



उपभोक्ता मामले विभाग
Department of
Consumer Affairs



National Test House (NTH)

“Building Industrial India through Quality Testing & Allied Services since 1912”

January 2021

www.nth.gov.in

National Test House (NTH)

BRIEF INTRODUCTION :

National Test House is providing its services for more than 109 years and has created path for India to enter into the Scientific World. The scientists of NTH with their burning desire to make a strong statement that India by no means inferior to any other developed country and worked tirelessly in the field of Quality Assurance, Standard Assessment, Calibration etc and prove their worth and talent beyond any iota of doubt. Government Test House at Alipore became an epicenter of Scientific Research through constant association with the Jewels of the then Indian Scientists, such as, Dr. S. Venkataswaran, Shri K. Seshagiri Rao, Dr. S.S. Bhatnagar, Dr. L.C. Verman, Dr. Atmaram, Dr. M.N. Saha, Dr. J.C. Ghosh, Prof. P.C. Mahalanobis, etc. Sir, C.V. Raman who won the Nobel Prize in Science in 1930, in his Nobel speech at Swedish Academy unequivocally acknowledged and eulogized the contribution of Dr. S. Venkataswaran, the then NTH scientist in his project "Raman Effect". NTH in the pre and post-independence era has played pivotal role in initiation of scientific journey through formation of various scientific organisations like Council of Scientific and Industrial Research (CSIR), Indian Standard Institute, now known as Bureau of Indian Standards (BIS), and many more premium organisation.

In view of active involvement of NTH in all aspects of technology concerned with industry, commerce, trade, import substitution, export promotion and standardization, Govt. of India felt the importance to spread the service of NTH to other regions of the country and accordingly the branches at Mumbai (1964), Chennai (1975), Ghaziabad (1977), Jaipur (1994) and Guwahati (1996) have been established. NTH started playing a pivotal role in the development of indigenous industries and serves as a vital link between industrial research and manufacture of finished products under rigid quality control. At present NTH has its Headquarters at Kolkata and has a network of six regional offices at Kolkata, Mumbai, Chennai, Ghaziabad, Jaipur and Guwahati.



FUNCTIONS OF NTH

NTH is providing services to the customers broadly classified as “Testing and Quality evaluation of materials and finished products” and “Calibration of testing machines, measuring instruments, etc” through its regional laboratories accredited by NABL as per ISO/IEC 17025:2017.

The activities of NTH are carried out through six disciplines i.e. Chemical, Civil, Mechanical, Electrical, Non Destructive (NDT) and Rubber, Plastics, Paper & Textile (RPPT).

Over the years NTH developed into a well-known organisation in the field of testing and evaluation of materials, products and calibration of testing machines, measuring instruments etc. In process of continuous development.

The Scientists of NTH with their rich exposure in laboratory activities, assist BIS in formulation of National Standards. The Scientists of NTH with their technical expertise assists NABL by way of performing the duties of Technical and Lead Assessors during conformity assessment of other laboratories seeking/accreditation accreditation as per ISO/IEC 17025.

NTH provides Training to the Scientists, Technologists and Technicians of various industries, users organizations and professional Institutions in the fields of science & technology.

With the passage of time & to make the services of NTH user-friendly, the test & calibration certificates have now been made web-based and customers can download the soft copy from remote areas, as & when required.

In the process of continual development & to keep pace with the global market, NTH has introduced new state of the art test facilities recently for:

- Packaged Drinking Water (including Chemical & Microbiological) to ensure that drinking water is free toxic elements (Arsenic, Lead, pesticides, bacteria's, etc.)
- LED based Lamps & Luminaries (covering both safety & performance) for quality assurance and availability of energy efficient LED lamps for every one.
- Safety testing of IT hardware for ensuring quality IT products are available for usage.

ACTIVITIES OF NTH CONSIDERING NEED FOR REFORMATION

NTH over the years have reformed its activities in order to make it more user friendly, adoption of latest technologies through incorporation of latest State of the Art instruments/equipments in testing and evaluation, modernisation of its facilities, incorporation of new and enhanced testing facilities in accordance with new and upgraded National and International Standards and to develop its infrastructure as per the demand of the customers, with improvement in IT infrastructure, etc. The reform process had been adopted in the recent years by NTH considering its expansion of services, modernisation and capacity enhancement as a whole. The detailed application can be broadly classified with following activities:

The Scientists of NTH with their rich exposure in laboratory activities, assist BIS in formulation of National Standards. The Scientists of NTH with their technical expertise assist NABL by way of performing the duties of Technical and Lead Assessors during conformity assessment of other laboratories seeking/accreditation.

