

Director's Desk

Dear all, welcome to the first edition of Spectro's Newsletter! Our belief in walking on the path of continuous growth and development has taken us one step ahead. We are very excited to start our monthly Newsletter entitled "Tech Talk" which will showcase informative articles. We will be sharing with you the current hot topics in the world of Science, especially related to Health and Environment along with our forthcoming activities and achievements.



I hope that this Newsletter will keep you updated of the state-of-art technologies and developments taking place in the world. It will facilitate your work and will probably build a long-lasting relationship with Spectro.

Kuldeep Dhingra
Managing Director

Introduction to Spectro

Spectro Analytical Labs Ltd. established in 1995, is NABL Accredited Laboratory. We are the pioneers of providing dependable Testing and Inspection Services. We feel proud to share our services with you. Striving hard for over 19 years, we have been able to fulfill the requirements of our esteemed clients in various fields. We are a self-reliant laboratory, recently created the biggest lab infrastructure in India at Greater Noida.

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Antibiotics in Poultry

The results of a study carried out by Centre for Science and Environment (CSE) at their Pollution Monitoring Laboratory revealed that nearly 40% of the chicken samples in Delhi and NCR have residues of a number of antibiotics in their body.

The exaggerate use of antibiotics in poultry industry is transmitting antibiotic-resistant bacteria in the chicken itself which further get transferred to humans via environment and food. Residues of five antibiotics were found in all the three tissues liver, kidney and muscle ranging from 3.37 to 131.75 micrograms per kilogram. This is leading to resistance to fluoroquinolones, because of which treatment of some fateful diseases such as tuberculosis and pneumonia is becoming difficult.

For the sake of country's good health, doctors from all over the country are putting a demand to restrict the use of antibiotics in food stuffs. Indian Medical Association (IMA) is putting efforts to ban antibiotics.

K. Chandramouli, the Chairperson of the FSSAI with the State Food Safety Commissioners decided that the states will start supervising this issue. Although the Bureau of Indian Standards (BIS) has set the specifications (1374:2007) for poultry feed which suggests that antibiotics are not to be used for promoting growth but these specifications are not being enforced.

Contd.

Spectro Updates

Jaipur Branch achieved NABL Accreditation

Spectro Group of Companies has achieved another milestone, our Testing and Research Centre at Jaipur has achieved the prestigious NABL accreditation for the unmatched range of Chemical and Mechanical Testing. Our prime objective is to provide world class facilities to our renowned customers.

Laboratory at Greater Noida granted NABL

Our Laboratory at Greater Noida is now functional for the Electrical and Electronics field. The belief in walking on a path of continuous growth with the most advanced facilities is the reason for acquiring the esteemed NABL accreditation in these fields. The platform offers broadest scope for Electrical Endurance and Safety Measurements for Electronic Devices in Consumer Electronics and Automobile Industries. Our biggest lab infrastructure in India located at Greater Noida, where our Calibration Department is shifted provides state-of-art facilities to our eminent customers at reasonable rates.

Joint Venture with Shyam Group (Kolkata)

The odyssey of expanding verticals in analytical business has led Spectro Group of Companies (New Delhi) to start a new Joint Venture, Spectro Shyam Labs (P) Ltd. with Shyam Group of Industries in Kolkata. An exclusive range of the most sophisticated Analytical Testing, Training and Inspection Services are offered here.

Proficiency Test exercised by Global PT

We are the first to be recommended by NABL Accreditation for providing Proficiency Testing of Metals as per ISO 17043:2010. Our ongoing programs include Vickers Hardness in Steel and Chemical Composition Testing for Aluminium.

Contd. (Antibiotics in Poultry)

Dr. Shetty carried out a study at his own hospital and he noticed that nearly 10% of the patients were resistant to common antibiotics. These people were all villagers and have not consumed any antibiotic before. He contacted CSE for conducting the study after which the results were clear.



The most distressing thing is that the poultry farmers have no regrets for using this level of antibiotics to promote growth so that the hens look fatter and bigger. The shop-holders told them that these antibiotics are imported from China.



