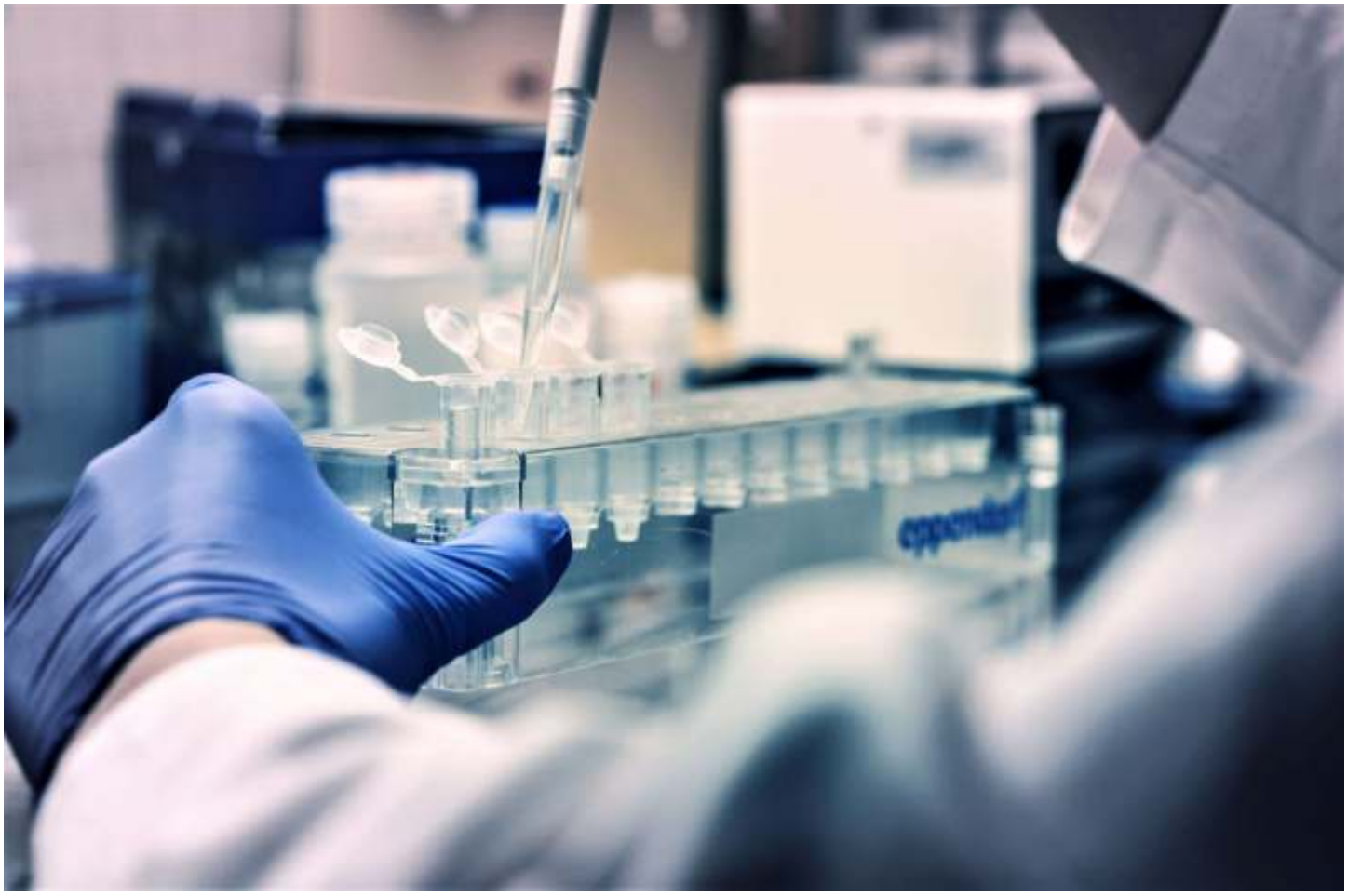

Central Revenues Control Laboratory (Laboratory Setting Up) Guidelines

Central Board of Indirect Taxes & Customs
Department of Revenue
Ministry of Finance
Government of India


केन्द्रीय राजस्व नियन्त्रण प्रयोगशाला नई दिल्ली-2


केन्द्रीय राजस्व नियन्त्रण प्रयोगशाला
CENTRAL REVENUES CONTROL LABORATORY

Central Revenues Control Laboratory
(Laboratory Setting Up)
Guidelines

Central Board of Indirect Taxes & Customs
Department of Revenue
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Revenue Laboratory (Setting Up) Guidelines

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1. Introduction

Trade plays a multifaceted role in India's economic landscape, contributing to growth, employment, technological advancement, and global integration. A well-managed and vibrant trade environment is essential for India's continued development and prosperity to attain developed status by 2047 (Viksit Bharat @ 2047).

1.2 During the last 25 years Indian exports have increased by 17 times and imports by 19 times. India's share in global merchandise exports has risen from 0.6 percent in early 1990s to 1.8 percent[1] in 2023, and similarly the share of imports has risen from 0.6 percent to 2.8 percent[2] during the same period. According to Economic Survey, 2024, India's trade to GDP ratio, a measure of an economy's openness and integration into the global economy, has witnessed a phenomenal increase over the last few decades. Trade which constituted around 15.9 percent of India's GDP in 1990, accounts for around 45.9 percent in 2024-24[3].