NTH provides Training to the Scientists, Technologists and Technicians of various industries, users organizations and professional Institutions in the fields of science & technology. With the passage of time & to make the services of NTH user-friendly, the test & calibration certificates have now been made web-based and customers can download the soft copy from remote areas, as & when required. In the process of continual development & to keep pace with the global market, NTH has introduced new state of the art test facilities recently for:

- Packaged Drinking Water (including Chemical & Microbiological),
- LED based Lamps & Luminaries (covering both safety & performance)
- Safety testing of IT hardware



Activities of NTH

Testing & Calibration of Samples

Over the years with its competent and experienced scientists, NTH has been able to widen its scientific services and presently it is providing services in the field of test & quality evaluation of Industrial and consumer products, calibration and measurement of machineries & devices through its six regional laboratories. The revenue generation is also in the positive side with exception of present financial year.



R & D Activities

Many studies have been carried out by NTH for different organisations and regulatory authorities for investigation of presence of migrants of toxic nature into the food stuffs and other materials consumed by human beings. The outcome of the studies carried out by NTH enabled the regulating authorities to take appropriate measures for restriction of usage of such items.

WORK OF NATIONAL IMPORTANCE

Ensuring safe drinking water for all: NTH created facility for testing Package drinking water and potable water. The quality assessment of water used for drinking purpose in rural and remote areas are also being carried out free of cost by NTH using mobile testing vans available at all the six regional offices.

NTH has created state of the art testing facility for testing LED lamps and luminaries in order to facilitate the dream Project of Hon'ble Prime Minister of providing quality LED lamps to all under UJALA (Unnat Jyoti by Affordable LEDs for All). BEE empanelled the NTH for testing LED lamps & Luminaries. Over 270 samples have been tested since 2017.



Many failure analysis of materials used in buildings, bridges, flyovers, lifting tackles, Boilers, cold storages etc have been carried out by NTH regularly and remedial actions, if requested for, have been suggested to the concerned authorities more than 30 such studies carried out since 2014.



Ensuring health of concrete structures: More than 120 concrete structure were tested to assess the strength and homogeneity of concrete using non-destructive testing techniques. The studies were carried out of many structures of national importance like bridges, barrages, dams, school & college buildings, concrete structures of thermal power plants, overhead water tanks etc. The prime objective of the above studies is to assess the health of the structures without damaging the structures in any form.

Quality Assessment of onion (both irradiated and un-irradiated) samples have been carried out by NTH for NAFED in order to study the effect on shelf life of onion. As empanelled laboratory: NTH laboratories have been empanelled by many regulating authorities (like Dept. of Agriculture- Govt. of India for Fertilizer samples, Coal India Ltd for Coal samples, etc) as referral laboratory and others like BEE, BIS, etc have empanelled NTH for various testing activities.



DEVELOPMENT OF NTH IT INFRASTRUCTURE

National Test House has developed a new website as per the latest Guidelines for Indian Government Websites (GIGW). NIC email account for all employees of NTH has been created to establish communication with their customers in a more efficient manner.

NTH is availing the NIC Video Conferencing service to carryout monthly marketing activities through online to reach the customers.

Activities for Skill Development

NTH is working in the field of skill development of manpower through organizing technical and scientific seminars, training programmes for the professionals from the industries & organizations. Special modulated training programmes are also being organised for the students of engineering colleges and other scientific / technical institutions.



NTH Plans for future

To attain self-sufficiency, NTH plans to introduce the following test facilities distributed among the regions of NTH. Creation of these facilities will attract more nos. of samples from different organizations in India. In view of the same, it is anticipated that NTH will earn a revenue upto the mark to attain self-sufficiency.

TEST FACILITY	REGION
Creation of Food Testing Laboratory	NTH(ER)-Kolkata
Creation of Test facility for "Ability to Withstand Short Circuit"	NTH(NR), Ghaziabad
Creation of Impulse Voltage Testing & Transformer testing facility	NTH(SR)-Chennai
Creation of Packaged Drinking Water (PDW) testing facility	NTH(WR)-Mumbai
Creation of Test facility for "Air Conditioners"	NTH(WR)-Mumbai
Creation of Rubber-Plastic-Paper-Textile (RPPT) laboratory	NTH(NER)-Guwahati
Creation of Toy testing facilities	NTH(NR), NTH(NWR), NTH(WR), NTH(ER) etc
Creation of e-Vehicle batteries and EVSE (e-vehicle supply equipment) testing	NTH(ER) & NTH(WR)
Creation of Centre for NANO Science and Technology	NTH(ER)
Creation of new satellite centre in northern part to India	