On considering US, that has only set voluntary standards for using antibiotics in poultry and 80% of antibiotics are given to farm animals; Sunita Narain, the CSE Head said "India should be cautious and the government should think about import allowance of chicken legs from a country with such poor regulations."

Acknowledgement:

- *Times of India*
- *CSE India*

Corrosion in Data Centers

The interest in Data Centers Corrosion monitoring has shown an escalation from past few years. The increasing level of atmospheric contamination is experiencing hardware failures because of changes in electronic equipments. The IT Companies and Data Center Companies invest a huge amount on installation and maintenance of the technology to ensure the server performance and reduce damages to the components of Data Centers.

The specified Environmental Control Programs for data centers are deficient of an important element i.e. removing harmful gaseous pollutants which are responsible for system downtime and complete failure of the electronic components. Various lead-free regulations such as the European Union directive on using the Restriction of Hazardous Substances (RoHS), the environment has started experiencing failures related to corrosion.



Apart from accidents caused by temperature, fire, power, airborne particulates and humidity, most of the damages are caused by what is called as "Ghost Signals" which is a collection of multiple problems. The general indications of these problems are circuit failures, incorrect or loss of data, lower energy efficiency of the installed equipment, damage of the electronic component and inconsistency of the critical data.



The corrosive gases present in the atmosphere reacts with water vapor and comes in contact with the base metal which results in a continuous series of reactions that leads to formation of unwanted compounds and this ultimately eats away the metal. The corrosive gases are categorized into three groups: **Acidic gases** including oxides of Sulfur and Nitrogen, Hydrogen sulfide and Chlorine; **Oxidizing Gases** which include Ozone and the **Alkaline Gases** like Ammonia. Acidic gases are considered to be the most harmful. The gases may be produced internally by fresh paints, data center printers, dry cleaning chemicals, cigarette smoking, aerosols and various others. The external source includes exhaust from automobiles and heavy industries, power generation plants and also the environmental conditions like temperature variations.

The disputes caused by these gases are so serious that American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc. (ASHRAE) has set Standards for how much metal can be corroded away in order to keep the instrument working for a considerable period of time.

Acknowledgement:

- » *Controlling Contamination ISHRAE*
- » *ASHRAE contamination whitepaper*
- » *Cosatron.com*
- » *Purafil.com*

Spectro Group of Companies

Spectro Analytical Labs Ltd.

Spectro Lab Equipments (P) Ltd.

Spectro Weld Institutes (P) Ltd.

Major Activities

Testing

Calibration

Training

Inspection

Clean Room Validation

R&D

- ⇒ Metals & Alloys
- ⇒ Food and Agro Products
- ⇒ Electrical & Electronics
- ⇒ Rubber & Polymers
- ⇒ Coal & Petroleum
- ⇒ Building Materials
- ⇒ Paper & Textiles
- ⇒ Hazardous Substances
- ⇒ Water & Environment
- ⇒ Minerals & Chemicals

Spectro Lab Equipments (P) Ltd. is promoted by a team of committed professionals who have years of experience and have not lost any opportunity to prove their ingeniousness. SLE is the largest manufacturer on Environment and Coal laboratory equipments.

Activities

- ⇒ Chemical and Analytical Equipments
- ⇒ Coal Equipments
- ⇒ NDT Equipments
- ⇒ Mechanical Test Equipments
- ⇒ Environmental Equipments
- ⇒ Gold Testing Equipments
- ⇒ Polymer and Rubber Equipments

Spectro Weld Institutes

Spectro Weld Institutes (P) Ltd. provides exemplary short-term courses and full time courses on specialized topics. The welder gets certification by AWS (American Welding Society). We are also creating a pool bank of trained and certified welders for ready deployment for projects.

Joint Ventures Labs:

- ⇒ Kanpur
- ⇒ Bhubaneswar
- ⇒ Jaipur
- ⇒ Patna
- ⇒ Patiala
- ⇒ Mumbai
- ⇒ Jammu



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