforceable regulatory document for easy understanding by all the stake holders will be in place facilitating food safety, public health and international trade of safe food.

Objective

The main objectives of this document are –

- To have regulatory system based on science and international standards for the spice industry in India.
- To protect public health
- To ensure fair practices in trade.
- To have an enforceable, transparent food safety and quality assurance system through out the food chain for consistent application by the regulators and the FBOs, in Spice processing industries
- To be in compliance with the national as well as International Regulatory Standards, Guidelines and Code of Practices.

Distribution of the Document

Controlled copies will be distributed to

1 The Chairman

2 All officials dealing with Spice House Certification

3 Trade Associations

4 Collaborating Organizations

Document Control

Approvals, Amendments and Review

This manual is the confidential Property of the Board, approved by the Board.

All pages are numbered serially and any amended page will be replaced with the same number and will be recorded in the Amendment Sheet

Any amendment issued in due course shall have the same control procedures. All obsolete pages/copies will be stored separately under archive. Controlled copies will be made available for the use of the officials as well as all the holders of the manual.

The entire document will be reviewed at least once in a year by the technical personnel in the Board and necessary alterations will be incorporated based on the new scientific or regulatory requirements.

AMENDMENT FORMAT

Revision Amendments No. and date or Amendment No.	Pages and Text amended:	Reviewer:	Date of Revision/amendment	Comments:

SECTION 1

1. Scope

These regulations are applicable to all the Food Business Operators at all stages in the production, processing and export of Spice and Spice products and without prejudice to more specific requirements relating to food hygiene.

The regulation reinforces the FBOs' responsibility to ensure food safety and lays down general rules for the FBOs' in the hygiene of food taking particular account of the following principles:

- Primary responsibility for food safety rests with the FBOs
- Necessity to ensure food safety throughout the food chain starting from the primary production
- Provide assurance by the FBOs that the food is fit for human consumption and maintain confidence in Internationally traded food
- Food which cannot be stored at ambient temperature shall be under controlled conditions.
- Implementation of procedures based on the HACCP principles, fully supported with Good Hygiene Practices (GHPs) that are necessary to maintain hygienic environment throughout the food chain, suitable for the production, handling and processing of clean and safe end product, fit for human consumption.
- The document will be a guide to the FBOs at all levels in food chain to comply with the Hygiene rules and HACCP principles.
- Establish microbiological criteria and temperature control based on risk assessment
- Imported food is of at least the same hygiene standards as food produced in the country or equivalent.
- Ensure consumers' clear and transparent information through proper labelling about the use and handling of the products for safe consumption.

DEFINITIONS

Food safety	Assurance that Food will not cause harm to the consumer when it is prepared and/or eaten according to its intended use.
Standard	Standard is a document approved by a recognized body that provides, for common and repeated use, rules, guidelines or characteristics for products & related processes and production methods, with which compliance is not mandatory. It may also deal with terminologies, symbols, packaging, marking or labeling requirements as they apply to a product, process or production method. (WTO-TBT- Annex 1)
Regulation	Technical regulation is a document which lays down product characteristics or their related process and production methods, including the administrative provisions with which compliance is Mandatory. It may also include or deal exclusively with terminologies, symbols, packaging, marking or labeling requirements as they apply to a product, process or production methods.(WTO-TBT-Annex 1)

Food	Any substance, whether processed, partially processed or unprocessed, which is intended for human consumption and includes primary food to the extent defined, genetically modified or engineered food or food containing such ingredients, packaged drinking water, alcoholic drink, chewing gum, and any substance, including water used into food during its manufacture, preparation or treatment but does not include any animal feed, live animals unless they are prepared or processed for placing on the market for human consumption, plants prior to harvesting, drugs and medicinal products, cosmetics, narcotic or psychotropic substances. PROVIDED that Central Govt may declare, by notification in the official gazette, any other article as food having regards to its use, nature, substance or quality;
Spice	1. a. Any of various pungent, aromatic plant substances, such as cinnamon or nutmeg, used to flavor food or beverages. b. These substances considered as a group. 2. Something that adds zest or flavor. 3. A pungent aroma; a perfume.

Food additive	Any substance not normally consumed as a food by itself or used as a typical ingredient of the food, whether or not it has nutritive value, the intentional addition of which to food for a technological(including organoleptic) purpose in the manufacture, processing, preparation, treatment, packing, packaging, transport or holding of such food results, or may be reasonably expected or result(directly or indirectly) , in it or its by-products becoming a component of or otherwise affecting the characteristics of such food but does not include" contaminants" or substances added to food for maintaining or improving nutritional qualities;
Food business	Any undertaking, whether for profit or not and whether public or private, carrying out any of the activities related to any stage of manufacture, processing, packaging, storage, transportation, distribution of food, import and includes food services, catering services, sale of food or food ingredients;
Food Business Operator (FBOs)	A person by whom the business is carried on or owned and is responsible for ensuring the compliance of the Act, rules and regulations applicable to the business;
Food laboratory	Any food laboratory or institute established by

	the Central or a State Government or any other agency and accredited by National Accreditation Board for Testing and Calibration Laboratories or an equivalent accreditation agency and recognized by the Spices Board
Sampling for analysis	Taking food or any other substance (including from the environment) relevant to the production, processing and distribution of food in order to verify through analysis compliance with food law /regulations.
Sample	A set composed of one or several units or a portion of matter selected by different means in a population or in an important quantity of matter, which is intended to provide information on a given characteristic of the studied population or matter and to provide a basis for a decision concerning the population or matter in question or concerning the process which has produced it.
A representative sample	A sample in which all the characteristics of the batch from which it is drawn are maintained .This is in particular the case of random sample where each of the item or increments of the batch has been given the same probability of entering the sample.

Food safety audit	A systematic and functionally independent examination of food safety measures adopted by manufacturing units to determine whether such measures and related results meet with objectives of food safety and the claims made on that behalf;
Food Safety Management System	The adoption of Good manufacturing Practices, Good Hygiene Practices, Hazard Analysis and Critical Control Points and such other practices as may be specified in the regulation for the food business
Consignment	The quantity of Spice and Spice products bound for one or more customers in the country of destination and conveyed by one means of transport
Container	The principal covering in which products are packed
Contaminant	Any biological or chemical agent, foreign matter, or other substances not intentionally added to Spice and spice products that may compromise food safety or suitability.
Contamination	The introduction or occurrence of a contaminant in food or food environment.
Control (verb)	To take all necessary actions to ensure and maintain compliance with criteria established in the HACCP plan.
Control (noun)	The state wherein correct procedures are being

	followed and criteria are being met.
Control measure	Any action and activity that can be used to prevent or eliminate a food safety hazard or reduce it to an acceptable level.
Control Point	Any point, step or procedures at which biological, chemical or physical factors can be controlled
CAR	Non-conformity identified and issued to the processing /export facility during an audit.
Corrective Action	Formal communication in writing by the processor/ exporter or by Spices Board authorized officers for action to be taken to correct non-conformances identified during an audit. - Any action taken when the results of monitoring at a CCP indicate a loss of control (Codex Definition).
Critical Control Point(CCP)	A step at which control can be applied and is essential to prevent or eliminate a food safety hazard or reduce it to an acceptable level.
Critical Limit	A criterion which separates acceptability from unacceptability.
Deficiency	A failure to meet specified requirements of the HACCP programme as prescribed by this Standard
Deviation	Failure to meet a critical limit.
Establishment	Any premises where Spice and Spice products are

	prepared processed, packaged or stored for domestic and export purposes. Any building or area in which food is handled and the surroundings under the control of the same management. Auction/wholesale markets in which only display and sale by whole sale are not deemed to be establishments.
Flow diagram	A systematic representation of the sequence of steps or operations used in the production or manufacture of a particular food item.
Food handler	Any person who directly handles packaged or unpackaged food, food equipment and utensils, or food contact surfaces and is therefore expected to comply with food hygiene requirements
Food hygiene	All conditions and measures necessary to ensure the safety and suitability of food at all stages of the food chain
Foreign matter/ extraneous matter	The presence in the sample unit of any matter, which had not been derived from spices that does not pose threat to human health and is readily recognized without magnification or is present at a level determined by any method including magnification that indicates non compliance with good manufacturing and sanitation practices.
Good Manufacturing	Compliance with the Structural and Operational

Practice	requirements of Sections 3 and 4 of these Standards. CFR 123.110 On Current Good Manufacturing Practices
HACCP	A system which identifies, evaluates, and controls hazards which are significant for food safety.
HACCP Plan	A document prepared in accordance with the principles of HACCP to ensure control of hazards that are significant for food safety in the segment of the food chain under consideration.
HACCP Team	The team of people who are responsible for developing, implementing and maintaining the HACCP system.
Hazard	A biological, chemical or physical agent in, or condition of, food with the potential to cause an adverse health effect.
Hazard Analysis	The process of collecting and evaluating information on hazards and conditions leading to their presence to decide which are significant for food safety and therefore should be addressed in the HACCP Plan.
Imported Spices	Spice Products imported into India.
Ingredient	Any substance (including a food additive) used in the processing of Spices that ends up in the final

	product.
Inspection	Evaluating for conformity by measuring, observing, testing or gauging the relevant characteristics to assess compliance with specified standards.
Lot / batch	A quantity of Spice and Spice Products of the same type produced under practically identifiable conditions and produced in a given place within one defined production period, generally not exceeding 24 hours and from an identifiable processing line.
Microbiological criteria	Criteria defining the acceptability of a product, a batch of food stuff or a process based on the absence, presence or no of micro organisms and /or on the quantity of their toxins, metabolites per units of mass, volume, area or batch
Food safety criteria	Criteria defining the acceptability of product or a batch of food stuff, applicable to products placed on the market (Finished Goods)
Process Hygiene Criteria	Criteria indicating the acceptable functioning of the process. Such a criteria is not applicable to the products placed on the market or finished goods. It sets an indicative contamination value above which corrective actions are required in order to maintain hygiene of the process in compliance with food law.

Monitor	The act of conducting a planned sequence of observations or measurements of control parameters to assess whether a CCP is under control.
Official analysis	Analysis carried out by The Spices Board Laboratory or an approved Laboratory on behalf of the Board , accredited under ISO 17025: 2005
Packaging	The procedure of protecting product by a wrapper, a container, bag or any other suitable devices.
Packing	The placement of products into a container and includes sorting and grading and cleaning.
Pest	Includes insect, rodent, birds, pets, or other vermin
Potable water	Water that is fit for human consumption as prescribed by WHO, 98/ 83 EC. Or IS 10500 or IS 4251 depending on the use
Pre-requisite programmes	Basic conditions and activities necessary to maintain a hygienic environment throughout the food chain, suitable for the production, handling and provision of safe end products to the consumers.
Preserve	The process whereby products are packaged in hermetically sealed containers and subjected to heat treatment to the extent that any micro organisms that might proliferate are destroyed or

	inactivated irrespective of the temperature at which the product is to be stored.
Processing	An operation affecting the wholeness or any other chemical or physical characteristics (heating, salting, dehydration, canning, bottling, pulverising, blending or extraction).
Process Authority	An individual or an organization having expert knowledge and involved in developing process and evaluating process deviations on a regular basis specifically in case of a heat processed products to ensure food safety.
Processing and Export Facility	Any building or area in which, Spice and Spice products are handled, prepared, processed, chilled ,, packaged or stored for domestic and export purposes, and or related to commercial activity(ies) including the surroundings under the control of the same management.
Recall	Action taken to remove from sale, distribution and consumption of any products to be contaminated or other wise reasonably believed to be unsafe for human consumption or believed to be adulterated or misbranded.
Salt	Food grade Sodium Chloride
Sanitize	Adequate treatment of surfaces by a process that is effective in destroying vegetative cells of micro-organisms the effect of a safe level.

Sample unit	One immediate container and its contents drawn at random from a lot.
Severity	The seriousness of a hazard if not properly controlled.
Shall	denotes a mandatory requirement
Should	denotes a recommended or advisory procedures
Sound	Free from disease, mould, decay or deterioration.
Standard Sanitation Operating Procedures	Procedure to ensure sanitary conditions usually related to the entire processing facility or an area, not limited to a specific processing step of CCP to prevent adulteration due to unsanitary conditions
Step	A point, procedure, operation or stage in the food chain from primary production to final consumption.
The Standard	Refers to Standards for Spice and Spice products for Domestic and Export.
Traceability	Is the ability for the retrieval of history and use of location of an article/product or an activity through a registered identification.
Unannounced audit	Establishment is not informed of an audit.
Validation	Obtaining evidence that the elements of the HACCP plans are effectively controlling hazards.
Verification	The application of methods, procedures, tests and other evaluations, in addition to monitoring to determine compliance with the HACCP plan.

Abbreviations

The Board	-	Spices Board
SHC	-	Spice House Certification
CAC	-	Codex Alimentarius Commission
CAR	-	Corrective Action Request
CCP	-	Critical Control Point
EPA	-	Environmental Protection Agency
EU	-	European Union
FAO	-	Food and Agriculture Organization
PRP	-	Pre Requisite Program
GHP	-	Good Hygiene Practice
GMP	-	Good Manufacturing Practice
HACCP	-	Hazard Analysis Critical Control Points
BRC	-	British Retail Consortium
ISO	-	International Organization for Standardization.
ASTA	-	American Spice Trade Association
MPN	-	Most Probable Number
SPS	-	Sanitary and Phytosanitary
TBT	-	Technical Barrier to Trade
QC	-	Quality Control
QA	-	Quality Assurance
FSSA	-	Food Safety and Standards Act
Ppm	-	Parts per million
Ppb	-	Parts per billion
WTO		World Trade Organization

SSOP	-	Standard Sanitation Operating Procedures
USDA	-	United States Department of Agriculture
USFDA	-	United States Food and Drug Administration
WHO	-	World Health Organization

(Refer EU regulations and FSSA for further definitions)

2. Administration and Responsibilities

The Spices board Act 1986 enforced in the year 1987 vide Govt of India, Ministry of Commerce, Notification No.122(E) dated 26th February 1987 empowers the Board among other functions , the promotion of the export of Spices to evolve suitable quality standards and introduce certification of quality through "Quality Marking "for spices for export and control the quality of Spices.

Under the Spices Board Rules 1987 vide GSR No.115(E)in exercise of powers conferred by section 38 of the Spices board Act 1986 (10 of 1986), the central Government made the required rules for the application of the mandate. Chapter IV of the rules provides the following specific mandates with regards to Registration and Grant of Spice House Certification of the spice processing facilities based on the infrastructure as well as the Quality Control procedures to ensure food safety, meeting the national & international requirements.

The Food safety and Standards Act of India 2006 and the Rules formulated for its implementation also demand Food safety as the thrust area for the production and sale of any food in the country and shall be monitored by the regulators to ensure public health. The document also incorporates the said regulations to facilitate compliance with the national legislation under FSSA.

As the government places more responsibilities on the FBOs to ensure food safety, process standards are most recommended. SOPs shall be documented by the FBOs and implemented. The QA system can be integrated with HACCP or any other food safety system and compliance shall be assured through regular internal audit. Documentary evidences shall be maintained by the FBOs and shall be provided as proof for the effective application of the food control system whenever called for by the regulators.

The current need of the Board is to concentrate more on the safety and quality of the spice products for compliance with both domestic as well as the export requirements. As such an integrated approach incorporating the national and the export standards and requirements will meet the food safety and the international trade obligations under WTO.

The document is flexible and a risk based approach shall be applied with regard to the implementation of the hygiene and HACCP as appropriate to the situation to achieve the objective of food safety.

This document describes the modus operandi to approve the processing facilities and evaluate the food safety management system in place to facilitate Spice House Certification and ensures the continuous maintenance of the conditions at the time of approval /certification through regular monitoring and audit.

The manual will also serve as a clear and enforceable guideline document to all the stakeholders in Spice Industry for consistent application of the food control system in line with the Codex or any international standards as referred in the Annexures.

The Spices Board is having the required infrastructure, reinforced with qualified and competent professionals and supported by the State- of- the- art analytical lab to undertake the analysis of various samples for contaminants.

The organization structure along with the responsibilities provided in the Annexure is self explanatory regarding the administrative set up of the Board.

Training

The regulators, the industry personnel and other stake holders will be provided with thorough training in the regulations and operational activities for compliance and to ensure competence and awareness on quality and food safety. The details of the training including the topics are provided in the Schedule.

Management review

The entire operational activities will be reviewed by the management at least yearly to assess the performance of the regulators and to take necessary corrective actions within the organization based on any emerging scientific information. The review also ensures compliance with the food control system implementation in the country and its credibility in line with the global requirements.

Internal audit

The food safety regulation and its application incorporate regular internal Audit of the activities to initiate improvements in the system and up dating of the regulations. The procedure for the internal audit has been described. (Refer Schedule 10.2.12).

2.0 GENERAL STANDARDS FOR PROCESSING AND EXPORT OF SPICE AND SPICE PRODUCTS

2.1 Conditions and Restrictions

2.1.1 The processing and export of spice and Spice products are prohibited unless the conditions and restrictions of this Standard under Board is met

2.1.2 The processing and export of products to which this part applies is prohibited unless:

α) the Board is satisfied that they have been prepared or processed in a licensed Processing and Export Establishment under the Act

β) relevant export documents have been checked and certified in accordance with the standard procedures for processing and export of spices.

2.2 Processing and Export Facility

2.2.1 Products for processing and export shall be prepared or stored in a registered and approved facility.

2.3 Registration of a Processing and Export Facility

2.3.1 Where facility is used for the preparation , processing and export of spices, the facility shall: be registered in accordance with Spices Board Rules1987 Chapter IV; Obtain approval for any major structural alterations including changes to the layout and the processing equipments shall comply with this Standard.

2.4 Operations in an Approved & Registered Establishment for Processing and Export

2.4.1 An approved establishment for processing and export of Spice products shall operate: in accordance with the rules and regulations under Spices Board in accordance with this Standard; In a hygienic and clean state at all times during processing, packaging, storage and transportation; under approved HACCP programmes as detailed in schedule of this Standard; in accordance with importing country requirements.

2.5 Heat processing

2.5.1 Spice products subject to heat process to ensure microbiological safety and quality of the products, without exception, shall operate with a HACCP program in place.

2.5.2 In addition to HACCP programme, shall comply with specific Regulations with regards to Heat Process validation and approval by the official authority wherever required.

2.6 Rejection of Product by an Importing Country

2.6.1 If Spice and Spice Products have been rejected by an Importing country it shall be made known to the Spices Board immediately and an investigation of the incident shall be carried out to determine the root cause and to take necessary corrective/ preventive actions.

2.6.2 Should the Board be notified by another means or persons a suspension of the Approval / Certification may result and/or an appropriate action of penalty shall be instituted depending on the seriousness of the issue.

Complaint

- There shall be a written policy and procedures for the resolution of complaints received from customers or other parties.
- Records shall be maintained of all complaints and of the investigations and corrective actions taken by the management of the FBOs.
- If a complaint is received from the importing country it shall be made known to the Board immediately and an investigation of the incident shall be carried out to determine the cause.
- Should the Board be notified by another means or persons a suspension of the Approvals/ certification may result and/or an appropriate action of penalty shall be instituted depending on the seriousness of the issue.

3.0 EXPORT STANDARDS FOR SPICE AND SPICE PRODUCTS AND TRADE DESCRIPTIONS

3.1 General

3.1.1 Spice and spice products shall be prepared so as to be safe, wholesome and fit for human consumption and shall comply with: the sensory, quality, safety and hygiene specifications to be in line with the National / Export requirements or any other standards of the importing countries.

3.2 Permitted Ingredients and Chemicals

3.2.1 Spice and Spice products shall not contain any ingredients or chemicals unless permitted in this Standard and or by Codex Alimentarius Commission (CAC).

Permitted chemicals / ingredients, if added shall be within the Maximum Allowable Limits under National or other international standards. It is strongly recommended to be in compliance with the Codex standards in case one available

NOTE:Processing and export to countries with different standards shall be permitted as long as they are equivalent to this Standard.

3.3 Trade Description Requirements

3.3.1 Spice and Spice products for processing and export shall comply with:

- The Board's Regulation
- FSSA Act & Rules (2006 & 2011)
- The labelling requirements of the Importing countries;
- The Hygiene and the HACCP requirements of this standard

3.4 Trade Descriptions Applied to products processed in another facility

3.4.1 Spice and Spice products processed in another facility other than the registered ones are not allowed for export. Such facility shall get approved by the Board prior to production.