1.3 It is projected that, by 2047, country will become a 30 trillion economy with 25% share in exports. By the year 2030, exports from India will be 2 trillion with 1 trillion product export with CAGR growth of 11 to 12% and 1 trillion service exports with CAGR of 18-19%.[4]

1.4 India is also noticing changing patterns in trade in terms of diversifying trade partners with focus on Southeast Asia, Africa, and Middle East. There is also noticeable shift towards digital trade and e-commerce. India exploring deep integration with global supply chains with renewed focus on manufacturing high-end goods such as electronics, drones, advanced chemicals, APIs in pharmaceuticals etc. The Focus is also on increasing trade with the neighbouring countries such as Nepal, Bhutan etc. in line with the bi-lateral treaties with these countries.

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[1] World Trade Organisation, Global Trade Outlook and statistics Apr 2024, Pg.39 (https://www.wto.org/english/res_e/publications_e/trade_outlook24_e.htm)
[2] World Trade Organisation, Global Trade Outlook and statistics Apr 2024, Pg.39 (https://www.wto.org/english/res_e/publications_e/trade_outlook24_e.htm)
[3] Indian Economic Survey 2024, Pg.107 (https://www.indiabudget.gov.in/economicsurvey/doc/echapter.pdf)
[4] PIB, 16 OCT 2022 (https://www.pib.gov.in/PressReleasePage.aspx?PRID=1868284)

1.5 To remain competitive among the global entities, measures in reducing compliance cost and time for trade can have multiplier effect in promoting international trade and enhance overall efficiency in supply chain. This can also facilitate Small and Medium sized Enterprises (SME) participation and thus increase trade volumes and can also lead to job creation.

1.6 It is seen that, over the years, goods imported have diversified from primary products/intermediate manufactured ones to high end manufactured goods such as electronics, drones, advanced chemicals, petroleum products. This also poses risks related to import of sub-standard goods, adulterated petroleum products, hazardous or dual use goods which may be a threat to economy and public safety.

1.7 On the other dimension, with the improvement in infrastructure, the number of Gateway Sea Ports and Airports have improved manifold. The Land Customs Stations are being upgraded to enhance trade across neighbouring countries. With the augmentation of road and rail infrastructure, many hinterland ICDs/CFSs have come to serve the trade on consolidating the cargo, and thereby reducing the cost of transport. In short, Customs Stations have expanded to serve the nook and corner of the country.

Role of Indian Customs:

1.8 Indian Customs has always played a crucial role in supporting the growth of trade by facilitating the movement of goods across borders, ensuring compliance with regulations, and promoting a secure and predictable trading environment. The Customs efforts in streamlining and simplifying the import and export procedures by leveraging technology has led to faster clearance of goods.

1.9 The Customs uses various types of frameworks for facilitating the genuine trade while keeping a tab on fraudulent shipments. This includes robust Risk Management and targeting, Standardisation of processes, Non-Intrusive Inspections, Enhancement in in-house testing capabilities, capacity building, process re-engineering and effective Audit mechanisms.

1.10 Customs is required to enhance capabilities to face emerging challenges related to the complexity, valuation, checking for compliance to environment standards or for other compliances. There is also a need to invest in training and technology to effectively carry out inspections without causing unnecessary delays.

1.11 When the goods are taken up for examination, it may not be possible to determine the compliance merely by visual inspection in all cases. Hence, it is a common practice to perform sample testing in laboratories to ensure that imported or exported goods meet the required standards, technical specifications or to verify the accuracy of declarations, assess product safety, ensure compliance with relevant laws and regulations.

1.12 To achieve effective customs control of checking on compliance, while reducing the time and cost for the trade, it is essential to periodically review, among other things, and to suitably place revenue laboratories with appropriate infrastructure at apt location.

2. Scope and Objective

As we embark on the journey of enhancing the efficacy and reach of our CRCL network, it is essential to establish clear guidelines that reflect our unwavering commitment to transparency, accountability, and enhance trade facilitation.

A. The objective is to optimise time and cost of sampling for the trade while providing adequate infrastructure for customs by:

1. Augmenting the lab infrastructure at the existing Revenue Laboratories at different locations.
2. Establishment of new labs based on growth potential of the region promoting inclusive facilitation to trade.

B. The Scope of this guideline is to provide the broad criteria and the mechanism for the undertaking review on periodical basis to meet the above objective.

3. Revenue Laboratory – Overview

Central Revenues Control Labs serve as the vanguard of our efforts to safeguard the economic interests of our nation. They play a pivotal role in the detection, analysis, and deterrence of fraudulent activities, tax evasion, and illicit trade practices.

3.2 Following are the roles of Revenue Laboratories:

- Analyze Customs samples for their correct identification as per HS to impose duties/taxes appropriately in a fair manner.
- Technical opinion on Customs classification matters.
- Expert opinion on Export-Import Trade policy requirements.

- Technical support to Opium & Alkaloid factories for licit production of Opium Alkaloids.
- Under section 393 Bharatiya Nagarik Suraksha Sanhita (Erswhile Section 293 of Indian Code of Criminal Procedure), officers of CRCL (09 Laboratories) are authorized for analysis of NDPS Samples.
- Coordinate with other global organizations and institutions working in the field of Customs & Narcotics.
- Technical support on other matters related to revenues & internal security..
- Impart training to departmental officers & WCO member countries as part of capacity building.

