Laboratory Infrastructure Considerations for ‘Accreditation’

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NABL MANDATE

- NABL grants accreditation to testing & calibration laboratories as per ISO/IEC 17025 and medical laboratories as per ISO 15189.

- NABL operates its own system as per ISO/IEC 17011:2004 *Conformity Assessment: General Requirements for Accreditation Bodies accrediting Conformity Assessment Bodies*

- NABL Accreditation is a voluntary program
Key Requirements for Demonstrating Food Safety

- Food Safety Management Systems *(ISO 22000, HACCP)*
- Regular Surveillance mechanism
- Credible testing laboratories *(ISO17025; ILAC-MRA)*
HOW CAN WE DEFINE ‘ACCREDITATION’?

- Procedure by which an Authoritative Body (NABL) gives formal recognition that a Body (laboratory) is competent to carry out a specific task (testing/calibration)
How ‘Accreditation’ critical to ‘Food Manufacturer/Supplier’

Minimizing Risk of producing Faulty Food Products entering the market

Avoid Expensive Retesting

Ease Export & import issues regarding Food safety
Pre-requisites for Accreditation

1. Read NABL 100 “General Information Brochure”
2. Procure all relevant documents
3. Train a person on QMS and Internal Audit as per ISO 17025
4. Prepare Quality Manual as per ISO 17025, SOPs and Work Instructions  (**NABL-160**)
5. Ensure training of personnel, environment conditions, Internal Quality checks etc.
6. Ensure calibration of all equipment and traceability  (**NABL-142**)
7. Participate in PT Programme  (**NABL-163- ILAC-P:9**)
8. Conduct Internal Audit and Management Review  (**NABL-161**)
9. Apply to NABL in doc. NABL 151 along with QM
Accreditation Process

Application for Accreditation
(by Laboratory)

Acknowledgement & Scrutiny of Application
(by NABL Secretariat)

Adequacy of Quality Manual
(by Lead Assessor)

Pre-Assessment of Laboratory
(by Lead Assessor) NABL-209

Final Assessment of Laboratory
(by Assessment Team)

Scrutiny of Assessment Report
(by NABL Secretariat)

Recommendations for Accreditation
(by Accreditation Committee)

Approval for Accreditation
(by Chairman NABL)

Issue of Accreditation Certificate
(by NABL Secretariat)

Feedback to Laboratory

and

Necessary Corrective Action by Laboratory

Feedback to Laboratory

Required Corrective Action by Laboratory
Food Testing Sub-Discipline

- Microbiological, Molecular Biology, Food Borne Pathogens
- Pesticide & Drugs residue, Contaminants
- Adulterants, Food additives, Sensory Evaluation etc.
- GMO Testing- Qualitative & Quantitative
- Biological Discipline
- Chemical Discipline
- Biological Discipline
- Chemical Discipline
Checking the Competence of a Laboratory

1. On Site Assessment of Food Testing laboratory by Experts for Its Technical Competence

   ISO/IEC 17025:2005

   Technical Criteria,
   NABL-102, 103

2. By analyzing the test result of a particular test/ measurement generated by the laboratory during participation in a ‘Proficiency Testing program’

   (Compliance to NABL-163, ILAC-P:9)

3. Overall Compliance to ISO/IEC 17025:2005

   Once Tested accepted Everywhere
Need for Food Laboratory Accreditation

 To ensure accurate, reliable and reproducible test results and measurement data.

 To achieve consistency and uniformity in test results and measurement data.

 To have confidence in the quality of goods and services we use.
- To meet Customer’s requirement who specify testing or calibration by accredited laboratories.

- To meet requirements of Regulatory and Government agencies who sometimes require testing by accredited laboratories.