3.5 Trade Descriptions and Export Requirements

3.5.1 Spice and Spice Products intended for export in accordance with General Standard 3.4 shall have a full trade description added to accompanying export documents. Such as approval no., date of manufacture, lot or Consignment no, other label requirements as per the importing countries regulation and any other statutory or regulatory requirements in force.

3.6 Trade Description for Imported Raw and Processed Spice and Spice products

3.6.1 Imported raw and/ or processed Spice and Spice products that are intended for further processing in India shall have the

- mandatory trade description requirements;
- The material shall be of the same hygienic conditions as applicable depending on the nature of the products. The words “Packed by” followed by the name and the Approval no. of the facility where the product was packed; where self-labels are part of the trade description, the label should not be able to be removed without sustaining damage to itself and the surface it was applied to.

4.0 EXPORT CERTIFICATION

4.1 General

4.1.1 Any person(s) intending to export Spice and Spice products shall meet the requirements of this Standard.

4.1.2 Those intending to process and export shall do so only if they have been granted approval based on the minimum standards to ensure food safety. There shall be documented procedures for the application of GMPs/ GHPs/ based on the products and the process. HACCP based food safety management system shall be in place where value added products are produced and marketed. The processing facility evaluated and listed in the approved list of the Board only can export the products. The Board shall issue SHC as a mark of quality and safety based on the infrastructure and process controls in place to ensure food safety and public health to facilitate international trade of safe products.

4.2 Spice House Certification (SHC)

4.2.1 Any person or establishment intending to have SHC :

- shall apply in prescribed format, provide all the relevant documents to verify compliance with this Standards
- shall comply with Spices Board export certification procedures.

4.3 Loading for Export

4.3.1 Loading for export shall take place in accordance with the following:

- where Spice products are being loaded for export into a container or otherwise, an authorized Officer of the Board, should be afforded a reasonable opportunity for random inspection upon the loading of products
- and any person involved in the loading operations shall assist the authorized officer in this inspection and otherwise comply with the provisions of the standard.
- Samples shall be drawn as scheduled for the analysis of Contaminants in the Board's Lab or other accredited labs, approved by the Board.
- Based on the performance of the FBOs and Categorization of the establishment the frequency for the sampling and testing shall be reduced.

4.4 Certification of HACCP Programme

4.4.1 Should a processor or exporter require a document for compliance of their HACCP programme specific to importing country's requirements, the same shall be requested from an authorized officer of the Spices board based on the audit findings during the routine audit by the Board.

4.4.2 The authorized officer shall recommend for the issuance of the document to the Chairman based on the history of the last Monitoring/Audit.

4.5 Condition of Product or Importing Country Requirements

4.5.1 Should the processor and/ or exporter require a specific documenwt pertaining to the condition of a lot to another country it may be requested from the authorised officer.

4.6 Rejection of Export Certification

4.6.1 Revocation of an export certification shall take place in accordance with Section 6.0 of General Standard.

4.7 Inspection and Monitoring Procedures

4.7.1 Export Inspections

4.7.1.1 Arrangements may be made between the processor and the authorized officer to inspect the consignment of Spice and Spice products as specified in standards 5.3.1

4.7.2 Monitoring

4.7.2.1 The Processing and/ or export facility's, premises and food safety system shall be monitored at a frequency decided by its nature of operation, risk involved and rating as pre-scribed in Schedule No of this Standard.

4.7.2.2 Based on the recommendation of the authorised officer, the Chairman grants approval to the Establishment that complies with the requirements of this Standard as well as permit continuation of the Approval.

4.7.3 Inspection and Monitoring Failure and Changes between Inspection Categories

4.7.3.1 Where the establishment fails to meet the requirements of the standards and Monitoring Program of Schedule of this Standard and/ or importing country requirements, action shall be taken as follows:

1. change in category in facility's rating;
2. increase in monitoring frequency;
3. denial of export Certification to the Export consignment, Suspension of SHC and place the unit on alert;
4. suspension of Registration , SHC or Approval;
5. withdrawal of Registration, SHC and Approval and initiation of legal action.

4.7.3.2 A change in an inspection category shall be promptly notified by the authorised officer in writing showing the following:

a) Name, address and registration /Approval number of the Export Facility;
b) Original and change of categories;
c) Reasons for and date of change for implementation and signature of the authorized officer.

4.7.4 Additional Inspection and Monitoring Arrangements

4.7.4.1 An authorized officer may carry out additional inspections:

- at the request of the processor or exporter;
- where they see compliance with this Standard and importing countries requirements;
- The same is accepted only if the processor and/ or exporter's activities are documented.

4.7.5 Sampling during Inspection and Monitoring

4.7.5.1 Sampling required for the Inspection and Monitoring Programme or processing and export shall be conducted by an authorized officer according to the relevant sampling plan in Schedule .

4.7.5.2 Sampling shall also be conducted to determine compliance with the importing country requirements.

4.8 Laboratory Analysis of Samples

4.8.1 Laboratory analysis of samples shall be carried out preferably in the Spices Board Lab, an approved laboratory by the Board or other accredited laboratories under ISO 17025:2005

4.8.1.2 The test methods shall conform to the relevant ISO/CAC/ FAO/ AOAC/ BAM; EPA, EU methods

Procedures shall be documented and results kept for at least three (3) years.

4.8.2 The processor and/ or exporter of the establishment shall take samples necessary for examination to ensure compliance with these Standards and to meet importing country requirements. They shall also perform testing as a part of the verification of their HACCP based process controls.

5.0 STORAGE AND TRANSPORT

5.1 Spice & Spice Products shall be:

a) stored in accordance with the documented procedures following the GMPs in storage;

b) stored and transported in accordance with the requirements of this Standard;

5.2 Establishment approved for processing and export shall pack, store and transport product with the requirements of this Standard and the various importing country requirements.

They shall store the products only in approved establishments or ware houses.

6.0 SPICE AND SPICE PRODUCTS UNFIT FOR EXPORT

6.1 Spice and Spice Products Unfit for Processing and Export shall be treated in accordance with the General Standards 6.1.1, 6.1.2, 6.1.3, 6.1.4 and 61.5 of this Standard.

6.1.1 Rejection of Products

Where an authorized officer during inspection, finds the Spice and Spice products do not meet the requirements of these Standards or the importing country's requirements the officer shall reject the products for export and shall keep all the relevant documentation as well as records.

6.1.2 Resubmitting Rejected Products for Export

6.1.2.1 Spice and Spice products that is rejected under General Standard of this Standard; but is fit for human consumption may be reprocessed and resubmitted for inspection and sampled using the relevant sampling plan in Schedule 9 of this Standard. The processor shall provide the details of the re process in case requested for ensuring compliance with the safety standards. In case the reprocess can effectively reduce or eliminate the deficiencies as demonstrated by the processor the officer may allow the products for export

6.1.3 Rejected Spice and Spice Products Not Resubmitted for Export

6.1.3.1 Products rejected for safety reasons shall not be resubmitted in any form.

6.1.3.2 Spice and Spice products rejected under General Standard of this Standard, but not handled in accordance with General Standard 7.1.2 of this Standard, shall have all references to export or labels for export removed and shall mark on it in capital letters at least 'NOT FIT FOR HUMAN CONSUMPTION'.

6.1.4 Rejected Products Unfit for Human Consumption

6.1.4.1 Spice and Spice products rejected for export in accordance with General Standard 7.1.1 of this Standard that is unfit for human consumption, shall be condemned by the Authorised Officer.

6.1.5 Condemned Products Suitable for Other Use

6.1.5.1 Condemned products that is not diseased but otherwise suitable for conversion to other products may be converted for these purposes under information to the Board

6.1.5.2 Spice and Spice products used for other products or for destruction shall be kept in designated areas away from products intended for human consumption and stored in smooth impervious containers. These containers shall be marked clearly with the words:

a) CONDEMNED NOT FOR HUMAN CONSUMPTION;

b) PET FOOD OR ANIMAL FOOD ONLY;

c) FOR DESTRUCTION

6.1.5.3 The detailed document with regard to the rejected lot shall be submitted to Board within 10 working days from the date of rejection.

SECTION 2: REGISTRATION & APPROVAL REQUIREMENTS

2.1 APPLICATION FOR REGISTRATION / SHC

2.1.1 The processor of an establishment intending to process Spice and Spice Products for export shall submit an application in the approved Appendix-I in accordance with the General Standards.

2.1.2 Application for the Establishment registration/approval shall be accompanied by the structural layout of the establishment with other associated details of the facility and submitted to the Board.

2.1.3 The processor intending to process and export shall apply, in the prescribed Appendix I for SHC Certification and be granted approval based on assessment.

2.2 Requirements for Plans and Details of Construction

2.2.1 The submitted application shall be in sufficient detail for evaluation of the facility's suitability for the processing of Spice and Spice products

2.3 Requirements for Construction and Alterations

2.3.1 The Establishment shall be constructed, altered or extended in accordance with plans and construction requirements submitted. These constructions or alterations shall be approved by the Board.

2.4 Application for Approval and Spice House Certification for the Establishment

2.4.1 shall include:

a. A locality map showing the site;
b. A site plan ;

1)The layout of the entire premises including roads and all prominent features of the site;

2) The flow of the work (Product movement and the traffic pattern inside the facility

3) Equipments and facilities inside

c. Water supply portability certificate as per the requirements.

d. Storm-water and waste water drainage and plumbing diagram

e. On-site waste disposal if any;

f. Elevations of all buildings used by the facility;

g. a floor plan of all food handling areas and auxiliary areas drying yards, stores etc

h. A product flow diagram and main features of product flow; for different products

i. Detailed information on major equipment used in processing and export establishment.

j. Proposed number of employees

k. Proposed capacity of production in a day.

l. Scope of production

m. Document on HACCP where HACCP system is in place. In case of a new establishment, the document on HACCP shall be submitted within three (3) months subsequent to production till then registration and approvals will be provided on a conditional basis for the start of production and export.

n. Environmental Waste Management Plan, Guarantee and Commitment

2.4.2 The processor and exporter shall notify the Authorised Officer of any chemical factories, slaughter houses or any other activities within the close area

of the establishment that may affect the hygienic preparation of the products and clearly mark the location on the locality map (2.4.1a).

2.4.3 Based on the evaluation of the documents provided by the establishment Registration and Approvals may be granted by the Board. However the Authorised officers shall subsequently plan a visit to the facility to have an onsite assessment of the facility for compliance prior to issuance of SHC.

2.4.4 A panel of experts constituted by the Board may undertake the task of onsite assessment for Approvals and grant of Spice House Certification

SECTION 3: PRIMARY PRODUCTION, HARVEST, STORAGE

3.1 Environmental Hygiene

Potential sources of contamination from the environment should be identified by the primary producers and primary food production should not be carried out in areas where potentially harmful substances would lead an unacceptable level of such substances in foods.

This includes identifying any specific points in such activities where a high probability of contamination may exist and taking specific measures to minimize that probability. A HACCP based approach may assist in taking of such measures

3.1.1 Hygienic production at Source

Producers should as far as possible implement measures to control contamination from Soil, water, pesticides, fertilizers, growth promoters and other agents used for the production. Care should be taken to manage wastes and store harmful substances appropriately under control and should be used under the supervision of trained personnel only.

3.1.2 FBOs Obligation

The FBOs should ensure the above requirements by selection of their suppliers (vendors) and the y shall be encouraged to procure and supply the primary products from farms complying with the above requirements. The vendors shall be assessed as and when necessary and the list of such Approved suppliers shall be revised.

3.2 Handling, Storage and Transport of Primary products

3.2.1 Sorting

Procedures should be there to segregate materials unfit for human consumption in the primary production area itself and dispose the defective and rejected materials hygienically.

3.2.2 Hygienic Handling

Care should be taken to prevent so far as reasonably Practicable, deterioration/ Spoilage/mould or insect infestation through appropriate Measures which may include drying, humidity control, packing and storage in controlled environment and so on.

3.2.3 Storage and /or Transport

The primary products should be protected from contamination from pests, toxic chemicals, physical or biological contaminants or other objectionable substances during storage and transport. In many of the spices the major concern is fungal infestation and toxin production which could not be removed in further processing and the only way to control these toxins is to prevent fungal attack through proper drying and good storage practices.

The dried and stored materials should be packed in suitable clean packing materials as per the requirements for the product. Care should be taken that packaging materials shall not introduce physical, chemical or biological hazards into the products.

The transportation of primary products or any ingredients used in the processing shall be done in a clean vehicle, properly protected and shall not have any non food materials along with.

Adequate documentation shall be available to verify the condition of transportation as well as traceability in the facility.

3.3 Personal Hygiene in Primary Production

Practical and appropriate procedures should be in place to ensure that necessary cleaning and maintenance is carried out effectively and an appropriate level of personal hygiene is in place during the activities in the primary production.

SCHEDULE 1 :BUILDING, FACILITIES, LOCATION AND GENERAL SERVICES

Location – Site Selection

The establishment shall:

a) be sited so that neighbouring buildings or operations and land use present no source of potential contamination for the hygienic operation of the facility;

b) be located in an area away from objectionable odours, smoke, dust, other contaminants including flooding; or near by slaughter houses

c) not be sited close to rubbish , sewage treatment plants, sewage pump stations, Slaughter houses, cemeteries, cement factories and or other chemical factories.

1.1 Immediate Surroundings of a Processing/ Export Establishment

1.2.1 Areas immediately surrounding buildings, roads, pathways and other areas serving the establishment shall be kept clean at all times and be suitably paved, graded, grassed, or landscaped to avoid the risk of dust, pests or other contaminants from entering food handling and storage areas.

1.2.2 Incoming product unloading or out going product loading areas should be suitably protected from dust, rain, pest and other foreign objects.

1.2.3 There shall be adequate drainage of the surrounds including roads, access ways and pathways and provision shall be made to allow for their cleaning. Where vehicles are cleaned on the premises a paved area with drain shall be provided. In short stagnant water in the premises shall be invariably avoided to

prevent the pest and other vermin harbourage. Trees touching the building shall be avoided to prevent access to rodents/birds.

1.3 Building and Facilities

1.3.1 Building and Facilities shall be of sound construction and maintained in good repair. All construction materials shall be of a type that will not transmit any undesirable substances to the products being handled inside.

1.3.2 Adequate working space shall be provided to allow satisfactory performance of all operations connected with the preparation of food.

1.3.3 The design of buildings and facilities shall permit easy and adequate cleaning to allow the hygienic handling of the products.

1.3.4 Buildings and facilities shall be designed to prevent the entrance and harbourage of insects, pests, vermin and introduction of contaminants by providing tight fitting and self closing exit doors.

1.3.5 Buildings and facilities shall be designed to provide separation by partition, location or other effective means such as time scheduling between operations (including waste disposal) which may cause cross contamination of food.

1.3.6 The drain pipes and other outlets for rain water shall be installed in such a way that the spillage of water to the windows or to inside the facility shall be

prevented. Most of the spice processing involve a dry process and it is essential to control the humidity and the moisture inside the processing areas to control mould infestation and subsequent production of Mycotoxins in the products (Aflatoxins control measure)

NOTE: To meet this requirement the areas for processing by-products, offices, engineering workshop, equipment, spare parts store, canteen and garages shall be separate from Spice and Spice products processing and handling areas.

Buildings and facilities shall be designed to facilitate hygienic production, through uni-directional flow of ingredients, food, packaging, and removal of waste products in the preparation process, from the arrival of the raw materials at the premises to the final product dispatch. Back tracking in any form between final and raw product shall be avoided.

1.3.7 Areas where raw materials are received or stored shall be separated from areas in which final product preparation or packing is performed to prevent contamination of the final products. Areas and compartments used for storage, manufacture or handling of edible products shall be separated and distinct from those used for inedible materials, or in other words there shall be segregation between low risk and high risk areas in the facility

1.3.8 Test laboratories for pathogenic micro-organisms shall be separated from food handling areas.

1.3.9 Provision shall be made for all liquid and solid waste, storm-water and sewerage to be disposed of hygienically in compliance with the local or national regulation. Waste shall be disposed in a way that cannot contaminate water and

food supplies and cannot offer harbourage or breeding places for rodents, insects or other vermins.

1.3.10 An adequate potable water supply shall be made available. It may be necessary to install water treatment facilities including an in-plant chlorination system to ensure the potability of water throughout and at all times. Samples of water shall be tested at least once in a year to verify the potability as per the established standards and records of the same shall be available

1.3.11 The electrical supply shall be adequate to maintain normal and efficient operation of all electrical equipments and lightings.

1.3.12 Lights shall be protected to prevent cross contamination of products in case of breakages.

1.3.13 Drainage facilities shall include:

a) Disposal of waste water and sewerage effluent;

b) Storm-water and site drainage; and shall be large enough to carry peak loads and constructed to avoid contamination of potable water supplies.

c) A plumbing diagram of the facility shall be available to check absence of any cross connection between potable water lines and sewage lines.

SCHEDULE 2 : DESIGN AND CONSTRUCTION OF FOOD HANDLING AREAS

2.1 General Requirements

2.1.1 Areas for handling and processing of Spice and Spice products shall be designed and constructed to:

a) allow efficient space for the handling of the product;

b) provide separation by partition, location or other effective means so that operations will not cause cross-contamination of food or food handling surfaces;

c) provide separate storage of raw material, final product and waste material;

d) protect raw material and final product from risk of contamination;

e) provide facilities to prevent product deterioration due to exposure and delay

2.2 Facilities shall be designed so that:

a) products flow from dirty areas to clean areas (raw to final with no cross over);

b) all areas and equipments shall be easily accessible for inspection and cleaning.

The main processing area in which Spice products are handled should have only one entrance for processing personnel, independent and separate from any entrances and exits used for raw material and finished products.

Processing area shall not open directly to outside.

Entrance used by staff into processing areas should be provided with hand washing and sanitizing facilities. Suitable sanitizer such as IPA is advice able. In case Chlorinated hand dip stations are provided the residual chlorine shall not be more than 20ppm and shall be monitored and documented Hand dips: 20-25ppm

2.2.1 Ceilings shall be designed, constructed, sealed and finished so as to:

a) Provide a height of at least 3.2 meters (11feet) in all rooms where Spice and spice products are handled;
b) Be lightly coloured, smooth and impervious to moisture;
c) Prevent dirt accumulating and be capable of being effectively cleaned;
d) Have all overhead machinery, pipes, wires and other accessories insulated and or minimised;
e) Minimise condensation, mould development and flaking.

2.3 Floors

2.3.1 Floors of the establishment shall be constructed of dense waterproof concrete or other impact resistant impervious surface that has a smooth, non-slip finish and shall facilitate easy cleaning and disinfection. The floor must be constructed so that it slopes towards drains.

2.3.2 Floors including enclosed processing areas shall be:
a) water-proof and well drained;
b) Non-absorbent, impact resistant and without crevices;
c) Washable and of non-slip materials;
d) Facilitate easy cleaning and disinfection.

2.3.3 All floor to wall joints shall be sealed with impervious materials preferably covered both in wet and dry areas if available.

2.4 Floor Drains
2.4.1 In any area that involves “wet” operations:

-floors shall be sufficiently graded for liquids to drain to trapped outlets;

-floor drains shall be adequate in size, number and location to cope with the maximum flow of water under normal working conditions.

2.4.2 All drains shall:

a) be effectively sealed by a water trap

b) have adequate access for cleaning;

c) where necessary, be adequately vented to the exterior of the building.

d) flow away from food handling areas.

2.4.3 Solid traps installed in conjunction with floor drains shall be designed to enable adequate cleaning.

2.4.4 Floor drains shall not be connected to sanitary drainage.

2.4.5 Floor drains should not be connected to the storm or rain water drainage system. Where this occurs they shall be designed and maintained to ensure that flooding of the premises cannot occur due to back-flow.

2.5 Internal Walls and Partitions

2.5.1 Internal walls and partitions shall:

a) be constructed of water-proof, non-absorbent and washable materials;

b) be smooth, lightly coloured and free from gaps;

c) have all joints sealed that might allow the ingress of water, powder, pests or contaminants;

d) be impact resistant or protected from impact;.

e) be easy to clean and disinfect.

2.5.2 In areas where “wet” operations are carried out, angles between walls and floors shall be sealed and coved to facilitate cleaning.