Background:

3.3 There was an Excise Laboratory, at Kasauli, which was shifted to Calcutta (now Kolkata), after World War I, and designated as "Customs and Excise Laboratory". This arrangement continued till 1928. Then, CRCL was developed with the creation of the Imperial Customs Service in 1928. Further, in 1939, the Central Revenues Control Laboratory was built at Delhi and a Special Adviser was appointed as the Chief Chemist, Head of Revenues laboratories. The Chief Chemist was re-designated as Director (Revenues Laboratories) in 1999.

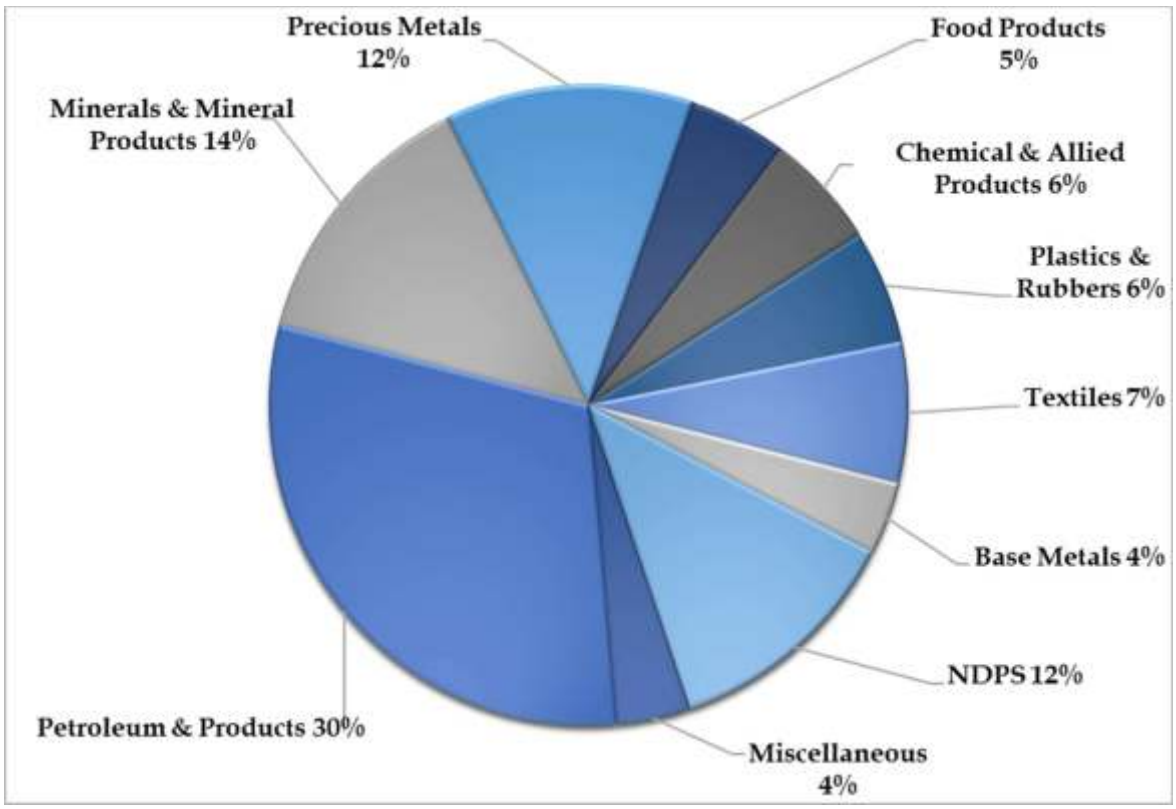
3.4 Presently, there are 12 Revenue Laboratories with Central Revenues Control Laboratory, New Delhi as Headquarters. Further, 02 Laboratories functioning at Government Opium & Alkaloid works, Ghazipur & Neemuch for testing of Raw Opium & Opium Alkaloids. The details of the Labs are in Annexure-I.

3.5 Number of Samples Tested:

Sr. No.	1	2	3	4	5	6
Financial Year	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24*
No. of Samples	72,362	1,01,590	1,15,223	1,34,083	1,59,869	1,44,861

As it is evident from the table above, the number of samples from 2018-19 to 2023-24 have increased by 200 percent and the lab is managing the workload with the existing infrastructure. Coupled with this fact, the expansion of the trade to new locations and the high dwell time and cost incurred in testing, acts as a deterrence for diversification of trade to other locations. Thus, given the growth in the trade and the increase in the number of samples tested, expansion is the need of the hour.

3.6 Types of Samples Analysed:



3.7 Current Infrastructure & Facilities at Revenue Labs:

I. Central Revenues Control Laboratory is equipped with modern state-of-art instruments to analyze a wide range of chemical products to meet varied needs of Customs-related analysis.

II. These labs cater to the latest analytical challenges in the field of narcotics & psychotropic substances.

III. Revenue Laboratories were upgraded & modernized, at a cost of more than Rs.100 Crores in Phase-I (2017-2022), keeping in view the requirements of WCO Customs Laboratory Guide, 2017.

