

Tech Talk

Monthly Newsletter by Spectro Group

Director's Desk

With great enthusiasm, we would like to thank you for making our Newsletter a success. Your positive response and feedback for our Newsletter encourages us to present before you the best current articles. We are happy to share with you, our monthly Newsletter "Tech-Talk" which is designed to be an elemental source for leading information related to developing technologies, ingenious techniques and innovative approaches. This newsletter is contemplated to highlight electrifying forthcoming activities and resources of our organization.



Kuldeep Dhingra
Managing Director



Sushant Gupta
Executive Director

We invite you to a new paradigm created by Spectro to examine the resources on our website which includes details of our amplifying services using science to harness cutting-edge technologies and experience the Spectro difference.

Brief about Spectro

Spectro commenced to serve in the year 1995 and during the span of 20 years, Spectro Group of companies has created a globally recognized position in the field of Testing, Calibration, Auditing, Certification, Training, Inspection, R&D, Special Purpose Equipment Designing & Manufacturing and various other activities. Steadily building a reputation for reliability and fast turnaround, the organization grew rapidly and today we feel proud to have our presence all over the country.

Delhi's clean air: A challenge

It is time to understand what we have done and the actions we need to take urgently and decisively.

It is good that deadly air pollution in Delhi has become national headline. But it is awful that we are failing to deal with it and find answers that are proportionate with the scale of the problem. It is time to understand what we have done or else, next winter will be even more severe and hazardous.



Contd.

In this Issue

- Ü Editorial
- Ü Brief about Spectro
- Ü News: Delhi's clean air: A challenge
- Ü Spectro Updates : Spectro signs MoU with BEEP
- Ü Article: Conduct Energy Audit- Reduce your costs
- Ü Spectro Group of Companies

Spectro signs MoU with BEEP

Spectro has signed Memorandum of Understanding for Capacity Building on Testing of Building Insulation Materials under the **Indo-Swiss Building Energy Efficiency Project (BEEP)**.

sThe objective of BEEP is to reduce energy consumption in new commercial buildings and to disseminate best practices for the construction of low energy residential and public buildings.

The project contributes to strengthening Bureau of Energy Efficiency's (BEE) building energy conservation programme for the 12th Five-Year Plan.

Contd. (Delhi's clean air: A challenge)

Some 16 years ago, the Centre for Science and Environment (CSE) issued an advertisement: "Roll down the window of your bullet-proof car, Mr Prime Minister. The security threat is not the gun, it is the air of Delhi." At that time, the air of Delhi was full of black smoke, fuel and emission standards were virtually non-existent and motorisation was just beginning to take off. The agenda for action, also listed by CSE in the public notice was to advance the roadmap for fuel-emission standards; restrict diesel vehicles and make the transition to a much cleaner fuel, compressed natural gas (CNG).

Since 2007 pollution has risen to dangerously toxic levels. This winter, the level of PM 2.5 tiny particles emitted from vehicles that can go deep into the lungs and enter the blood stream remained three-four times higher than the safety standard. In fact, in November, December and January, air was classified as "severely polluted" for over 65 per cent of the days. According to the government's own air quality index, this meant pollution was so bad that it could cause "respiratory effects even on healthy people". It is unsafe to breathe.

In the past decade, since the introduction of CNG, some things have changed. First, there has been an explosion of personal vehicles near 100 per cent increase in registration in Delhi alone. So, even as each car has become cleaner because of tighter emission standards and better quality of fuel, the number has increased exponentially. The net result on pollution is the same.

Second, while in 2000 diesel cars were only 4 per cent of the total sales, this increased to 50 per cent by mid 2000. Each diesel car is legally allowed to emit four to seven times more than the petrol variant. Pollution is inevitable.

Third, the bypass road, ordered by the Supreme Court in 2004, was not built. So, some 50,000 trucks using dirty fuel and even dirtier technology transit the city.

The country immediately needs an aggressive roadmap for clean fuel and vehicle technology. The other steps are equally urgent, from monitoring air quality to smog alerts, so that we know when it is advisable to take precautions because of polluted air.

References

Business Standards

CSE India

Indian Express

Spectro offers world class Environmental services like Environment Monitoring, Indoor Air Quality Monitoring and Noise Pollution Survey. We are approved by MoEF and several other State Pollution Control Boards.

Spectro Lab Equipments (P) Ltd. is a prominent manufacturer of a broad range of Environmental Equipments which includes; Particle Counter, High Volume Sampler, CO₂ Monitor, Flue Gas Analyzer, Respirable Dust Sampler, VOC Monitor, Sound Level Meter, Ozone Gas Monitor, Stack Sampler, Fine Particulate Sampler, Indoor Air Quality Monitor and various others.

