

NABL 226



National Accreditation Board for Testing and Calibration Laboratories (NABL)

Specific Criteria to Recognise Government Soil Testing Laboratory

ISSUE NO.: 01
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AMENDMENT SHEET

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INTRODUCTION

Soil testing is a critical component in agricultural productivity and environmental management. It helps determine the nutrient content, composition, and other characteristics such as the pH level and contamination levels of the soil. This information is essential for farmers, agronomists, and environmental scientists to make informed decisions about soil management, crop production, and land use planning.

Government soil testing laboratories play a pivotal role in providing accurate and reliable soil analysis to the public and issuing the Soil Health Card. These laboratories support agricultural development by offering essential services to farmers and agribusinesses. They also contribute to environmental monitoring and regulatory compliance by testing for pollutants and ensuring that land use practices do not harm the ecosystem.

To ensure the quality and competency of soil testing laboratories, NABL launched a recognition scheme for such laboratories. This recognition scheme will instill confidence in the test results and reports issued by soil testing laboratories, which is crucial for ensuring the quality of soil data used for Soil Health Cards. The scheme is applicable exclusively to government soil testing laboratories.

This scheme is:

- i. an independent quality assurance scheme not covered under APAC & ILAC MRA.
- ii. valid for a cycle of three years and is applicable only for the test(s) as detailed in Scope of Recognition, which will further be continued on a renewal basis after every three years.
- iii. applicable only to test parameters mentioned in the Scope of Recognition.
- iv. based on satisfactory performance in proficiency testing (PT) programs.

The introduction of this recognition scheme by NABL aims to uphold the standards of soil testing laboratories, thereby supporting agricultural and environmental management with high-quality and reliable soil analysis.

While filling the application form by the laboratory to obtain recognition, the laboratory needs to capture the photograph and upload it as evidence of the details regarding Organisation, Accommodation & environmental conditions, Record maintenance & reporting, Equipment, and Reference materials through the mobile App "NABL STLP". The uploaded photograph will have geotagging with the location from which the photographs are captured.

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1. PREREQUISITE FOR RECOGNITION

- 1.1 The laboratory shall be legally identified as a Government Soil testing laboratory under the Department of Agriculture & Co-operation under the Ministry of Agriculture and Farmers' Welfare. The laboratory has to submit a self-declaration from the Head of the Department as evidence of its status as a Soil testing laboratory operating under the Department of Agriculture, Government of India.

Type of Legal entity	Document(s) to be submitted
Government	Gazette or Government Notification or self-Declaration on Letter head by Head of the organization

- 1.2 The applicant laboratory shall have satisfactorily participated in Proficiency Testing (PT) program conducted by accredited PT provider as per ISO/IEC 17043 before submission of application.
- 1.3 Test parameters covered in last six months in PT programs shall be considered for recognition. Six months shall be calculated from date of application submission.
- 1.4 Date of issue of PT result / report shall be considered as date for PT participation.
- 1.5 The laboratory shall continue participation for its scope in PT programs during recognition period (minimum 1 PT program per year covering the entire scope).
- 1.6 NABL may conduct On-site assessment (surveillance) at any point of time during three year cycle.
- 1.7 Valid Calibration / AMC of the equipment required to test the parameters under the applied scope. To achieve traceability to the International System of Units (SI), NABL recognizes calibration of equipment from NABL accredited calibration laboratories.
- 1.8 Scope once recognised cannot be changed during recognition period. There is no provision for extension in scope in this scheme.
- 1.9 The laboratory shall have necessary Reference materials/ Certified Reference materials as per the applied scope along with their certificate.

2. SCOPE OF RECOGNITION

The Soil Testing Laboratory shall apply for the test parameters under the scope of recognition as given below:

S. No.	Materials/Product	Test Parameter	Test Method
1.	Agriculture Soil	pH	IS 2720 (Part 26) Manual of Soil Testing, Ministry of Agriculture, Govt. of India
2.	Agriculture Soil	Electrical Conductivity	IS 14767 Manual of Soil Testing, Ministry of Agriculture, Govt. of India
3.	Agriculture Soil	Organic Carbon	Manual of Soil Testing, Ministry of Agriculture, Govt. of India
4.	Agriculture Soil	Available Phosphorus	
5.	Agriculture Soil	Available Nitrogen	
6.	Agriculture Soil	Available Potassium	
7.	Agriculture Soil	Available Sulphur	
8.	Agriculture Soil	Available Boron	
9.	Agriculture Soil	Zinc	
10.	Agriculture Soil	Iron	
11.	Agriculture Soil	Copper	
12.	Agriculture Soil	Manganese	