2.5.3 Where walls do not touch the ceiling, their tops shall be capped/ slopped at approximately 45 degrees.

2.5.4 Where internal walls are painted or surface coated, the surface shall be:

a) non-toxic;

b) withstand hosing with hot water and detergents;

2.5.5 If any room (including a cold store) is built within a food handling area, inaccessible cavities formed between the walls or ceilings of the inner and outer rooms shall be made pest and dust proof.

2.6 Windows, Doors, Hatches, Vents and External Walls

2.6.1 All external and ventilation openings shall be proofed against the entry of pests and insects

2.6.2 Open windows are not permitted in areas where food is exposed, processed or packed.

2.6.3 Open windows and vents shall be fitted with insect-proof screens kept in good repair and shall be easily removable for cleaning.

2.6.4 Doors and hatches shall;

a) have smooth and non-absorbent surfaces;

b) be tight fitting with no openings and gaps under;

c) be impact resistant or protected from impact damage;

d) be of a construction as stated in 2.5.4

2.6.5 Doors, hatches and other openings to the outside of the building or where physical separation is required shall be constructed to render pest proofing.

NOTE: This requirement may be met by effectively employing one or more of these methods: a) self-closing device, strip curtain or an air curtain; b) a pest proof anti-room, an annex, and/ or an area.

If airlocks are installed they shall be designed to minimize movement of air into or between areas where food is exposed, processed or packed

NOTE: A low-pressure airlock vented to the exterior with doors that cannot be opened simultaneously will meet this requirement.

2.6.6 If any services, chutes, conveyors or the like pass through external walls, the gap where they pass through, if any, must be sealed against the entry of pests and dust.

2.7 Stairs, Platforms and Stands

2.7.1 Stairs, catwalks, platforms, stands, ladders and the like in processing areas shall be:

a) of a construction and material that is impervious, non-slip, non-corroding, easy to clean and impact resistant;

b) situated and constructed so as not to cause contamination of food processing areas, equipment and product by allowing potential contaminants falling onto them.

2.8 Equipments, Utensils, and Services: Design, Construction, and Installation

2.8.1 All equipment and utensils shall be designed, constructed, installed, operated and maintained so as to prevent contamination, permit easy and thorough cleaning and disinfection and where necessary be accessible for inspection.

2.8.2 All equipment and utensils including tubs and bins that are food contact surfaces shall be:

a) smooth, non-absorbent and resistant to corrosion;

b) free from pits, crevices and loose scales;

c) made of materials which do not transmit odour, taste and are non-toxic;

d) shall not affect the food products;

e) capable of withstanding repeated cleaning and disinfection.

2.8.3 The use of wood and other materials which cannot be adequately cleaned and disinfected is prohibited except as set out in 2.9.

2.8.4 Supporting framework for machinery, benches, sinks, work tables, foot-stands, etc. shall be constructed of smooth, impervious materials free from dead ends, ledges or crevices in which dust,pests or potential contaminants may accumulate.

NOTE: Racks and shelves may accommodate this requirement with a minimum floor clearance of 300mm.

2.8.5 Equipment or fittings adjacent to wall or other equipments having any gaps shall be sealed to prevent entry of water and dirt or have sufficient space to permit cleaning.

2.8.6 Equipment fixed onto the floor shall be installed:

a) by sealing directly to the floor to prevent the entry of water or dust;

b) on a raised plinth coved at the junction of the floor and plinth; OR

c) on legs with a minimum of 300 mm clearance between the underside of the equipment and the floor to facilitate cleaning of the floor under.

2.8.7 Storage containers, tubs or bins used for inedible material and waste shall be:

a) clearly identified and with tight fitting lids

b) leak proof and impervious;

c) easy to clean or disposable;

d) able to be closed securely if stored externally.

2.8.8 Chutes and other enclosed systems for transfer shall be:

a) constructed with inspection and cleaning hatches;

b) Easily cleanable.

NOTE: Sorting trays, chutes, conveyors and bins to meet these requirements may be made of high density polyethylene, aluminium, stainless steel or fibre-glass free of crevices and have all internal junctions rounded of.

2.8.9 All overhead structures, services and fittings including lighting shall be easy to clean and:

a) installed so as to avoid contamination either directly or indirectly to food through condensation;

b) installed so as not to hamper cleaning operations;

c) insulated where appropriate and be designed and finished as to prevent the accumulation of dirt, minimize condensation, mould development and flaking.

NOTE 1: 2.8.9 may be met by locating all pipes and machinery above the ceiling.

NOTE 2: For ducts, conduits and pipes to meet the requirement of 2.8 they may be recessed into the wall or mounted at least 25 mm away from wall. Long runs of exposed horizontal pipes should be avoided as far as possible.

2.8.10 Provision for holding all protective clothing shall be provided in the change room which has to be integrated to the processing area.

2.8.11 Hose points shall be provided together with hose racks made of rust resistant material.

2.8.12 Where Spice and Spice products are to be inspected at the processing/ export Establishments by an Authorised Officer a separate room or suitable area within or adjacent to the processing area free from outside interferences shall be available and shall be provided with:

a) lighting intensity of at least 540-lux;

b) a clean bench or table for examination of the product;

c) other necessary testing facilities such as sieves, balances, magnifying glasses etc;

d) water for cleaning and hand washing.

2.9 Use of Timber

2.9.1 Timber, except as provided in 2.9.2 and 2.9.3 shall not be permitted for use in:

a) product contact surfaces;

b) processing areas;

2.9.2 Timber that is used in doors, door jambs, windows, brooms, brushes and the like in processing areas shall be sealed by a durable non-toxic surface coating (e.g. gloss enamel, epoxy or polyurethane paint).

2.9.3 As possible doors shall be of any non-toxic metals other than wood, except in dry storage areas.

2.9.4 Wooden pallets and dunnages are permitted in dry storage areas only, and not in wet processing operations.

2.9.5 Should wood dunnage is used in cold / chill rooms; it should be non-absorbent, capable to withstand repeated cleaning and disinfection. Surfaces should be free from pits and crevices and loose scales. Use of wood in cold stores, which cannot be adequately cleaned and disinfected, should be avoided, except when their use would clearly not be a source of contamination

2.9.6 Wooden pallets as specified in 2.9.4 and clean timber dunnage shall be permitted in container system units, transport vehicles and the like.

2.10 Cleaning and Sanitizing Facilities

2.10.1 Adequate facilities for cleaning and sanitation of utilities and equipments shall be provided, where required, in the factory.

2.10.2 These facilities shall be constructed of corrosion resistant, non-absorbent materials capable of being cleaned effectively. A designated area with adequate water supply and drainage shall be allocated for cleaning and disinfection of used trays/tub and other movable items in case required. This wet cleaning process shall not enhance the humidity in the dry areas

2.11 Disinfection/ Sterilization Facilities

2.11.1 If disinfection/ sterilization facilities are required, adequate provision for installation of suitable equipment shall be provided.

2.11.2 If the sterilizing medium used is not water or steam the method of sterilizing shall be first approved by Spices Board.

2.11.3 Sterilising facilities shall be:

a) constructed of corrosion resistant materials;

b) capable of being easily cleaned;

c) Where necessary fitted with a suitable means of supplying hot and cold water in sufficient quantities.

2.12 Hand Washing Facilities

2.12.1 Hand washing facilities shall be:

a) sufficient in numbers and provided in accessible locations at the entry to processing areas for all staff to wash their hands on entering the processing area or whenever required;

b) located adjacent to personnel access areas;

c) shall provide a suitably pressured and chlorinated (0.2-1.0ppm) potable water supply over a sink; if not chlorinated other approved disinfection system shall be followed

d) provided with taps that are non-hand operable;

e) provided with liquid soap contained in a dispenser;

f) provided with single use towels with sufficient receptacles for disposal of the used ones or other hygienic means of hand drying;

g) fitted with properly trapped waste pipes leading to drains.

2.12.2 Sign boards advising persons to wash their hands prior to entry to the food handling areas shall be provided in a prominent position at the entrance.

2.13 Changing Facilities, Living Areas, Toilets and Hand Washing Facilities

2.13.1 These facilities shall not be used for the storage of any food ingredients or food.

2.13.2 Suitable and conveniently located changing facilities, toilets and hand washing facilities shall be provided.

2.13.3 Living areas shall be completely separated from food handling areas and not open directly onto these areas.

2.13.4 Changing facilities shall contain a locker for each person employed and shall be kept clean. The locker shall be installed and maintained according to the requirements of 2.8

2.13.5 Toilet and toilet areas should be adjacent but separate from change rooms and at the same time shall be integrated into the processing facility but completely separated from food handling areas and not open directly onto these areas;

a) designed to ensure hygienic removal of waste matter;

b) well lit, ventilated and maintained clean at all times.

The number of toilet bowls to be provided as per the Codex guideline is as follows: (these are guidelines and not mandatory: however sufficient toilets and urinals shall be provided depending on the no of employees)

No. of persons	No. of bowls
1 to 9	1
10 to 24	2
25 to 49	3
50 to 100	5

for each additional 30 persons in excess of 100, 1 bowl.

NOTE: In male toilets, urinals can substitute for toilet bowls for up to 1/3 of the total toilets required.

2.13.6 Entrances to toilets from processing areas shall be through either an intervening change room or an airlock that is vented to external air.

2.13.7 Doors for toilet cubicles where they are not in a separate toilet room must be self-closing and tight fitting.

2.13.8 Hand wash facilities shall be provided near toilets and shall follow the requirements of 2.12.1

2.13.9 Sign boards shall be prominently posted in hand washing areas directing persons to wash their hands after use preferably in a language that can be well understood.

2.14 Refrigerated, Non-refrigerated, Cartons, Wrapping Materials and Food Container Storage.

2.14.1 Every refrigeration chamber if used shall:

a) have floors, walls, ceilings, doors and hatches that are constructed, installed and maintained according to the requirements for food handling areas;

b) have other internal structures constructed of smooth, impervious and corrosion resistant material;

c) be capable of reducing or maintaining the temperature as required;

d) be equipped with an accessible and easily readable thermometer capable of reading accurately within 0.5^{o}C or equivalent in Fahrenheit;

e) shall have its temperature taken and recorded at least once every 12 hours if there is no continuous temperature recording device.

f) be designed to allow for adequate drainage of defrosted water away from the refrigeration unit;

2.14.2 Refrigeration equipment shall be installed in such a way that its operation and cleaning shall not contaminate food products and or packaging in any way and shall allow sufficient space for cleaning around and between the equipment.

2.14.3 Plastic strip curtains or similar ones shall be installed to assist in air retention when cold room doors are opened.

2.14.4 Where under-floor ventilation pipes are provided they shall be pest proofed.

2.14.5 Cleanliness of the cold room shall be on a regular basis and records shall be kept

2.14.6 Container system units that are used as stores shall:

a) be of sound construction to meet the requirement of 2.14.1 with no internal or external damage to cladding;

b) have door seals that are sound;

c) have lighting within the unit supplied to a minimum of 220-lux;

d) be installed on a paved area suitably kerbed, graded and drained with all access to the area sealed;

e) be installed with its base at least 300 mm clear of the paved area and with a fall towards the door;

f) have access provided to permit cleaning and avoid the harbouring of pests.

2.14.7 Non-refrigerated food stores shall be:

a) of sound construction in accordance with requirements of 2.14.1a, b;

b) designed and maintained so as to prevent undesirable physical, microbial and chemical changes to processed food and its packaging which could affect the wholesomeness of the processed food.

2.14.8 Cartons, Wrapping Materials and Food Container Stores shall:

a) be dust and pest proof.

b) be designed and maintained to prevent undesirable physical and chemical contamination.

c) be stored on shelves or racks constructed in accordance with 2.8.4. preferably covered and protected from dust.

d) cartons and any packaging material shall be stored away from the floor, walls and ceiling with space around for inspection for moulds, physical contaminants etc.

2.14.9 Facilities for the storage of food should be designed and constructed to

- Prevent pest access and harbourage
- Permit adequate cleaning and maintenance
- Enable food to be effectively protected from contamination during storage
- Provide an environment that minimises the deterioration of the products

The type of storage facilities depends on the nature of the products and the risk associated with each of them (by temp and humidity control).

The store shall be tightly closed and the products shall be stored away from the floor, walls and the ceilings.

2.15 Control of Domestic animals

The facility shall not allow the entry of any animals inside the premises. This has to be achieved through well protected boundaries

2.16 Pest Control

Pest, insects, birds, vermins etc shall be under control through an effective pest management system and records shall be maintained in detail to demonstrate the effectiveness. In case of the use of pest control chemicals proper inventory of the chemicals and the procedure for the use as well as MSDS records shall be available.

2.17 Glass, metal and Disease Control policies

Policies and procedures shall be documented to ensure the total commitment from the management in the control of contamination of the product from the use of glass, as well as cross contamination with loose metals, and from the employees due to illness. There shall be effective control of the entry of sick personnel inside the facility. Sufficient documentary evidence shall be maintained to demonstrate effective implementation of the policies

2.18 Access Control

As a part of ensuring food security in the facility strict access control shall be implemented and shall be verified.

2.19 Food Security and Emergency Response

In case of emergency situations which may have an impact on food safety and security control procedures shall be documented and all contact details and actions to be adopted shall be informed to the concerned. Clear and transparent communication system shall be available in the facility.

SCHEDULE 3: SERVICES IN THE PROCESSING AND EXPORT ESTABLISHMENT

3.1 Effluent and Waste Disposal

3.1.1 Processing and Export Establishments shall have an efficient effluent and waste disposal system maintained in good repair.

3.1.2 All effluent lines (sewerage, storm water, processing) shall be large enough to carry peak loads and constructed so as to avoid contamination of the potable water supply.

3.1.3 Sanitary drainage shall not be connected with any other drains within the facility and be directed to a septic tank or sewerage system.

3.1.4 Septic tanks and waste trap systems shall be located so as to avoid a cross contamination to the product and located away from any processing area or entrance to the building.

3.1.5 The storm-water drainage system shall not to be connected to the effluent treatment system.

3.2 Storage of Waste and Inedible Material

3.2.1 The waste shall be collected in identifiable containers with lid and shall be removed from the processing areas either at the end of the operations or when the container is full. Provision shall be made for separate storage of waste and inedible material prior to removal from the factory.

3.2.2 These facilities shall be designed to prevent access to waste or inedible material by pests and avoid contamination of food, potable water, equipment,

buildings or roadways in the premises. In case waste needs prolonged storage, chilled storage facility shall be separately provided depending on the products.

The disposal of the waste shall be done in such a way that it should not cause any hazard to the environment. Records for the disposal shall be available

3.2.3 Where required separate secure storage facilities shall be provided for cleaning chemicals and other hazardous substances. Food and non food chemicals shall be separately stored with adequate labels as well as instructions for use. Proper inventory also shall be maintained.

3.3 Lighting

3.3.1 Adequate lighting shall be provided throughout the factory and light produced shall not distort colours and be shadow free at the inspection area.

3.3.2 The intensity of illumination at the task area shall be a minimum of:

a) 220-lux in the processing areas;

b) 540-lux where the product is being inspected;

c) 110-lux in other areas.

3.3.3 Light fittings shall be:

a) equipped with a diffuser or other means so that breakage will not contaminate the product; A glass breakage policy and procedures shall be designed, all shall be trained in the procedures and compliance shall be ensured.

b) Recessed into or flush fitted against the ceiling so that no exposed ledge is created.

3.3.4 Where light fittings cannot be installed in accordance with 3.3.3 they may be suspended from the ceiling by cables provided they are protected.

3.4 Ventilation

3.4.1 Adequate ventilation shall be provided to prevent excessive build up of dust, heat, steam, condensation and other contaminants.

3.4.2 Where cooking, heat treatment, canning ,bottling, boiling or stem heating operations are carried out, exhaust fans and canopies shall be installed and have capture velocities capable of conveying all heat, fumes and other aerosols through the exhaust canopy openings.

3.4.3 Airflow shall always be directed from clean areas to dirty areas in case AHUs are provided.

3.4.4 The quality of air shall be ensured through regular monitoring and records shall be available.

3.5 Water Supply

3.5.1 General requirements

Water which comes into contact with the product shall not present a source of contamination.

3.5.2 The complete procedure for the control and treatment of water from all sources used shall be documented by the processing/ export establishment and analytical results for compliance with the relevant standards shall be kept.

3.5.3 An ample supply of water shall:

1. be available under adequate pressure and suitable temperature;
2. be provided with adequate facilities for its storage where necessary and distribution;

3. be provided with adequate protection against contamination.

4. If used in food handling areas meet the requirements of Schedule 3.6 of this Standard.

5. All establishments shall conduct water testing to cover parameters listed in Schedule once a year (IS or WHO standard).

3.5.4 Non-potable water may be used for steam production, refrigeration, fire control and other similar purposes but shall not be connected to potable water lines.

3.5.5 The non-potable water lines shall be identified separately (preferably by colour) with no cross-connections or back-flow into potable water lines.

3.5.6 All storage tanks, cooling towers and pipes used in handling water shall be constructed to facilitate cleaning and inspection.

3.5.7 All storage tanks shall be effectively covered to prevent the entry of pests and other contaminants.

3.5.8 Regular cleaning schedule and procedures for cleaning of water storage tanks shall be in place and records for compliance with the documented procedures shall be maintained.

3.6. Microbiological Parameters for water used in food handling areas :

a) coliform by MPN less than 1 per 100 ml;

b) E. coli per 100 millilitres (ml); 0

c) Enterococci per 100 millilitres (ml);0

(recommended standard for drinking water IS 10500)

Water shall be sampled by an Authorized Officer from each facility at least once a year and examined by an accredited laboratory to ensure that standards in 3.6 are met.

3.7 Water Re-circulation and Circulation

3.7.1 Water re-circulation and circulation systems shall be clearly identified and have:

a) no cross connection between potable and non-potable water;

b) non - return devices installed to prevent back flow into the systems;

c) no dead ends;

d) non-potable water outlets clearly identified.

3.7.2 Re-circulated water shall not be used and or come directly in contact with any food and or food contact surfaces unless the same is ensured potable.

3.8 Steam

3.8.1 Where steam or other heating media is used it shall be supplied in sufficient volume and pressure for the operation of the equipments.

3.9 Compressed Air

3.9.1 Compressed air that comes into direct contact with product or equipment surfaces shall:

a) have a filtered air intake located in a clean place;

b) contain no oil or substances hazardous to health.

c) When air comes in contact with the food the safety of the air shall be ensured through sampling and testing in a microbiology laboratory.

SCHEDULE 4: LOADING DOCKS, CONTAINER DEPOTS AND VEHICLE WASH AREAS CONDITION AND FACILITIES

4.1 Loading Docks

4.1.1 The loading dock shall be:

a) Located in an area that is convenient to the product store;

b) Enclosed or provided with roofing to protect the finished goods from contamination during loading.

4.1.2 Where the material to be assembled prior to loading the marshalling area shall be protected from pests, birds and other contaminants.

4.1.3 Both the loading dock and associated marshalling areas shall have an illumination of at least 220-lux.

4.1.4 The area nominated for truck movement shall be finished with a well-drained surface that is impervious and durable.

4.1.5 There shall be adequate potable water pressure and supply to keep the area after the vehicle movement

4.2 Unloading Docks

4.2.1 The unloading dock shall be:

a) Located in an area that is convenient to the raw material receipt and storage area;

b) Enclosed or provided with a roofing to protect products from contamination during unloading.

4.2.2 The unloading area shall be protected from pests, birds and other contaminants.

4.2.3 Unloading dock and nearby areas shall have an illumination of at least 220-lux.

4.2.4 The area nominated for truck movement shall be finished with a well-drained surface that is impervious and durable with adequate supply of water for cleaning purposes.

4.2.5 Unloading and landing equipment shall be constructed of a material that is easy to clean and disinfect.

4.2.6 There should be adequate and separate storage facilities for different Spices including lockable facilities for the refrigerated storage to ensure the maintenance of the quality of the spices raw materials detained or declared unfit for human consumption shall not be kept along with the quality RM. All the materials unloaded and stored shall have adequate labelling as required under the procedure to have traceability.

4.3 Vehicle and Container Wash Areas

4.3.1 Designated areas for washing / cleaning of vehicles and container system units used to carry the spice products shall be paved and with proper drains.

4.3.2 The surface of the vehicle and container wash area shall:

a. be durable and impervious;

b. have a drainage gradient that slopes towards the drainage system;

c. have an adequate supply of pressurised air or water for cleaning and disinfecting operations.