IV. Vide Ministry's letter vide F.No.401/10/2014-Cus III dated 14.03.2023, Board has accorded in-principal approval for the DPR Phase-II for upgradation of Revenue Laboratories at an estimated cost of Rs.5475.45 Lakhs to be implemented over a period of 03 years (FY 2023-26). As per the Detailed Project Report (DPR) for Phase-II, the following is the highlight of the upgradation; -

a. The testing facilities at different Revenue Laboratories is proposed to be enhanced.

b. Physical Infrastructure – Out of 12, 06 laboratories *(New Delhi, Mangaluru, Kandla, Kolkata, Vizag. & Vadodara)* have submitted proposals to DGHRD for sanction of the budget while the remaining 06 laboratories *(Chennai, Mumbai, Nhava-Sheva, Goa & Tuticorin)*

are in the process of submitting their proposals to DGHRD. Laboratory at *Kandla* has already obtained the budget sanction.

c. 26 types & 58 numbers of instruments/equipment are in different stages of procurement process.
d. All the 12 Revenue Laboratories are in the process of enhancing the scope of NABL accreditation for different commodities.

3.8 Geographical Presence:

It may be seen from Annexure-I, the Last lab was setup in 2011. Further, all the Laboratories are primarily located near the seaport, where most of the trade was happening. However, the trade has increased in the recent years at Air Cargo Complexes, ICDs and LCSs in comparison, to sea cargo. Similarly, on the geographical spread zone wise[6], South Zone[7] and West Zone[8] has 5 labs each while North Zone[9] and East Region[10] has one 1 Lab each, apart from Neemuch and Ghazipur catering only to Narcotics. Central Zone[11] and North-East Zone[12] has no labs presently.

Sl no	Zone	Customs Stations	CRCL LAB
1	North	40 (Sea-0, Air-4, LCS-1, ICD-35	1 (New Delhi)
2	South	55 (Sea-22, Air-12, LCS-1, ICD-20)	5 (Chennai, Kochi, Mangaluru, Tuticorin, Vizag)
3	East	48 (Sea-6, Air-2, LCS-26, ICD-7, Railways-7)	1 (Kolkata)
4	West	76 (Sea-34, Air-9, LCS-0, ICD-33)	5 (Goa, Kandla, NCH Mumbai, Nhava Sheva, Vadodara)
5	Central	36 (Sea-0, Air-3, LCS-7, ICD-26)	0

[6] Zones in terms of State re-organisation Act, 1956(https://interstatecouncil.gov.in/wp-content/uploads/2016/08/states_reorganisation_act.pdf)
[7] South Zone consists of A&N, AP, Karnataka, Kerala, Puducherry, TN, Telangana, Lakshadweep
[8] West Zone consists of Gujarat, Maharashtra, Goa, UT of Daman &Diu, Dadra, and Nagar Haveli
[9] North Zone consists of Chandigarh, Delhi, Haryana, HP, J&K, Ladakh, Punjab and Rajasthan
[10] East Zone consists of Bihar, Jharkhand, Odisha, and West Bengal
[11] Central zone consists of Chhattisgarh, Uttarakhand, Uttar Pradesh and Madhya Pradesh
[12] Northeast Zone consists of Assam, Manipur, Mizoram, Arunachal Pradesh, Nagaland, Meghalaya, Tripura and Sikkim

6	North East	30 (Sea-2, Air-1, LCS-23, ICD-4)	0

In contrast, out of 285 EDI Customs Locations, distribution of Customs Locations across zones is: West (76); South (55); East (48); North (40), Central (36) and Northeast (30), which acts as a constraint in terms of cost and time to the trade who wants to operate from locations in East, North, Central and North East Zones.

3.9 As per the CRCL Manual, no fees are charged for samples sent by Customs and for select departments such as Inspectorate of Explosives, samples of Petroleum for their flashpoints, testing mineral oils for Railways. However, for the samples received from outside departments such as Food Samples, Hazardous goods etc fees are being collected.

3.10 As can be seen from above, the customs stations are being expanded in places away from sea and airports. In order to promote trade potential in these areas, the cost and time involved in testing is much higher and can be inhibiting factor in trade expansion as it doesn't provide level playing field. There may be a need to establish lab considering the future growth potential of the region.

3.11 On the other hand, it may not be possible to set up lab at all the customs locations. Hence, there is a need for evolving guidelines for setting up lab at a place which can optimise the time, cost, strategic interest and enhanced inclusivity in the testing facilities.

4. Significance of Customs Laboratories across the globe:

Most Customs Administrations have their own laboratories for these purposes and the use of private laboratories is exceptional. The Laboratories also co-operates at the international level to exchange best practices and also provide scientific opinion in case of classification matters.

4.2 Customs Laboratories across the world are becoming more and more involved in tests relating to export control, environmental protection, endangered species protection, geographical indicators etc.

4.3 Customs Laboratory differs from other laboratories in that they have to analyse all types of products mainly for the classification or for compliance to certain regulations. This requires the staff to be skilled in both classification and

chemical analysis. Staff is also required to have better understanding of customs regulations ensuring good co-ordination with the field formations.

4.4 Revenue Laboratories are also required to develop new techniques to address the fraudulent attempt in import or export. The availability of laboratory at a location enables Customs to make objective decision on the goods in a speedier manner.

4.5 Revenue Laboratories are also recognised for testing narcotics samples, environmental goods, Food samples for compliance to other Acts.

4.6 Given its location on the Golden Crescent route, sampling and testing holds paramount importance for trade control measures. The Golden Crescent, comprising Afghanistan, Iran, and Pakistan, is notorious for illicit drug trafficking, presenting unique challenges and opportunities for India. A CRCL facility has a pivotal role in enhancing secured and licit transborder movement of cargo by supporting analyses of incoming shipments. Moreover, as a transit point for drug trafficking, India has to diligently apply control measures to prevent the inflow of narcotics and other contraband substances.