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3. TERMS AND CONDITIONS FOR RECOGNITION

The applicant and recognised laboratories under the scheme shall require to fulfill the following terms & conditions:

- 3.1 The laboratory shall meet the requirements of regulators (local/ regional/ state/ national regulations).
- 3.2 The laboratory shall meet the criteria as defined in clause no. 1 of this document.
- 3.3 The laboratory shall offer cooperation to NABL or its representative in undergoing assessments and on the following whenever NABL considers it as necessary:
 - a) Access to all laboratory areas of operation
 - b) Undertaking assessment to verify the capability of the laboratory for the applied scope.
 - c) Witnessing the activities being performed relevant to this scheme.
 - d) Assessing the competence of the staff during assessment.
 - e) Access to all relevant information, documentation and records.
 - f) Access to those documents that provide insight into the level of independence and impartiality to the laboratory from its related bodies, if applicable.
 - g) Access to all records pertaining to relevant personnel.
 - h) Investigating any complaints against the laboratory.
- 3.4 The laboratory shall pay the stipulated fee to NABL.
- 3.5 If performance in two successive PT participation (for same parameter) is not satisfactory, the laboratory shall be de-recognised for those particular parameter(s).
- 3.6 The laboratory shall not involve in any kind of activity(ies) which may bring NABL to disrepute.
- 3.7 The recognised laboratories can relinquish recognition through a written notice to NABL by clearing any outstanding payment and surrendering the certificates along with scope.
- 3.8 The laboratory shall respond promptly to the changes initiated by NABL in its criteria and procedure (i.e. NABL 226). The lab shall inform NABL when such alterations under the agreed time frame have been completed.
- 3.9 NABL absolves itself of any legal or financial liability arising out of activities of any of its lab covered under this scheme involving any accidental or consequential damages to personnel / equipment / products at any time.
- 3.10 The Laboratory shall inform NABL within 15 days of significant changes affecting the Lab's activities and operations relevant to recognition, such as:
 - a) change in physical location of laboratory
 - b) change in its name
 - c) the organization, top management and key personnel
 - d) resources (equipment)

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3.11 Laboratory shall offer co-operation to NABL assessment team in carrying out unannounced visit as a part of continuous monitoring activity by NABL for its recognised laboratories.

Any violation of above terms and conditions shall result in denial of recognition in case of applicant laboratories or derecognition in case of recognised laboratories.

All disputes, arising out of NABL decisions that remain unresolved through mechanism provided by NABL are subject to the exclusive jurisdiction of the Courts at New Delhi and none other.

4. TEST METHOD REQUIREMENTS

The laboratory shall follow the Manual of Soil Testing issued by the Ministry of Agriculture, Government of India & IS test methods.

5. EQUIPMENT REQUIREMENTS

5.1 The laboratory shall calibrate the equipment from NABL accredited laboratory as per below mentioned frequency.

S. No.	List of Equipment	Calibration Frequency
1.	Weighing Balance	At least once in 12 months
2.	Volumetric Flask	
3.	Pipettes	
4.	Burette	
5.	Oven	

5.2 Calibrated equipment shall be labelled, to readily identify the status of calibration of the equipment.

5.3 Intermediate check shall be carried out for Weighing balance once in a month using the dead-weights calibrated from NABL accredited laboratory.

5.4 The laboratory shall use its own equipment for testing activities.

5.5 The laboratory shall maintain records for maintenance of equipment used in soil testing.

5.6 The laboratory shall authorize the personnel to operate specific equipment.

5.7 The laboratory shall verify that equipment conforms to specified requirements before being placed or returned into service.

5.8 The equipment used for measurement shall be capable of achieving the measurement accuracy required to provide a valid result.

5.9 Records shall be maintained for all equipment used in the laboratory like purchase, calibration and maintenance.

6. MEASUREMENT TRACEABILITY REQUIREMENTS

The laboratory shall calibrate all equipment through NPL and/or NABL accredited calibration laboratories.