Energy efficiency is the first step toward achieving sustainability in buildings and organizations. Insulation is used in buildings and in manufacturing processes to prevent heat loss or heat gain. Insulation Materials which are used in buildings includes Rockwool, Mineral wool, Cellulose, Fiberglass, Plastic fibers, AAC Blocks, etc.

Various approaches for Energy Audit

Thermal Conductivity

Thermal conductivity is used to measure the insulation properties of building material. The lower the thermal conductivity, the better the building material will insulate.

Condition monitoring

Condition monitoring is the process of determining the condition of machinery while in operation. Engineers and technicians rely on condition monitoring and predictive maintenance techniques to ensure critical equipment such as turbines, generators, pumps, compressors, and motors operate more efficiently and last longer.

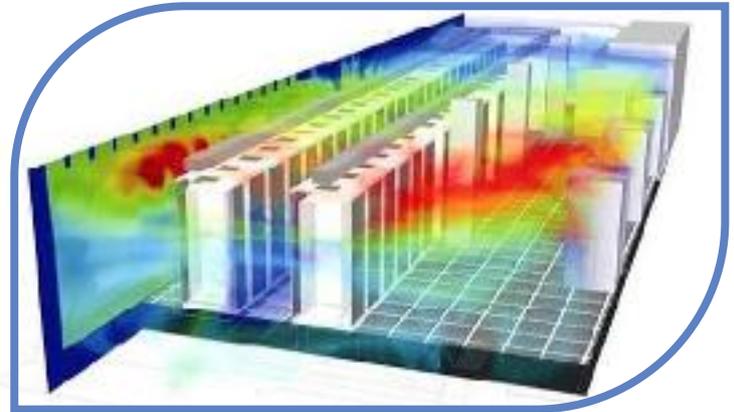


Thermal Imaging

Thermal imaging for air tightness and energy efficiency are important quality control measures while building or renovating. Heat loss can account for up to 50% of total energy consumption in a building with causes ranging from air leakage through chimneys, attics and wall vents to badly sealed doorways and failing argon gas windows to missing insulation.

Emissions and Energy Efficiency Monitoring

The benefits of emissions monitoring cannot be ignored. The release of harmful emissions into the atmosphere is minimized and air quality is improved; less fuel is required; costs are reduced and profits increased, due to an energy efficient combustion process.



Third Party Inspection

- Y Raw materials covering Steel Plates, Tube, Pipes, Forging & Castings.
- Y Pressure vessels (Chemical Plants, Fertiliser Plants, etc.)
- Y Power generation equipments like Boilers, Turbines, Pressure Vessels, Heat Exchangers, Piping, Welded Structures, Water Treatment Plants & Boiler accessories.
- Y Electrical equipments covering motors, generators, transformers, power transmission, etc.
- Y Storage Tanks for chemicals, etc.
- Y Diesel engines, pumps, valves, gear boxes, etc.

Spectro offers specialized Energy Audit & Third Party Inspection services. Spectro is the only Lab in India which is approved by EUCEB, European Certification Board for (Insulation Materials) Mineral Wool Products.

Our Energy Audit service provides you with a deep understanding of energy consumption in your buildings and facilities that helps to reduce the energy consumption

Spectro Group of Companies



Major Activities

Testing	Calibration	Training	Inspection	R&D	Automation	Reverse Engineering
	Ü Metals & Alloys			Ü Building Materials		
	Ü Non Destructive Testing			Ü Minerals & Chemicals		
	Ü Rubber & Polymers			Ü Leather & Textiles		
	Ü Food and Agro Products			Ü Water & Environment		
	Ü Coal, Solid Fuels & Petroleum			Ü Paper & Packaging Materials		
	Ü Electrical & Electronics			Ü Hazardous Substances		
	Ü Pharmaceuticals & Drugs			Ü Clean Room Validation		

Our Joint Venture Labs

Spectro Testing & Research Center Pvt. Ltd. (Jaipur)
Spectro Research Lab Ventures (P) Ltd. (Kanpur)
Spectro Testing (P) Ltd. (Jammu)
Spectro SSA Labs (P) Ltd. (Mumbai)
Spectro Global Experts Pvt. Ltd. (Bhubaneswar)
Spectro Shyam Labs (P) Ltd. (Kolkata)

Project Sites

PATA (Uttar Pradesh)
Roorkee (Uttarakhand)
Durgapur (West Bengal)
Jaisalmer (Rajasthan)
Hyderabad (Telangana)
Patna (Bihar)



We will be pleased to receive your valuable queries, feedback and suggestions on our email ID: newsletter@spectrogroup.com

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