4.6 In India, all the 12 (twelve) Revenue Laboratories have obtained NABL accreditation, as per ISO/IEC 17025:2017, in the testing of different commodities. This has resulted in ensuring the quality and competency of the laboratories. The testing capability of each of the Labs and the scope of accreditation is available in Annexure-II.

4.7 Further, the some of the key recognitions of Revenue Laboratories is as follows:

(a) WCO–RCL Laboratory: CRCL, New Delhi has also been recognized as the Regional Customs Laboratory (RCL)[13] of the World Customs Organization (WCO) for Asia Pacific region in March 2021.

(b) FSSAI Recognition: CRCL, New Delhi & Central Excise & Customs Laboratory, Vadodara has also been notified by the Food Safety Standard Authority of India (FSSAI) for testing food samples.

[13] CRCL has become one of only ten (10) such RCLs in the world. The activities as WCO-RCL, involve collaboration with the countries in the Asia Pacific Region to provide training, consultancy, and capacity building.

(c) Central Excise & Customs Laboratory, Vadodara has also been recognized as an Environmental Laboratory under the Environmental (Protection) Act, 1986 by the Central Pollution Control Board (CPCB), Ministry of Environment & Forests. This laboratory is certified under ISO 45001:2018 – Occupational Health & Safety Management.

5. Infrastructure and other facilities for the Customs Laboratories

The planning of a Customs Laboratory involves a meticulous approach aimed at facilitating efficient analytical operations and ensuring compliance with regulatory standards. A crucial aspect of this planning process is gaining a comprehensive understanding of the analytical requirements, including the types of goods to be analysed and the frequency of submissions. This knowledge enables the calculation of necessary analytical examinations and the identification of specific instruments and equipment needed for the laboratory's operations. Additionally, flexibility in design is essential to accommodate changing needs over time. While maintaining an "open plan" layout in some areas of the laboratory allows for adaptability, certain layout concepts must be considered, such as segregating the office area from the laboratory area to ensure efficiency and safety.

5.2 For safety and efficiency, various segregation measures are implemented within the laboratory. This includes separating instrumental analysis and chemical analysis areas to prevent contamination and extend the lifespan of scientific instruments. Moreover, areas designated for the analysis of flammable or hazardous goods are strategically located close to the office area but are kept separate to mitigate risks. The provision of dedicated spaces, such as quiet rooms for weighing or balance operations and specialized rooms for sensitive equipment like infra-red spectrophotometers, ensures optimal conditions for accurate analyses.

5.3 Storage and ventilation considerations are also paramount in laboratory planning. Separate storage rooms are designated for flammable chemicals, hazardous materials, and high-pressure gases to enhance safety protocols. Proper ventilation systems, including fume cupboards and exhaust fans, are strategically located to ensure effective airflow throughout the laboratory, minimizing the risk of exposure to harmful substances. The sample preparation area is carefully separated from rooms where sensitive analyses are conducted to prevent contamination and maintain the integrity of results.

5.4 Lastly, equipping the laboratory requires a thorough understanding of the complex analytical requirements. While the initial procurement of instruments may seem daunting, investing in common equipment significantly enhances

laboratory productivity over time. By adhering to these principles and considerations, Customs laboratories can be efficiently planned and equipped to support accurate, reliable, and compliant analytical operations.

6. Criteria for setting up new Lab:

Depending on the requirements of testing and provisioning for infrastructure, a testing lab can be categorised into the following.

Type of Laboratory	**Function**	**Resource**
Basic Laboratory	Performs only specific analysis	Requires a few staff and equipment
Standard Laboratory	Performs most of the analysis, at least for classification of goods	Require sufficient staff and equipment to carry out analysis
Advanced Laboratory	Carry out diversity of quantitative and qualitative analysis	Require advanced instruments technology and staff experience in the interpretation of data relative to a wide range of industrial commodity

6.2 Establishing a Central revenue and Control Laboratory (CRCL) entails careful consideration of several critical factors to ensure its effectiveness and efficiency in supporting customs operations, trade facilitation, safeguarding the strategic interest and fostering collaboration and information sharing with relevant stakeholders, such as regulatory agencies, industry associations, and international partners, which is indispensable for promoting transparency, harmonization, and best practices in customs laboratory operation. Accordingly, the factors for the consideration of the Labs shall be broadly classified as follows:

(a) <u>Volume of samples</u>

(i) Quantum of Trade samples required to be tested at a location.

(ii) Trade samples being subjected to testing by PGAs

(b) <u>Growth Potential:</u>

Regions with high growth potential often experience increased trade activity and greater demand for customs services, making the

establishment of a CRCL essential to support and facilitate this growth. By strategically locating CRCL laboratories in regions with significant growth potential, customs authorities can effectively cater to the needs of expanding trade networks and emerging markets.

Moreover, CRCL facilities in such regions can act as catalysts for economic development by providing essential services to facilitate trade, attract investment, and spur innovation. Additionally, the presence of a CRCL in a high-growth region helps to strengthen regulatory oversight and enforcement capabilities, ensuring that trade activities adhere to established standards and regulations. Overall, considering the growth potential of a region when setting up a CRCL laboratory is critical for supporting trade expansion, fostering economic development, and enhancing regulatory compliance in emerging markets.