7. RECOGNITION PROCESS

- 7.1 Laboratory shall apply through web-portal only (<https://nablstip.gci.org.in/>) along with the requisite fee.
- 7.2 Laboratory location and its equipment shall be geo-tagged with the help of mobile App.
- 7.3 Laboratory application shall be reviewed along with PT results.
- 7.4 Decision on recognition shall be taken on the basis of satisfactory PT performance in last six months and communicated to the laboratory.
- 7.5 Recognition certificate along with scope shall be issued to the laboratory.

8. ON-SITE ASSESSMENT (SURVEILLANCE)

During recognition period (at any point of time), on-site assessment (Surveillance) shall be conducted to assess laboratory operations.

9. RENEWAL OF RECOGNITION

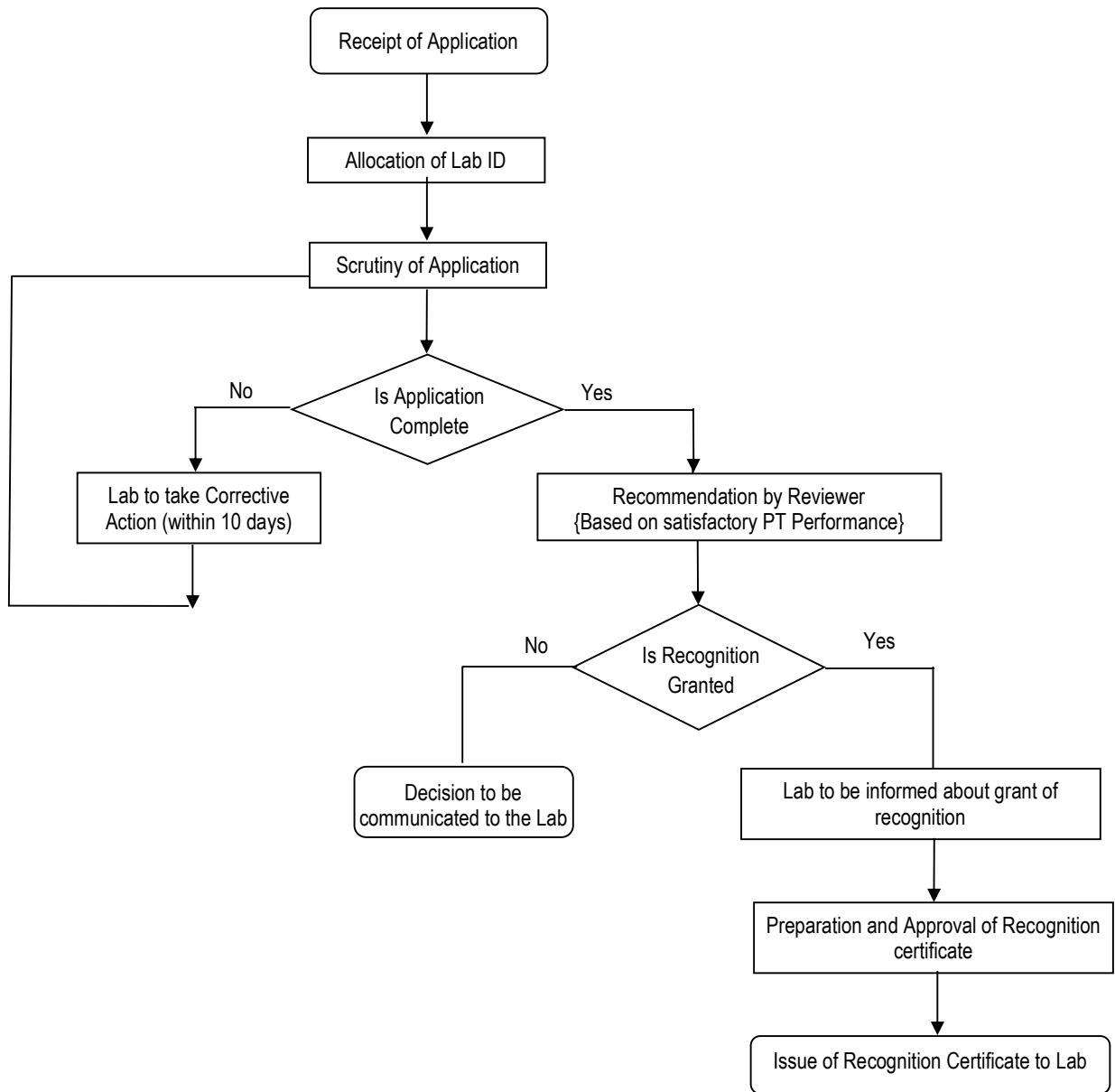
NABL recognition certificate under this scheme is valid for a period of 3 years. The recognised laboratory is subjected to renewal of recognition every 3 years. The laboratory has to apply one month before the expiry of recognition to maintain the continuity of the recognition status.