- To ensure equivalence of results produced by different laboratories.
Now Recognition by Government & Regulators

- Food Safety and Standards Authority of India (FSSAI)

- Ministry of Consumer Affairs & Public Distribution

- Agricultural & Processed Food Products Export Dev. Authority

- Export Inspection Agency

- Tea Board, Coffee Board, Spices Board
Management Requirements of ISO/IEC 17025

- Organization
- Documentation
- Review of requests and sub-contracting
- Purchasing services
- Service to the client & Complaints
- Control of non-conforming work
- Corrective & preventive action
- Technical Records
- Internal audit & Management review etc.
Technical Requirements of ISO/IEC 17025

- Technical competence of staff
- Testing environment & accommodation
- Test methods and validation
- Equipment
- Measurement Traceability
- Measurement uncertainty (laboratory must know how far its results are from true values)
- Sampling, handling and transportation of test items
- Quality assurance, Proficiency Testing
- Test and calibration reports
Accredited PT Providers

ISO/IEC 17043:2010

Food Matrices
(Pesticide residues, trace Elements, antibiotics residues)

Metallurgy
(Metal & alloys)
Chemical & Mechanical

ISO/IEC 17043:2010

Petroleum
(Chemical)

Building Materials
(Chemical & Mechanical)
Recently launched......

Accreditation of ‘Reference Materials Producer’ (RMP)

{Standard: ISO Guide 34}

On the eve of

‘World Accreditation Day held on 9th June 2014’

✓ Awareness programme and workshops have already been conducted in different cities.
Assessors Training Programs

- NABL organizes its own Assessors’ training courses as per ISO/IEC 17025 and ISO 15189.

- NABL has pool of more than 1400 trained assessors.

- NABL has organized Assessors’ training courses for Sri Lanka, Nepal, Bangladesh, Mauritius & Mongolia.
International Recognition of NABL

- NABL is signatory to APLAC / ILAC Mutual Recognition Arrangements (MRA) since 2000
- First evaluated by APLAC in 2000
- Second evaluation by APLAC in 2004
- Third evaluation by APLAC in 2008 (medical included)
- Fourth evaluation 2012 successfully
Global Acceptance of Reports

- Test reports issued by an NABL accredited laboratory is considered equivalent to those issued by ILAC/APLAC MRA partners.

- Data generated by an accredited laboratory may lead to the more ready acceptance of exported goods in overseas markets.
Benefits from Laboratory Accreditation

1. **Using an accredited laboratory benefits Government and Regulators by:**

- Increasing confidence in data that are used to establish baselines for key analyses and decisions
- Reducing uncertainties associated with decisions that affect the protection of human health and the environment
- Regulators can reduce their In-house Inspectorate and specialist assessment personnel to reduce the cost or target their inspection more effectively
- Increasing public confidence, because accreditation is a recognisable mark of approval
2. Using an accredited laboratory also increases confidence that:

- Decisions regarding multiple facilities are based on comparable data
- Purchases received from suppliers are safe and reliable
- Costs associated with laboratory problems, including re-testing, re-sampling, and lost time are minimised
- False positives and negatives, which can directly affect compliance with regulations, are minimised
- Facilitates trade and economic growth

Once Tested -- accepted Everywhere
Cross Border Food Laboratory Accreditation

- SGS Bangladesh Ltd, Dhaka, Bangladesh
- Bangladesh Standards and Testing Institution (BSTI), Dhaka
- Bureau Veritas Consumer Products Services (Lanka) Ltd., Sri Lanka
- SGS Lanka Pvt. Ltd, Colombo, Sri Lanka
- NFTL (Bhutan Agricultural Food Regulatory Authority), Bhutan
- Central Food Laboratory, Kathmandu, Nepal
Participation in APLAC Evaluations

- NABL actively participates in APLAC evaluations of Other Accreditation Bodies which are operating in accordance with ISO/IEC 17011:2004.

- NABL Officers have participated as APLAC / ILAC evaluation team members for 19 Accreditation Bodies, major are:

  Australia, Japan, Newzealand, USA, Russia, China, South Africa, Singapore, Malaysia, Korea, Philippines, Sri Lanka etc
THANK YOU

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