(c) Clustering of locations:

In cases, where there are multiple small stations which may not generate sufficient numbers to justify setting up lab, but put-together generates sufficient numbers, the lab may be placed in a location which can best serve the needs of multiple locations.

(d) Geographical distribution:

Equitable geographical distribution ensures that all regions have access to essential customs services, aligning with principles of fairness and inclusivity. This approach fosters a sense of trust and cooperation among stakeholders, promoting compliance with customs regulations nationwide. CRCL labs in various regions enhance the resilience and adaptability of customs operations. In the event of localized disruptions, such as natural disasters, political unrest, or infrastructure failures, having multiple laboratory facilities ensures continuity of service provision.

This redundancy minimizes the risk of bottlenecks in customs clearance processes and helps maintain the integrity and efficiency of trade flows across the country. Furthermore, decentralizing laboratory facilities contributes to the development and capacity-building of local communities. By establishing CRCL labs in diverse regions, job opportunities are created, and local expertise is nurtured. This not only

stimulates economic growth but also strengthens the overall infrastructure and human capital base in these areas.

(e) Trade facilitation and Control Measures:

The Exim trade in India has registered a robust growth by more than 50 percent in last 10 years. This rising trade potential significantly enhances the need for secured movement of goods and robust sampling and testing infrastructure. Thus, making it mandatory to give more impetus on setting up of CRCLs for trade facilitation.

Furthermore, effective trade facilitation measures supported by CRCL facilities are essential for promoting economic growth, attracting foreign investment, and fostering a conducive environment for trade and investment in the region.
Firstly, by providing centralized and standardized testing facilities for imported goods, CRCL streamlines the clearance process, reducing delays and enhancing efficiency at customs checkpoints. Additionally, CRCL ensures the authenticity and quality of imported products through rigorous testing and analysis, thereby fostering trust and confidence among traders and consumers.

Moreover, CRCL plays a crucial role in ensuring compliance with trade regulations and international standards, facilitating smooth and seamless trade transactions while mitigating the risk of non-compliance-related disruptions. Furthermore, by offering comprehensive testing services under one roof, CRCL simplifies administrative procedures for traders, minimizing paperwork and administrative burdens. Given its location on the Golden Crescent route, sampling and testing holds paramount importance for trade control measures.

A CRCL laboratory equipped with advanced analytical capabilities can identify and authenticate suspicious substances, enabling authorities to take timely enforcement actions and disrupt illicit drug networks effectively. Beyond combating illicit activities, CRCL labs are instrumental in ensuring compliance with trade regulations and standards, thereby safeguarding public health, consumer interests, and national security while facilitating legitimate trade flows.

(f) Promoting Strategic Interests:

The importance of strategic interest for trade may also play a role in locating CRCL close to such places. The Locations across Nepal, Bhutan and Bangladesh may not have much volume of trade, or growth potential, but has huge importance from strategic perspective.

(g) Any other factor like enhancing technical capabilities, which may be considered important factor in determination of location for the lab.

7. Procedure for Approval of new Lab:

In order to examine the proposal for setting up of new lab or adequacy of the CRCL Lab infrastructure, a Standing Committee under the chairmanship of Joint Secretary (Customs) is being set up consisting of the following members:

a. Director, CRCL
b. Representative from DG ARM (of the rank of ADG/Commissioner)
c. Representative from DGFT under DoC as nominated by DG, DGFT.
d. Representative from concerned Zone (of the rank of Pr. Commissioner/Commissioner – to be co-opted as Member in case of proposal from the zone)
e. Under Secretary (Customs-III) as Member -Secretary.

7.2 Any proposal for setting up of the new lab or upgradation of the existing lab infrastructure will be referred to the Standing Committee.

7.3 The Standing Committee will meet at least twice in a year. It will review the adequacy of the lab infrastructure and the need for enhancement of the lab features or for setting up CRCL labs at the new location. Based on the preliminary analysis, comments from the concerned zones or any other stakeholder may also be taken, if necessary.

7.4 On receipt of request from a Zone or from other PGAs or government bodies on the need for setting up CRCL lab or upgradation of the existing lab infrastructure at any location with detailed justification, the Committee will make

recommendations for approval, modification, rejection, or deferment of any proposal to the Board which in turn will give in-principal approval.

7.5 In respect of proposal concerning setting up of new lab, the committee will decide on the type of lab (Basic, Standard or Advanced). Factors to be considered while deciding the type of lab will, interalia, include the requirements of testing, nature of the commodities exported/ imported, convenience to trade, accessibility to the nearby existing labs, specific request in the proposal and India's strategic interests.

7.6 Based on the in-principal approval, a Detailed Project Report (DPR) will be prepared by the Director CRCL by taking into consideration the infrastructure requirements like the lab equipments, the office space, space for training of the officials, chemical laboratory area, instrument area, storage room, sample preparation room etc. WCO guidelines may also provide some insights on the infrastructure requirements for the lab. Director CRCL will consult the concerned Chief Commissioner in preparation of the DPR.

7.7 The DPR will be submitted by Director CRCL to the Board for the necessary financial approval from the competent authority.

7.8 Once the financial approval for setting up of the lab or upgradation of the lab is granted the implementation of the same should be done in time bound manner. The overall monitoring and supervision for setting up of the lab or upgradation of the lab will be done by the Director CRCL along with the concerned Chief Commissioner.

