

TREATS

HOUSE OF QUALITY CONTROL AND TESTING

REDEFINING QUALITY – AT ITS BEST



TESTING RESEARCH ENGINEERING AND TECHNOLOGICAL SERVICES (TREATS)



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WE AT TREATS

QUALITY
IS OUR PASSION.
QUALITY
IS OUR BUSINESS.



QUALITY

“The totality of features and characteristics of a product or service that bears its ability to satisfy stated or implied needs.”

- ✗ Quality is "meeting or exceeding customer's standard and valid expectations".

- ✗ In manufacturing, QUALITY is a measure of excellence or a state of being free from defects, deficiencies and significant variations. It is brought about by strict and consistent commitment to certain standards that achieve uniformity of a product in order to satisfy specific customer or user requirements.

T R E A T S - INTRODUCTION

TESTING RESEARCH ENGINEERING AND TECHNOLOGICAL SERVICES (TREATS) is a modern metallurgical testing, inspection and development centre, functioning in Kolkata since January 1986. This centre has facilities for testing and inspection of metallurgical raw materials, semis and finished products. We also undertake investigation, failure analysis and quality system counseling for metallurgical / engineering industries.



TREATS - FOUNDER



- ✖ Testing Research Engineering And Technological Services (TREATS) was founded by a technocrat, Mr. B. C. Agrawal, in the year 1986 in Kolkata.

Mr. Agrawal was born in the Holy City of Varanasi in Uttar Pradesh and completed his schooling and college education at Varanasi itself. He obtained his Bachelor of Science degree in Metallurgical Engineering from the Banaras Hindu University (B.H.U.) in 1953. He started his professional career as a Metallurgist at the then Aluminium Corporation of India Ltd., Jaykay Nagar, near Asansol (West Bengal). He then moved on to teaching Metallurgy as a lecturer and Assistant Professor at the University of Rangoon, B.H.U., and Bihar Institute of Technology, Sindri (B.I.T.). During his stint as Asst. Prof. at B.I.T., he went to the U.S.A. under the U.S. Agency for International Development Programme and earned his degree of Master of Science in Metallurgical Engineering from the University of Wisconsin at Madison, USA.

TREATS – FOUNDER'S BACKGROUND

- ✘ In 1963, Mr. Agrawal left the teaching profession and joined the Indian Branch of Lead and Zinc Development Association of London as Technical Officer to provide technical advisory services on the uses and applications of the two metals to the industries in India, Burma, Nepal, Ceylon and Bangladesh. In 1975, he took up the assignment with the Association of Indian Engineering Industry (now re-christened as Confederation of Indian Industry – CII), the largest professional body of the engineering industry, to provide technical and consultative services to its member companies. It is here that the idea to establish a metallurgical testing laboratory germinated, which got fruition in 1985.

Mr. Agrawal has written numerous technical papers and articles, which have been presented at various seminars, symposia and conferences, and published in reputed technical journals and conference Proceedings. His book on “Metallurgical Analysis” is prescribed as a Text Book in most of the metallurgical engineering institutions in India. He has been Associate Editor of the “Transactions of the Indian Institute of Metals”, a premier metallurgical journal of India, for several years. Mr. Agrawal has several technical reports, plant operation reports and project feasibility reports to his credit. He has been providing technical advisory and consultancy services to the metallurgical and engineering industry since last 45 years.
- ✘ Mr. Agrawal travelled widely and visited several aluminum, copper, lead and zinc producing and consuming industries in the USA, Canada, U.K., Europe and South-East Asia. He was a member of AIEI delegation to WAITRO Conference on Self-Reliance in R&D in Developing Countries held in Holand in 1978. He was instrumental in organizing an International Conference on Energy Management in Industry in cooperation with UNIDO at New Delhi in 1983. During his employment in AIEI (now CII) , he took an Industrial Mission to Latin American countries to promote industrial cooperation, consultancy services and trade with India.