Laboratory may request extension to the scope of recognition at the time of renewal, which should explicitly be mentioned in the application form. However, Premises Change and/ or Name change will not be considered during Renewal Application. Laboratory needs to apply afresh for Premises Change and/ or Name change and the existing recognition needs to be withdrawn before applying afresh.

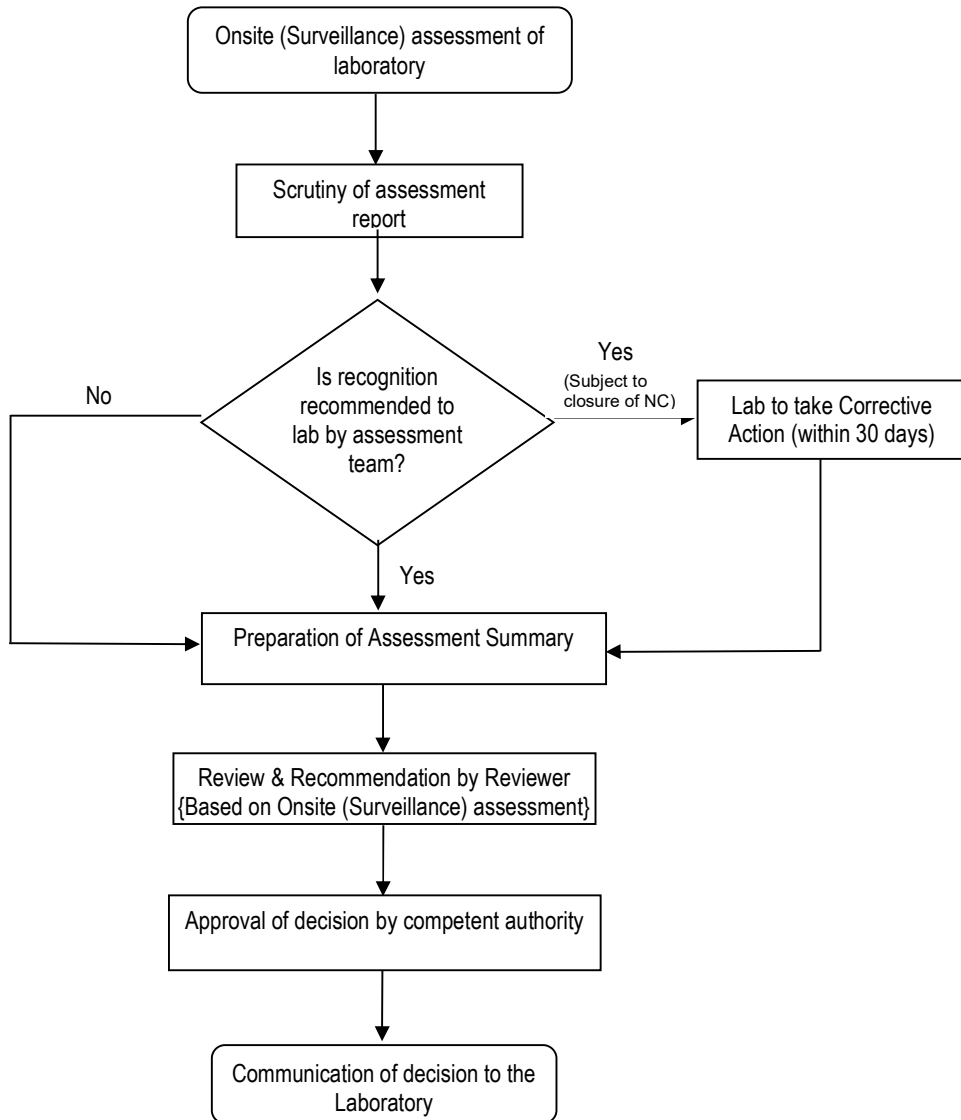
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10. Process Flow Diagram