4.4 Container Depots and Terminals

4.4.1 Road access ways and storage areas for container system units shall be kept clean at all times and be suitably paved, graded, grassed, or landscaped to avoid the risk of dust, pests or other contaminants.

4.4.2 Storage area for container system shall be adequately sealed with cleaning and sanitization facilities including proper drainage.

SCHEDULE 5: ADDITIONAL REQUIREMENTS FOR PROCESSING IN BRINE AND STORAGE

5.1 Storage Establishment for Processing and Export of Spice and Spice products

5.1.1 Establishment solely engaged in storage of products shall comply with the requirements of Schedule 2.14 of this Standard.

5.1.2 Dry stores for processed food shall be of sound construction, designed and maintained so as to prevent undesirable physical, chemical or microbiological contamination or changes to the food and its packaging which could affect the wholesomeness of the products.

5.2 Processing of Spices in Brine

5.2.1 Areas or parts of the facility used solely for brine processing shall be separate from other areas used for processing of dry spice products

5.2.2 The areas or parts of the facility used solely for brine processing shall:

a) be suitably clean with adequate with effective drainage system;

b) be maintained in such a manner that no microbiological, physical, chemical or other objectionable substances can contaminate the products or make them unfit for human consumption;

c) have the area protected from dust and pests;

d) contain hand washing and toilet facilities that are readily available to processing staff as set out in Schedule 2.13 of this Standard;

e) have a clean dry area for the storage of packing materials and other input materials.

f) salt shall be food grade and shall be stored away from the dry products.

5.3 Raw Spice Packing

5.3.1 Areas or parts of the facility used solely for the raw spice packing shall:

a) be suitably clean;

b) be maintained in such a manner that no microbiological, physical, chemical or other objectionable substances can make the products unfit for human consumption;

c) contain hand washing and toilet facilities that are readily available to processing staff as set out in Schedule 2.13 of this Standard;

d) have a clean dry area for the storage of packing materials;

e) have lighting in accordance with Schedule 3.3 of this Standard;

f) have clean potable water;

g) have quality packing materials.

NOTE: A well maintained, galvanised structure with smooth and impervious concrete floor will meet these requirements (e.g. galvanised iron, aluminium colour bonded zinc-alum or similar suitable materials)

SCHEDULE 6: OPERATIONAL REQUIREMENTS -HYGIENE REQUIREMENTS FOR A PROCESSING AND EXPORT FACILITY

6.1 General Maintenance of Facilities

6.1.1 Buildings, vessels, equipments, utensils, refrigeration and all other facilities of a processing and export establishment including drains shall be kept in good repair, in a clean and orderly condition and operated in accordance with this Standard.

6.1.2 Repairs shall be carried out as soon as possible without interference to handling and processing.

6.1.3 In case of major repairs and or maintenance, which may affect the safety or contaminate the product, production shall be stopped so as to carry out the repairs and or maintenance.

6.1.4 There shall be an effective maintenance programme in place as per Schedule 7.1.1 of this Standard.

6.1.5 All chemical compounds used as cleaners, sanitizers, soaps, detergents, lubricants or pesticides shall be approved by Spices Board and the following information provided:

a) trade name and type of chemical compound (active ingredient);

b) method of use.

NOTE: The following cleaning detergents are acceptable for use in a facility: lime, sodium bicarbonate, sodium metaphosphate and related phosphates, sodium metasilicate and soaps.

The following disinfectants are acceptable for use in establishment: hydrogen peroxide, quaternary ammonium compounds, chlorine and chlorine compounds, alkyl benzyl ammonium chloride, sanitizers such as IPA or any other approved products

i. Use of chemicals not listed under approved chemical list, the processor and or exporter shall submit the Material Safety Data Sheet (MSDS) to the Board for approval prior to use.

ii. Instruction for chemical use, labelling including brand name shall be in English.

6.2 Cleaning and Sanitising

6.2.1 Either immediately after the end of work for the day or at such times as may be appropriate to maintain hygienic conditions, floors including drains and additional structures, processing equipments and walls of food handling areas must be thoroughly cleaned.

6.2.2 To prevent the contamination of food equipments, utensils and food contact surfaces shall be:

a) cleaned as frequently as necessary as per the documented procedures

b) Sanitised when there is a risk of contamination but not less than daily.

c) Procedure for cleaning depends on the nature of the activities. Where dry process is carried out dry cleaning and mopping at a designated frequency recommended.

6.2.3 Food contact surfaces must be adequately rinsed after the use of any detergents prior to handling of the food.

6.2.4 Adequate precautions shall be taken to prevent food from being contaminated during cleaning or sanitising of rooms, equipment or utensils.

6.2.5 Detergents and sanitizers shall be suitable for use in food handling areas and not impart any flavours, odours or leave toxic residues.

6.2.6 Detergents and sanitizers shall be diluted for use according to the manufacturers' instructions.

6.2.7 Cleaning personnel shall be trained in handling and use of cleaning chemicals without cross-contaminating the products and or food contact surfaces.

6.2.8 Staff change rooms, shower rooms, toilets and cafeteria, shall be kept clean at all times.

6.3 Hygiene Control Program

6.3.1 A documented predetermined cleaning and sanitation program shall be in place at each facility.

6.3.2 All cleaning personnel shall be suitably trained in cleaning and sanitising techniques.

6.3.3 All cleaning operations shall be carried out under the adequate supervision of designated personnel.

6.3.4 All cleaning and sanitation procedures shall be monitored, verified and records maintained.

6.3.5 As a part of verification of the effectiveness of cleaning procedure, swab samples shall be drawn and analysed in the laboratory and records shall be kept along with corrective actions in case of any deficiencies.

Acceptance Criteria for swabs: Total plate count- <200/ sq cm, coliform- Nil

6.4 Inedible By-products and Materials

6.4.1 Inedible by-products shall:

a) be stored so as to avoid contaminating food for human consumption

b) be removed from the food preparation area as often as necessary to avoid cross contamination.

6.4.2 All equipments used for the disposal, storage and treatment of wastes or inedible material shall be clearly identified, stored separately and not used for edible material.

6.4.3 Cleaning and sanitising of utilities and equipments used for in-edible materials shall be carried out in a physically separate area.

6.5 Storage and Disposal of Waste

6.5.1 Provision shall be made for the storage of waste and inedible material prior to the removal of waste from the factory.

6.5.2 Waste storage facilities shall be:

a) away from the processing area;

b) designed to prevent access to waste by pests;

c) designed to avoid contamination of food, potable water and equipments.

6.5.3 Waste shall be removed from food handling areas and other facilities either at the end of the shift or when the containers are full.

6.5.4 Immediately after the disposal of waste, receptacles used for the storage and any equipment which has come into contact with the waste shall be cleaned and sanitised.

6.5.5 The waste storage area shall be kept clean.

6.5.6 All waste disposal bins shall be with tight-fitting lids.

6.6 Domestic Animals

6.6.1 Domestic animals are not permitted in processing/ export premises of an establishment.

6.7 Pest Control

6.7.1 There shall be a documented pest control and monitoring programme concentrating more on the prevention rather than eradication

6.7.2 There shall be an effective and continuous schedule for the prevention, detection, control and eradication of pests.

6.7.3 Pest control shall not constitute a hazard to human health and product safety.

6.7.4 Control measures involving treatment with chemicals shall only be undertaken by trained and competent personnel.

NOTE: The trained and competent personnel should have complete understanding of the health hazards these chemicals may pose to the product and human.

6.7.5 .Accurate and legible records of the location and frequency of pest control measures shall be kept and made available to the Board for verification.

6.7.6 A bait map shall be kept and made available on request for verification.

6.7.7 Where pest control is entrusted with an outside professional agency or contractor, the same shall be approved by the Board. The effectiveness of the pest control programme shall be monitored by responsible personnel in the facility and records shall be maintained for corrective actions / preventive actions in case of failures.

The details of the inventory of the pest control chemicals used by the pest control personnel shall be available for verification of their suitability and effectiveness in control of pests and to ensure that the use of the chemicals is minimised and the hazard due to pest chemicals are under control

6.8 Storage of Hazardous Substances

6.8.1 Pesticides, cleaning agents or other substances which could represent a hazard to health and food shall be suitably labelled with a warning about their toxicity and use and extreme care taken to avoid the chemicals contaminating food, food contact surfaces and ingredients.

6.8.2 Hazardous substances shall be stored in rooms or cabinets used only for that purpose and handled only by authorised and properly trained persons.

6.8.3 Wet and dry chemicals shall be stored separately to avoid accidental mixing due to leakage or spillage.

6.8.4 No substances which could contaminate food may be used or stored in food handling areas or be stored with any product, ingredients or product packaging materials.

6.8.5 The detergents/disinfectant in use inside the facility shall be located at a designated place and labelled legibly. The same shall not be stored in any food containers.

6.8.6 Monitoring effectiveness

Sanitation system should be monitored daily for the effectiveness, periodically verified by means such as audit, preoperational inspections or where appropriate microbiological sampling of environment and food contact surfaces and regularly reviewed and adapted to reflect changed circumstances.

SCHEDULE 7 : PERSONAL HYGIENE AND HEALTH REQUIREMENTS

7.1 Communicable Diseases

7.1.1 No person who:

a) is without a current (yearly) medical certificate stating that he or she is free of any communicable diseases;

b) is suffering from or a carrier of a communicable disease;

c) is suffering from a condition causing a discharge of pus or serum (e.g. weeping sore, infected cuts, boils) from any part of the head, neck, hands or arms;

d) has reason to suspect there is a chance of transmitting a disease producing organism to the product;

e) shall prepare, pack, or handle any material likely to be used in the manufacturing of the Spice and Spice Products.

7.1.2 Where the manager and or owner of an establishment engaged in direct handling of products has reason to suspect that any person is likely to transmit a disease producing organism to the food, the management shall ensure, that the person does not enter the facility until a certificate from a medical practitioner is produced indicating that he or she is free from infection.

7.2 Injuries

7.2.1 Any person with an uninfected wound shall discontinue working with food or being in touch with any food contact surfaces until the wound is covered with a clean waterproof dressing that is securely attached.

7.2.2 Illness

Conditions that should be reported to management so that any need for medical examination and /or exclusion from food handling areas can be considered include:

- Jaundice
- Diarrhoea
- Vomiting
- Fever
- Sore throat with fever
- Boils/cuts
- Discharges from the ear, eye, nose

7.3 Personal Effects and Clothing

7.3.1 Personal effects including clothing shall not be taken into food handling areas.

7.3.2 Fingernail polish is not permitted by those persons handling products with bare hands.

Plain wedding bands may be permitted in the processing plant.

Jewellery including watches shall not be worn in Spice processing and handling areas.

7.3.3 No personnel are allowed to carry with him or her any loose metallic, plastic pieces, items or materials while on duty except the processing utilities.

7.3.4 The maintenance personnel shall take extreme care in the timely removal of all the used scraps once their work is over.

7.3.5 A tool kit with proper inventory shall be maintained by the maintenance division to ensure that no tools are left in the processing facility causing a chance for metal inclusion to the products.

7.4 Protective Clothing

7.4.1 All personnel entering the processing area shall at all times:

a) wear suitable protective clothing and foot wear;

b) wear a headgear covering all hair and protect beard and moustache;

c) if the person is wearing gloves-ensure that the gloves are in a sound, clean and sanitary condition;

d) All personnel and visitors entering the processing area shall at all times abide to clauses (a) and (b) and the company visitors policy requirements.

7.4.2 If a person wears disposable gloves or other disposable protective in the products handling areas the disposable clothing shall be discarded after single use and shall not be reused.

7.4.3 Protective clothing worn by persons in Spice and Spice products handling areas shall:

a) not have an outer breast pocket or sewed on buttons;

b) be clean and lightly coloured;

c) be either washable or disposable;

d) boots or foot wears shall be cleaned inside and outside, kept in inverted position to maintain them dry and free of any foul odour or slime.

7.4.4 Protective clothing including hats, hairnets, boots, foot wears, coats, aprons and gloves shall be maintained in clean and in good repair condition.

7.4.5 Protective outer clothing including footwear, aprons, headgear and gloves used in the processing area shall not be worn outside this area. These items shall be maintained clean and in a hygienic manner.

7.4.6 Laundry facility shall be provided for washable garments in the establishment but where this facility is not available, outside contractors should be engaged.

7.5 Personal Cleanliness and Behaviour

7.5.1 All staff while on duty in food handling areas should maintain a high degree of personal cleanliness.

7.5.2 Unhygienic behaviour that can result in the contamination of food products such as chewing, eating, spitting, smoking shall be prohibited in Spice products handling areas.

7.5.3 All personnel shall wash and sanitise their hands:

a) prior to entering the processing areas;

b) immediately after using the toilet;

c) after handling dirty or contaminated materials;

d) after cleaning procedures, handling sanitizers and similar cleaning chemicals;

e) when handling food, ingredients and items used in food handling immediately after handling any material that may be capable of transmitting contaminants;

f) and as part of verification of the effectiveness of hand washing procedure, swab samples shall be drawn and analysed in the laboratory and records shall be kept along with corrective actions in case of any deficiencies.

7.5.4 The wearing of clean gloves does not exempt the wearer from having thoroughly washing their hands.

7.6 Hygiene Training

7.6.1 The management of the processing and export establishment shall arrange for adequate and frequent training of all food handlers in personal hygiene, and good handling practices to ensure that the precautions necessary to prevent cross-contamination is understood by all. Training in Basic food hygiene to all employees shall be a requirement for any certification /approvals.

7.6.2 The training needs for each category of work force shall be assessed and scheduled for each year.

7.6.3 Training shall include reference to relevant parts of this Standard and the requirements of importing countries. At the end of each training programme an evaluation of the training shall be conducted to assess the effectiveness of the training and to ensure that, the message has been clearly delivered to the food handlers.

7.6.4 Training records for each person shall be maintained.

7.7 Supervision

7.7.1 The processor and or exporter shall allocate responsibility for ensuring compliance with the requirements of this Standard to competent supervisory personnel who shall invariably monitor the maintenance of hygiene and sanitation daily, prior to start of work and during processing.

7.7.2 The supervisor shall also monitor any specific behaviour pattern of employees and take note of them to avoid cross contamination of the food while handling.

7.7.3 Detail records of sanitation monitoring shall be maintained by the supervisory personnel along with the documentation of corrective actions.

7.8 Signs

7.8.1 The processor and exporter shall display signs advising that smoking, eating, drinking and chewing in food handling areas are prohibited. Signs shall preferably be in the local language and or in the picture form.

7.9 Visitors

7.9.1 Precautions shall be taken to prevent entry of visitors to food handling areas. In case visitors are allowed, they shall comply with the use of protective clothing and good hygiene practices.

7.9.2 Visitors shall also comply with the other applicable provisions of this Standard.

7.9.3 Visitors policy shall be documented and implemented

7.10 Operators in a Testing Laboratory

7.10.1 Operators in testing laboratories shall change their uniform prior to entering food-handling areas.

7.10.2 Operators in testing laboratories shall comply with requirements of Schedule 8 of this Standard.

SCHEDULE 8 : PROCESSING AND PACKING REQUIREMENTS

8.1 Incoming Raw Material Requirements

8.1.1 No raw material or ingredients should be accepted by an establishment if it is known to contain parasites, undesirable pathogens, pesticides, drugs, or toxic ,decomposed or extraneous substances that would not be reduced to an acceptable

level by normal sorting and / or processing where appropriate specifications for raw materials and ingredients should be identified and applied.

Raw materials or ingredients should, where appropriate, be inspected and sorted prior to processing. Where necessary laboratory tests shall be performed to establish fitness for use. Only sound, suitable raw materials or ingredients should be used.

The accepted Raw materials stored in an establishment shall be:

a) maintained under conditions that will prevent spoilage,

b) protected against contamination by pests, physical, chemical or microbiological hazards and other objectionable substances;

c) protected from detrimental changes to temperature and or other physical parameters that may be caused by crushing, abrasion and vibration;

d) Not processed or used unless inspected for contamination, spoilage and moulds before processing and found to be in compliance with the accepted criteria in this Standard. The nature and frequency of such inspections shall be set by the processor/exporter and approved by The Board through their FSMS-(HACCP based Food Safety Management System)

e) clearly labelled with all the relevant details to ensure traceability.

8.1.2 Stocks rotation of raw materials and ingredients shall be practised so as to ensure first in first out.

8.1.3 Suitable provision shall be made for the cleaning/washing of raw materials.

8.2 Prevention of Cross-contamination

8.2.1 Effective measures shall be taken to prevent cross-contamination of food at various processing stages.

8.2.2 Effective measures shall be taken to prevent raw material or semi-processed material coming into contact with and contaminating the end product.

8.2.3 Pathogens can be transferred from one food to another, either by direct contact or by food handlers, contact surfaces or air. Raw unprocessed/or unlearned foods shall be fully separated either physically or by time from the finished or ready to eat foods with effective intermediate cleaning and where appropriate disinfection

8.2.4 Access to processing areas may need to be restricted or controlled. Where risks are particularly high access to processing area should be only via a changing facility. Personnel shall follow all the hygiene protocol for the entry to the process areas.

- Surfaces and utensils in contact with the raw products shall be separated from use in the high risk areas. A color coding for the utensils can be followed for the prevention of cross contamination.
- Suitable systems shall be in place to prevent contamination with physical objects (metals, glass, other foreign bodies) and unwanted toxic chemicals. In the manufacturing and processing suitable detection or screening devices should be used where necessary and shall be documented in the Pre requisite programme for HACCP.

8.3 Processing

8.3.1 All steps in the production process including packing shall be performed under proper hygiene controls

Food business operators shall control food hazards through the use of systems such as HACCP.

They should:

- Identify steps in the process that are critical to the safety of the foods.
- Implement effective control procedures at those steps
- Monitor the control procedures to ensure their continuing effectiveness and
- Review control procedures periodically, and whenever the operation changes or a new scientific hazard has been identified

8.3.2 These systems should be applied through out the food chain to control food hygiene through out the shelf life of the product through proper product and process design. The control procedures may be simple, such as drying, checking the stock rotation, calibrating the testing and measuring equipments, temperature control and so on. A proper and timely monitoring and recording of the control measures can assure the cleanliness and safety of the food produced (process controls based on HACCP).

8.3.3 Visual inspection for mould shall be carried on a representative number of samples during processing operations by an experienced personnel and recorded in the relevant format or register maintained for the QA operations. In case of non compliances the corrective actions taken during the process shall also be recorded and subjected to verification by designated personnel.

8.4 Ventilation

8.4.1 Adequate ventilation shall be provided to prevent excessive heat; dust and contaminated air build up in the facility.

8.5 Processing and Production Records

8.5.1 The processing and export establishment shall keep records of each lot of Spice and Spice products processed for inspection by the designated QA personnel.

8.5.2 Records of quantities processed, time-temperature controls if any, sampling and testing and other relevant documents, shall be kept to demonstrate that the products have been processed in accordance with this Standard.

8.6 Packaging

Packaging design and materials should provide adequate protection for products to minimise contamination, prevent damage and accommodate proper labelling .Packaging materials or gases used for packing shall be non-toxic and not pose a threat to the safety and suitability of food products under the specified conditions of storage and use. Reusable packaging shall be durable, easy to clean and where necessary disinfect.

8.6.1 For each lot or batch of products for export, shall have all the relevant documents and records in approved format, duly filled and verified by the designated personnel and shall be available for verification during audit by the Spices Board. This includes the details of the RM quality, transportation, process details, process controls, sample test result details and so on.

8.7 Storage

8.7.1 Processed and packed products shall be stored under relevant conditions complying with this standard under proper labelling, segregation and identity.

No incompatible items shall be stored along with spice and spice products in the FG storage. (cereals, milk powders, salt, oils, dried nuts or other veg. products and so on shall be totally avoided)

8.7.2 No material other than those used for immediate processing shall be stored within the processing area.

8.7.3 Vehicles not designed for use in the processing and export establishment (facility), shall be garaged in an area not used for processing.

SCHEDULE 9 : PROCEDURE FOR INSPECTION –PRODUCT STANDARDS, SPECIFICATIONS AND ACCEPTANCE CRITERIA FOR SPICE AND SPICE PRODUCTS

Part 1- Product Requirement

9.1 Application- This Part applies to all parts of this Schedule and where applicable represents the minimum standards for Spice Products.