TREATS is a Member of the Indian Institute of Metals (IIM), Member of the American Society for Testing Materials (ASTM), Corporate Member of the Indian Society for Non-Destructive Testing and Member of the Association of NDT Services Organisations of India (NANSO).

TREATS – NABL ACCREDITATION

TREATS is Accredited by NABL in the field of Chemical Analysis (by Wet Method, Spectro, Portable Spectro & PMI), Mechanical Testing (including Impact, Metallography and IGC tests), NDT & Water Testing, which is in line with ISO / IEC 17025-2017. TREATS is perhaps the only Laboratory in the Eastern Region to have maintained this recognition since 1998 uninterrupted.



TREATS

QUALITY POLICY

The policy of TREATS is to always provide its customers with QUALITY SERVICES conforming to valid national and/or international standards, including customers' requirements, at competitive costs. It is a mission for TREATS to attain and sustain TOTAL QUALITY by developing habits of doing things right the first time, on time, and every time. TREATS is committed to comply with the International Standard ISO/IEC 17025-2017 and to continually improve the effectiveness of the management system.

The Laboratory also ensures that all personnel concerned with the testing activities within the Laboratory familiarise themselves with the Management documentation and implement the policies and procedures in their work.



T R E A T S - S P E C T R O S C O P Y

Spectroscopy Laboratory for chemical analysis by world renowned “SpextroMAXx”, Germany for cast iron, steel & alloys, copper and aluminium alloys, including **Nitrogen** in steels (upto ppm level). This machine has additional attachments, which can analyze sheets as low as 0.1mm thick and wires/rods as low as 0.8mm dia.



T R E A T S – P O R T A B L E S P E C T R O

PORTABLE SPECTRO Laboratory for chemical analysis by world renowned “ODFORD INSTRUMENTS”, Germany (now taken over by HITACHI) for Cast iron, Steel & alloys, Copper, Aluminium and Zinc alloys, including **Nitrogen** in Duplex steels (upto ppm level). This machine is completely mobile and can be taken to customers site to check the material composition without destroying the samples. This machine is apt for bigger and finished goods which cannot be destroyed or samples cannot be tested by desktop spectro.



T R E A T S – W E T M E T H O D O F A N A L Y S I S

Metallurgical Analysis Lab
by conventional wet method
of analysis of ferrous and
non-ferrous metals, ores
and minerals, limestone,
etc. E-Merck (German Make-
UV Range) Spectro -
photometer is used for lower
level detection of impurities
in metals & water



SPECTROPHOTOMETER – E MERCK



CONVENTIONAL LAB WITH DIGITAL BALANCE

TREATS - POSITIVE MATERIAL IDENTIFICATION (PMI)

Positive Material Identification (PMI) by world renowned NITON Make PMI tester, for grade identification and sorting out of mixed up material, without destroying the finished goods, at site.



TREATS – MECHANICAL LAB

**Mechanical
Testing Laboratory
equipped with 60-
tonne Universal
Testing Machine with
Electronically
Controlled Panel &
Extensometer,**



T R E A T S – M E C H A N I C A L L A B

- ✖ Mechanical Testing Lab with UTM-60 where TMT Bars, Angles, Channels, Beams, Plates, Nuts & Bolts, Welded Test Coupons, etc. are tested which are used for construction in real estate, power plants, bridges, structures, etc. as per IS / BS / ASTM / API / DIN Specifications



T R E A T S – MECHANICAL LAB

Mechanical Testing Department has **Hardness Testers** - Vickers (1Kg load to 50 Kg load), Rockwell & Brinell Hardness Testers, **Cupping test machine**, etc.



TREATS – MECHANICAL LAB

TREATS also has **Impact Testing Machine** (both ASTM & BS Type) for carrying out Izod and Charpy Impact Tests from room and sub-zero temperatures - upto **minus 196 degrees Centigrade**. **Lateral Expansion & % Shear** on impact test specimen can also be carried out.



