

TRAINING PROGRAM ON
“ANALYTICAL TECHNIQUES FOR ENVIRONMENTAL AUDITORS”
3-5 December, 2014
SUMMARY REPORT

About Co-Anchor Institute

Co-Anchor Institute is evolved by the Industries Commissionerate, Govt. of Gujarat for providing training support to the Technical Educational Institutions in the State in Chemical & Petrochemical sector, across the Shop-floor, Supervisory and Managerial levels. Chemical Engineering Department of L.D. College of Engineering has been selected as Co-Anchor Institute in the Chemical and Petrochemical Sector, for conducting advance level training programs and courses.

Objectives of the training program

The environmental audit scheme has been introduced in Gujarat as per the directive of Hon. High Court of Gujarat, to improve the environmental performance of industries in the State. In order to make the scheme more effective it is obviously very important to ensure requisite skill and knowledge among the team members of the Environmental Auditors recognized by GPCB (Gujarat Pollution Control Board). The sampling and subsequent analysis of various emission streams of industrial unit is one of the major tasks of the audit team and needs use of standard techniques for determination of parameter values of air, water and solid samples. With this train of thought, a series of training programs on “Analytical Techniques for Environment Auditors” has been conceptualized. The program conducted on 3-5 December, 2014 at the Chemical Engineering Department, L.D. College of Engineering, was second in this series and was jointly organized by L.D. College of Engineering – Co-Anchor Institute and Gujarat Pollution Control Board, Gandhinagar.

The training program was conducted with three main objectives:

- 1) Introduce (for fresh auditors) and reiterate (for experienced auditors) standard methods of analysis involved in environment audit related testing.
- 2) Create an opportunity for auditors to interact with each other, with experts from the same field as well as with GPCB officials.
- 3) Convey the importance of carrying out a good environmental audit

Details of Training Program Organized

Majority of the participants were Schedule I & Schedule II Environmental Auditors. Faculty members of the Chemical Engineering, Rubber Technology and Environmental Engineering departments of L.D. College of Engineering also participated.

Patron of the program: Prof (Dr.) G.P. Vadodaria, Principal, L.D. College of Engineering

Organizing Committee included **Prof. B.H. Shah**, Prof & Head, Chemical Engineering Dept., **Prof. C.G. Bhagchandani**, Associate Prof., Chemical Engineering, **Prof. R.N. Desai**, Head, Rubber Technology Dept and **Ms Esther Akansha E. Sacha**, Co-coordinator, Co-Anchor Institute.

Overview of the program

The training program began with a prayer sung by **Prof. Hiral N. Pandya**, Asst. Prof, Chemical Engg Dept. and **Prof Bhakti D. Patel**, Asst. Prof., Rubber Tech Dept. This was followed by lighting of the lamp by the dignitaries on the dias. **Dr Shashi Ranga** was the anchor for the entire training program. The inaugural function of the training program included welcome address from **Prof (Dr.) G.P. Vadodaria**, Principal, L.D. College of Engineering, for whom this program was special since it was his first official address as Principal. Dr. Vadodaria graciously welcomed everybody on behalf of the college and stressed the importance of bridging the gap between industries and academia and expressed his desire for more such training programs to be conducted. The Welcome address was followed by a brief introduction of the training program by **Prof. B.H. Shah**, Chairman, Co-Anchor Institute, L.D. College of Engineering & **Prof C.G. Bhagchandani**, Coordinator, Environmental Audit Scheme, L.D. College of Engineering, Ahmedabad. Guest of the Event, **Mr. Dharmendra Joshi**, Secretary General, Gujarat Chamber of Commerce & Industries, expressed the importance of environment audits as well as his pleasure at seeing professors teaching professionals.

The Chief Guest for the inaugural function was **Dr. Chandan Chatterjee**, Director, Centre for Entrepreneurship Development, Gandhinagar. Dr Chatterjee gave a brief overview of the establishment and functions of Centre for Entrepreneurship Development and reiterated the need for better interaction between industry and academia. **Shri B.R. Naidu**, Zonal Officer, CPCB, Vadodara, conveyed the unique aspects of the Environment Audit Scheme and spoke about how environment auditors are inevitable to be able to reach all the industries. The inaugural function ended with a vote of thanks by **Ms Esther E. Sacha**, Co-Coordinator, Co-Anchor Institute, L.D College of Engineering, Ahmedabad.

