

FSL - MAHARASHTRA

Introduction

Forensic Science Laboratories (FSL) are multi disciplinary institutions doing highly specialised and sophisticated analytical work. The prime role of FSL is to provide unbiased scientific evidence to investigating agencies and in turn the judiciary system. The institute provides scientific analytical reports in various crime cases under different laws like IPC, Cr.PC, Arms Act, NDPS Act; Explosive Act, E.C Act and so on.

Established in 1958 as a small laboratory in a small place and with handful of workers, Maharashtra FSL has emerged into a big 'Directorate' having its head quarters' at Mumbai and three regional laboratories at Nagpur, Pune and Aurangabad with 659 total staff strength. The proposal for setting up new RFSL at Nashik is approved and the initial process of acquiring land has begun.

A visit of Forensic expert to the crime scene and his guidance for collecting the proper samples from the site is very helpful for further investigation. Such help is made available in the four cities and few more districts. To expand this service

so as to cover more districts, FSL has proposed to set up 21 'Mobile Forensic Units'. Investigating police officers are regularly trained in the use of scientific aids by FSL staff.

Funds sanctioned under 'modernisation', by Ministry Of Home Affairs, New Delhi are utilized for modernisation of the building, lecture hall, library, technology, mobility etc.

Maharashtra FSL is having latest analytical instruments and technologies for analysis of various types of exhibits involved in different crimes.

DIFFERENT DIVISIONS & THEIR NATURE OF WORK:-

The nature of scientific/analytical work undertaken by various divisions is briefly described as under.

1) TOXICOLOGY DIVISION

Examines viscera, stomach wash, vomit, blood & other material submitted by the Medical and Police officers in homicidal and suicidal poisoning cases for the detection of any poison present in them. Systematic

analysis and quantitation of poison levels is routinely done to ensure successful prosecution. Materials in animal & bird criminal cases are also examined.

2) BIOLOGY / SEROLOGY DIVISION

Detection, species typing and blood-grouping' of blood / seminal and other body fluid stains in murder, assault, rape, disputed paternity cases, other biological evidence like hair, tissue, vegetable material, wood etc. also examined. This division prepares its own biological reagents (anti-sera). This anti-sera is also supplied to regional laboratories at Nagpur, Pune and Aurangabad. There is a special cell for doing advanced blood grouping beyond ABO System such as Rh, Gm, PGM, GLO-1. EAP etc.. DNA fingerprinting technique is also available here for important cases initially.

3) GENERAL ANALYTICAL & INSTRUMENTATION DIVISION

Chemical Analysis of material like petroleum

products, cement, explosive material, oils and fats, dyes, dangerous drugs like heroin, brown sugar/gard, cocaine, methaqualone, narcotics (opium, cannabis-charas, ganja, bhang etc.) etc., industrial chemicals and residues thereof in cases of murder, arson, explosion, theft, cheating etc. Sophisticated analytical instruments eg. Gas/Liquid chromatographs, ultra-violet/infra-red spectrophotometers, Atomic Absorption Spectrophotometer, HPTLC scanner, GC-MS, LC-MS, Ion-chromatograph, Elemental Analyser, etc. are employed. Other automated equipments to determine flash point, viscosity and distillation range also have been procured recently.

4) PHYSICS DIVISION

Examination of Trace evidence materials like soil, paint, glass, metal, fibre: restoration of erased marks, examination of tool marks etc. in murder, theft, vehicle accident and other cases, is done by Photomicrography & using instruments like Emission Spectrograph, Atomic Absorption Spectrophotometer, DTA, X-ray Diffraction, Energy

Dispersive Spectrophotometer, Differential Scanning Calorimeter etc.

5) BALLISTICS DIVISION

Examination of standard and countrymade gun/arms/ammunition. Comparison microscopic examination of fired bullets/ cartridge residue of fired ammunition, distance of firing, effectiveness and physical aspects of wounding in cases of murder/assault involving use of fire arms and possession under Arms Act are done. Instrumental techniques like ICPU analysis are employed.

6) PROHIBITION DIVISION

Detailed reporting on sample of illicit liquor wash in possession offences and blood alcohol in consumption offences under Bombay Prohibition Act, Alcohol assay of Excise samples are done by using Densitometer.

7) OTHER DIVISIONS

Apart from above technical divisions, Administration Division, Accounts Division, Stores. Library, Photography Division, and Animal house are also important divisions

of this Directorate

Recently it has also inaugurated its DNA-Finger printing Laboratory at Mumbai & will be setting up its Forensic Computer Division to combat cyber crime cases.

Maharashtra FSL has always retained its high reputation on national level. The scientists in this Directorate have bagged Home Ministers National level Award for meritorious work in Forensic science (Chemical Sciences) for the last four consecutive years. Dr. V. B. Patil is the recent recipient of this prestigious award of 25,000/- rupees.

The Director of FSL, Dr.(Mrs.)R. Krishnamurthy was also honored with this award earlier. Recently she was invited to present a scientific paper in the International Forensic Science Conference at Montpellier, France. She has also visited 'Interpol-Lyon' and held discussions with their Narcotics and Explosive experts.

By continuous up gradation of knowledge and technology the FSL, Maharashtra will always strive to maintain its prestigious image in our country.

