

# Corporate Environmental Compliance Audit (CECA)

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DR. K V REDDY



# Background

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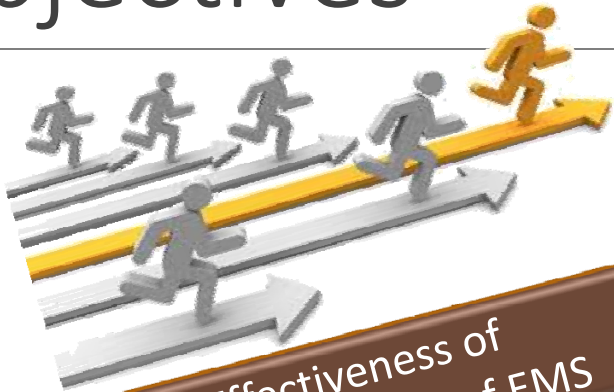
- ❑ The Corporate Environmental Compliance (CEC) Audit was conceptualized when discrepancies in legal compliance were found in some of the plants during Impact Assessment studies.
- ❑ Action was initiated for conducting audit in the group units to facilitate company in standing out in the Industry in terms of compliance, conservation, and commitments towards the society and to meet international standards and benchmarks.
- ❑ Depending upon the size and number of business units, this study generally spans around 12-15 months

# Objective of CEC Audit

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- To ensure Environmental Compliance of various environmental legislations across the Group Units and to identify opportunities available for improvement.
- To study the environmental status of the various activities vis-à-vis Environmental Legislation Statutory Clearance and company's internal environmental policies etc.
- To study the system of monitoring environmental parameters and to verify that it meets regulatory requirements of monitoring stations & permissible limits etc.
- To check the effectiveness of all pollution control equipment/ measures adopted.

# Objectives



Effectiveness of  
Implementation of EMS



Compliance to Legal  
Requirement



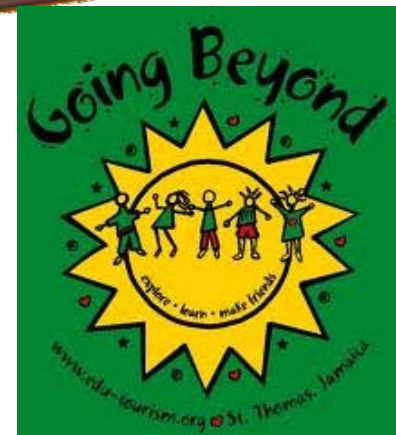
System Compliance



Identification of Gaps



Internal Benchmarks and  
International Benchmarks



On going Beyond  
compliance

# Objective of CEC Audit

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- ❑ Effectiveness of implementation of Corporate Environment Policy across the Organization including:
  - ❑ Legal Environmental Compliance
  - ❑ System Compliance (QMS and Business Processes)
- ❑ Identification of Gaps with reference to legal compliance.
- ❑ To develop in-house benchmarks and comparison with international benchmarks.
- ❑ Recommendations on going beyond legal environmental compliance.

# Scope of Audit

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- ❑ To organize & interpret the environmental monitoring data to establish a record of change associated with project implementation & operation.
- ❑ To verify that all or selected parameters & methods to measure all environmental parameters as part of environmental monitoring programme comply with regulatory requirements, internal policies & standards & established environmental quality performance limits.
- ❑ To determine the degree & scope of necessary improvement or remedial works in case of non compliance, or in the vent that the company's environmental objectives are not achieved.
- ❑ To collect information on existing & potential impacts on project activities on the environment & compliance to pollution control & environment management legislation.

# Legislations Covered in CECA

## Environmental Acts

Air Act, 1981

Water Act, 1974

EPA, 1986

HWM Rules, 2008

PLI Act, 1991

FCA, 1980

BMW Rule, 2000

MMDR, 1957

MCR, 1960

Explosive Act, 1884

CMVR, 1989

MCDR, 1988

## Guidelines, Rules

Fugitive Emission, 2010

NAAQS, 2009

CREP Guidelines

Co-processing, 2010

Online Monitoring, 2017

## Notifications

EIA Notification, 2006

CRZ Notification, 2011

Other Relevant Notifications

# Legal Requirements

Documents Required in case of a new project/ expansion	Issuing Agency
Environment Clearance	MoEFCC, New Delhi
CRZ Clearance, if applicable	MoEFCC, New Delhi
Forest Clearance, if applicable	MoEFCC, New Delhi
Wild life Clearance, if applicable	MoEFCC, New Delhi
Consent To Establish Under the Air Act, 1981 & the Water Act, 1974	SPCB
Consent to Operate under Air Act, 1981	SPCB
Consent to Operate under Water Act, 1974	SPCB
Authorization under Hazardous Waste (Management, Handling & Trans boundary) Rules, 2008	SPCB
Authorization under Biomedical Waste Management, 1998	SPCB
NOC from CGWA for ground water abstraction and Mine dewatering and water table intersection	CGWA
Permission for Co-processing of Hazardous Waste in cement kiln	CPCB
Coal linkage for CPP	Various parties
Boiler Certificate	Boiler Inspector