a) Recognition process



b) Onsite Surveillance

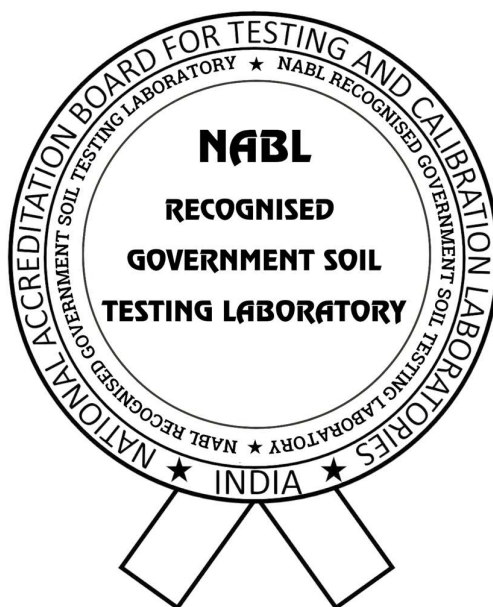


11. MONITORING OF PROFICIENCY TESTING (PT) PARTICIPATION AND PERFORMANCE

The recognised laboratories shall submit the reports of Proficiency Testing (PT) participation annually from date of issue of recognition certificate and the same shall be reviewed by NABL.

12. PRIVILEGES EXTENDED TO THE LABORATORY UPON RECOGNITION

12.1 Certificate of recognition shall be issued to the laboratories upon approval by NABL. The same will carry Certificate No. along with validity period. Below is the representation of claim of recognition to be made by the recognised laboratory on its test reports.



NABL-GSTL-XXXX

12.2 Instructions to claim recognition

- Recognised laboratory should claim recognition for the recognised test parameters by using above symbol in test reports.
- The symbol shall be legible and displayed only in the appropriate form and proportion.
- Electronic reproduction of above symbol is permitted provided that the requirements of this document are met, integrity of above image is maintained and distortion of graphic is avoided.
- Recognition under NABL Soil Testing Laboratory Program is location specific. The recognition claim shall be related only to the specific laboratory location that is covered under the recognised scope, and not with any other non-recognised locations.
- Recognised laboratory shall not authorize the claim of recognition by their customers, sub-contractors or any other third party. It is the responsibility of each recognised laboratory to describe their recognition status in a manner

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that does not imply recognition in areas that are outside their actual recognised scope and facilities not covered under NABL Soil Testing Laboratory Program and to minimize the risk of a customer / general public being misled.

- f) The claim of recognition shall only be used by recognised laboratory during the period when it holds valid recognition.
- g) If recognised laboratory wishes to claim recognition then they may write following statement:

“NABL Recognised Government Soil Testing Laboratory vide certificate No. NABL-GSTL- XXXX”

Note - Certificate of recognition shall be provided by NABL.

- h) Where results of both recognised and non- recognised parameters are included on test report, non-recognised results shall be clearly and unambiguously identified. Each non-recognised parameter shall be identified at a prominent place on each page of the report by an asterisk (*) along with a footnote in bold stating: **“The parameter marked with an asterisk (*) are not covered under the scope of NABL recognition”**
- i) There shall be nothing in report or in any attachment or other material, which implies or may lead any user of the results or any interested party to believe/ made to believe, that the work is recognised by NABL when in fact it is not.

12.3 Situations for not claiming recognition

- a) Applicant laboratories shall neither claim recognition nor use any image related to NABL and/or NABL Soil Testing Laboratory Program.
- b) Test reports containing parameters which are not covered in the scope of recognition.
- c) When the laboratory is derecognised by NABL, then laboratory shall neither claim recognition nor use any symbol related to NABL and/or NABL Soil testing Laboratory Program.

Note - Once derecognised, the laboratory shall immediately cease to issue test report displaying the recognition to NABL Soil testing Laboratory Labs Program in any form; and shall cease publishing and/or distribution of documents (including promotional & advertisement, website, letter head etc.) containing the recognition status to NABL Soil testing Laboratory Program.

12.4 Actions for mis-claim of recognition

False claim of recognition under NABL Soil testing Laboratory Program in any form shall be treated as misuse of recognition and derecognition process shall be initiated against the laboratory.