9.2 Raw Materials.

9.2.1 The Processor of an Establishment shall:

a) not accept or use raw materials, ingredients or packaging which contain or carry parasites, hazardous micro-organisms or toxic substances that will not be reduced to an acceptable level by normal plant procedures of sorting or preparing;

b) prepare product from raw materials that are unpolluted, sound, in normal condition and in accordance with these Standards.

9.3 Ingredients and Additives.

9.3.1 All ingredients and additives added to Spice and Spice products shall be prepared so as not to present a risk to consumers and shall:

a) not exceed the limit specified in the FSSA / regulation2006 & 2011

b) not exceed the limits specified in these Standards or Codex, Vol. XIV, "Food Additives" First Edition, 2002

c) processors shall declare to Spices Board the list of additives they use in production

d) meet the importing countries requirements;

9.3.2 Ingredients and its intended use and concentration shall be in compliance with national/ Codex standards and approved by the Board.

9.4 Packing Medium

9.4.1 A suitable packing medium shall be used to keep the spices in good condition where spices are packed in a medium

9.5 Residues of toxic metals, Pesticides, and other Contaminants

9.5.1 All residues (pesticides, toxic metals, mycotoxins, dioxins or other industrial pollutants where applicable shall not exceed the limits as specified by:

a) Codex, Vol. XIII, "Codex Maximum Limits for Pesticides Residues" Second Edn, 1986, including Supplement 1 "Codex Maximum Limits for Pesticides Residues" Second Edition 1988 and Supplement 2 "Codex Maximum Limits for Pesticide Residues" Second Edition, 2004; (MRLs) FSSA Regulation and standard 2006;

b) Importing country requirements.

c) National Standards

9.6 Labelling.

9.6.1 The stated style of presentation of all exported Spice and Spice Products shall be accurate and included in the trade description. The labelling shall meet the importing countries requirements as well as the national regulation

All additives and ingredients shall be declared on the label particularly as a measure of Allergen Control

9.7 Inspection and Sampling

9.7.1 Lots shall be sampled, accepted or rejected according to the relevant sampling plan and test results in Schedule -- of this Standard.

a) have each sample unit assessed using the relevant Product Inspection forms in Appendix A of these Export Standards;

β) meet the conditions of the following table and any additional conditions specified in this Schedule

χ) Sample shall also be inspected as per importing country requirement.

RAW MATERIALS QUALITY CODE AND OTHER DETAILS (TO BE DISCUSSED)

Parameters	Acceptance Criteria
Tainted, Spoiled	Not more than 10%
Fuel /oil contamination	Not Detected
Wholesomeness(all quality attributes)	Wholesome
Discoloration/ visible mould growth	Not more than 5%
Appearance	Characteristic
Objectionable foreign matter which gets cleared through subsequent process	Not more than 10%
Prohibited ingredient in raw materials in additive & packing media	Nil
Mixing with other grades	10%(optional)
Excessive permitted ingredient or additive	Nil
Moisture	Not higher than 15% refer national std
Pest / insect infestation	Not detected
Condition of packaging/ container	Satisfactory
Corrective actions taken in case of deviations	Signature of the analyst and the reviewer with date

9.7.1.2. This standard shall apply to the Final Spice and Spice products;

The standards for the final Space and Spice products shall be in compliance with the following regulatory requirements. Additional requirements from the buyers are acceptable provided they are in line with the national standards.

FSSA Standards 2006.

ASTA Specification

Codex Standards for residues, other contaminants and Additives

US DA and US FDA

EU regulations for Hygiene and contaminants specifically Aflatoxin

Water used for processing WHO/IS standards

9.7.1.3 Standards for Different Spice and Spice products

FSSA Standards & the Importers standards if any

9.7.1.4 Microbiological Standards for Pathogens

9.7.1.5 Process Hygiene Standards

Escherichia coli refer 2073 of EU and FSSA standard 2006

Staphylococcus aureus do

9.7.1.6 Product Safety Standards FSSA

Salmonella Shall be absent in all the 5 samples tested

Mould Shall not exceed 1000cfu/ gm

9.7.1.7 Inspection

9.7.1.8 Each sample unit shall be inspected for defects in accordance with table

9.7.1.9 An inspection that finds a sample unit exhibiting defects exceeding tolerance as indicated shall be calculated according to the sampling plan and accepted and or re-sampled accordingly.

Standards for Final Spice and Spice Products -

Style of packing	Parameters	Acceptance Criteria
All	Packing and labeling	Comply with the requirements in the FSSA and Importing countries
All	Appearance and wholesomeness – color, odour, flavour, physical appearance	Characteristics of the products
All	Foreign objects/ extraneous matter	practically free
All	Toxic metal residues , pesticides& Aflatoxins and other fungal toxins	MRLs/ /mporting country's stds
Cans	Corrosion of the cans and sealing integrity	complies
In Brine	Sulphur dioxide or other preservatives/additives	FSSA, Importing country's stds

9.7.2 An inspection that finds a sample unit exhibiting any item on the table with a nil tolerance or fails to meet 1 or more of the requirements shall be considered defective and therefore shall be evaluated and or re-sampled according to Standard and inspected for defects in accordance with Table --

Defect/ Parameters for canned products	Tolerance/Acceptance Criteria

Can percent body hook	meet the can manufacturer's specification
Can overlap percentage	meet the can manufacturer's specification
Cover hooks	.74-.84 (301-404)
Countersink	.125 or 1/8
Can failure which includes: (listed below)	Nil
• Perforated external corrosion	Nil
• Severe body denting (plate fracture with leakage evident)	Nil
• Severe double seam denting (fracture evident)	Nil
• Defective or Incomplete side seam weld (wild burn through)	Nil
• Incomplete open side seam weld (leakage evident)	Nil
• Mislocked side seam	Nil
• Body puncture	Nil
• Hard swell or buckle swell or blown	Nil
• Cable-cut (end plate cut through, leakage evident)	Nil
• Sharp embossed code (end plate fracture)	Nil
• Dead head or skidder	Nil
• Incomplete double seam (2^{nd} operation incomplete)	Nil
• Cut over or cut through (Plate fracture)	Nil

• Torn flange or back curl	Nil
• Knocked down curl or flange	Nil
• Score line fracture	Nil
Commercial Sterility	Sterile
PH	4.5-6.5
Water activity	<0.85
Salt content	Not more than 2.5% or as per the requirements

9.7.3 Sampling based on Codex or other National/ International Standards

9.7.4. Documentation

9.7.4.1 Sampling plan and procedures for sampling shall be documented. The sampling plan shall be, whenever reasonable based on appropriate statistically or equivalent recognised methods. The procedure for sampling should describe the selection, sampling plan, withdrawal, preparation, and transport of a sample.

9.7.4.2 Lot Identity

Final Products of Spice and Spice products processed and for export shall be marked to identify all batches contained in the lot and the lot given an identity.

9.7.4.3 Selection of Sampling Plans and Assessment of Sample Units

The number of sample units required by the relevant sampling plan shall be drawn at random from the lot / consignments by authorised officer during monitoring as part of the routine activity by the Board.

The number of sample units required by the relevant sampling plan shall be drawn by the processors from the lot as part of the routine monitoring under their HACCP system

The sample units shall be assessed against the applicable product standard in Schedule --- and applicable sampling plans in Schedule .

A lot of Spice and Spice products other than bulk loaded shall be sampled using Sampling Plan 1.

Where a lot is rejected on the basis of an assessment using Sampling Plan 1, the processor may reassess the lot immediately in accordance with the Sampling Plan 2.

Where the owner wish to have the lot reassessed in accordance with standard, the initial rejection will not count against the establishment rating unless the lot is rejected again by Sampling Plan 2.

Bulk loaded products shall be assessed using Sampling Plan 3.

Samples collected for microbiological and chemical analysis shall be in accordance with the relevant Sampling Plans.

When sampling final packed products sampling plan 4 shall be used.

In cases where sampling plans in Schedule is not appropriate, then square root of total number of units can be taken. Minimum of 5 and maximum of 10 units shall be drawn depending on the testing requirements.

9.7.4.4 Acceptance

A lot is considered as meeting the requirements of the appropriate product standard in the Schedule and testing requirements in the Schedule-, if the number of defective sample units does not exceed the acceptance number of the relevant Sampling Plan.

9.7.4..5 Rejection

A lot shall be rejected when:

- the relevant Sampling Plan acceptance number is exceeded;
- any characteristic or condition of the Spice and Spice Products or facility that has rendered or may render, the products unfit for human consumption is detected.

Action shall be initiated as described in this standard.

A rejected lot may be submitted for export after defective units are removed, reprocessed, relabelled and re-inspected. Reprocessed defective units shall be tested for microbiological criteria as well as for the defects observed in earlier inspections.

A processor who re-submits a lot shall notify the Board that it is being resubmitted and not a 'new' lot.

The steps that have been taken to correct the defects shall be notified in writing to the Board and records shall be maintained.

A resubmitted lot shall be reassessed in accordance with Sampling Plan 2 and should the fault be microbiological, no reassessment.

Any sample not found in compliance with the acceptance criteria for microbial or chemical deficiencies, the lot shall be rejected.

9.7.4.6 Sampling Plans

Sampling Plans 1, 2, 3 and 4 shall be used to sample Spice and Spice products in conjunction with the Product Inspection Forms.

A sample unit shall be the one immediate container.

Sampling Plan 1

Net contents of immediate container

1 kg – 10 kg	more than 10 kg	No. of sample units selected	Acceptance number.
Lot size	Lot size		
	2 - 15 *	2	0
2 - 200 *	16 – 50	2	0
201 – 1200	51 – 300	3	0
1201 – 7200	301 – 1400	6	1
7201 – 15000	1401 – 3500	13	2
15001 – 24000	3501 – 7200	21	3
24001 – 42000	7201 – 15000	29	4
42001 – 72000	15001 – 24000	48	6
72001 – 120000	24001 – 42000	84	9
Over 120000	over 42000	126	13

*In these sampling plans where lot sizes are less than 15, only non- destructive inspection shall be performed unless, in the opinion of the Authorised Officer destructive sampling is warranted.

Sampling Plan 2 (For Resubmitted lots)

Net contents of immediate container

1 kg-10 kg	more than 10 kg	No. of sample	Acceptance

		units selected	number
Lot size	Lot size		
	2 - 15 *	3	0
2 - 200 *	16 – 50	5	1
201 – 1200	51 – 300	6	1
1201 – 7200	301 – 1400	13	2
7201 – 15000	1401 – 3500	21	3
15001 – 24000	3501 – 7200	29	4
24001 – 42000	7201 – 15000	48	6
42001 – 72000	15001 – 24000	84	9
72001 – 120000	24001 – 42000	126	13
Over 120000	over 42000	200	19

*In this sampling plan where lot sizes are less than 15, destructive inspection shall be done on at least half the sample, non-destructive inspection may be carried out on the remaining samples.

Sampling Plan 3

Table 15 Final Packed Products

Units	Number of samples	Acceptance Criteria	
Up to 100	6	N= 10	C=1
100-120	7		
120-182	9		
350-352	10		
350- 500	11		
502- 752	12		

1000-1040	14		
1040-1500	18		
1500-2000	20		
2000-2500	24	N=10	C=2

Sampling Plan 4

Contaminants (Aflatoxins, PCB's, Dioxins, lead, cadmium and other chemical residues).

Weight or of lot/sub lot in kg	Minimum number of incremental samples to be taken
<50	3
50 to 500	5
>500	10

*minimum quantity of total sample shall be 10 kg composited from all the incremental samples

9.7.4.7 Microbiological and Chemical Testing Criteria

a) Samples shall be drawn from each lot for export and submitted for microbiological and chemical analysis. The results obtained after analysis shall be assessed using this testing criteria.

b) The required number of samples for Microbiological analysis is 5 randomly selected units and aseptically drawn from each sample, with a minimum weight of 200g.

9.7.4.7.1 Microbiological Criteria.

Table 16

Tests	Sample plan
Standard Plate Count	N= 5, c= 3, m= 10^6 cfu/g, M= 10^7 cfu/g Discuss only for heat treated
Escherichia coli	N= 5 c=1 m=10 cfu/g M= 20 cfu/g
Salmonella spp.	N= 5, c= 0, m= 0 in 25 g

1. Interpretation of Test Criteria

n = Number of sample units which must be examined to satisfy the requirements of this plan.

c = The maximum allowable number of defective sample units that may exceed "m". Where more than this number is detected, the lot is rejected.

m = Represents a value at or below which is considered acceptable.

M = Represents a value at or above which is considered unacceptable. One sample at or above this value is cause for lot rejection.

9.7.5 Packaging Requirements

9.7.5.1 Basic Requirements

9.7.5.1.1 The nature of packaging and the materials used for packaging shall be suitable for use with food.

9.7.5.1.2 The packaging requirements shall comply with the Packaging Regulation and also importing countries' requirements.

9.7.5.1.3 The nature of packaging and the materials used for packaging shall not:

- induce to the food any undesirable physical, biochemical or microbiological hazards and or cause product deterioration;

- impart a taint to the food;
- contaminate the food;
- contain a substance that could represent a hazard to health.

9.7.5.1.4 The nature of packaging materials shall be sufficiently strong to withstand handling incurred by packaging during transit.

9.7.5.1.5 Covering and Packing

9.7.5.1.6 Foods shall not be exported unless the food is packed and covered in such a way that will enable the goods to reach their destination in a satisfactory and wholesome condition

9.7.5.1.7 Time between Processing and Packing

9.7.5.1.8 The time that elapses between processing and packing shall not cause the food to have any undesirable physical, biochemical or microbiological deterioration.

9.7.5.1.9 Inks and Colorants

The ink used to apply descriptive markings shall not transfer on to the food.

Fluorescent brighteners or carcinogens, mutagens and teratogens shall not be applied to food or packaging.

9.7.5.2 Labels, Tags, and Adhesives

9.7.5.2.1 Labels, tags and adhesives used in packaging shall comply with specifications if any.

9.7.5.2..2 Internal Lacquers for cans

A lacquer applied to the inner surfaces shall;

- cover the inner surface in a continuous film;
- be uniform in thickness;
- leave no area of the surface uncoated;

- firmly adhere to the covering;
- be compatible and non-toxic with the food being packed.

The lacquer may incorporate a release agent

9.7.5.2.3 Reconditioned or Reused Packaging

Reconditioned or reuse of packaging materials shall not be permitted for the final product.

9.7.5.2.4 Storage of packaging materials

Storage of packing material should be in such a way to protect from pest, insects, dust and from other filth to prevent cross contamination of product whilst packing.

i. The packaging material shall be stored off the floor, walls, and ceilings.

ii. The packaging materials shall be delivered to the packing area without carrying them through the process areas.

iii. Packaging material shall be food grade and supplier certified

9.7.5.2.5 Storage of packaged goods, shall be away from raw material and or other input material.

SCHEDULE 10 : INSPECTION AND MONITORING PROGRAMS

PART 1 General Policy Applicable to all Parts

10.1 Application

10.1.1 This Schedule details of inspection /monitoring protocols to be followed when inspecting and monitoring a Processing and Export Establishment's ability to meet the:

- Structural and operational requirements of these Standards;
- Product standards.
- Pre- requisite requirements.
- HACCP programme.

NOTE: The results of these inspections and monitoring in conjunction with the risk allocation shall help to designate facility inspection frequencies as in 10.1.6.

10.2 Risk categories shall be allocated to each Export Facility

10.2.1 A risk category, of which there are three (low, medium and high risk products), shall be assigned to each processing and establishment by Spices Board. The risk category shall be the risk associated to the prepared product(s) at the facility as stated in the Risk Selection Table below. Facilities preparing different types of products such as a low, medium or high risk food shall be inspected according to the product. (This is also a need under the current regulation. Based on the risk associated with the product the controls shall be applied)

NOTE: The risk allocated to the food is related to the chance of the hazard occurring, types of hazard(s) associated with the food and the potential severity of the hazard(s) to the consumers or the impact of the hazard in the international trade.

Risk Selection Table

Low Risk	Medium Risk	High Risk
Raw Spices	Dried, cleaned , graded and packed Freeze dried products	Value added products Other ready to consume Spice products Spices preserved in Brine or as paste Low acid, acidified or low

		acid aseptically packed foods. Pasteurised or heat processed RTE foods.

10.3 Exceptions of risk allocation

10.3.1 Storage facilities exempted from risk allocation however shall be approved by the Board.

10.4 Target inspection frequencies

10.4.1 Target inspection frequencies are shown in Table above. Inspection frequencies shall not be exceeded but if they cannot be met, priority shall be given to medium and high-risk operations.

10.4.2 Frequency of inspection and monitoring for new processing and export facilities:

- shall be every 12 weeks over six months to one year period depending on risk category;
- and auditing shall be annually.

10.4.3 Frequency of inspection and monitoring for existing processing and export facilities:

- shall be every 6 months for one year depending on risk associated with the product or process in accordance to 10.1.5
- audit shall be conducted at any time when the facility fails 2 consecutive inspection and monitoring within 1 year period.

- an audit of the full HACCP system shall be carried out by the Board annually.

10.4 Unannounced inspection and monitoring shall be conducted by an Authorised Officer at anytime to ensure requirements of this Standard are maintained.

10.4.1 Inspection and monitoring may also be carried by an Authorised Officer on an ad hoc basis.

10.5 Facility Inspection Frequency and Rating of Facility

Facility Rating	MI	SE	CR	Low Risk	Medium Risk	High Risk
EXCELLENT	0 – 3	0	0	every year	every 8 months	every 6 months
GOOD *	4 – 5	1 – 2	0	every 9 months	every 6 months	every 4 months
AVERAGE	6 or more	3 – 4	0	every 7 months	every 4 months	every 3 months
FAIL	N/A	5 or more	1	Re-inspect until non-conformance(s) is/are corrected		

MI = Minor Deficiency SE = Serious Deficiency CR = Critical Deficiency

⌛ Total number of SEs or MIs does not exceed five. Five or more SEs or one or more CRs is considered a failure

10.6 Ratings change and frequency of inspection

When the rating of a facility is changed:

- when the rating of the facility changes according to the rating norms, the frequency of monitoring shall be based on the changed rating;

- any two consecutive similar ratings will result in that rating being the accepted inspection frequency;
- Where facilities continue to remain on a high rating the inspection frequency shall be reduced as decided by the Board

10.7 Inspection

10.7.1 Authorised Officers may conduct inspections of a facility under a HACCP Programme to inspect, monitor and rate the facility according to 10.1.5.

10.7.2 In relation to the HACCP programmes, the Board shall ensure that:

- documentation maintained by the industry is in compliance and or agreement with the ones submitted to the Board as part of the requirement for approval;
- the establishment is implementing and complying with its HACCP plan; The maintenance of the conditions for approval are still in place.
- there is sound basis to certify if Export Certification is required by an authorised signatory of Spices board.;
- the export of Spice and Spice Products from the establishment complies with these Standards;
- Corrective Action requested following monitoring have been implemented on or before the due date;
- Importing country's requirements are being met.

10.8 Re-inspection

10.8.1 Re-inspection shall be performed by the Authorised Officer in the following circumstances:

- where a Critical (CR) deficiency has been detected or the overall score after an inspection causes the exporter to cease processing, the Authorised Officer and Exporter shall arrange the verification of the effectiveness of the corrective action, once the CR deficiency is resolved;
- Lot failure due to the product not meeting the requirements of these Export Standards may cause the Exporter to request a re-inspection of the lot. In this case the Authorised Officer shall commence re-inspection of the failed lot immediately using Sampling Plan 2 as listed in Schedule ---- The result of the product re-inspection shall be the trial.

10.9 Failure of a Processing and Export Facility or Product Lots

10.9.1 Where processing and export facility has scored a CR or has failed an inspection or the product has failed to meet the minimum requirements of Schedule 15 of this Standard, an investigation shall be carried out to determine if the failure was due to the Exporter's negligence or due to other factors. Consequently:

if the Exporter is found to be negligent and has failed to exercise due care the failed rating shall stand;

where it is determined that the Exporter is not responsible the Authorised Officer may limit enforcement action to product action or request a recall.

10.10 Traceability and Recall

10.10.1 The Processor and or exporter:

- shall have an effective and detailed traceability and recall system from harvest to export; Specifically for consumer products
- shall validate and verify its traceability and recall system to ensure effectiveness;
- when unable to demonstrate the "Traceability" and Recall procedures at the request of the Authorised Officer, this shall be rated as a CR.
- shall perform a mock traceability and recall exercises to assess the effectiveness of the traceability and recall procedures and the record of these exercises be kept.