TREATS – MECHANICAL LAB

In house facilities for Notch Cutting of Impact Test Specimen, Shadowgraph for verification of Notch and Liquid Nitrogen Gas container for achieving upto minus 196 deg. Centigrade temperature for testing at cryogenic temp. Facilities for Lateral Expansion and % Shear on impact specimen also exist.



T R E A T S – METALLOGRAPHY LAB

Metallography Laboratory having German Make Carl Zeiss Inverted Light Microscope – METAVAL HD - with **Metal Image Analyser Software** & high resolution CCD camera for instant computer generated photomicrographs.



TREATS – METALLOGRAPHY LAB

- ✖ In-Situ Metallography
for carrying out
metallographic study
for bigger / finished
components / material,
which cannot be
destroyed, with
photomicrographs. If
required, this facility is
made available on-site.



T R E A T S – WELDERS QUALIFICATION & IGC

- # Facilities for Welding Procedure Qualification & Welder's Performance Qualification tests as per ASME Section IX / IS/BS/EN/DIN/API/ AWS specifications.
- # A Special Facility for determining Intergranular Corrosion of Stainless Steels as per ASTM A 262 specification (Practice A, B, C & E) ranging upto 120 hours of testing.



T R E A T S – N O N D E S T R U C T I V E T E S T I N G

Non-destructive Testing Department having three gamma radiography cameras and two 250KVA X-Ray Machine, which can be carried to party's site anywhere in India and abroad as per AERB / BARC Regulations.



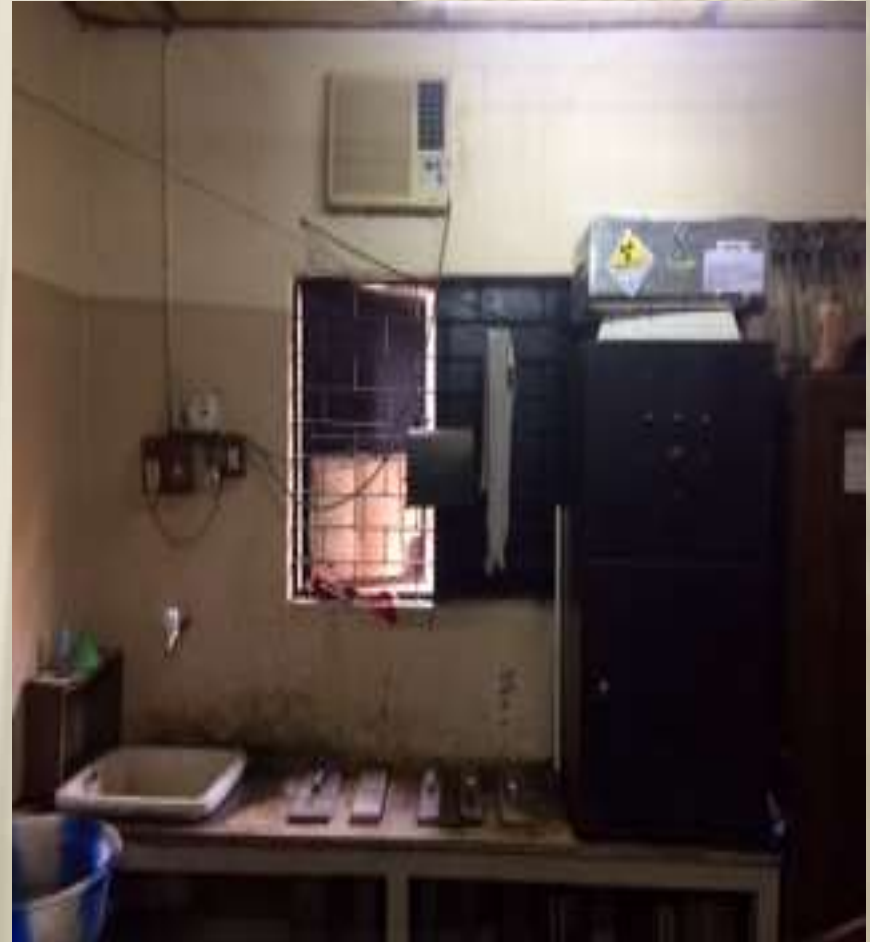
T R E A T S – N O N D E S T R U C T I V E T E S T I N G

