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Tech Talk

Monthly Newsletter by Spectro Group

Director's Desk

We take this opportunity to thank you each one of you for making our Newsletter a success. We are pleased to share with you the new edition of 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 underline electrifying forthcoming activities and resources of our organization.



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Managing Director



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Executive Director

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We invite you to a new paradigm created by Spectro to examine the resources on our website which includes our amplifying services using science to harness cutting-edge technology 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.

Sick Building Syndrome

Sick building syndrome (SBS) is a situation in which the building occupant experiences acute health and comfort effects which appears to be linked with the time spent inside a building, although no definite illness or cause can be determined.

SBS is associated with certain types of buildings. It occurs mostly in open plan offices, schools, libraries and museums.

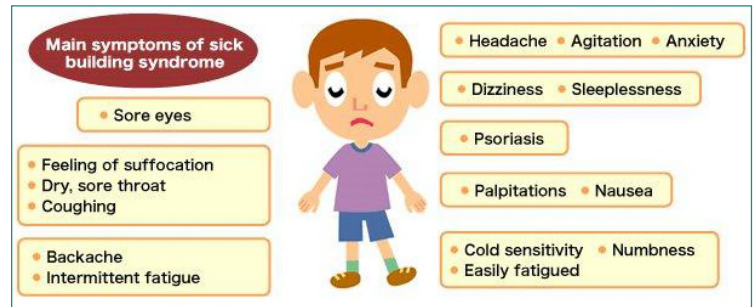


Causes

Sick building could be caused due to inadequate ventilation, biological contamination and chemical contaminants from indoor and outdoor sources. The Volatile Organic Compounds (VOC) causes severe effects on the occupants of a building. Apart from these, bacteria, viruses, pollens, molds, etc. are also considered to be the biological contaminants and are able to cause SBS.

Signs & Symptoms

Headache, nausea, eye, nose or throat irritation, poor concentration, dizziness, dry cough or skin itching, fatigue, allergies, etc.



Preventive actions

- Roof shingle non-pressure cleaning of mold and algae
- Use of ozone to eradicate many sources like VOC, bacteria, virus, foul odors, mold
- Planting toxin-absorbing plants like sansevieria
- Replacing water-stained ceiling tiles and carpeting
- Using paints, adhesives, solvents and pesticides in well-ventilated areas and using these pollutant sources during non- occupancy
- Proper maintenance of HVAC (Heating, Ventilating and Air Conditioning) systems
- Installing HVAC Air Cleaning systems or devices to remove bioeffluents and VOC's from HVAC systems conditioned air.

Spectro offers world class Environmental services like Environment Monitoring, Indoor Air Quality Monitoring and Noise Pollution Survey. We manufacture a wide range of Environmental Equipments, some of which includes; Particle Counter, High Volume Sampler, CO 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.

Residual Life Assessment

Residual Life Assessment (RLA) of a component is to use metallurgical and fracture mechanics methodologies to predict the time period during which it shall retain the fitness-for-service characteristics. RLA Studies have become an inseparable part as they reveals a realistic picture in regard to the condition of the entire Power Station equipments, systems and other machineries which are subjected to fatigue and/or creep loading conditions and helps in prolonging the life of aged power plants.



Before the renovation and modernization, it is mandatory to conduct Residual Life Assessment study (RLA) of all critical components, which brings into notice for mandatory replacement /modifications necessary to guarantee a minimum 75% plant load factor and 85% plant availability.



Assessing the condition and remaining life of Plant components operating at high temperatures and stresses is necessary to optimize inspection and maintenance schedules, to make decisions to **RUN, REPAIR and REPLACE** and to avoid unplanned outages.

As per Indian Boiler Regulation 1950 u/s 391A, the boiler critical components which are subjected to creep, fatigue, corrosion & erosion being under high temperature and pressure needs examination through Non Destructive Testing (NDT) after completing 1,00,000 operating hrs. for assessment of the remaining life of the components. We own a team of well-specialized experts who are deeply involved in carrying out RLA Studies to ensure safe, reliable and economical operation.



Spectro is accredited by Central Boilers Board as a "Well Known Remnant Life Assessment Organization" and also a "Well Known Material Testing Laboratory". We provide In-Service Inspection for RLA Studies for ensuring Safety and Integrity of equipments of the Thermal Power Plants, Hydro Power Plants, Petroleum Refineries, etc. to maintain the operating capacity for a longer period of time.

Spectro Group of Companies



Spectro Lab Equipments (P) Ltd. is prompted by a team of committed professionals who have years of experience and have not lost any opportunity to prove their ingeniousness. SLE is one of the prominent manufacturers of Environmental and Coal Laboratory Equipments and also deals with their sale and service setups. It also provides support in the field of Testing equipments and instruments

Major Activities

Testing Calibration Training Inspection R&D Automation Reverse Engineering

- ⇒ Metals & Alloys
- ⇒ Non Destructive Testing
- ⇒ Rubber & Polymers
- ⇒ Food and Agro Products
- ⇒ Coal, Solid Fuels & Petroleum
- ⇒ Electrical & Electronics
- ⇒ Pharmaceuticals & Drugs
- ⇒ Building Materials
- ⇒ Minerals & Chemicals
- ⇒ Leather & Textiles
- ⇒ Water & Environment
- ⇒ Paper & Packaging Materials
- ⇒ Hazardous Substances
- ⇒ Clean Room Validation

Our Joint Venture Labs

Project Sites

Spectro Testing & Research Center Pvt. Ltd. (Jaipur)

Chennai (Tamil Nadu)

Spectro Research Lab Ventures (P) Ltd. (Kanpur)

Roorkee (Uttarakhand)

Spectro Testing (P) Ltd. (Jammu)

Durgapur (West Bengal)

Spectro SSA Labs (P) Ltd. (Mumbai)

Jaisalmer (Rajasthan)

Spectro Global Lab Pvt. Ltd. (Bhubaneswar)

Patna (Bihar)

Spectro Shyam Labs (P) Ltd. (Kolkata)

Ranchi (Jharkhand)



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

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