10.11 Compliance, deficiency types and corrective action requirements

10.11.1 When using the inspection forms:

- all compliant parameters shall be denoted with either a tick or "OK" in the appropriate box;
- all deficiencies or defects shall be adequately described, scored as Critical (CR), Serious (SE) or Minor (MI). Corrective Action Request shall be issued to all Critical as well and Serious non-compliances with a due date by which the non-compliance shall be corrected. All minor deficiencies shall be issued to the processor in an observation format with target date for compliance.

10.12 Critical Deficiencies (CR)

10.12.1 A Critical Deficiency is a situation where the Processing and Export Facility has not followed this Standard in such a manner that:

a. there is non-compliance with this Standard that is intended to ensure safe food production that could result in the food having a health hazard;

b. the product has a fraudulent trade description;

c. the product fails to comply with minimum specification;

d. the facility fails an "Operation and Sanitation" or "Construction and Equipment " inspection; which may render unsafe product to consumer;

e. there is 2 or more Serious deficiencies.

10.12.2 The situations described in 10.1.12.1 (a,b,c,d,e) shall cause the facility to stop operating until the Authorised Officer, the processor and or the exporter are satisfied that a Critical Deficiency (CR) no longer exists.

NOTE: Examples of CR could include, severe breakdown in sanitation procedures, waste contaminating food, use of non-potable water, serious pest infestation, a breakdown in specified procedures on the company's HACCP plan or process flow diagram – all leading to unsafe food production.

10.13 Serious Deficiencies (SE)

10.13.1 A Serious deficiency (SE) is a situation where the facility has not followed these Standards in such a manner that:

- non-compliance with these Standards may result in the food being a health hazard but is not a Critical Deficiency;
- records are not reliable enough to demonstrate that a CR has been or will be avoided;

10.13.2 Any SEs shall be corrected upon the agreed timeframe between the authorised officer and the next work shift or otherwise processing shall cease until the appropriate action has been taken.

NOTE: Examples of SE could include, ineffective pest control, failure to collect waste regularly, waste contaminating food, inadequate cleaning programme, and inaccurate calibration, failure to label chemicals, inadequate trained staff, inadequate stock rotation, and variation from the set HACCP or process flow.

10.14 Minor Deficiencies (MI)

10.14.1 A Minor deficiency (MI) is a situation where the facility has not complied with the requirements of these Standards but a CR or SE has not been resulted and the deficiency shall be corrected at a date agreed to by the processor and Authorised Officer but not be longer than two weeks.

NOTE: Examples of MI could include (e.g. inappropriate water temperature, minor sanitation or construction deficiencies, unsigned records, lack of verification of records as scheduled etc)

PART 2 - The HACCP Programme approved by Spices Board

10.15 Application

This Part applies to all Spice Processing Establishments and Facilities. Applying for Spice House Certification

The company applying to process and export shall submit to the Board in writing and shall participate in the HACCP programme. The application shall provide the information in the prescribed format in the Appendix I.

10.16 Confidential Commercial Information

The Authorised Officers shall treat all materials submitted as part of the application for the HACCP Programme in the fullest of confidence and shall not disclose any commercial trade information to any other parties.

10.17 Approval

- The Board shall give a written approval when the Exporter has successfully met the requirements of Schedule 10.2.1 of this Standard.
- The approval of the HACCP Program for Processing and Export Facility shall be valid for 12 months period subject to satisfactory audit.
- The Board may grant conditional approval if it appears from onsite visit that the establishment and facilities has met all the infrastructure and equipment requirements and under a condition that the HACCP plan will be submitted to the Board within a period as agreed between the processor and the Board but not later than 6 months. (EU).
- The Board shall grant full approval only if it appears from a new on-site visit carried out within 6 months of the granting of the conditional approval, that the establishment and facilities meets all operational requirements including all HACCP principles and applications.
- Approval shall be given in accordance to the procedures in this standard.

10.18 Suspension or Withdrawal of Approval

Spices Board shall suspend and or withdraw this approval at anytime if the facility fails an audit and objective evidences are there for non compliance with food safety issues.

Suspension and or withdrawal shall be in writing served to the Processor and Exporter with specific terms and conditions

10.19 Appeal

- Exporters and processors may appeal only on the condition when suspension or withdrawal does not take into account food safety, hygiene process and food process issue.
- Exporter and processors may appeal in writing within 30 days of the date of suspension or withdrawal of approval.
- Documentation required and amendments procedures.
- All documents required by the HACCP programme, including amendments, shall be sent to the Board taking into account requirements under Schedule 10. of this Standard.
- Evaluation of application, facility assessment, monitoring frequency and rating of a Spice processing and Export Establishment.

Assessment and inspection shall be undertaken by an Authorised Officer and shall entail:

a. a desk audit to ascertain document compliance and note if all hazards have been identified*. Authorised Officers will only be required to do this annually as long as there are no amendments; should there be any amendment a review shall be done as soon as possible.

b. an on-site inspection to ensure that the documentation correctly describes the production process and to ensure that the HACCP programme is in place, is being followed and effectively implemented*.

c. an on-site inspection to ensure that the processed food and the preparation process complies with other Schedules in these Export Standards (construction, GMP's, product requirements, sanitation operations, etc.). Examples of facility inspection forms are shown in Appendix B;

d. where required, an assessment to ensure foreign countries' requirements for food safety are being met.

e. the rating of the Export Facility as designated in Schedule10.1.6 of this Standard, and setting the date for the next inspection.

Note: Examples of the HACCP program checklists are shown in Annexure.

10.20 Good Manufacturing Practice and SSOP

Policies and procedures shall be developed and documented.

NOTE: They may be directly referenced from the appropriate Schedules found within this Standard.

Should the Processor or Exporter writes its own GMPs and SSOPs, the details shall be sent to the Board. These shall be reviewed and accepted by the board as long as the standards are equivalent or exceed those described Schedules 1 to 10 of this Standard.

A policy for reviewing GMPs and SSOPs shall be developed and documented and this shall state the person responsible for the review, what will be reviewed and the frequency of review.

The processor and exporter shall monitor, maintain records including those of corrective action according to Schedule 10 of this Standard.

NOTE: GMPs and SSOPs are mandatory for the HACCP programme. Schedules of this Standard detail mandatory and recommended GMPs and SSOPs.

10.21 Calibration of Equipments

A policy for calibration of measuring and recording devices shall be drawn up, stating the frequency of calibration and records must be maintained All measuring and test equipment, gauges and devices used in connection with food processing shall be calibrated for accuracy and shall be easily readable.

All measuring instruments and test equipment, gauges and devices use in connection with food processing, storage and transportation shall be calibrated and certified by an accredited body.

A calibration system shall be applied either in-house or by an external authority.

The system shall have Calibration Schedules maintained for all instruments and equipments which have to undergo calibration on a regular basis and clearly indicate when calibrations fall due.

Each instrument calibrated should be equipped with a traceable calibration certificate and a calibration sticker affixed to it for inspection purposes.

The records of the calibration shall be maintained for 2 years, unless otherwise specified in this Standard.

Reference standards shall meet the following requirements:

- one reference standard shall be calibrated for each measurement purpose and shall be used for in-house calibration of the working equipment and records maintained;
- reference standards maintained for the sole purpose of in-house calibration of working standards and equipment shall be of an accuracy and stability fit for its purpose;
- reference standards shall be calibrated and the calibration records kept for the entire history of the Standards and Artefact;

In house calibration methods and procedures shall comply with ISO/IEC 17025 requirements.

The calibration schedule shall be maintained and carried out by a competent person.

Personnel performing calibrations shall be appropriately qualified.

The procedure for calibration shall be documented in the SOPs.

10.22 Traceability of Measurement

All measurement must be traceable to the National Measurement Standards, which are traceable to international standards.

10.23 Traceability and Product Re-call

All facility shall have a documented policy and procedure for product recall and traceability and ensure the system is effective.

The export facility shall make provision for validation and audit of the traceability system to ensure it is being implemented effectively.

The Exporter shall include the following:

I. Materials;
II. the product origin;
III. the processing history;
IV. the product distribution;
V. location after delivery.

One of the following systems of traceability shall be used:

a. paper system
b. bar code systems
c. electronic systems.

10.2.9.5 Document Control

The processing establishments and facilities shall establish and maintain procedures to control documents as required by Schedule ---- of this Standard, and all documents that form part of HACCP management system.

10.23 Document approval and issue

All documents issued as part of the management system shall be reviewed and approved for use by authorised personnel prior to issue.

A list or an equivalent document control procedure identifying the current revision status and distribution of documents in the management system, shall be established and be readily available to preclude the use of invalid and or obsolete documents.

The procedure(s) adopted shall ensure that:

a. authorised editions of appropriate documents are available at all locations where operations essential to the effective functioning of the Spice processing establishments and facilities are performed.

b. documents are periodically reviewed and, where necessary, revised to ensure continuing suitability and compliance with applicable requirements;

c. invalid or obsolete documents are promptly removed from all points of issue, or otherwise assured against unintended use;

d. obsolete documents retained for either legal or knowledge preservation purposes are suitably marked.

Management system documents generated shall be uniquely identified. Such identification shall include the date of issue and or revision identification, page numbering, the total number of pages or a mark to signify the end of the document, and the issuing authority (ies).

Document changes

Changes to documents shall be reviewed and approved by the same function that performed the original review unless specifically designated otherwise. The designated personnel shall have access to pertinent background information upon which to base their review and approval.

Where practicable, the altered or new text shall be identified in the document or the appropriate attachments.

If the processing establishments and facilities' document control systems allows for amendment of documents by hand pending the re-issue of documents, the procedures and authorities for such amendments shall be defined. Amendments shall be clearly marked, initialled and dated. A revised document shall be formally re-issued as soon as practicable.

Procedures shall be established to describe how changes in documents maintained in computerised systems are made and controlled.

10.24 Internal Audit

The operations shall be periodically and in accordance with predetermined schedule and procedure, conduct internal audits of its activities to verify that its operations continue to comply with the requirements of the management systems and this standard. The internal audit programme shall address all elements of the management systems.

The area of activity audited, the audit findings and corrective actions that arise from them shall be recorded and maintained.

Follow up audit activities shall verify and record the implementation and effectiveness of the corrective action taken.

10.25 HACCP Management

In accordance with a predetermined schedule and procedure, the top management shall periodically conduct a review of the management system and activities and or operations to ensure their continuing suitability and effectiveness, and to introduce necessary changes or improvements.

Findings from management reviews and the actions that arise from them shall be recorded and maintained. The management shall ensure that those actions are carried out within an appropriate and agreed timescale.

HACCP systems management shall be managed or supervised by a competent personnel with knowledge in HACCP principles and application.

Part 3 The Standard Sanitation Operating Procedures

SSOP Policies and procedures shall be documented, communicated and implemented.

Monitoring records shall be maintained at least in the following areas of sanitation controls

1 Safety and treatment of water

Water that comes in contact with food or food contact surfaces, or is used in the manufacture shall be potable:

a. Certificate of analysis shall be provided.

b. The water system in the processing and export establishment should be installed by a licensed plumber and in accordance to Water Sanitation requirements.

c. All hoses inside and outside the plant shall have anti-siphoning devices installed.

d. A plumbing diagram shall be made available for inspection to ensure clear separation from water line from sewage lines.

e. Contamination of water supplies shall be prevented.

2. Condition and cleanliness of food-contact surfaces.

Provision shall be made for adequate cleaning and maintenance of food contact surfaces, utensils and protective clothing and outer garments including gloves.

Gloves if used, for handling food, shall be for single use and disposable.

3. Prevention of cross contamination

Cross contamination from unsanitary objects to food, food-packaging material and other food contact surfaces, including utensils, gloves and outer garments shall be prevented.

4. Cleanliness and maintenance of hand-washing, hand sanitising and toilet facilities

Provision shall be made to ensure the condition of hand washing facilities, toilet facilities and showers are maintained in good hygienic and repair condition.

5. Employee Health & Hygiene Condition

There shall be control of employee health and hygiene conditions in accordance with Schedule 7 of this Standard.

6. Protection of food from adulterants

Provisions shall be made to ensure food is not being adulterated from food packaging material, food contact surfaces and from various microbiological, chemical and physical contaminants, such as lubricants, fuel, pesticides, cleaning compounds, sanitising agents, condensate and floor splash.

Separation of functions and areas shall be designated for food grade and non-food grade items and in accordance to Schedule ---- and Schedule ---of this Standard.

7. Labelling, storage and use of toxic compounds

Provision shall be made for the storage of cleaning compounds, sanitizing agents, lubricants and pesticides.

Chemicals and toxic compounds shall be appropriately labelled and stored separately from food contact surfaces and materials and used always under control.

All food grade chemicals and lubricants shall be stored away from non-food grade chemicals and lubricants.

Storage of hazardous substances shall be provided in accordance with Schedule 6 of this Standard.

8. Exclusion of Pests

Provision shall be made to control, eliminate and exclude pests and insects.

Plant grounds, vicinity and facilities shall be kept free of litter, waste and does not provide a condition to attract pests.

Pest control shall be carried out in accordance with Schedule of this Standard.

9. Waste Disposal

Provision for waste disposal shall be carried out according to Schedule 3 of this Standard.

SCHEDULE 11 : TRAINING , COMPETENCE & AWARENESS

11.1 Assessment of Training Needs

All officers involved in the Spice House certification as well as Export facilitation shall be trained well in the relevant activities

11.2 The need for the training shall be assessed and a training schedule shall be prepared.

11.3 They shall be trained well in assessing the effectiveness and adequacy of the training provided by the FBOs to the food handlers

There shall be a provision for the evaluation of the effectiveness of the training provided.

In case further training is needed the same shall be provided and records shall be maintained for all the activities

ANNEXURES

Final Product Inspection Checklist Product FORM A2

Company Name/Ship:_____

Lot Size:_____Sample Size:_____Accept. No:_____

Lot Number:_____:No of packages_____Temp if applicable:

_____No of samples

An inspection that finds a sample unit exhibiting any item in the table with a nil tolerance or fails to meet 1 or more of the requirements shall be considered defective

Each sample unit shall be inspected for defects in accordance with the following table.

A 1

Lot PASS Authorised officer:_____QA Manager:

Lot FAIL Date:_____Date:_____

_____

Final Product Inspection Checklist CANNED/ BOTTLED PRODUCTS

FORM A5

Company Name:_____

Lot Name/Size:_____Sample Size:_____

_____Accept. No: ----------

Lot Number:_____Species:_____

_____

Equipment: 1.Tone tester 2. Weighing scale 3. Vacuum gauge 4. Can opener 5. Brix refractometer 6. pH paper near neutral range 7. Micrometer

Procedure:

1. Inspect the lot and randomly select samples looking for can failure defects e.g. blown, leakage, denting, etc.
2. If the cans are labelled then note the particulars on the label.
3. Record the embossed code mark on the lid.
4. Observe the external condition of the can failure defects such as rusting, dents, physical damage, and seam defects.
5. Test the tone and get an idea of the fill and vacuum.
6. Determine the gross weight.
7. Measure the Vacuum.
8. Measure the countersink depth, double seam width (length and height), and double seam thickness.
9. Cut the lid almost completely open.
10. Measure the head space.
11. Drain the contents for 5 minutes and collect the liquid in a measuring jar. 12. Measure the liquid weight.
13. Measure the solid weight.
14. Wash, dry and weigh the empty can.
15. Teardown the seam and obtain seam dimensions.

16. Check the inside of the can and look for skin adhesion, lacquer peeling, blackening.

17. Check the turbidity of liquid.

18. Measure the pH of the liquid.

19. Check solids and liquid for foreign matter.

20. Note the odour.

21. If light meat check for dark.

22. For chunks get %.

ITEM	CAN 1	CAN 2	CAN 3	CAN 4	CAN 5	CAN 6	CAN 7	CAN 8	CAN 9	CAN 10
Lot Code										
Can Defects										
Gross wt.										
Vacuum										
Countersi nk										
Double seam width										

Double seam thickness										
Headspace										
liquid weight										
Solid weight.										
Can weight										
Net weight										
Body hook										
Cover										

hook										
End plate thickness										
body plate thickness										
Overlap										
tightness rating										
junction rating										
pressure ridge										
lacquer, blackening etc.										

liquid turbidity										
PH										
Foreign matter										
odour										
light meat or % chunks										
Comments:										

Lot PASS Authorized Officer:_____QA Manager:_____

Lot FAILS Date:_____Date:_____

Monitoring Checklist for Establishment & Rating Form A1

Company:			Approval Number:
Address:			
Product(s):			
Date:		Audit type:	

Schedule / Item / Deficiency	OK	Description / Date of CA
1.		
1.1 Location and immediate surrounding of the facility		
1.1Building and facilities meets the request Design and other infrastructure		
1.3 Drainage and waste management		
1.4 Test lab position- away from processing areas to prevent cross contamination		
1.5 Water supply- adequate , potability		
1.6 Lighting and ventilation		
2.1 Ceilings, 2.2 Floors, 2.3 Walls: tightly coloured, flake free, non toxic SE MI		
smooth / waterproof /impervious and washable SE MI		
proper construction / in good repair CR SE MI		
proper floor / wall joint SE MI		
all joints adequately sealed SE MI		
ceilings-clean and acceptable height SE MI		
floors-sloped towards drain / no water build up SE MI		
Dry areas: properly constructed/good repair SE MI		
2..4 Drains: rodent proof CR		

Notes:

Inspections that result in one or more Critical Deficiencies (CR) or five or more Serious Deficiencies (SE) not noted by the plant or the corrective action for the deficiencies is unacceptable shall be considered as a (CR) and corrected immediately..

Critical deficiency (CR) is a situation where the facility has not complied with the requirements of Spice and Spice Products Quality Control Standards in such a manner that results in the production of food that is unsafe or with a health hazard. Examples could include severe breakdown in sanitation procedures, wastes contaminating foods, use of non-potable water or serious pest infestation. A CR deficiency shall cause the facility to stop processing until both the Processor and Authorized Officer are satisfied that the CR no longer exists.

Serious deficiency (SE) is a situation where the facility has not complied with the requirements of the Spice and Spice Products Quality Control Standards in such a manner that results in the production of food that is unsafe but is not a Critical deficiency. Examples could include, ineffective pest control, inadequate cleaning programme, inaccurate calibration, failure to label chemicals, inadequate trained staff or premises not in good repair. SE shall be corrected by the next shift or processing shall cease.

Minor deficiency (MI) is a situation where the facility has not complied with the requirements of the Spice and Spice Products Quality Control Standards but a CR or SE has not resulted. Examples could include, equipment not meeting correct standard, temperature of water, minor sanitation or construction deficiencies. The

deficiency shall be corrected at a date agreed to by the processor and Authorized Officer and within 2 weeks.