Three digital ultrasonic flaw detectors DS 322 with color TFT monitor, ultrasonic digital thickness gauges, magnetic particle flaw detectors (Yoke type) and dye-penetrant kits for NDT job on-site by trained and qualified technicians / engineers.



TREATS – NON DESTRUCTIVE TESTING

NDT units are completely mobile and can be taken to customers' sites anywhere in India / abroad. TREATS also have ASTM Reference Radiographs on Steel Fusion Welds, Steel Castings upto 2" thickness, and Aluminium & Magnesium Casting.



T R E A T S – S A L T S P R A Y T E S T

- ✖ Facilities for determination of Oxygen in Copper by microscopic method.
- ✖ Facilities for SALT SPRAY test as per IS / ASTM specifications, which can be carried out uninterrupted for upto 1200 hours or more for detection of corrosion on coated material (qualitative).



TREATS – WATER TESTING DEPARTMENT

TREATS also carries out **TESTING OF WATER & SOIL**. Analysis of Drinking Water as per IS 10500, Borewell water, River & Sea water, Boiler water, Package Drinking water, DIALYSIS water, etc. Arsenic alongwith Heavy elements in water in PPB level is estimated by state of the art **ICP (Induced Coupled Plasma)** and Spectrophotometer, imported from Germany. Facilities also exist for Bacteriological tests in water.



TREATS

Approvals from International Inspection Agencies

- × AMERICAN BUREAU OF SHIPPING (ABS)
- × BUREAU VERITAS (BV)
- × DET NORSK VERITAS (DNV)
- × ENGINEERS INDIA LTD. (EIL)
- × HUMPREYS GLASSGLOW CONSULTANTS LTD. (HGC)
- × INDIAN REGISTER OF SHIPPING (IRS)
- × LLOYD'S REGISTER ASIA (LRA)
- × SGS INDIA LTD. (SGS)
- × TOYO ENGINEERING INDIA LTD.
- × TUV INDIA PVT. LTD.

NABL APPROVAL IN THE FOLLOWING FIELDS AS PER SCOPE AND CERTIFICATE:

- × Chemical Testing by wet method, spectro, portable spectro and PMI.
- × Mechanical testing including Metallography testing and impact tests up to minus 196 deg. C
- × Water Testing
- × Non Destructive Testing (X-Ray , Gamma Ray, Ultrasonic Flaw Detection and Thickness Gauging, Magnetic Particle Test and Dye Penetrate Tests)

Approvals from Public Sector & Govt. Undertakings

- × BHARAT HEAVY ELECTRICALS LTD. (BHEL)
- × CENTRAL ORGANISATION FOR RAILWAY ELECTRIFICATION (CORE)
- × GARDENREACH SHIPBUILDERS & ENGINEERS LTD. (GRSE)
- × ENGINEERS INDIA LTD. (EIL)
- × GUN & SHELL FACTORY, COSSIPORE (MINISTRY OF DEFENCE)
- × GAS AUTHORITY OF INDIA LTD. (GAIL)
- × HINDUSTAN AERONAUTICS LTD. (HAL)
- × INDIAN OIL CORPORATION LTD.(IOCL)
- × INDIAN RAILWAY CONSTRUCTION CO. LTD. (IRCON)
- × MECON LTD.
- × NATIONAL THERMAL POWER CORPORATION LTD. (NTPC)
- × NUCLEAR POWER CORPORATION LTD. (NPC)
- × OIL INDIA LTD. (OIL)
- × POWER GRID CORPORATION OF INDIA LTD. (PGCIL)
- × PROJECTS & DEVELOPMENT INDIA LTD. (PDIL)
- × RAILWAY DESIGNS & STANDARDS ORGANISATION (RDSO)
- × WEST BENGAL STATE ELECTRICITY BOARD (WBSETL)

