



Safety and Regulatory Requirements for Sugarcane Products

Under PMFME Scheme

National Institute of Food Technology and Entrepreneurship and Management

Ministry of Food Processing Industries

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WHAT IS FSSAI ?

- Governing body regarding food safety and standards in india.
- The food safety regulations are laid down by Food Safety & Standards Authority of India, came into existence in 2006.
- Other agencies involved in standardization and quality certification are Bureau of Indian Standards (BIS), AGMARK, Codex.

SINGLE ACT FOR CONSOLIDATION OF LAWS RELATING TO FOOD

Prevention of Food Adulteration Act, 1954

Fruit Products Order, 1955

Meat Food Products Order, 1973

Vegetable Oil Products (Control) Order, 1947

Edible Oils Packaging (Regulation) Order, 1998,

Solvent Extracted Oil, De-oiled Meal and Edible Flour (Control) Order, 1967

Milk and Milk Products Order, 1992

Any other order issued under Essential Commodities Act, 1955 relating to food.

FUNCTIONS OF FSS ACT 2006

- Framing of Regulations to lay down the Standards and guidelines in relation to articles of food and specifying appropriate system of enforcing various standards thus notified.
- Laying down mechanisms and guidelines for accreditation of certification bodies engaged in certification of food safety management system for food businesses.
- Laying down procedure and guidelines for accreditation of laboratories and notification of the accredited laboratories.
- To provide scientific advice and technical support to Central Government and State Governments in the matters of framing the policy and rules in areas which have a direct or indirect bearing of food safety and nutrition.



FUNCTIONS OF FSS ACT 2006

- Collect and collate data regarding food consumption, incidence and prevalence of biological risk, contaminants in food, residues of various, contaminants in foods products, identification of emerging risks and introduction of rapid alert system.
- Creating an information network across the country so that the public, consumers, Panchayats etc receive rapid, reliable and objective information about food safety and issues of concern.
- Provide training programmes for persons who are involved or intend to get involved in food businesses.
- Contribute to the development of international technical standards for food, sanitary and phyto-sanitary standards.



OBJECTIVE OF FSS ACT 2006

The Food Safety and Standards Authority of India (FSSAI) has been created under Food Safety and Standards Act, 2006 for laying down science based standards for articles of food and to regulate their manufacture, storage, distribution, sale and import to ensure availability of safe and wholesome food for human consumption and for matters connected therewith or incidental thereto.

6 Objectives



**Demystify
Food Standards**



**Consistent
Enforcement of
Food Safety Law
across States/ UTs**



**Hassle Free
Food Imports**



**Credible
Food Testing**



**Globally
Benchmarked
Safe Food Practices**



**Large Scale Training
& Certification**

STANDARDS FOR SUGARCANE PRODUCTS

SUGAR

Food Products and Food Additives Regulations, 2011.
Standards of following sugars are specified :

- Plantation white sugar
- Refined sugar
- Khandsari sugar
 - (i) Khandsari desi
 - (ii) Khandsari Sugar a.k.a "Sulphur Sugar".
- Bura sugar
- Cube sugar
- Icing sugar



SUGAR STANDARDS

1. Plantation white sugar : crystallized product obtained from sugarcane or sugar beet. It shall be free from dirt, filth, iron fillings and added colorings matter. Extraneous matter shall not exceed 0.1% by weight. It shall also conform to the following standards:
 - (a) Moisture – not more than 0.5% by weight.
 - (b) Sucrose – not less than 98% by weight.

2. Refined sugar : white crystalline sugar obtained by refining plantation white sugar. . It shall be free from dirt, filth, iron fillings and added colorings matter. Extraneous matter shall not exceed 0.1% by weight. It shall also conform to the following standards:
 - (a) Moisture – not more than 0.5% by weight.
 - (b) Sucrose – not less than 99.5% by weight.

It may contain food additives permitted in FSSR.

SUGAR STANDARDS

- **KHANDSARI SUGAR**

It is obtained from sugarcane juice by open pan process and it may be of two types:

- (a) Khandsari sugar desi
- (b) Khandsari sugar (sulphur sugar)

It may be crystalline or in powder form.