Following a tea break, the technical sessions commenced, starting with Mr B R Naidu, Zonal Officer, CPCB, Vadodara, who delivered an expert lecture on "Environmental Legislations". This was followed by an expert lecture on "Introduction (Environmental Audit Scheme, Consents, Parameters)" by **Shri Sushi Vegda**, Sr. Environmental Engineer, GPCB, Gandhinagar.

The post lunch session consisted of expert lectures by **Prof. J.N. Joshi**, Retd. Prof. L.D. College of Engineering, Ahmedabad on Environmental Audit: Issues & Problems and by **Mr K B Vagela**, Scientific Officer, GPCB, Gandhinagar on Environmental Analysis (Samplings-air, water & hazardous wastes). The first day ended with laboratory sessions conducted by **Prof. Y.H. Oza**, Retd. Prof., Environmental Engineering, L.D. College of Engineering at the Environmental Engineering Department.

The second day included expert lectures by **Prof. G. H. Ban**, Head, Environmental Engineering Department, Government Engineering College, Bhuj on "Problems related to Air Quality Monitoring",

Dr. D. J. Parikh, Ret. Joint Director, NIOH Ahmedabad on “Health Effects of Air Pollutants”, **Prof(Dr) N.S. Varandani**, Retd. Prof. Environmental Engineering, L.D. College of Engineering, Ahmedabad on “Impact of Environmental Audit: Case Studies” and Prof. Y H Oza, Ret. Prof. L.D. College of Engineering Ahmedabad on “Problems related to waste water analysis”. The expert lectures were followed by a display and demonstration of various environment audit related testing equipments such as VOC measuring devices, various sampling and monitoring devices by **M/s Sun Environment, Vadodara and Nevco Engineers**.

The last of the program saw expert lectures from Dr. D. J. Parikh, Ret. Joint Director, NIOH Ahmedabad on “Application of Noise Monitoring with respect to Environment Audit” and **Dr. P.A Joshi**, Chairman, Anchor Institute, DDU, Nadiad on “Problems related to Hazardous waste analysis”. Shri Upendra Patel, Product Manager from **M/s Forbes Marshall** made a presentation about the various online monitoring equipments available today. This was followed by laboratory sessions in which, Dr. Shashi Ranga carried out a short demonstration and explanation of the CHNS/O Analyzer and Microbalance.

Following this, the participants engaged in a feedback session and also gave evaluation test. In the feedback session, conveyed their suggestions on making the program even better and also thanked L.D. College of Engineering – Co-Anchor Institute and GPCB for this initiative. Later the participants engaged in an open house session which was conducted by Prof. J.N.Joshi, Dr. D.J. Parikh and Prof Y.H. Oza, wherein several practical problems of the auditors were resolved by the experts.

The program ended with the valedictory session. Participants including Dr. K.D. Ladva from Shri M&N Virani Science College expressed his thanks to the organizers. **Dr. K.U. Mistry**, Chairman, Gujarat Pollution Control Board, Gandhinagar was the Chief Guest for the valedictory function. He was pleased to be a part of the program for the second time and he gave helpful guidelines for environment auditors and explained the Environment Audit Scheme right from its inception to the current scenario. Due to some time constraints, he was not able to deliver his expert lecture as scheduled. The program ended with certificate distribution by Dr. K.U. Mistry, Prof. J.N. Joshi, Dr. D.J. Parikh, Prof Y.H. Oza and Prof. B.H. Shah.

A carefully designed guide manual containing an exhaustive compilation of standard analytical methods for environment audit parameters’ testing has been prepared and distributed to the participants. All the presentations made by the experts during the technical sessions have also been distributed to the participants. Participants enjoyed learning from the experience of the various experts who have been in this field for a very long period. The entire training program was made a success because of huge support from the head of Rubber Technology Department, Plastic Technology Department and Environmental Engineering Department and their respective faculty members.

Overall, the training program went on smoothly with objectives being achieved and participants being enriched.