8. Manpower Requirements:

To ensure the effective and efficient operation of new laboratories, augmentation of manpower is also required as per the needs i.e the specific functions of the lab, the complexity of tasks, the volume of work, technological developments and the expertise required. CRCL will suitably highlight the manpower requirements at different types of labs. The proposal for creation of post will be examined by DGHRD for obtaining necessary approval from the competent authority.

9. Review

These guidelines for setting up of the lab or upgradation of the lab will be reviewed periodically every three years. The Board may give any relaxation as it deems fit in the procedure prescribed by these guidelines for setting up of the lab or upgradation of the lab.

Annexure-I: List of Revenue Laboratories

S.No.	Name of Laboratory	Establishment Year
1.	Custom House Laboratory, Kolkata	1912
2.	Custom House Laboratory, Mumbai	1929
3.	Custom House Laboratory, Chennai	1938
4.	Central Revenues Control Laboratory, New Delhi	1939
5.	Government Opium and Alkaloid Works (GOAW), Ghazipur	1945
6.	Custom House Laboratory, Kandla	1955
7.	Custom House Laboratory, Kochi	1958
8.	Central Excise and Custom Laboratory, Vadodara	1971
9.	Government Opium and Alkaloid Works (GOAW), Neemuch	1976
10.	Custom House Marmagoa, Goa Laboratory	1978
11.	Jawaharlal Nehru Custom House Laboratory, Nhava Sheva	1997
12.	Custom House Visakhapatnam Laboratory	1997
13.	Custom House Tuticorin Laboratory	1999
14.	Custom House Mangaluru Laboratory	2011

Annexure-II

S.No.	Laboratory	Scope of Accreditation
1.	CRCL, New Delhi	1. Forensic-NDPS 2. Metal, % Assay: Gold 3. Pharmaceutical, %Assay 4. Detection and quantification of banned azo colorants in coloured textiles 5. Petroleum products 6. Ore & Minerals 7. Food products (chemical & biological)
2.	Chennai	1. Vegetable oil 2. Forensic-NDPS 3. Textile
3.	Kochi	1. Textiles - Yarn, Fabric % chemical composition 2. Detection and quantification of banned azo colorants in coloured textiles 3.Metal & alloys (Gold)
4.	Goa	Solid Fuels: Coal
5.	Kolkata	1. Ores and Minerals 2. Metals & Alloys (Gold)
6.	Kandla	1. Detection and quantification of banned azo colorants in colored textiles 2. Textiles, 3. Solid fuel 4. Petroleum products
7.	NCH, Mumbai	1. Textiles - Yarn, Fabric % chemical composition 2. Detection and quantification of banned azo colorants in coloured textiles 3. Solid fuel-(coal) 4. Forensic-NDPS
8.	Nhava Sheva	Solid Fuels: Coal
9.	Mangaluru	Vegetable oil
10.	Tuticorin	Textiles
11.	Vizag	1.Food & Agriculture Products, 2.Petroleum Products 3.Ores & Minerals
12.	Vadodara	1.Biological -Food &Food products 2.Fertilizer, Food and Agriculture products 3.Hazardous & Restricted Chemicals, 4.Metal & Alloy, 5.Ore & Mineral 6. Petroleum and Products, 7.Plastic & Resins, 8.Pollution & Environment, 9.Residue in Food Products 10. Solid Fuel, 11.Textile, 12.Forensic-NDPS

Appendix-III

Tentative Manpower Requirement

S.No	Designation	Pay Level	Basic laboratory	Standard laboratory	Advanced laboratory
1	Joint Director	12	--	--	01
2	ChemicalExaminer-I	11	01	01	02
3	ChemicalExaminer-II	10	01	02	04
4	Assistant Chemical Examiner	7	02	04	08
5	Chemical Assistant	6	0.	06	1.4
6	Lab Assistant	3	04	06	14
7	LDC	2	01	03	03
8	MTS	1	02	03	04
	Total		**15**	**25**	**50**

History of CRCL

The First chemical work done in connection with assessment of sea borne imports to duty determination of the sprit's strengths of potable liquors in Gauging departments of Custom Houses. In the first instance, all customs duties were assessed on a flat *ad valorem basis* and the administration of this tax did not involve the chemical examination of goods other than spirituous liquors.

2. Gradually, however, variations arose in the rates of duty on different classes of articles and in many cases within those classes on the types and grades of manufactures as indicated by percentage composition, instances of which in the current schedule are mixed textiles, paper, paints, dyes, petroleum products, condensed milk, chemicals, cements, certain articles containing precious metals and many other.

3. The Examination of such synthetic compounds or mixtures in order to determine their allocation to the correct item in the Indian Customs Tariff for assessment to duty calls for much analytical skill and resources and ultimately introduced the necessity for the creation of some regular and reliable agency for chemical testing of many article at the principal sea-ports .The increase in the number of heading and sub heading in the Tariff was gradual in its progress but cumulatively very considerable and ultimately introduced the necessity for the creation of regular and reliable agency for testing of many goods articles at the principal ports

4. In 1912, Imperial Customs was developed a combined Customs and Excise Laboratory in the Calcutta (now Kolkata). Earlier, there was an Excise Laboratory, at Kasauli, which was shifted to Calcutta (now Kolkata), after World War I, and designated as "Customs and Excise Laboratory". This arrangement continued till 1928.