It shall be free from dirt, filth, iron fillings and extraneous matter.

Extraneous matter shall not exceed – 0.25% by weight.

It may contain food grade sodium bicarbonate.

SUGAR STANDARDS

- KHANDSARI SUGAR must conform to below standards:

	<i>Khandsari Sugar (Sulphur Sugar)</i>	<i>Khandsari Sugar (Desi)</i>
(i) Moisture (when heated at 105° ± 1° C for 3 hours)	Not more than 1.5 per cent by weight.	Not more than 1.5 per cent by weight.
(ii) Ash insoluble in dilute hydrochloric acid	Not more than 0.5 per cent by weight	Not more than 0.7 per cent by weight.
(iii) Sucrose	Not less than 96.5 per cent by weight.	Not less than 93.0 per cent by weight.

The product may contain food additives permitted in these Regulations and Appendices.

NOTE: - Khandsari sugar can be distinguished from plantation white sugar on the following characteristics, namely:

	<i>Khandsari Sugar (Sulphur Sugar)</i>	<i>Khandsari Sugar (Desi)</i>
(i) Conductivity (106 mho/cm ²)	100-300 in 5% solution at 30°C	Not more than 100 in 5% solution at 30°C
(ii) Calcium oxide (mg/100gms)	Not more than 100	Not more than 50

SUGAR STANDARDS

4. BURA SUGAR means the fine grain size product made out of any kind of sugar. It shall be free from dirt, filth, iron filing and added colouring matter. Extraneous matter shall not exceed 0.1 per cent by weight. It shall also conform to the following standards, namely:—

- | | |
|---|--|
| (a) Sucrose | Not less than 90.0 per cent by weight. |
| (b) Ash insoluble in dilute hydrochloric acid | Not more than 0.7 per cent by weight. |

The product may contain food additives permitted in these Regulations and Appendices.

5. CUBE SUGAR means the sugar in the form of cube or cuboid blocks manufactured from refined crystallised sugar. It shall be white in colour, free from dirt and other extraneous contamination. It shall conform to the following standards :—

- | | |
|---------------|--|
| (a) Sucrose | Not less than 99.7 per cent by weight. |
| (b) Moisture | Not more than 0.25 per cent by weight. |
| (c) Total ash | Not more than 0.03 per cent by weight. |

SUGAR STANDARDS

6. ICING SUGAR means the sugar manufactured by pulverizing refined sugar or vacuum pan (plantation white) sugar with or without edible starch. Edible starch, if added, shall be uniformly extended in the sugar. It shall be in form of white powder, free from dust, or any other extraneous matter.

The product may contain food additives permitted in these Regulations and Appendices. It shall conform to the following standards:—

- | | |
|--|---|
| (a) Total starch and sucrose (moisture free) | Not less than 99.0 per cent by weight. |
| (b) Moisture | Not more than 0.80 per cent by weight. |
| (c) Starch | Not more than 4.0 percent by weight on dry basis. |

1. MISRI means the product made in the form of candy obtained from any kind of sugar or palmyrah juice. It shall be free from dirt filth, iron filings and added colouring matter. Extraneous matter shall not exceed 0.1 per cent by weight. It shall also conform to the following standards, namely:—

- | | |
|---|-------------------------------|
| (a) Total ash | Not more than 0.4% by weight |
| (b) Total Sugar (Called, known or expressed as Sucrose) | Not less than 98.0% by weight |

The product may contain food additives permitted in these Regulations and Appendices.

SUGAR STANDARDS

1. GUR OR JAGGERY means the product obtained by boiling or processing juice pressed out of sugarcane or extracted from palmyra palm, date palm or coconut palm. It shall be free from substances deleterious to health and shall conform to the following analytical standards, on dry weight basis :-

Total sugars expressed as invert sugar	Not less than 90 percent and sucrose not less than 60 percent
Extraneous matter insoluble in water	Not more than 2 per cent.
Total ash	Not more than 6 per cent
Ash insoluble in hydrochloric acid (HCl)	Not more than 0.5 per cent

Gur or jaggery other than that of the liquid or semi liquid variety shall not contain more than 10% moisture.