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13. SAFETY AND REGULATORY REQUIREMENTS

- 13.1 Proper safety measures during experimentation should be arranged while conducting the tests.
- 13.2 Adequate protective clothing for staff shall be provided. Statutory safety requirements are to be recorded & met.
- 13.3 Adequate arrangements for the control of the following shall be available:
- a) Fire safety, Fire alarm.
 - b) Shock due to electric current.
 - c) Safety guards during testing.
- 13.4 The laboratory shall meet all the relevant regulatory/ statutory requirements (National/ local bodies).

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14. ADVERSE DECISION

In case of any violation of the terms and conditions or non-compliance observed during the recognition process, NABL will take any of the following adverse decisions (as applicable) against the laboratories.

- a) Closed
- b) Suspension of Recognition
- c) Denial of Recognition
- d) Withdrawal of Recognition

To decide under which circumstances the adverse decision is taken are as follows:

a) **Closed**

Conditions

1. When the laboratory voluntarily withdraws the application at any stage.
2. When the laboratory has not addressed the inadequacies of document review (Application) done by the NABL secretariat within 10 days from the date of communication of inadequacies to the laboratory.

Actions by NABL

1. The application will be closed.
2. The decision will be formally communicated to the laboratory by NABL

Procedure for re-enrollment

The laboratory can apply afresh with the relevant application form and application fees applicable at that time along with outstanding charges (if any).

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b) Suspension of Recognition

Conditions

1. When a total system failure or gross negligence is identified at any point of time during the valid recognition period.
2. Failure to undergo surveillance within the stipulated time period.
3. Outcome of investigation of Complaints and/ or unannounced visit by NABL.
4. Outstanding payment/ fees of over three months in response to the invoice(s) raised by NABL.
5. Misuse/ misclaim of NABL recognition.

Actions by NABL

1. The recognition of the lab will be suspended.
2. The decision will be formally communicated to the laboratory by NABL.
3. The laboratory is informed not to use NABL recognition symbol and/ or claim recognition.

Procedure for Re-enrollment

1. To regain recognition status during the suspension period, the laboratory in "Suspended" status must notify NABL of the corrective actions taken and its desire to undergo assessment, paying the outstanding payments. 'Suspension' status will continue till assessment is completed and a decision is taken.
2. The new certificate of recognition will be issued from the date of restoration of recognition with earlier existing validity.

c) Denial of Recognition

Conditions

1. When the laboratory has not successfully participated in PT program for any test/ parameter of applied scope.
2. Any violation of terms & conditions for recognition.

Actions by NABL

1. The recognition will be denied.
2. The decision will be formally communicated to the laboratory by NABL.

Procedure for re-enrollment

The laboratory can apply afresh with valid responses for the reason(s) on earlier denial, using relevant application form and application fees applicable at that time along with outstanding charges (if any). The application will be treated as new application.

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d) **De-recognition of Laboratory**

Conditions

1. After getting the recognition, laboratory fails to participate in PT programs conducted by NABL accredited PT providers.
2. PT performance is not satisfactory in two consecutive PT participation.
3. When laboratory does not undergo on-site assessment (Surveillance) beyond two months of the intimation from NABL.
4. When laboratory has not taken adequate corrective action against NCs observed during on-site assessment (surveillance) within the stipulated time period of 30 days.
5. When laboratory has not paid the fee within three months.
6. Any violation of terms and conditions
7. When the laboratory relinquishes/withdraws recognition by giving notice in writing to NABL Outstanding is to be cleared before making request for withdrawal of recognition.

Actions by NABL

1. The lab will be derecognised.
2. The decision will be formally communicated to the laboratory by NABL.

Note- Laboratory once derecognised, cannot be re-enrolled for the scheme (except for point no. 7 mentioned above).

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15. Fee Structure

Fee Structure applicable for this scheme is as follows:

Components	Fee / Charges
Recognition Fee (For Three Years, to be submitted along with application)	₹15,000/-
Surveillance Charges (Payable at the time of surveillance visit)	On actual basis
Renewal Charges (For Three Years, to be submitted along with application)	₹15,000/-

Note-

- 1. In addition to the above-mentioned fee, GST (as applicable) is to be paid along with said charges/ fees.*
- 2. Payment to be made through the payment gateway available on the portal. Fees once submitted will be non-refundable and non-adjustable*

National Accreditation Board for Testing and Calibration Laboratories (NABL)

NABL House

Plot No. 45, Sector 44, Gurgaon - 122002, Haryana

Tel. no.: 91-124-4679700 (30 lines)

Fax: 91-124-4679799

Website: www.nabl-india.org