5. 02 (two) new laboratories, one each at Bombay (now Mumbai) and Madras (now Chennai), were opened in 1929 and 1938. In order to co-ordinate the work of these three laboratories and to advice on technical matters relating to revenues, Government appointed Dr. H. B. Dunnicliff, Professor of Chemistry at Punjab University, Lahore as a special advisor.

6. In 1939, the Central Revenues Control Laboratory was built at Delhi and the Dr. H. B. Dunnicliff , Special Adviser was appointed as the Chief Chemist, head of Revenues laboratories. The Chief Chemist was re-designated as Director (Revenues Laboratories) in 1999.

Chennai

Goa

Nhava Sheva

Kandla

Kochi

Kolkata

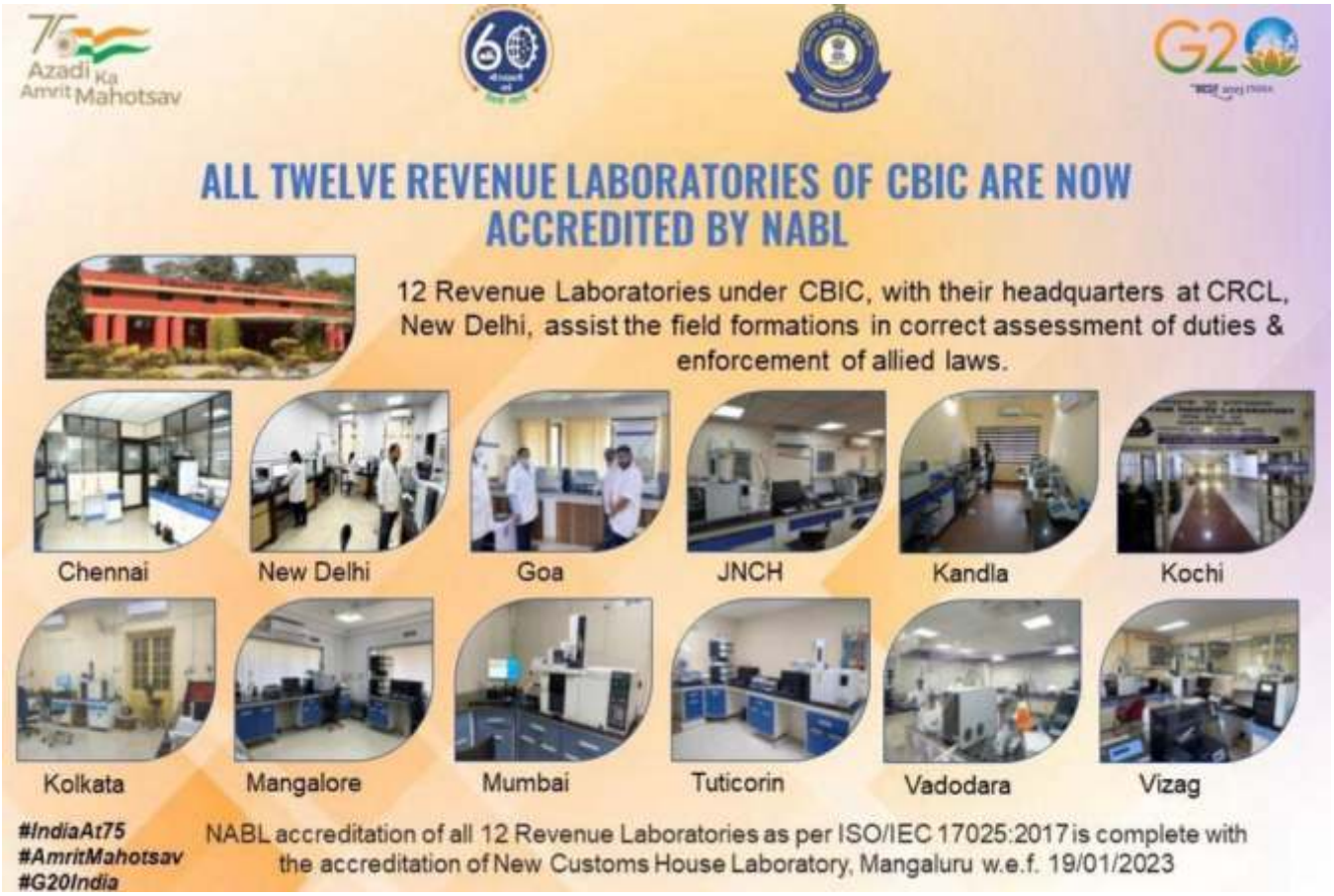
Mangalore

Mumbai

Tuticorin

Vadodara

Vizag



INFRASTRUCTURE & FACILITIES

- Central Revenues Control Laboratory is equipped with modern state-of-art instruments to analyze a wide range of chemical products to meet varied needs of Customs-related analysis.
- Also cater to the latest analytical challenges in the field of narcotics & psychotropic substances.

MAJOR INSTRUMENTS AT CRCL	
✓ ICP-MS	✓ AAS
✓ FTIR	✓ XRF
✓ GC-FID-ECD	✓ OES
✓ HPLC	✓ Stereo Microscope
✓ GCMS & Pyrolysis GCMS	✓ Polarizing Microscope
✓ GCMS-MS-FID-Headspace	✓ SEM-EDX
✓ LCMS	✓ TGA
✓ LCMS-MS	✓ Automatic Nitrogen Analyser
✓ HPTLC-MS	✓ NMR
✓ XRD	✓ GCMS-MS

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