The product may contain food additives permitted in these Regulations and Appendices.

Sodium bicarbonate, if used for clarification purposes, shall be of food grade quality.



VINEGAR STANDARDS

1. Brewed Vinegar means a product obtained by alcoholic and acetic acid fermentation of any suitable medium such as fruits, malt (brewed exclusively from malted barley or other cereals), molasses, Jaggary, Sugar Cane juice etc. with or without addition of caramel and spices. It shall not be fortified with acetic acid.

a) The product may contain food additives permitted in these regulations including Appendix A. The product shall conform to the microbiological requirements given in Appendix B. It shall meet the following requirements:—

- | | |
|-------------------------|--|
| (i) Acidity (m/v) | Not less than 3.75 percent calculated as acetic Acid |
| (ii) Total Solids (m/v) | Not less than 1.5 percent |
| (iii) Total ash content | Not less than 0.18 percent |

(iv) It shall not contain sulphuric acid or any other mineral acid. It shall be free from any foreign substances or colouring matter except caramel.

b) The container shall be well filled with the product and shall occupy not less than 90.0 percent of the water capacity of the container, when packed in the rigid containers. The water capacity of the container is the volume of distilled water at 20°C which the sealed container is capable of holding when completely filled.

VINEGAR STANDARDS

2. Synthetic Vinegar means the product prepared from acetic acid with or without caramel & spices and shall confirm to the following requirements:

(i) Acidity of the product shall not be less than 3.75 percent m/v.

(ii) It shall not contain sulphuric acid or any other mineral acid. It shall be free from any foreign substance or colouring matter except caramel.

2. Synthetic vinegar shall be distinctly labelled as

SYNTHETIC - PREPARED FROM ACETIC ACID.

3. The container shall be well filled with the product and shall occupy not less than 90.0 percent of the water capacity of the container, when packed in the rigid containers. The water capacity of the container is the volume of distilled water at 20°C which the sealed container is capable of holding when completely filled.

ALCOHOL PRODUCTS STANDARD

COUNTRY LIQUORS :

These are alcoholic beverages obtained from distillation or fermentation of carbohydrates of agricultural origin. It may be of two types:

1. Plain country liquor: It shall be made from fermented distillate obtained from fermented molasses and Jaggery (Gur) or from carbohydrate obtained from other agricultural sources.
2. Blended country liquor: it is blend of rectified spirit, neutral spirit and alcohol distillate.



ALCOHOL PRODUCTS STANDARD

COUNTRY LIQOURS :

It must conform to the below standards specified by FSSAI:

S.No.	Parameter	Plain country liquor	Blended country liquor
1.	Ethyl alcohol content at 20°C (per cent by volume) max	19 to 43	19 to 43
2.	Residue on evaporation per cent (m/v)	1.0	1.0
3.	Volatile acids as acetic acid (expressed as g/100 l of absolute alcohol (max)	100.0	250
4.	Higher alcohols as amyl alcohol (as g/100 l of absolute alcohol), <i>Max</i>	250.0	250.0
5.	Methyl alcohol (expressed as g/100 l of distilled absolute alcohol), <i>Max</i>	50.0	50.0

COUNTRY LIQUOR STANDARDS

S.No.	Parameter	Plain country liquor	Blended country liquor
6.	Total esters as ethyl acetate (expressed as g/100 l of absolute alcohol), <i>Max</i>	150.0	100.0
7.	Furfural (expressed as g/100 l of absolute alcohol), <i>Max</i>	12.0	12.0
8.	Aldehydes as acetaldehyde (expressed as g/100 l of absolute alcohol), <i>Max</i>	35.0	35.0
9.	Arsenic mg/l, Max	0.25	0.25
10.	Cadmium mg/l, Max	0.01	0.01
11.	Copper mg/l, Max	5.0	5.0
12.	Lead mg/l, Max	0.2	0.2
13.	Mercury mg/l, Max	-	-

WHY FSSAI REGISTRATION REQUIRED?