Checklist for Harvest and post harvest process and storage (PRPs)

Name of Company:		Inspection No.	
Site/Location:			
Name of QC Manager:			
Inspection		Name of	

Structural and Equipment	OK	N	Comments/Remarks
Protection of products from contaminants			
Dust and exhaust gases			
Rodents and other pests			
Place fenced with lockable system			
Building construction and finishing			
Easy to clean, impervious materials			
Smooth surfaces			
Maintained in good condition			
Supply of Water			

Water available at any time			
Water treated on the spot			
Drying yard			
Protected			
Storage condition/containers			
Prerequisite programs in place			
Sufficient lighting whenever necessary			
Waste disposal			
Adequate drainage system			
Containers for solid waste available			
Toilets and washing basins available			
Toilets in sufficient number in the warehouse			
Hand washing basins with soap and disinfectant			

b) Operational Requirements				
Qualified monitoring personnel and plans available	Severity of deficiencies			
Elements to inspect	MI	SE	CR	Observations
Good manufacturing & hygiene practices in place				
Qualified technician responsible for the				

application				
Temperature monitoring & registers in place where applicable				
Hygiene and disinfection plans in place				
Water quality monitoring plan in place. Registers up to date where water is used for processing				
Hygiene of working areas and equipment				
Facilities showing proper hygiene/maintenance conditions				
Drying yard cleanliness				
Drying on the floor or on polythene sheets				
Only approved detergents and disinfectants used				
Working areas and equipment washed and disinfected at least once a day				
Personnel hygiene				
All workers handling products having a medical certificate				
Personnel susceptible to contaminate the product				
Uniforms, clean and in good condition				
Hair enclosed with clean head gear				
Hand washed each time the work resumes				
Signs prohibiting of drinking, smoking,				

spitting or eating in the working areas announced and respected by the personnel				
Cleaning and maintenance of the ware house				
Schedule				
Supervision				
Records of monitoring				
Access control for food security				
Delegated responsibilities for the hygiene surveillance				
Personnel responsible for the product safety				
Records containing the values obtained and observations				

Building cleaning and disinfection				
Personnel hygiene				
Personnel health condition follow-up				
Water quality monitoring in case water used				
Temperature control				
Thermometers easy to read associated to each storage room in case of chilled storage				
Thermal sensors placed in the hottest area				

Automated temperature recording device (thermograph)				
Control elements and temperature indications accessible from the machine rooms				
Adequate temperatures and records				
Storage of pest chemicals				
Use of the same under control				
Documents Training				
Monitoring				
Staff Amenities				
Staff dressing rooms sufficient in number/size				
Dressing rooms finished in easy to clean /disinfect, materials				
Adequate number of hand washing devices				
Hand washing basins provided with; non hand operated taps disposable towels soap and disinfectant adequate number of toilets toilets do not open directly to working places				
Staff training				

Staff training records and schedule available				
Pest Control				
Documented Pest control programme in place				
Personnel engaged in treatment with chemicals trained and competent to carry out the task.				
Bait stations and map available				
If pest control contracted out, is it approved by				
Calibration				
Calibration records up to date				
Referenced thermometer available				
Total Deficiencies				

Summary of deficiencies found and corrective actions requested

No. of Corrective Action (s) Requested	Agreed Corrective Action Date	Verified Date	Remarks

Observations: Conclusions:

Auditor Signature: Quality Control Manager Signature:

Date:

CHECKLIST FOR ASSESSMENT OF TRANSPORT	
Reason for inspection:	
Vehicle: Vehicle registration: Authorization:	Stowing: Owner:
Date:	Name of inspector:

Sanitary conditions related to the construction and hygienic operation

Elements to verify	Yes	No	Commentaries
• container, box or lorry closed: 1. Easy to clean 2. Hygienic adapted to the purpose 3. Clean and well maintained, 4. Space sufficient			
• Pest control • hygiene vehicle cleaning records 1. no incompatible material inside			
• Loading/Unloading 1. Quick and hygienic 2. contained in bags of proper material and sealed			
• Hygiene Control 1. Cleaning of lorry after and before use 2. Vehicle periodically subject to general cleaning			
• Oil and fuel kept separated			
• Health & hygiene of crew monitored 1. Medical checks up to date			

2. General hygiene adequate			
• Temperature under control where needed 1. Lorry or container 2. Product			

Summary of defects found and corrective actions requested			
Defects	Correction Date, limit	Corrected	Commentaries

Observations Conclusions: authorized / non authorized

Signature of Inspector Responsible person signature

CHECKLISTS FOR HACCP DESK AUDIT

This desk audit acts as guide for both Authorized Officers and Exporters as to the adequacy of the required documentation for Spices Board HACCP plan. It is not used to rate the facility. A report shall be generated listing deficiencies and corrective actions for the Exporter.

Company:	Company HACCP Manager:

Address: Phone: Fax:	Approval Number:		
Product(s):	Facility Risk Rating		
	Low	Medium	High
Audit number:	Date of Audit:		

Item / Deficiency type	OK	Deficiency description / Description of CA/ Date of CA
18.2.5 Application Document requirements		
.1 Correct name, location, postal address		
Company Quality policy given		
Scope of HACCP plan given		
Manager of HACCP program named		
Signed declaration of HACCP plan by owner		
.2 Product statement for each product		
Product description/specification adequate		
Method of preparation given		
Packaging listed of approved		

Item / Deficiency type	OK	Deficiency description / Description of CA/ Date of CA
type		
Method of preservation and storage adequate		
Distribution conditions adequate		
Intended use given		
Consumer group identified		
.3 Process flow		
Shows all steps		
Process Flow prepared for each product		
Enables identification of CCPs		
Follows approved outline		
Accurate and clear		
Signed and verified by HACCP manager		
.4 HACCP plan table		
Correctly referenced with Process flow		
Identifies all significant hazards		
Identifies all CCPs		
Describes adequate Control		

Item / Deficiency type	OK	Deficiency description / Description of CA/ Date of CA
measures for each hazard		
States correct Critical Limits for each hazard		
Monitoring Procedures: developed for all CCPs		
Are monitoring procedures describe appropriately:		
What will be monitored		
How will it be monitored		
Frequency of monitoring		
Who is to monitor		
Is the frequency adequate to keep the CCP under control		
States where records will be kept		
Corrective Actions: developed for all CCPs		
Ensure that CCP is brought under control		
States adequately what happens to product when the process is out of control		
States adequately what will be done to bring the process under control		

Item / Deficiency type	OK	Deficiency description / Description of CA/ Date of CA	
States where records will be kept			
.5 Verification activities demonstrate that the:			
HACCP plan is effective			
Control measures are working			
Critical limits are valid			
Monitoring procedures are adequate			
Corrective Actions are adequate			
The CCPs are appropriate and under control			
Are records verified at an adequate frequency			
.6 GMPs			
Has a GMP policy been defined			
Is the GMP policy adequate, are all items covered			
Is GMP policy method for review adequate			
Have Corrective actions been developed			
.7 Documentation			
Work instructions used			
Are documents controlled adequately			

Deficiency Description/ Recommendations

Authorized Officer:_____Plant Manager:_____

_

Date:_Date:_____

HACCP ON-SITE AUDIT FORM C2

This audit form shall be used in conjunction with the forms for an on-site inspection and together shall generate the facilities rating. A report listing Corrective actions may be required if they are too numerous for these forms. Copies shall be made for the Exporter.

<table>
<tr><td>Company:</td><td colspan="3">Company HACCP Manager:</td></tr>
<tr><td>Address/Phone/Fax:</td><td colspan="3">License Number:</td></tr>
<tr><td rowspan="2">Products:</td><td colspan="3">Facility Risk Rating</td></tr>
<tr><td>Low</td><td>Medium</td><td>High</td></tr>
<tr><td>Audit number:</td><td colspan="3">Date of Audit:</td></tr>
<tr><td>New rating and date:</td><td colspan="3">Date of next inspection:</td></tr>
<tr><td>Authorized Officer signature:</td><td colspan="3">Company HACCP manager signature:</td></tr>
</table>

Item / Deficiency type	OK	Deficiency description / Description of CA/ Date of CA
COMPONENTS TO ASSESS		
1.Commitment of the management Financial commitment		

Item / Deficiency type	OK	Deficiency description / Description of CA/ Date of CA
COMPONENTS TO ASSESS		
Awareness/conviction		
2. HACCP Team Designation of the HACCP Team Leader Decision-making power of the HACCP Team Leader Training and qualification of the HACCP Team Leader		
3. Composition of products Composition (qualitative and quantitative) Physical and chemical characteristics Treatments the product(s) underwent Packaging Conditions of storage and Distribution Shelf life Instructions for use of the product		

Item / Deficiency type	OK	Deficiency description / Description of CA/ Date of CA
COMPONENTS TO ASSESS		
Microbiological and chemical criteria applied		
4. Intended Use Normal or predicted use of the product by the Customer Target consumer groups Adaptation of the product(s) by certain consumers (caterers, canteens, travelers, sensitive people).		
5. Process flow diagram(s) Drawing of the plant facilities and its annexes(pre-requisites) Disposition and pertinent characteristics of the equipment Number and nature of the processing Operations Sequence of the processing operations Duration and delays between processing operations Pertinent technical data of the		

Item / Deficiency type	OK	Deficiency description / Description of CA/ Date of CA
COMPONENTS TO ASSESS		
processing operations Flow of products Separation between clean and dirty areas (pre-requisites) Technical data of cleaning and sanitation(pre-requisites) Hygienic environment of the facilities(pre-requisites) Hygienic conditions of the personnel(pre-requisites) Circulation flow of personnel(pre-requisites) Conditions of product storage(pre-requisites) Conditions of product distribution		
6. Hazard analysis Identification of all potential biological hazards * Identification of all potential chemical biological hazards * Identification of all potential physical hazards *		

Item / Deficiency type	OK	Deficiency description / Description of CA/ Date of CA
COMPONENTS TO ASSESS		
Identification of the cause of each hazard (contamination, survival, re-contamination, multiplication, persistence, etc.) Identification of the control measure(s) for each hazard		
7. HACCP Team The HACCP team leader has effective power of decision The HACCP team members are qualified		
8. Composition of products Composition is reflective of the one described in the manual Any modification is recorded and taken into account for HACCP revision		
9. Intended use Valid description of the intended use Any modification is recorded and taken into account for HACCP		

Item / Deficiency type	OK	Deficiency description / Description of CA/ Date of CA
COMPONENTS TO ASSESS		
revision		
10. Process flow diagram(s) The flow diagram description is always valid Any modification is recorded and taken into account for HACCP revision		
11. Hazard analysis All control measures are correctly implemented Personnel in-charge of control Measures are identified and qualified New hazards, introduced because of changes in product, process, were taken into consideration Control measures have been identified for these hazards		
12. Critical control points CCP are conform to those described in the HACCP Manual Introduction of new hazard has		

Item / Deficiency type	OK	Deficiency description / Description of CA/ Date of CA
COMPONENTS TO ASSESS		
resulted in CCP analysis to implement proper control measures		
13. Critical Limits Critical limits are conformed to those described in HACCP manual Introduction of new hazard has resulted in the revision of the critical limits.		
14. Monitoring procedures Monitoring procedures are conformed to those described in the HACCP manual The reliability of the monitoring procedures has been validated Personnel in charge of monitoring is well identified and trained All necessary modifications have been made to take into account the introduction of new control measures		
15. Corrective actions Corrective actions are conformed to		

Item / Deficiency type	OK	Deficiency description / Description of CA/ Date of CA
COMPONENTS TO ASSESS		
those described in the HACCP manual Personnel in charge of corrective actions has been identified and trained All necessary modifications have been made to take into account the introduction of new control measures.		
16. Verification of the HACCP system The method and frequency of Verification are conformed to those described in the HACCP manual The validity of the verification method has been confirmed. Personnel in charge of verification are identified. Changes of products, processes, standards, regulations, were taken into consideration.		
17. Record-Keeping system		

Item / Deficiency type	OK	Deficiency description / Description of CA/ Date of CA
COMPONENTS TO ASSESS		
Forms are as described in the manual Forms are up to date for recording the following: b) Monitoring results, c) Corrective actions d) Modifications of the HACCP system e) HACCP Verification/revision results f) Some records have been tampered with		

Deficiency Description Corrective Action / date of action

Number of defects for HACCP, C&E, O&S forms			
HACCP:	CR:	SE:	MI:
GMP	CR:	SE:	MI:
Cannery Inspection Form: list number of		CR:	Rating:
TOTAL:	CR:	SE:	MI:

A cannery will be rated by the worst rating given either by the Cannery Inspection form or HACCP audit form. For example, HACCP inspection gives a "good" rating and the outcome of the GMP inspection is "average". The cannery will be rated as average.

Final Rating:_____

Checklist for Assessment of Traceability Conditions

TRACEABILITY VERIFICATION			
Company		Product Nature	
Lot/s code		Packing	
Criteria	Satisfactory	Non satisfactory	Comments
Supplier/origin clearly identified			
Receiving raw material identified by code no.			

Lost separated during transport			
Lots identified during process			
The codes include all essential information			
Label codes permits to trace back the product			
Recall plan formalized and operational			
All the data on suppliers and clients available			
Product distribution plans (is applicable)			
Recall plan verifications recorded			
Conclusions:			
Non satisfactory aspects	Correction requested	Date limit	Done or not

Observations Conclusion: complaint / non complaint

Inspector Signature Company Representative Signature

Corrective Action Request

Company:				Audit No.:	
Address:					
Product(s):					
Date:			Audit type:		
A	Description of Deficiency	MINOR	SERIOUS	CRITICAL	
HACCP Program requirement					
Evidence of deficiency					
Potential effect of deficiency					
Date:		Auditee:		Auditor:	

B	Action required to correct problem and / or prevent recurrence (to be completed by auditee)					
Date to be completed:			Auditee:		Auditor:	
C	Follow-up required to confirm that action has been taken and is effective					
Date to be finalised:				Signed (Auditor):		
CAR Closed on:				Signed (Auditor):		

APPENDIX I

APPLICATION FOR GRANT OF SHC

From

. . . . . .

. . . . . .

. . . . . .

To

.....

.....

Sir,

Assessment of Establishment

Please carry out the assessment of our establishment as required under the Standards for processing of Spice and Spice Products for export & for Spice

House Certification. Furnish below the details regarding the facilities existing in our establishment.

We undertake that our establishment meets the requirements stipulated in the Standards for Spice and Spice Products and also the other requirements pertaining to the Board's Act and the Rules

Sincerely;

1.	General Information	
1.1.	Name and address of the Establishment/Unit seeking approval	
1.2.	Name and Address of the Registered office	
1.3.	Name of the Chief Executive (MD/Mg. Partner/Proprietor)	
1.4.	Is the processing plant/ owned or leased by the applicant	Owned/leased
1.5.	If leased, name of the plant owner, plant name and address.	
1.6.	Year of Construction	
1.7.	Year of last major alteration	
1.8.	Approval requested for export to (Countries)	Eg:European Union Countries other than EU, etc.
1.9.	Scope of approval applied for (Name of the product)	

	1. 2. 3. 4. Any other item	

1.10.	Any other activities, if any;
1.11.	Annual production during the previous year (a) (b)
1.12.	Total exports during the previous year α) (a) Destination β) (b) Quantity in tonnes χ) © FOB Value
1.13.	Whether all year production or seasonal production
1.14.	No. of working hours per day
1.15.	No. of working days per week
2.	Information on Structure of the Establishment
2.1.	No. of pre-processing facilities (PPC) / units
2.2.	Whether pre-processing facilities integrated to the main establishment?
2.3.	If separate, give address (es) and distance from the establishment
2.4.	Whether the separate pre-processing facilities(PPC) are/is approved?
2.5.	If not, whether application for approval has been filed?

2.6.	Number of workers employed in PPC
2.7.	Is it sufficient in relation to the total production capacity of the establishment?
2.8.	Does the establishment has ppc
2.9.	If so, is it integrated?
2.10.	If separate, give address (es) and distance from the establishment

2.11.	Is the plant gets additives from vendors	
2.12.	If so are they approved under the regulation	
2.13.	Are they approved by the Competent Authority (CA)?	
2.14.	Number and capacity of the chill room(s)	
2.15.	Is the chilled room integrated to the unit?	
2.16.	Is it sufficient in relation to the total production and frequency of shipments?	
2.17.	If not, does the establishment utilize external chilled storage facility?	
2.18.	If so, the address (es) of such chilled storage	
2.19.	Are such cold stores approved by the Competent Authority?	
2.20.	No. of vehicles the establishment has for transportation of raw material, finished products, and water(if applicable) No., capacity and registration number of:	Number Capacity Regn. No.

(a) Refrigerated Vehicle		
(b) Non-insulated Vehicles		
(c) Three wheelers		
(d) Water Tanker		
2.22.	Does the establishment hire outside vehicles? (Give details)	
3.0	Information about personnel	
3.1.	No. of technologists available in the establishment	
3.2.	Name and qualification of the technologist(s) supervising the processing and related operations	
3.3.	Name and qualification of the technologist(s) conducting microbiological and chemical analysis	
3.4.	No. of supervisors	
3.5	No. of male workers	
3.6.	No. of female workers	
3.7.	No. of shifts per day	
4.0 4.1	Raw Material Are the raw material farms owned by the processor	
4.1(a)	Source of Raw Material	
4.1(b)	Particulars of the vendors	
4.2.	Specify the location of the farms in case known	
4.2 4.3	Are the raw materials procured, transported & stored in containers so designed to prevent *contamination* Mode of transportation of raw material from source to pre-processing	

4.4.	Are the raw material maintained in hygienic condition during procurement /transportation and receiving at the unit	
4.5	Whether the arrangements have been made to ensure that the farms from where raw material are being procured, are not using banned /chemicals and are free from industrial contaminants.	
4.6.	Are the raw materials being tested for bacteriological/chemicals/ contaminants at laid down frequency and the same is addressed in the HACCP manual?	
4.7.	Is there any arrangement for traceability of the raw material up to procurement area? (Give detail)	
4.8	Are the records for the above maintained properly?	
5.	Surroundings	
5.1.	Whether the premises have defined curtilage?	
5.2.	Are the premises clean?	
5.3.	Is there any area within the premises of the establishment, which is non-operative?	
5.4.	If so, is it cordoned off effectively?	
5.5.	Are there any swamps, stagnant water, chemical factories or dumps nearby?	
5.6.	Whether rubbish and waste are collected and disposed off properly?	

5.7.	Are the roads in the premises concreted/tarred or lawned to prevent wind blown dust?
5.8.	Are there signs of any rodent harbourage nearby?
5.9.	Is there a documented system, including the bait map, for rodent control?
5.10.	Are there any animals housed nearby?
5.11.	Are the surroundings reasonably free from objectionable odours, smoke, dust and other contamination?
6.	Construction and Layout
6.1.	Is the building construction of permanent nature?
6.2.	Is the design and layout such as to preclude contamination?
6.3.	Does the layout facilitate free flow of work and avoid backtracking?
6.4.	Is the facility kept in good repair?
6.5.	Is there proper maintenance schedule?
6.6.	Does the building provide sufficient protection against the entry and harborage of rodent, insects, birds etc?
6.7.	Does the layout ensure sufficient space in different sections for machinery, equipment, personnel etc. without congestion?
6.8.	Is there clear separation between processing and living areas?
7	Plant Facilities Are there adequate facilities for the following:
7.1.	Storing inedible material, disinfectants and insecticides?
7.2.	Whether there is separate facility for storage of wet and dry items?
7.3.	Storing packaging material?
7.4.	Rest Room and dining area for workers?

7.5.	Changing room for male & female workers?	
7.6.	Vehicle washing facility?	
7.7.	Water treatment plant?	
7.8.	Alarm system to give warning in case of power failure?	
7.9.	Generator or any back up for essential equipments	
7.10.	Sufficient No. of toilets	
8.	Raw Material Receiving Section	
8.1.	Is there a raised platform with sides and top sufficiently protected to prevent contamination while unloading the raw material?	
8.2.	Is the raw material receiving section sufficiently separated from processing area to prevent contamination	
8.3	Is air curtain or any other device provided at the entry of RM to prevent the entry of flies when the door is opened?	
8.4	Are fly killers provided?	
9.	Entry Points	
9.1.	Is suitable washing and sanitizing facility for hands provided at all the entry points?	
9.2.	Is the hand washing facility located at a convenient place?	
9.3.	Are the washbasins provided with foot-operated taps?	
9.4.	Are liquid soaps, disinfectants, nailbrush and single use towels/hand dryers provided in sufficient quantities?	
9.5.	Are waste bins provided for collecting used towels and are foot operated? If community towels used, are they changed regularly?	

9.6.	Is hand dip facility with approved disinfectants provided near the entrance.
9.7	Appropriate levels of disinfectants?
9.8.	Is foot wears provided to the workers used exclusively for inside the plant.
9.9.	Whether signboards directing to wash & sanitize the hands are exhibited.
9.10	Whether fly killer are provided?
9.11	Whether air curtain are provided at all exit points.
10.	Doors (All sections)
10.1.	Are the doors of all sections clean and sufficiently wide, made of durable material other than wood and are kept clean?
10.2.	Are the doors self-closing type & tight fitting without any gaps?
11.	Windows (All sections)
11.1.	Are the windows in all sections of adequate size, made of non-absorbent material other than wood and kept clean?
11.2.	Does the window Sill, if any, sloped inwards?
11.3.	Are the windows at least one meter above the floor and have fly proofing nets to prevent the entry of flies?
12.	Floor (All sections)
12.1	Is the floor in all sections made of hard surface, impermeable, smooth, free from pits and crevices?

