



Centre for Science
and Environment



जहाँ है हरियाली ।
वहाँ है खुशहाली ॥



One Week Regulators' Training on Continuous Emission Monitoring System From Understanding to Implementation

(8-12th August, 2016)

Venue: JSW Steel Complex, Vidyanagar, Bellary, Karnataka

Day 1: 8th August, 2016			
09:30 - 10:00 am	Welcome Note		JSW steel
10:00 - 10:30 am	Introduction	<ul style="list-style-type: none">About CSEAbout Regulator Training ProgrammeAbout CSE's CEMS Programme	Nivit Kumar Yadav Programme Manager, CSE
10:30 - 11:00 am Tea Break			
11:00 - 12:30 pm	Development and Perception of CEMS Programme in India	<ul style="list-style-type: none">Introduction to CEMSPolicy perspectiveProvisions under LawInitiatives & Implementation statusIssues in implementation	Abhijit Pathak Scientist, CPCB
12:30 - 01:00 pm	Application of CEMS in Karnataka	<ul style="list-style-type: none">Experience and Implementation status	B R Balagangadharan, Chief Scientific Officer KSPCB
01:00 - 02:00 pm Lunch			
02:00 - 06:00 pm Tea from 03:00-03:30 pm	Introducing JSW Steel plant	<ul style="list-style-type: none">Iron and Steel production process in JSWPollution and control practices (Air, Water, Hazardous)Status of CEMS installation & operation experience	JSW steel
	Visit to JSW steel plant	<ul style="list-style-type: none">Understanding of production process: Raw material storage to steel makingPollution sources and abatement practicesPollution monitoring & reporting	
Day 2: 9th August, 2016			
09:00 - 10:00 am	CEMS for stack emissions- Technology suitability matters (with reference to Steel, Power and Cement)	Particulate Matter CEMS <ul style="list-style-type: none">Available technology optionsPoints to check for regulatorsDiscussion	Sankar Kannan National Manager-Process Automation SICK
10:00 - 11:00 am		Gaseous CEMS-SO ₂ , NO _x , Hg <ul style="list-style-type: none">Technology option and installationPoints to check for regulatorsDiscussion	Tejbir Singh AVP-Marketing and Business Development, ABB
11:00 - 11:30 am Tea			

11:30 - 01:00 pm	Sampler and sample conditioning- important for accuracy	<ul style="list-style-type: none">• Right sampling and sample condition System• Experience of key issues• Points to check for regulators• Discussion	Sanjeev Rai India Business Development manager, Perma Pure
01:00 - 02:00 pm Lunch			
02:00 - 03:30 pm	Group exercise- checklist preparation for CEMS for stack emissions for steel, power and cement	<ul style="list-style-type: none">• Technology options• Parameters to monitor• Installation-location and position• Points to check	Sanjeev K. Kanchan Dy. Programme manager, CSE
03:30 - 04:00 pm Tea			
04:00 - 05:30 pm		Group Presentation	Sanjeev K. Kanchan Dy. Programme manager, CSE
Day 3: 10th August, 2016			
09:00 - 09:45 pm	Device operation & maintenance- CEMS for stack emissions	Particulate Matter CEMS <ul style="list-style-type: none">• Maintenance required for device- Calibration, drift, Span etc.• Calibration verification	Sankar Kannan National Manager-Process Automation, SICK
09:45 - 10:30 pm		Gaseous CEMS <ul style="list-style-type: none">• Maintenance required for device-Calibration, drift, Span etc.• Calibration verification	Tejbir Singh AVP-Marketing and Business Development, ABB
10:30 - 11:00 am Tea			
11:00 - 04:00 pm	CEMS for stack emissions- Hands on experience	Calibration-PM CEMS and Gaseous CEMS Participants will be divided into 2-3 groups and each group will perform a calibration exercise alternatively for PM and gaseous (SO ₂ and NO _x) separately	Dipankar De Sarkar TUV
Lunch from 01:00 - 02:00 pm			
04:00 - 04:30 pm	Discussion on experience	Group discussion and experience sharing <ul style="list-style-type: none">• Learnings from Calibration exercise• Key points to note	
Day 4: 11th August, 2016			
09:00 - 10:00 am	Water Continuous Monitoring System: Technology suitability matters	Water Continuous Monitoring System <ul style="list-style-type: none">• Right technology at right place• Points to check for regulators• Discussion	Abhijit Pathak Scientist, CPCB
10:00 - 11:00 am	Device operation & maintenance-Water CEMS	<ul style="list-style-type: none">• Maintenance required for device• ZLD plants & video camera installation	
11:00 -11:30 am Tea			
11:30 - 01:00 pm	Water Continuous Monitoring System-Hands on experience	Water Continuous Monitoring System <ul style="list-style-type: none">• Maintenance required for device- Calibration, drift, Span etc.• Calibration verification	Forbes Marshall
01:00 - 02:00 pm Lunch			
02:00 - 03:00 pm	Quality assurance systems for CEMS device	Certification Vs Quality assurance system <ul style="list-style-type: none">• Performance check system in USA• Certification system in Europe• Discussion on applicability for India	Kumud Ranjan TUV

03:00 - 03:30 pm Tea			
03:30 - 04:30 pm	Understanding of Data Acquisition & Handling System	Data acquisition and Handling system <ul style="list-style-type: none">Existing scenario & challengesTampering issues-experience from fieldTamperproof data management system	Sudheesh Narayanan CEO, GLens
Day 5: 12th August, 2016			
09:00 - 10:00 am	CEMS framework & Compliance mechanism	CEMS framework <ul style="list-style-type: none">European directives for AMSIndustrial emission directive (IED)Compliance mechanismDiscussion on Indian scenario	Sankar Kannan National Manager-Process Automation, SICK
10:00 - 12:00 am	CEMS framework & Compliance mechanism- Indian Scenario	Group Discussion <ul style="list-style-type: none">Compliance system in Indian scenarioRoadmap for CEMS in India	Moderator Abhijit Pathak, Scientist, CPCB
12:00 - 01:00 pm	Learnings from programme	Participants write down to key learnings on following discussion in training programme <ul style="list-style-type: none">CEMS regulationsTechnology selectionOperation & maintenanceCompliance check	Sanjeev K Kanchan Dy. Programme manager, CSE
01:00 - 02:00 pm Lunch			
02:00 - 03:00 pm	Certificate distribution & vote of thanks		
03:00 - 10:00 pm	Departure to Bangalore		
Overnight stay at Bangalore - 12th August 2016 Check-out & Departure 13th August 2016			

With cooperation & support from



Contact

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