- Every food business operator involved in the manufacture, processing, storage and distribution and sale of food products must compulsorily obtain FSSAI Registration or License.
- It is a 14-digit registration of a license number which is printed on all the food packages. The 14-digit registration number gives details about the assembling state, producer's permit.



FOOD SAFETY AND STANDARDS AUTHORITY OF INDIA

fssai

**HOW TO GET FOOD
LICENSE IN INDIA?**



FSSAI LICENSE & REGISTRATION

Registration: For turnover less than 12 lakh.

State License: For turnover between 12 Lakh to 20 crores.

Central License: For turnover above 20 crore.

DOCUMENT AND FEE STRUCTURE

1. Authorized person address proof
2. Passport size photo
3. Business name and address
4. FSSAI declaration form
5. Nature of business details



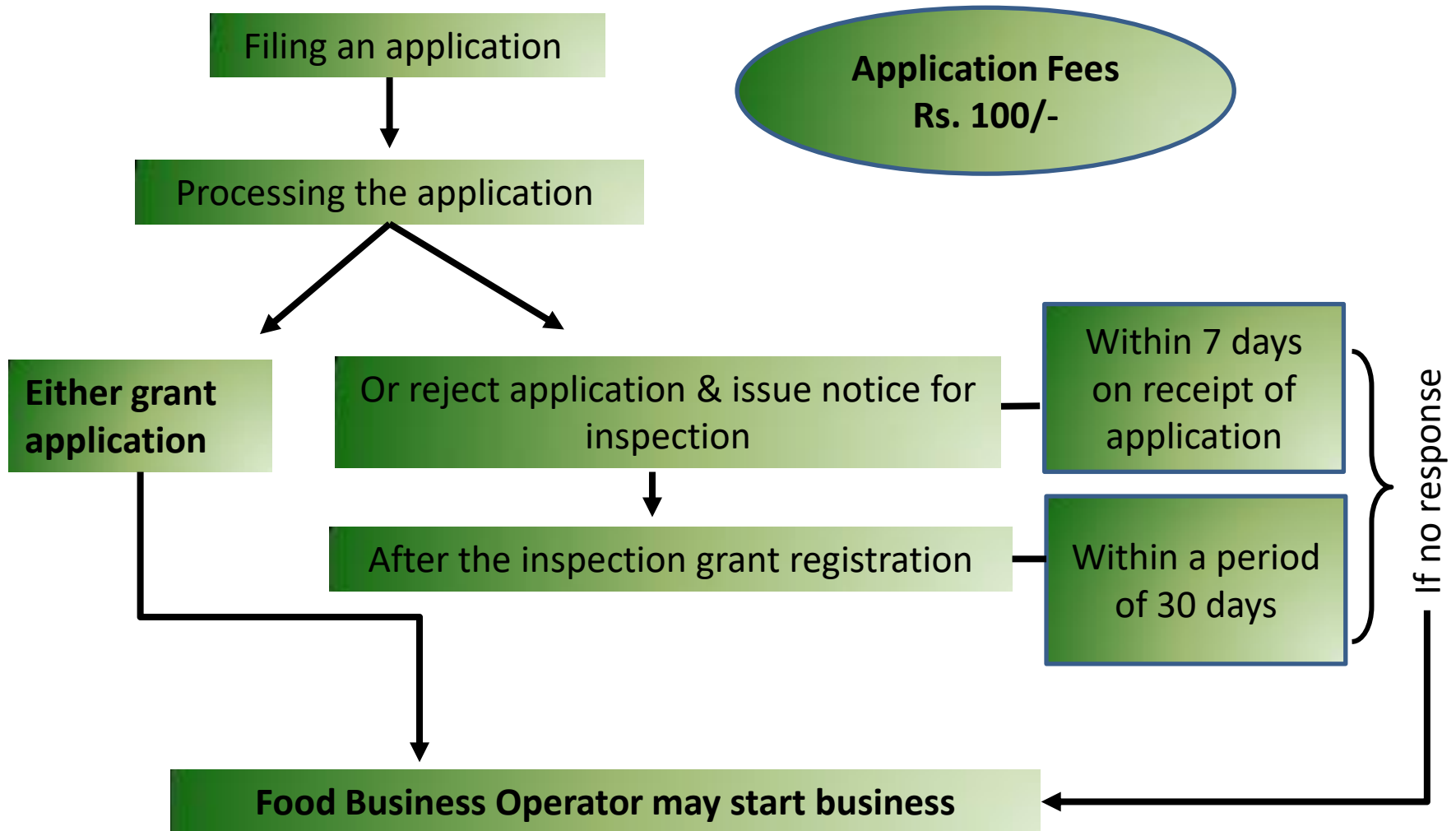
Types/Category	Registration- 1 Year	Central- 1 year
New Application	Rs. 100	Rs. 7500
Renewal Application	Rs. 100	Rs. 7500
License/Certificate modification	Rs. 100	Rs. 7500
Duplicate Certificate/ License	10% of the applicable certificate fee	10% of the applicable certificate fee

CENTRAL FSSAI LICENSE REGISTRATION

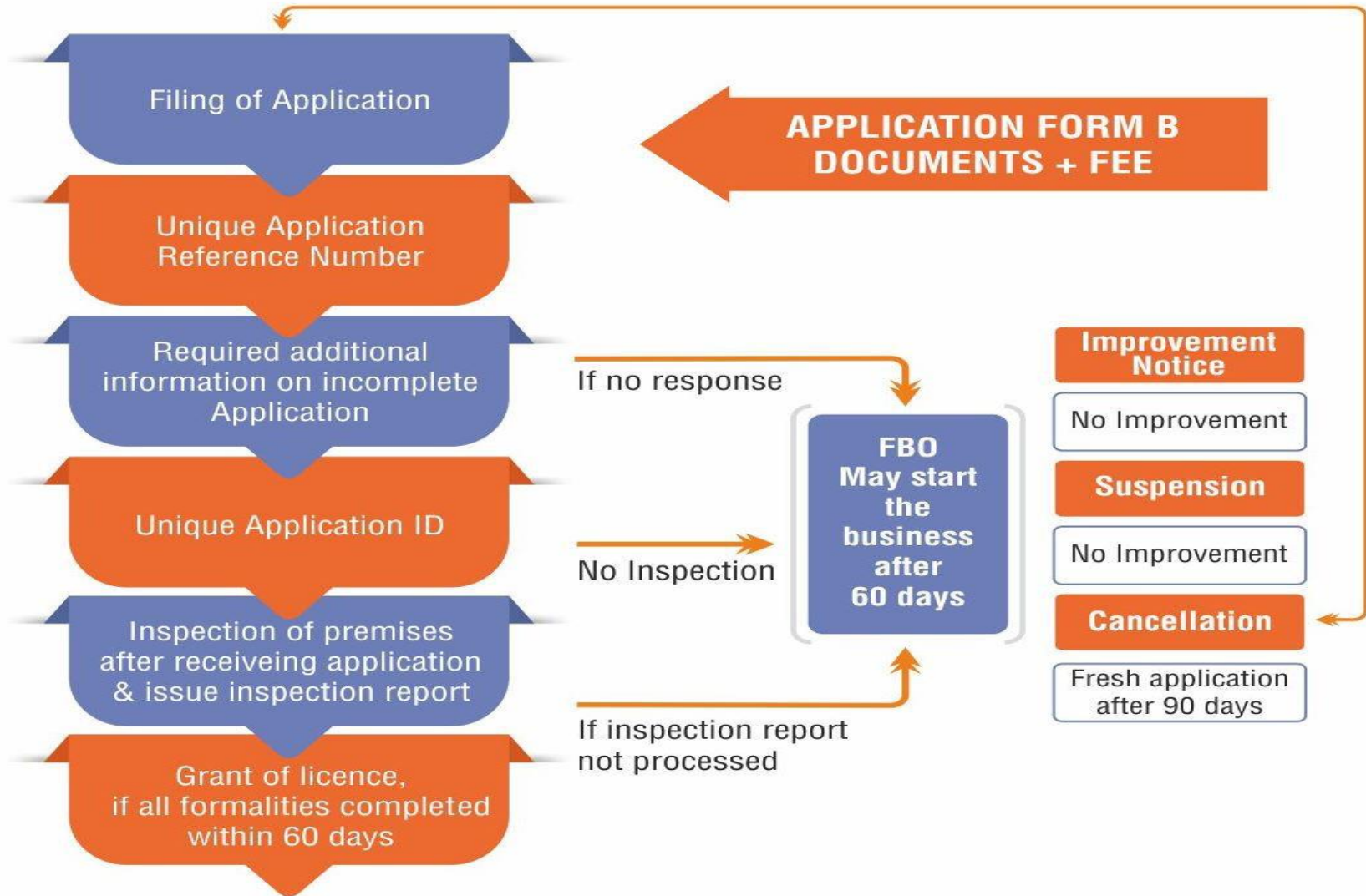
Businesses having annual turnover above 20 crore can apply for FSSAI central license.

- ❖ Rental Agreement of Business Premises.
- ❖ ID Proof - Aadhaar Card / Driving License / Passport / Voter ID
- ❖ If any Government Registration Certificates (Company Incorporation Certificate / Firm Registration / Partnership Deed / Pan card / GST / Shop & Establishment / Trade License)
- ❖ If the applicant is private limited company or partnership firm then they should provide MOA & AOA or Partnership deed copy.
- ❖ IE Code (Import Export Code) Certificate (for the category of export and import IE code is compulsory)
- ❖ Authority letter from the company letterhead to the concerned person stating that he is authorized to file FSSAI application.
- ❖ List of food category desired to be manufactured (In case of manufacturers).

PROCEDURE FOR REGISTRATION



Licensing process



How to apply for FSSAI registration ?

Follow the link <https://foscoss.fssai.gov.in/>



[Home](#) | [About FoSCoS](#) | [FSSAI](#) | [User Manual](#) | [Login-Businesses](#) | [Login-Authorities](#) | [Sign Up](#)

Rejection of applications in case of non-response. [Click Here](#)

A screenshot of the FSSAI website interface. At the top, there are two search bars: 'Standardized Food Products' and 'Eligibility of your food business'. Below these are navigation buttons: 'View all FSSAI Standardized Products', 'Clubbing of variants of products', and 'View all Eligibility Criteria Details'. A horizontal menu contains icons and labels for 'Track Application', 'Know Your Officer', 'FBO Search', 'How to Apply', and 'Application Processing'. Below this is a grid of service cards: 'Apply License' (Fee: Rs.2000 to 7500 per year), 'Apply for Registration Certificate (Petty Food Business Operators)' (Fee: Rs.100 per year), 'Modification of License and Registration' (Fee: Rs.1000 for License, Rs.100 for Registration), 'Renewals' (Fee is same as of new License and Registration. Can be applied as early as 180 days prior to expiry date), and 'Food Consumer Grievance'. At the bottom, there are three main sections: 'ANNOUNCEMENTS', 'HELP TOPICS/FAQ', and 'HELPDESK'. A white box with the text 'Click here' is overlaid on the 'Apply for Registration Certificate' card.

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How to apply for FSSAI registration ? Cont...



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Please become a registered member or provide your contact details to receive alerts from us.

Continue as a Petty FBO!

Email-Id or Mobile Number

829615



Enter Captcha

Submit

Back

1. Enter Email-Id or Mobile Number and submit.
2. A verification code (OTP) will be sent to given Email-Id or Mobile Number.
3. Enter the code and submit.

DOCUMENTS REQUIRED

[NEW LICENSE](#)

[NEW REGISTRATION](#)

[RENEWAL OF LICENSE](#)

[MODIFICATION](#)

[FEE STRUCTURE](#)

ADDITIONAL INFORMATION

[ANNUAL RETURN](#)

[FORM D-1/FORM D-2](#)

[Importer](#)

[Exporter](#)

[INSPECTION CHECKLIST](#)

FSS ACT, 2006

[FSS RULES, 2011](#)

[FSS REGULATIONS](#)

[GAZETTE NOTIFICATION](#)

[ADVISORIES/ORDERS](#)

USEFUL LINKS

[FoSTaC](#)

[FPIVS](#)

[FOOD SAFETY MITRA](#)

[More Links](#)

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How to apply for FSSAI registration ? Cont...

Select the State and Read the Note before proceeding.

Dashboard

Registration

Modification

Renewal

Surrender

Inspection

View SMS/EMAIL History

Search Console - Master Reports

Select Kind of Business

Select the state where premises is located for which License/Registration will be obtained.

Note: Each location will be issued separate license (except transporter where one license will be issued for all vehicle of a single transporter/ business). In case FBO is operating in more than one state, he has to obtain one additional Central License for Head office/ registered office and separate license for each location as per Capacity/Turnover (State/ Central License)

A Food Business Operator (FBO)'s premise shall have only one FSSAI License or Registration on which any number of kind of businesses (KoB) can be endorsed.

Manufacturer

Trade/Retail

Food Services

Airport/Seaport

Central Govt.
Agencies

Importer

Exporters

Mid-Day Meal

E-Commerce

Head Office

Select the kind of business under which your food business falls.

If conducting food business activities such as storing, wholesaling, retailing, distributing, transporting, food vending agencies, supplying, marketing etc.

How to apply for FSSAI registration ? Cont...

After selecting your food business from the category, proceed to registration

Dashboard

Registration

Modification

Renewal

Surrender

Inspection

View SMS/EMAIL History

Search Console - Master Reports

View Eligibility

After assessment of kind of Business(s) selected and inputs provided, you are eligible for:

S.No	Kind of Business	License Category
1	Food Services - Hawker (Itinerant / Mobile food vendor)	Registration

[Click here to apply for Registration for all businesses](#)

SANITARY AND HYGIENIC REQUIREMENTS FOR FOOD MANUFACTURER/ PROCESSOR/HANDLER

- The premises shall be located in a sanitary place and free from filthy surroundings and shall maintain overall hygienic environment. All new units shall set up away from environmentally polluted areas.
- The premises to conduct food business for manufacturing should have adequate space for manufacturing and storage to maintain overall hygienic environment.
- The premises shall be clean, adequately lighted and ventilated and sufficient free space for movement.



SANITARY AND HYGIENIC REQUIREMENTS FOR FOOD MANUFACTURER/ PROCESSOR/HANDLER

- The water used in the manufacturing shall be potable.
- Continuous supply of potable water shall be ensured in the premises. In case of intermittent water supply, adequate storage arrangement for water used in food or washing shall be made.
- Equipment and machinery when employed shall be of such design which will permit easy cleaning. Arrangements for cleaning of containers, tables, working parts of machinery, etc. shall be provided.
- No vessel, container or other equipment, the use of which is likely to cause metallic contamination injurious to health shall be employed in the process.
- All equipments shall be kept clean, washed, dried and stacked at the close of business to ensure free from growth of mould/ fungi and infestation.

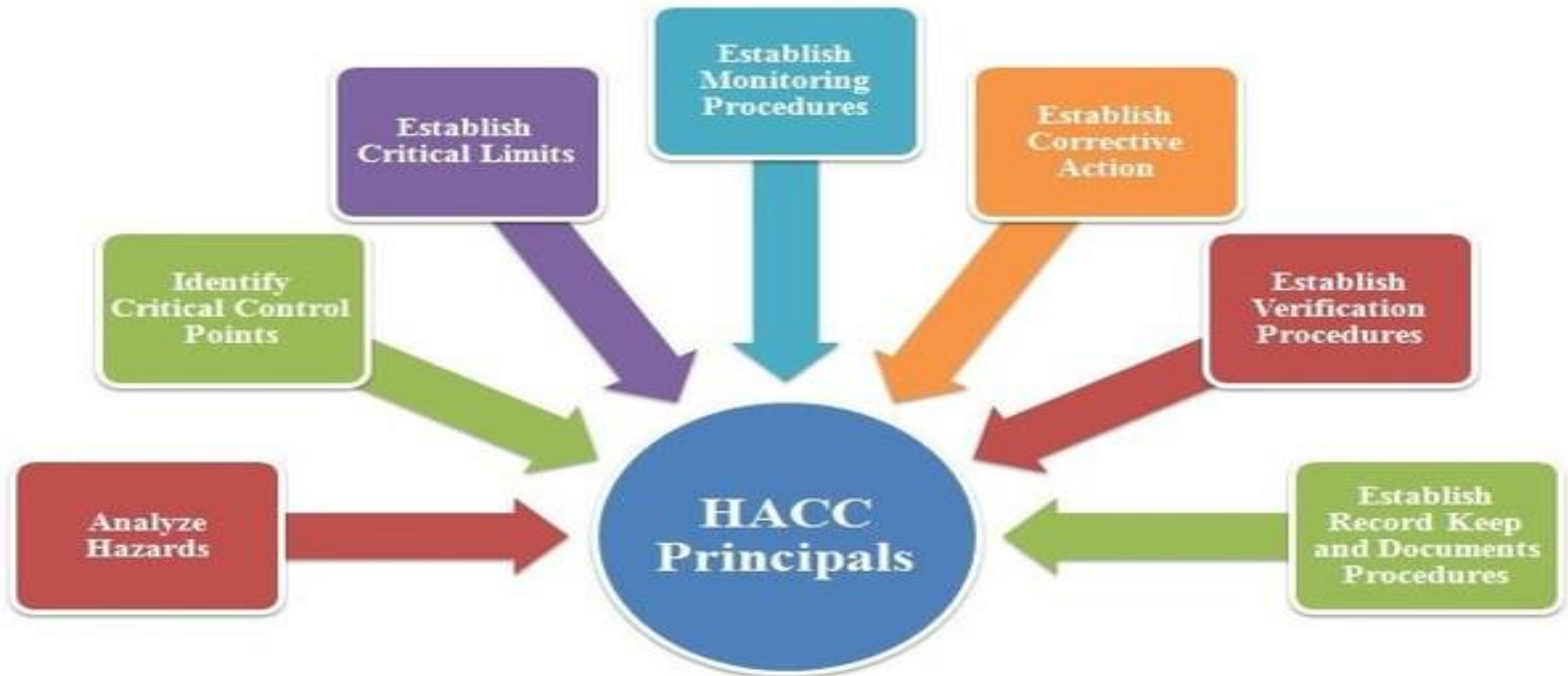


NON-POTABLE WATER

POTABLE WATER

HACCP

HACCP – Hazard analysis and critical Control Points is a systematic risk-based approach to the prevention of biological, chemical and physical contamination of food in processing, packaging and distribution conditions. The HACCP concept is intended to resolve health risks by detecting possible food safety concerns before they emerge, rather than inspecting food items for hazards after the incident. The HACCP definition includes managing contaminants at a variety of key junctures in the food processing process and strict commitment to hygiene standards in the whole process.



PERSONAL HYGIENE

- Mask:- To avoid microbial contamination through mouth.
- Cap:- To avoid hair fall in to the food material
- Coat:- To avoid dust particle and other unwanted material entering in to the food material
- Shoes:- To avoid contamination from the legs
- There should be efficient drainage system and there shall be adequate provisions for disposal of refuse.
- The workers working in processing and preparation shall use clean aprons, hand gloves, and head wears.



PERSONAL HYGIENE

- Persons suffering from infectious diseases shall not be permitted to work. Any cuts or wounds shall remain covered at all time and the person should not be allowed to come in direct contact with food.
- All food handlers shall keep their finger nails trimmed, clean and wash their hands with soap, or detergent and water before commencing work and every time after using toilet. Scratching of body parts, hair shall be avoided during food handling processes.
- All food handlers should avoid wearing, false nails or other items or loose jewellery that might fall into food and also avoid touching their face or hair.



AATMANIRBHAR BHARAT

**PM Formalisation of Micro Food Processing
Enterprises Scheme (PM FME Scheme)**

National Institute of Food Technology and Entrepreneurship and Management

Ministry of Food Processing Industries

Plot No. 97, Sector-56, HSIIDC, Industrial Estate, Kundli, Sonipat, Haryana-131028

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