TREATS- TRAINING INSTITUTE

TREATS – TRAINING INSTITUTE is dedicated to the founder of TREATS, Late B. C. Agrawal, who was himself a veteran metallurgist and an academician. He completed his Masters in Metallurgy from Wisconsin, USA way back in 1962 and returned to India to serve his country. He started his career as a professor in BIT, Sindri and has written a book on metallurgical analysis, which has been followed in Engineering Institutes. After this, he worked with several industrial chambers providing his expertise, last being CII, before the advent of TREATS in 1986. His zest for learning and imparting knowledge and training had no limits or horizon.

It is of great delight and pride to introduce the advent of our new venture – TREATS – TRAINING INSTITUTE. TREATS is expanding its horizon and embarking on a new journey. This incorporates training and grooming individuals to perfection, which is the hallmark of the pioneer organization.

India is a fast-growing economy and the entire world has set its eyes on India's growth story. The Indian Economy is set to grow at a rapid pace with government initiation and push with policies like Make In India and Self-Reliant India. For any economy to grow rapidly, engineering and infrastructure act as a backbone and pillars for growth. The growth is sustainable only through quality engineering and NDT and NDT inspection plays a vital role in propelling the achievement of higher standards.

To quote Dr. APJ Abdul Kalam: “Winners are not those who never fail, but those who never quit.” In keeping up with this spirit we should aim to be a winner.

ABOUT US

Eastern India is devoid of an institution earmarked to offer persistent and consistent attributes in the sphere of Non-Destructive Testing [NDT]. Only educational qualification does not suffice to achieve perfection in delivering services, inspection and quality control. The basic grooming and technical skills that will be offered will give the finesse required for great accomplishments and job satisfaction. Under-taking this noble task, we are a full- service, training organisation dedicated to rendering quality services with the aim of giving not only the eastern region but the whole country promising candidates and work force ready to satisfy and cater to the modus operandi and nuisances of technical demands and face challenges.

Promising candidates enabled to serve the industry better, will enable the industry soar unfathomable heights. The wide-platform offered by us will ensure industrial growth and quality control and inspection achieve new heights and goals.

ABOUT OUR TEAM

We are composed of a highly enthusiastic and experienced team with great expertise, who has served in India and over-seas. Our team comprises of people who have vast knowledge in the fields of Non-Destructive Testing and are fully equipped with the latest techniques and technology required to satisfy industry demands.

APPROACH PRO FORMA

The primary approach of our company is based on the simple analogy that the success of our trainees will equate our success and this shall be our guiding principle in all spheres of the training imparted.

As a result of this endeavor, we will be moving towards:

- a. Creation of jobs
- b. Enhancement of jobs and skill.
- c. Value-Addition to skilled people.

SUCCESS DETERMINATION

In fact, trained people in relevant areas in NDT will be able to give their best in the engineering industry, services and research and will be able to reach greater heights; compete and be at par with other parts of the world.

COME, and become a part of this evolutionary innovation as we have a ***new vision*** for you!

OPENING NEW VISTAS FOR GREAT JOB OPPORTUNITIES.

GO ONE STEP ON A NEW PLATFORM AND HAVE A NEW SUCCESS STORY.

HURRY! ENROLL TO SERVE THE INDUSTRY BETTER.

DO NOT MISS THIS LIFETIME OPPORTUNITY.

**WE AT “TREATS” STAND COMMITTED TO PROVIDING
QUALITY SERVICES ACCORDING TO NATIONAL AND
INTERNATIONAL STANDARDS INCLUDING CUSTOMERS
REQUIREMENTS, IF ANY.**



**THANK YOU
FOR SPARING YOUR VALUABLE TIME
AND PATIENCE.**