12.2.	Is the floor cleanable and having sufficient slope?	
12.3.	Is the slope of floor opposite to the flow of work or side ways	
12.4.	Are pallets made of non-absorbent material other than wood provided on the floor for keeping containers of raw/process material?	
13.	Drainage (All sections where applicable)	
13.1	Is drainage facility at all sections adequate?	
13.2	Is open end of the drain protected against entry of rodents?	
13.3	Is there facility for conveying waste water into the drains so as to maintain the floor dry?	
13.4	Are the drains of adequate size, having sufficient slope and easily cleanable?	
13.5.	Is the slope of drain opposite to the flow of work/material?	
14.	Walls (All sections)	
14.1.	Are the floor to wall and wall-to-wall junctions properly rounded off in all sections?	
14.2.	Are the walls smooth, light coloured and without crevices?	
14.3.	Are the walls washable?	
14.4.	Are the switches and other installations on the wall water-proof and cleanable?	
15.	Washing and Cleaning	
15.1.	Are suitable hand washing and sanitizing facilities provided inside the processing & pre-processing halls?	
15.2.	Are the washbasins provided with foot-operated taps?	

15.3.	Is all water taps having hose connection is fitted with non-return valve?
15.4.	Are the water taps serially numbered?
15.5.	If hoses are used as outlet for water, whether facility is provided to keep it rolled up when not in use?
16.	Ceiling (All sections)
16.1.	Is the ceiling at all sections in good repair and cleanable?
16.2.	Do overhead rafters offer any runway for lizards, cockroaches etc.?
16.3.	Are there beams, trusses, pipes or other structural elements and fittings suspended below the ceilings?
16.4.	If so, whether there is protection from falling debris, dust or dripping?

17.	Lights (All sections)
17.1.	Is there adequate lighting?
17.2.	Are the lights sufficiently protected & kept clean?
18.	Ventilation (All sections)
18.1.	Is there adequate ventilation/ air conditioner?
18.2.	Is mechanical ventilation/exhaust fan provided in areas where air stagnation, condensation of fluids etc. are present?
18.3.	Is opening of ventilation/exhaust fan provided with fly proofing?
18.4.	Is such fly proofing clean?
19.	Utensils and Equipments
19.1.	Are all receptacles, trays, tanks, vats and utensils used made of non-corrodible material and have smooth surface free from cracks and crevices?

19.2.	Are they easily cleanable & disinfectable?	
19.3.	Is any rusted galvanized iron vessel, bamboo baskets, wire mesh containers, enamelled or painted wares used for handling the product?	
19.4.	Are weighing scales and weights certified by the designated authority?	
19.5.	Is it maintained clean and free from rust?	
20.	Chill Room (s)	
20.1.	Are chill room (s) provided for storing raw/process material?	
20.2.	Is it kept clean and maintained at the required temperature ?	
20.3.	Is it provided with pallets made of non-absorbent material other than wood for keeping containers of raw material	
20.4	Temperature monitored and records amaintained?	
21.	Pre-processing Section	
21.1.	Are there signboards directing the employees to wash and sanitize hands before entering the pre-processing hall and after each absence?	
21.2. 21.3 21.4 21.5	Is air curtain/fly killers provided to prevent the entry of flies when the door is opened? Is the pre-processing hall has sufficient Lighting and ventilation? Is the pre-processing section well separated from other sections?	
21.6 21.7	Whether water from the tables is directly drained to the drainage? Whether tables are provided with running water system?	
21.1.	Tables, Utensils and Equipment	

21.1.1	Are the work table tops constructed of stainless steel or any other non-corroding, non-contaminating, non-reacting and non-absorbent material (specify)?
21.1.2	Are the tables so constructed and installed that the top and under surface can be easily cleaned?
21.1.3	Are the table tops smooth, free from corrosion, pits and crevices and can be cleaned easily?
21.1.4	Are all receptacles, trays, vats and utensils used made of non-corrodible material, other than wood and have smooth surfaces free from cracks and crevices?
21.1.5	Are they easily cleanable?
22.	Processing Section
22.1.	Are there signboards directing the employees to wash and sanitize hands before entering the processing hall and after each absence?
22.2	Is air curtain/fly killer provided to prevent the entry of flies when the door is opened?
22.3	Is the processing hall is so designed to have easy flow of work?
22.4	Is the processing hall has sufficient lighting & ventilation?
22.5	Is it having sufficient tables made of non-corrosive, non-absorbent materials?

22.6 22.7 22.8 22.9	Outline current method of processing Is or are this being carried out in the factory? If so, are the time/temperature controls applicable? Properly validated by an approved Agency?
22.10	Flow of Work
22.10.1	Is the layout of workflow unidirectional?
22.10.2	Is there any chance of cross contamination/ backtracking?
22.10.3	Is the high risk area, if any, precluded from low risk area?
22.10.4	Are there separate workers for low risk and high risk areas, if the processing condition warrants such arrangements?
23.	Water
23.1.	Is there a documented water management system?
23.2.	Whether plumbing diagram of the water supply system is available with the outlets identified and serially numbered?
23.3.	What is the source of water?
23.4.	Is potable water certificate produced for each source of water as per specification?
23.5.	If more than one source of water supply is used, are they tested separately?
23.6.	Whether water used for processing meets the standards stipulated in EC Directive No. 98/83/EC IS Standards, if the firm is exporting to EU?

23.7.	Whether relevant test records available?
23.8.	If non-potable water is used, is there any cross connection o potable and non-potable water?
23.9.	Are the water pipes of potable and non-potable water dist nguished by different colour codes?
23.10.	Is the water used for processing chlorinated to the accepted levels? (less than 2ppm)
23.11.	What is the system of chlorination?
23.12.	Whether water used for cleaning equipment, floors, etc. s of potable quality?
23.13.	Is there a water treatment plant?
23.14.	If so, is it adequate to provide sufficient quantity of water fo processing?
23.15.	If hoses are used as outlet for water whether non-return va es are fitted to the taps to prevent contamination through back s ction?
23.16.	Is there a water storage tank and if so, whether it is pr tected from outside contamination?
23.17.	Is there easy access to the water tank for cleaning?
23.18.	What is the capacity of the water storage tank(s)?
23.19.	Is the water supply sufficient in relation to the max mum daily production?
23.20.	What is the frequency of cleaning and disinfestations of the ater tanks?
23.21.	Whether there is a documented procedure for cleaning water ank(s)?
23.22.	Is water brought from external source in mobile water tanker ?

23.23.	If so, are the water tankers cleaned and disinfected periodically; what is the frequency?	
23.24.	Whether there is documented procedure for checking tanker water, cleanliness of tanker?	
23.25.	Is there adequate facility for hygienic handling and storage of water?	
24.	Salt/Chemicals/Additives	
24.1.	If salt is used in processing, is it tested for the presence of Staphylococci and records maintained there of?	
24.2.	If any other additive/chemical is used in processing, is it approved by the competent authority? Records maintained for the amount used?	
24.3.	Are records maintained regarding the traceability and purity of additives/chemicals used in processing?	
24.4.	Whether products are tested for heavy metals, pesticide residues and toxins and other chemical contaminants as required in the standards and records maintained?	
24.5.	Does the HACCP Plan suitably address these requirements?	
25.	Packaging and Storage	
25.1.	Is separate area provided for packing?	
25.2.	Does the packing room have rodent control system?	
25.3.	Is the capacity of storage adequate?	
25.4.	Is storage provided with self recording thermograph in case of temp controlled storage?	
25.5.	Is the thermograph calibrated at laid down frequency?	

25.6.	Is the sensor of the thermograph located at the warmest place away from diffuser?
25.7.	Are the thermograph records maintained properly for verification?
25.8.	Are the sides and floors of storage provided with facilities made of non-corroding and non-contaminating material for air circulation?
25.9.	Is the floor of the storage waterproof, easy to clean and disinfect?
25.10.	Is there adequate lighting with protective covers?
25.11.	Is there any mould formation on the walls, ceilings or stored material?
25.12.	Is the store provided with alarm bell?
25.13.	Whether cold storage has proper cleaning system?
25.14.	Is there air curtain or blinds at the entrance of ante-room and cold storage?
25.15.	Is an ante-room of suitable size provided and maintained properly?
25.16.	Are the cold room workers provided with clean protective clothing?
25.17.	Does the documented rodent control system extend to cold store and ante-room also?
25.18.	Is there separate and suitable room for storage of packing materials?
25.19.	Is it fly, rodent and vermin proof?
25.20.	Does the documented rodent control system extend to store for packing material also?
25.21.	Are the walls clean and free from moisture and fungus?
25.22.	Are the packing materials stored away from the walls, ceiling in such a way as to allow a person to move around for inspection?

25.23.	Are the packing materials stored without touching the ceiling and walls and are covered properly?
25.24.	Is the packing material store provided with pallets made of non-absorbent material other than wood or any other suitable arrangement to prevent packing material being placed directly on the floor?
26.	Toilet Facilities
26.1.	Is the number of toilets provided in relation to the total number of workers?
26.2.	Are the toilets located away from the processing area to prevent contamination?
26.3.	Whether the toilet rooms have walls washable, ceiling smooth and floors constructed of impervious material, and easy to clean and sanitize?
26.4.	Are the toilets well lit?
26.5.	Are they provided with self-closing doors, fly-proofing and flushing arrangements?
26.6.	Are hand washing and sanitizing facilities, with wash-basins, soap, single use towels, nail brushes and adequate water supply provided near the toilets?
26.7.	Are the taps of the wash basin foot operable?
26.8.	Is waste bin provided for collecting used towels?
26.9.	Are there sign boards directing employees to clean and sanitize their hands with soap/detergents/ disinfectants after using toilets?

27.	Personal Hygiene
27.1.	Has any person been made responsible for maintenance of personal hygiene of employees?
27.2.	Are the workers apparently free from any form of communicable diseases, open sores and wounds or any other sources of contamination?
27.3.	Are the workers medically examined periodically and whether individual health cards showing that the individual is fit to work in food handling maintained?
27.4.	Are prophylactic injections being administered to the plant employees and records thereof included in the individual cards?
27.5.	Has it been made obligatory for all employees to notify incidents of typhoid, dysentery, diarrhoea or any other communicable diseases in their homes?
27.6.	Are workers medically examined after each long absence due to illness from any contagious disease?
27.7.	Are the workers provided with sufficient sets of clean work dress and headgears?
28.	Cleaning and Disinfection of plant, equipment and utensils
28.1.	Is there a documented procedure for cleaning and disinfections of plant, equipment and utensils?
28.2.	Is the cleaning schedule exhibited prominently?
28.3.	Is there an area earmarked for cleaning and disinfection of utensils and equipment?

28.4.	Are facilities of cold/hot water/steam under pressure wherever appropriate, provided for cleaning and disinfection?	
28.5.	Is any person made responsible for supervising this work?	
28.6.	Is the effectiveness of cleaning verified periodically through laboratory tests?	
29.	Changing Room	
29.1.	Are separate changing rooms of adequate size proportionate to the number of workers provided for male and female workers?	
29.2.	Whether changing room is integrated into the plant layout properly?	
29.3.	Does the changing room have smooth walls, floors and wash basins with soaps, disposable towels, nail brushes and non-hand operable taps?	
29.4	Whether there is arrangement for :	
	a) Change of footwear	
	b) Keeping street clothes separately	
	c) Lockable cupboards	
	d) Collection of soiled working clothes	
	e) Gumboots	
	f) Headgear and wherever necessary gloves/ mouth cover	
29.5.	Is there suitable in-house arrangement to launder the working clothes of the workers?	
29.6.	Is the changing room provided with flush lavatories? Is it kept clean and sanitised?	
29.7.	Does the door of the lavatory open directly to processing area	
30.	Effluent Treatment	

30.1.	Is the unit having an efficient effluent treatment system?	
30.2.	Does it comply with the statutory requirements?	
30.3.	Does the effluent cause any problem to neighbourhood?	‘
31.	Maintenance Schedule	
31.1.	Whether there is a documented maintenance procedure for different sections/equipment/ machinery, laboratory items etc?	
31.2.	Whether maintenance records are kept?	
31.3.	Whether all the equipments are marked with identification number?	
31.4	Cleaning verified and approved by designated personnel prior to start of work?	
31.5	Cleaning procedures validated?	
32.	HACCP	
32.1.	Has the own check system based on HACCP implemented?	
32.2.	If so, has the HACCP manual been submitted to the competent authority?	
32.3	Whether all the SSOPs/GMPs are included in the HACCP manual?	
32.4	Whether process flow charts with products description and manufacturing details are given in the HACCP manual?	
32.5	Whether Plumbing diagram of water showing serially numbered taps is given in the HACCP manual?	
32.6.	Whether persons responsible have been identified?	
32.7.	Whether records are maintained for this purpose?	
32.8.	Whether the frequency of monitoring of critical limits at CCP is adequate as evidenced by the actual observation?	

32.9.	Whether breakdowns and malfunctions are recorded?	
32.10.	All hazards are identified or not?	
32.11	Is the HACCP plan adequate?	
32.12	Whether Internal audit done or not?	
32.13	The 7 principles of HACCP implemented or not?	
32.14	Whether Training records are maintained? Whether Training schedule is available and implemented?	
32.15	Whether the system complies with the regulatory requirements?	
33.	Rodent/Vermin Control	
33.1.	Is there any documented procedure for vermin control?	
33.2.	Whether responsibility has been fixed for this work?	
33.3.	Whether vermin/rodent control carried out by own arrangement or through outside agency?	
33.4.	Whether bait map showing serially numbered bait stations has been provided?	
33.5.	Whether chemical/rodenticides are approved by the competent authority?	
34.	Transportation	
34.1.	Is the unit having adequate facilities for store & transport of raw material and finished products?	

34.2.	Are the vehicles clean and used only for food?
34.3.	Are they constructed in such a way to facilitate easy cleaning and sanitization?
34.4.	Is there separate arrangement for cleaning and sanitization of transport vehicles?
34.5.	Are the records of the above maintained?
34.6.	Whether such arrangement creates environmental problems?
34.7.	Are the vehicles cleaned and disinfected periodically?
34.8.	Whether there is a documented procedure for cleaning the vehicles?
35.	Inspection and Testing
35.1.	Is the unit having in-house facilities for inspection and testing? If lab is available, is it NABL accredited?
35.2.	Is the unit having separate qualified and competent personnel for conducting physical, chemical and microbiological tests?
35.3.	Are there separate technologists for supervision of processing and for conducting laboratory tests? Is sampling plan meeting with regulations?
35.6	Any other relevant information

Yours faithfully,

Signature :

Name :

Designation :

Company Seal :

:

HACCP programme and document requirement

Reference can also be to the Codex Alimentarious Commission HACCP plan.

1.1 Application to participate in the Board's HACCP Programme

The HACCP application shall contain:

a) Name of company, location address and postal address of the Export Facility.

b) Name of the owner of the Export Facility;

c) Export License number;

d) a Company Quality/Food Safety Policy (a statement from management assuring the quality /safety of their product and process);

e) The operation/s and their scope for which approval is sought (Where does the operation start and finish? At what points does the owner take on and relinquish responsibility for the product? Is the HACCP plan restricted to only food safety or does it also includes quality aspects as defined by finished product specifications?).

f) Name and signature of the manager responsible for the HACCP programme;

g) Names of HACCP team and responsibilities

h) A list of all Quality manuals and other references used;

i) A declaration signed and dated by the owner, or on behalf of the owner of the Export Facility, that he/she will comply with the HACCP Programme.

1.2 Product Statement required for each type of product

The application shall be accompanied by a product statement detailing:

a) name of the product/s;

b) product description and specifications (composition, weights, etc.);

) method of preparation;

d) packaging type (inner and outer);

e) method of preservation and storage conditions;

f) distribution conditions;

g) intended use (How will it be eaten? Raw, cooked, reheated etc.)

h) who will be the consumers;

1.3 Process Flow Diagram

The HACCP application shall be accompanied by a numbered accurate diagram of the process flow and shall:

a) provide details of all individual steps including inspections, storage, delays and transport connected with the operation;

b) indicate when and by who the on-site confirmation of the process flow diagram took place, and

c) be signed and verified by the company's HACCP manager.

1.4 HACCP Plan Table

The HACCP application shall be accompanied by a completed HACCP Plan Table (see format at the end of this appendix) and this shall:

a) list the identified CCPs with the corresponding numbered step in the Process Flow Diagram (Column No. 1);

b) for each CCP:

i) identify the significant hazard (Column No. 2);

ii) state the established Critical Limit, tolerance or specifications that will be monitored (Column No. 3);

iii) describe the Monitoring procedures. That is

2 What will be monitored? (Column No. 4)

3 How will it be monitored? (Column No. 5)

4 How frequent it will be monitored? (Column No. 6)

5 Who will be responsible for monitoring? (Column No. 7)

iv) state the Corrective Action when monitoring indicates that a particular CCP is not under control (i.e. a process deviation). (Column No. 8)

v) state the Verification procedures that will be used to confirm that the HACCP system is working effectively (see 18.2.5.5 for more details) (Column No. 9)

vi) state what documents and records will be made and kept (Column No. 10)

NOTE: In developing and completing the HACCP Plan Table the Exporter should be able to demonstrate to the Authorized Officer that an appropriate assessment of the Hazards (i.e. a Hazard Analysis) had taken place by a suitably qualified team. The Hazard Analysis must be conducted for each step in the flow

diagram and all potential Chemical, Physical and Biological hazards carefully considered that potentially could be associated with the raw material or the process itself.

NOTE: Operations that have a common process flow and completed HACCP Plan Tables where no differences exist between the production process, the identified CCPs and the control of CCPs, may provide common documents. However this requires prior approval from the Board.

1.5 Verification Activities

A list of verification activities shall be included in the HACCP Plan Table.Verification shall include at minimum the following items (provide details on how frequent each verification item will take place, and if necessary draw up a separate table for a Verification Schedule):

a) review the adequacy of the HACCP plan and its records;

b) confirm that CCPs are under control;

c) review that the critical limits are appropriate for each CCP;

d) review monitoring procedures and corrective actions are adequate

e) review corrective action records to determine whether improvements can be made;

f) validate the accuracy of measuring devices (calibration)

g) conduct annual independent water analysis

h) confirm chemical and microbiological limits of raw materials and final product are within prescribed limits.

1.6 Good Manufacturing Practice/ SSOP

a) GMPs and SSOP are mandatory for the HACCP programme. Schedules 1 to 14 detail mandatory and recommended GMPs and SSOP. GMPs and SSOPs policies shall be developed and documented. They may be directly referenced from the appropriate Schedules found within these Export Standards. If the Exporter writes its own GMPs and SSOPs the details shall be sent to Board. These shall be reviewed and accepted by, as long as the standards are equivalent or exceed those described Schedules 1 to14.

b) A policy for reviewing GMPs and SSOPs shall be developed and documented and this shall state the person responsible for the review, what will be reviewed and the frequency of review.

c) The Exporter shall monitor and maintain records for these Standard Sanitation Operating Procedures;

i) Safety and treatment of water (chlorination, prevention of back-flow, etc);

ii) Prevention of cross contamination;

iii) Cleanliness of food contact surfaces including protective clothing;

iv) Cleanliness and maintenance of hand-washing, hand sanitising and toilet facilities;

v) Employee health, hygiene and training;

vi) Protection of food and food contact surfaces from adulteration by toxic compounds, biological hazards etc.

vii) Labelling, storage and use of toxic compounds;

viii) Pest control (location of bait stations, treatments) and exclusion of pests from an Export Facility;

d) Where applicable corrective actions shall be developed and documented for GMPs and SSOPs.

HACCP PLAN FORM

(1) Step in Flow Diagram plus CCP	(2) Significant Hazards	(3) Critical Limits for each Preventative Measure	Monitoring Procedures				(8) Corrective Action	(9) Verification Procedures	(10) Records and Documents
			(4) What?	(5) How?	(6) Frequency?	(7) Who?			
List number and name of step for each CCP	List the identified significant hazard for each CCP	List the specified tolerances used to determine acceptability from unacceptability	List what is monitored for each separate item for each CCP (Note there may be more than one item to monitor	List how each critical limit and preventive measure is monitored for each	List frequency of monitoring	List the person who is responsible for monitoring	List the action taken when there is a process deviation List what is to be done with affected product for the	List all the verification procedures to be undertaken that helps to confir	List the records and documents that will be maintained and where they will be kept.

			per CCP)	CCP			time there is a process deviation	m that the HACCP plan is effective.	

Next CCP:									

Product Description:

Name of Export Facility:

Address of Export Facility:

Signed by (Senior Company Representative):

Date: