

Quality Control and Food Safety Audits under FSSAI *for* Domestic and International Trade



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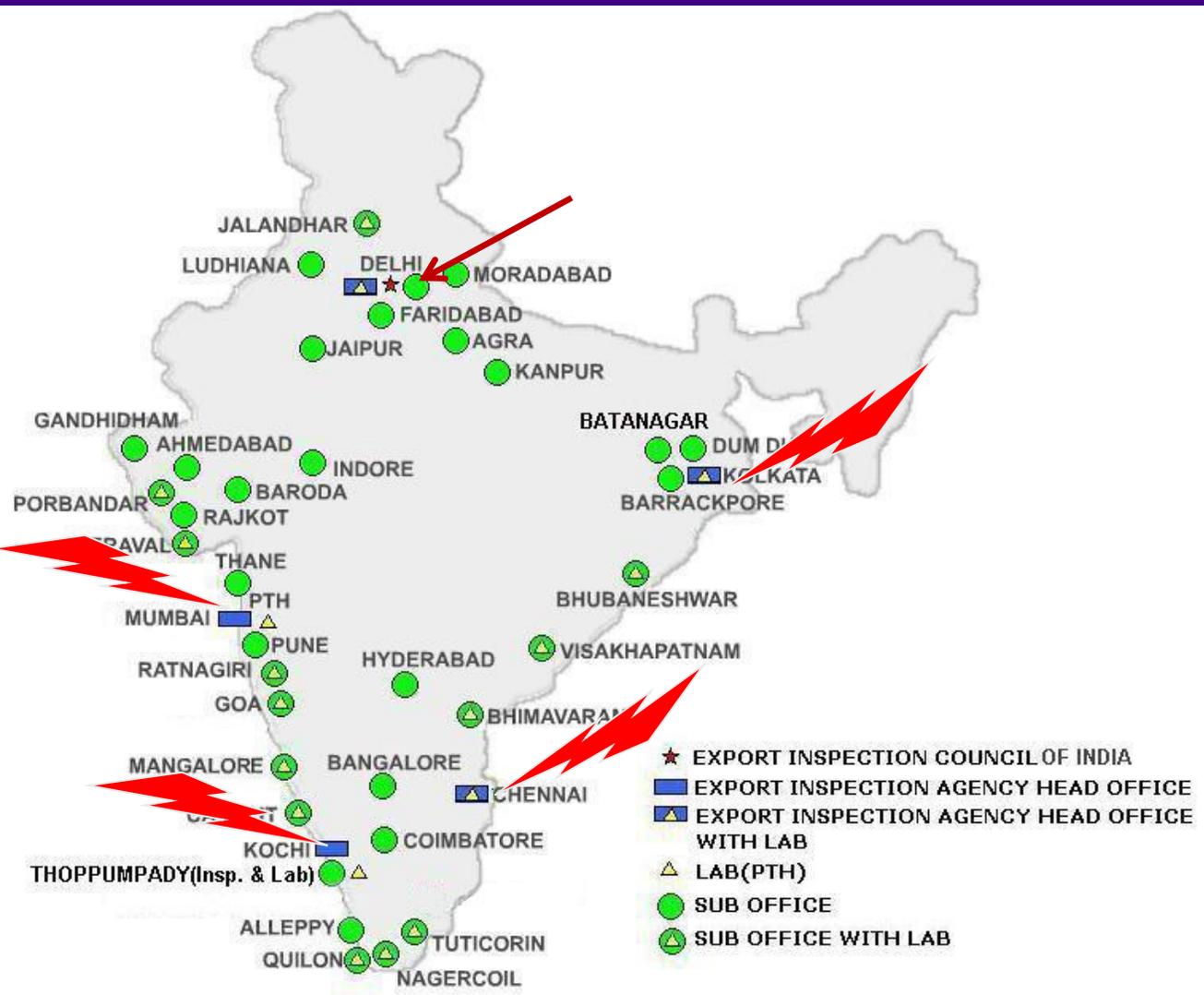
- **About EIC**
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EXPORT INSPECTION COUNCIL- INDIA

- Official export inspection and certification body of India set up under the Export (**Quality Control & Inspection**) Act, 1963 to ensure sound development of India's export trade through quality control and inspection.
- An advisory body to the Central Government, which is empowered under the Act to:
 - Notify commodities which will be subject to quality control and/ or inspection prior to export,
 - Establish standards of quality for such notified commodities, and
 - Specify the type of quality control and / or inspection to be applied to such commodities.
- A statutory body under Ministry of Commerce and Industry, India.
- It operates through its field organizations, Export Inspection Agencies (EIAs), headquartered at **Chennai, Delhi, Kochi, Kolkata and Mumbai**

EIC Network across India

S.NO.	EXPORT INSPECTION AGENCY	REGION- STATE / UNION TERRITORIES
1.	KOLKATA (HO+2SOs)	Assam, Arunachal Pradesh, Andaman & Nicobar Islands, Bihar, Jharkhand, Manipur, Meghalaya, Mizoram, Nagaland, Orissa, Sikkim, Tripura and West Bengal.
2.	KOCHI (HO+3 SOs)	Karnataka, Kerala and Lakshadweep.
3.	DELHI (HO+7 SOs)	Chandigarh, Delhi, Haryana, Himachal Pradesh, Jammu & Kashmir, Punjab, Rajasthan, Uttar Pradesh, Madhya Pradesh, Uttaranchal, Chhattisgarh.
4.	CHENNAI (HO+6 SOs)	Andhra Pradesh, Pondicherry and Tamil Nadu.
5.	MUMBAI (HO+11SOs)	Gujarat, Maharashtra, Dadra & Nagar Haveli, Goa, Daman & Diu.
		Corporate Office at Delhi



Services OF EIC/ EIAs

- ❑ Certification of quality of export commodities through installation of quality assurance systems (In-process Quality Control and Self-Certification) in the exporting units as well as consignment-wise inspection.
- ❑ Certification of quality of food items for export through installation of Food Safety Management Systems in the food processing units as per international standards.
- ❑ Issue of different types of Certificates such as Health, Authenticity etc. to exporters under various product schemes for export.
- ❑ Issue of Certificates of Origin to exporters under various preferential tariff schemes for export products.
- ❑ Laboratory testing services.

Services OF EIC/ EIAs

- ❑ Training and technical assistance to the industry in installation of Quality and Safety Management Systems based on principles of Hazard Analysis Critical Control Point (HACCP), ISO-9001: 2008, ISO: 17025 and other related international standards, laboratory testing etc.
- ❑ Recognition of Inspection Agencies as per ISO 17020 and Laboratories as per ISO 17025 and utilizing them for export inspection and testing.
- ❑ In rendering the above services, EIAs are backed by qualified technical manpower, having nearly forty years of diversified experience of quality control and inspection of notified commodities including their testing as per international standards/importing countries' standards or the foreign buyers' specifications.

EIC-ROLE IN WTO REGIME

Regulatory role to

- ▣ Address health & safety concerns of importing countries
- ▣ Compulsory certification for Marine products, Egg products, Milk products, Honey products, Poultry Meat products etc.
- ▣ Voluntary export certification – Tea, Spices, Basmati Rice
- ▣ Certificate of Health (Food items), Authenticity (Basmati Rice-EC)
- ▣ Laboratory Testing
- ▣ Commercial testing (facilities extended to industry)
- ▣ Import testing of food items-EIA Labs identified by MoH&FW as per FSS Act

EIC - ROLE IN WTO REGIME CONTD....

- **Training and technical assistance** to industry to upgrade to International standards
- **Represent India's** interests in International standards bodies/ WTO
- Continuous dialogue with importing countries for problem solving on non-tariff related issues
- Research – studies on issues related to quality of Indian exports
- Maintain information database on regulatory requirements of trading partners
- Issue of **Certificates of Origin** under various preferential tariff schemes for duty concessions for exporters by foreign customs

INTERNATIONAL RECOGNITIONS

- ❖ **EC** - HC for marine products, egg products, honey and issuance of authenticity certificate for basmati rice. Dialogue on for dairy products, poultry meat
- ❖ **Italy**- MOU for marine products.
- ❖ **USA (USFDA)** - recognized for Black Pepper; initiated dialogue for others.
- ❖ **Australia (AQIS)** - recognized for marine products –seeking for dairy products, spices etc.

INTERNATIONAL RECOGNITIONS

- **Sri Lanka (SLSI)** - recognized for 85 products regulated by Sri Lankan Authority (food, cement, engineering items, electrical appliances, milk products etc.)
- **Singapore** – The MRA's covers Food & Agriculture.
- **Korea**- Recognized for certifying food products
- **Japan**- Recognized for certifying F& FP, Poultry products
- **China**- Recognized for certifying F& FP
- **Russia** – Recognized for Marine Products
- **Others** - Other EU countries, Canada, Argentina etc- under negotiation

APPROVAL FIGURES

Units Approved

☀ Marine	:	478 (210 EU)
☀ Dairy	:	62
☀ Egg Products	:	4
☀ Poultry	:	5
☀ Honey	:	8
☀ Basmati Rice	:	7
☀ Black Pepper	:	9
☀ Others – I.P., C.St. etc	:	70 (28 CS for EU)
☀ Engineering	:	20
☀ Footwear	:	2
☀ Chemicals	:	10

Food safety Issues related to Domestic and International Market

Residue Monitoring System - Reasons

WTO agreements

- ☀ SPS Agreement – compliance of sanitary & phyto-sanitary requirements of importing country
- ☀ TBT Agreement – No importing country should impose technical barriers to trade

Harmonization

- ☀ SPS & TBT agreement require National Standards to harmonize with International Standard.

Food Safety

- ☀ global food trade – (safe, sound & wholesome food free from hazards)

Residues - Constituents

Residues

- ★ Substances having pharmacological action (both prohibited and permitted substances) (*SUBSTANCES HAVING ANABOLIC EFFECT AND UNAUTHORISED SUBSTANCES, VETERINARY DRUGS AND CONTAMINANTS*)
- ★ Metabolites of substances
- ★ Substances transmitted to animal products (Heavy metals, pesticides, toxins, PCBs, dioxins, etc.)
- ★ Substances formed by biological action (bacterial toxins, aflatoxins, histamine etc.)

NRCP and RMP

Objective:

- ❖ Monitoring and assurance of the acceptable residue levels of drugs, pesticides and contaminants in the food products.
- ❖ Detection of any illegal treatment (s)
- ❖ Establishing a system of corrective action in the event of detection of residues higher than the prescribed limits by issuing alert information and follow up visits
- ❖ To ensure that the food products exported from India meet the prescribed regulatory requirements of the importing countries.

Systems of Residue Control NRCP/RMP

- ★ National Residue Control Programme (NRCP): EIC is implementing through MPEDA in aquaculture products (5% by EIC laboratories)
- ★ Residue Monitoring Plan (RMP) : EIC's Annual Residue Monitoring Plans (RMP). Implemented by EIC in Egg Products, Milk Products, poultry meat products and honey

EIA-Mumbai PTH

- ✦ The laboratories of EIC is primarily intent to meet the testing needs in **Chemical, Biological & Electrical** of export trade, import and also domestic industries for quality up gradation.
- ✦ The laboratories also performs tests to **comply with various national and international regulatory requirements** for export and domestic purpose including customer requirements.
- ✦ The laboratory also performs tests to comply with **Food Safety and Standards Act, 2006 along with Rules and Regulations 2011** as per requirements for imported food articles w.e.f 05.08.2011 for use of food articles in domestic market.



AVAILABLE INFRASTRUCTURE

- ✦ EIC has independent laboratories preliminary to meet the testing need of export trade towards quality up-gradation at central locations at **Chennai, Kochi, Kolkata and Mumbai**.
- ✦ EIC has sectional laboratories for **Chemical, Microbiological and Electrical** testing. The testing facilities comprising of various state of art testing equipment's are capable to meet the global challenges.
- ✦ EIC has an excellent **infrastructure of International standards, experienced personnel** and very vast based information to cater the needs of our clients.

MAJOR EQUIPMENTS IN EIC laboratories (MICROBIOLOGY SECTION)

1. RT-PCR for **GMO/Non GMO testing**
2. Biosafety Cabinet (Class II) and Laminar Air Flow Cabinet- Used for analysis/handling of **pathogens causing various diseases including food borne diseases**
3. BOD incubator- Used for incubation of **pathogens** at 22°-25°C
4. Bacteriological Incubator-Used for incubation of pathogens.
5. Autoclave- Used for **sterilization** of media, plates etc.
6. Bag Mixer- Used for **preparation** of sample aseptically
7. Colony Counter- Used for **counting** of microorganisms
8. Microscope-Used for **identification** of microorganisms





Available Infrastructure

STATE OF ART MODERN EQUIPMENTS IN EIC laboratories

- ✱ LCMSMS-Used for analysis of **Antibiotics, Pesticides**
- ✱ UPLC-Used for analysis of **Antibiotics**
- ✱ HPLC - Used for analysis of **Antibiotics, Mycotoxins**
- ✱ GC-HRMS – Used for analysis of **Dioxins and PCB**

- ✱ GCQQQ- Used for analysis of **Pesticides**
- ✱ GC-MS- Used for analysis of **Pesticides**
- ✱ GC-ECD/NPD/FID- **Used for analysis of Pesticides**

- ✱ ICPMS/ICPOES- Used for analysis of **Heavy metals**
- ✱ AAS (Furnace, Flame, Cold vapor)-Used for analysis of **Heavy metals**
- ✱ ELISA Reader and Washer-Used for analysis of **Aflatoxin M1, Melamine etc.**
- ✱ UV VIS- Spectrophotometer- Used for **analysis of various food articles**
- ✱ Mycotoxin analyser- Used for analysis of **Total Aflatoxins**
- ✱ Automated Protein analyzer, Crude fibre analyser, Digital Refractometer etc.

QUALITY CONTROL

- ✓ Regular use of **certified reference materials**.
- ✓ Participation in Interlaboratory comparison/ proficiency – testing (PT) programmes (**FAPAS & FEPAS**, UK, HAKAS, Hongkong) with satisfactory results.
- ✓ Participation in PT programmes conducted by **EU**.
- ✓ Periodic assessment by various regulatory bodies (**EU, USFDA, NABL, EIC, FSSAI**).
- ✓ Regular In-house **quality control checks**.

Commodities Tested

- ◀ Fish & Fishery products
- ◀ Poultry Products
- ◀ Milk & Milk products
- ◀ Water and Ice
- ◀ Sanitation & Hygiene samples
- ◀ Tea
- ◀ Pulses
- ◀ Ayurvedic products
- ◀ Fruits and vegetable products
- ◀ Fresh fruits and vegetables
- ◀ Oils and fats
- ◀ Meat and meat products
- ◀ Spices and condiments
- ◀ Ready to serve beverages
- ◀ Alcoholic beverages
- ◀ Dry fruits
- ◀ Confectionary items
- ◀ Proprietary items



TEST METHODS FOLLOWED IN LAB

AOAC Current Edition

APHA Current Edition

USFDA PAM

USFDA BAM

DGHS Manual

BIS Methods

CIFT Manual

EIA analytical Manual

EPA Methods

EU methods

MAJOR CHEMICAL TESTING BEING UNDERTAKEN AT PTH

Testing Of various food articles for residues ,contaminants etc. like

Heavy Metal residues

Pesticide residues

Antibiotic Residues

Mycotoxins- Total Aflatoxin & Aflatoxin M1

Histamine

Sulphite

Additives

Moisture & Acid Insoluble ash

Wet chemistry parameters as per FSS Act

Physical parameters as per FSS Act

Illegal/Banned Dyes

MAJOR TESTS CONDUCTED AT MICROBIOLOGICAL SECTION

Microbiological section has the facility to test the various pathogens causing various diseases including food borne diseases caused by

Salmonella spp.

Vibrio cholera/Vibrio parahaemolyticus

Staphylococcus aureus

Listeria monocytogenes

Clostridium spp.

Streptococcus faecalis

Yeast and mould

Proteolytic and Lipolytic bacteria

Shigella spp.

Enterobacteriaceae group

Role being played by EIC in assisting FSSAI

File No. 1-16/FSSAI/T/2009 (FSMS)
Food Safety & Standards Authority of India
(A Statutory Regulatory Body of Govt. of India)
Ministry of Health & Family Welfare
3rd Floor, FDA Bhawan, Kotla Road
New Delhi-110002

Date: 03.01.2012

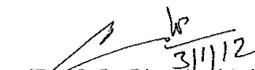
Recognition Certificate

This is to certify that the FSMS Inspection/ Auditing/ Certification Agency described below has been recognized by FSSAI:

1. Recognition No. : 1-16/FSSAI/T/2009/FSMS/01
2. Date of recognition : 03.01.2012
3. Name of agency : Export Inspection Council of India,
Ministry of Commerce & Industry, Govt. of India, 3rd
Floor, NDYMCA Cultural Centre Building, 1, Jai Singh
Road, New Delhi
4. Recognition valid upto : 02.01.2013

Place: New Delhi

Date: 03.01.2012


(Dr. S.S. Ghonkrokta)
Director (Enforcement)

S. S. GHONKROKTA
DIRECTOR
FOOD SAFETY AND STANDARDS AUTHORITY OF INDIA
Ministry of Health & Family Welfare
Government of India
FDA Bhawan Kotla Road, New Delhi-110002

✓ The laboratory also performs tests to comply with **Food Safety and Standards Act, 2006 along with Rules and Regulations 2011** as per requirements for imported food articles w. e.f 05.08.2011 for use of food articles in domestic market.

✓ Approximately 500 samples are being tested per month for different food articles in Chemical, Biological etc. parameters

A person is standing between the legs of a giant, looking up. The scene is dimly lit, with a bright light source behind the giant's legs, creating a silhouette effect. The text "THANK YOU" is overlaid in a bright green, bold, sans-serif font with a black outline.

THANK YOU