# Records to be Maintained

S. No.	Records/Register to be maintained	Frequency
1.	Environmental Monitoring Results: AAQM	Twice a week
2.	Environmental Monitoring Results: Fugitive Emission	Quarterly
3.	Environmental Monitoring Results: Stack (major)	Monthly
4.	Environmental Monitoring Results: Water	Four times a year
5.	Environmental Monitoring Results: Waste Water (ETP, STP, Mine Workshop)	Daily
6.	Environmental Monitoring Results: Noise	Quarterly
7.	Environmental Monitoring Results: Soil	Once in a year
8.	Form II of E-waste Rule, 2011	Yearly
9.	Random inspection record of the Hazardous waste site	As and when done or as per the HWA
10.	Records of Greenbelt and Plantation at Plant and Mines	Monthly
11.	Records of Efficiency testing of pollution control equipments	Once in a year
12.	Records of Calibration of lab instruments	Once in a year
13.	Measurement of flow rate static pressure at bag filter inlet	Once a month
14.	Stack Monitoring of bag filters stack, where ever monitoring is Feasible	Quarterly
15.	Operational Details of Dust Suppression system	Once in a month
16.	Road sweeping Records	Daily

# Records to be Maintained

S. No.	Records/Register to be maintained	Frequency
1.	Quantity of coal in open storage, if any	Quarterly
2.	Quantity of clinker in open storage, if any	Quarterly
3.	Corrective actions taken for improving controls	As and when done
4.	Records of health check ups	Half yearly
5.	Training records on environmental areas	Once a month
6.	Records as per ISO:14000	Yearly
7.	For Mining, long term studies on salinity ingress in groundwater around the mining lease	Long Term studies
8.	Action Plan of Public Hearing	Quarterly
9.	Action Plan of CSR	Quarterly
10.	Measures taken for Conservation of flora and fauna, if any	Yearly
11.	Monitoring records of vehicular emission	Monthly
12.	Register for Recording inspection visit of Govt. Officials	As & When done

# Reports to be Prepared and Submitted

Report	Frequency	Reports to be submitted to
Compliance Report of Environment Clearance of Cement Plant, CPP, Mine	Half yearly	MoEFCC, R.O. of MoEFCC, office of CPCB and SPCB
Compliance Report of CRZ clearance, if any	Half yearly	R.O. of MoEFCC, zonal office of CPCB and SPCB
Report of Stack monitoring	Monthly	SPCB
Reports of Monitoring of Four AAQM stations in Core zone and Buffer Zone	Half yearly	MoEFCC, RO of MoEFCC, SPCB
Reports of Monitoring of Fugitive Emission	Half yearly	MoEFCC, RO of MoEFCC, SPCB
Report of monitoring of Ground water Level and Quality carried out in and around mining lease and plant	Quarterly	SPCB
Report of monitoring of Treated Industrial Effluent	Monthly	SPCB
Report of monitoring of noise	Quarterly	RO of MoEFCC, SPCB
Report of monitoring of soil	Yearly	SPCB
Compliance Report of Consent to Operate (Cement Plant, CPP, Limestone Mine, Coal Washery, WHRB, DG Set)	Quarterly	SPCB

# Reports to be Prepared and Submitted

Report	Frequency	Reports to be submitted to
Environment Statement Report (Form V) for Cement Plant, CPP, Limestone Mine	Yearly	SPCB
Compliance to CGWA permission along with Monitoring report on ground water	Yearly	CGWA, Regional Director C SPCB
Hazardous waste Annual Returns (Form IV)	Yearly	SPCB
CREP report	Half yearly	Regional of MoEFCC, zonal CPCB and SPCB
Water Cess Return	Monthly	SPCB
Compliance of Bio-Medical Authorization	Yearly	SPCB
Environment Audit Report	Yearly	SPCB
Fly ash Annual implementation report (Annexure I)	Yearly	SPCB
Compliance Report of Biomedical Authorization (Form II)	Yearly	SPCB
Implementation of Batteries (M&H) Rules, 2001 & 2010 (Form VIII)	Half yearly	SPCB

# Reports to be Prepared and Submitted

Report	Frequency	Reports to be submitted to
Expenditure on Environment Protection Measures	Yearly	MoEFCC, RO, MoEFCC
Monitoring and Management of rehabilitated area till vegetation becomes self sustaining	Half yearly	MoEFCC, RO, MoEFCC
Copy of PLI	Yearly	SPCB
Digital processing of entire lease for monitoring land use pattern	Once in 3 years	MoEFCC Delhi
Final mine closure plan	5 years in advance of final mine closure	MoEFCC Delhi
Action Plan for conservation of flora and fauna, if any, should be prepared	Once	Action plan copy should be submitted to R.O of MoEFCC
Feasibility report on WHRB Within 3 Months of EC Letter	Once	MoEFCC, RO of MoEFCC
Impact of Cement Plant on crops and soil quality Within One Year	Once	MoEFCC, RO of MoEFCC
EC letter (website uploading)	Once	Company's website
EC letter (circulation to various bodies)	Once	NGO, Urban local Body, Panchayat, Zila Parishad

# Website Uploading

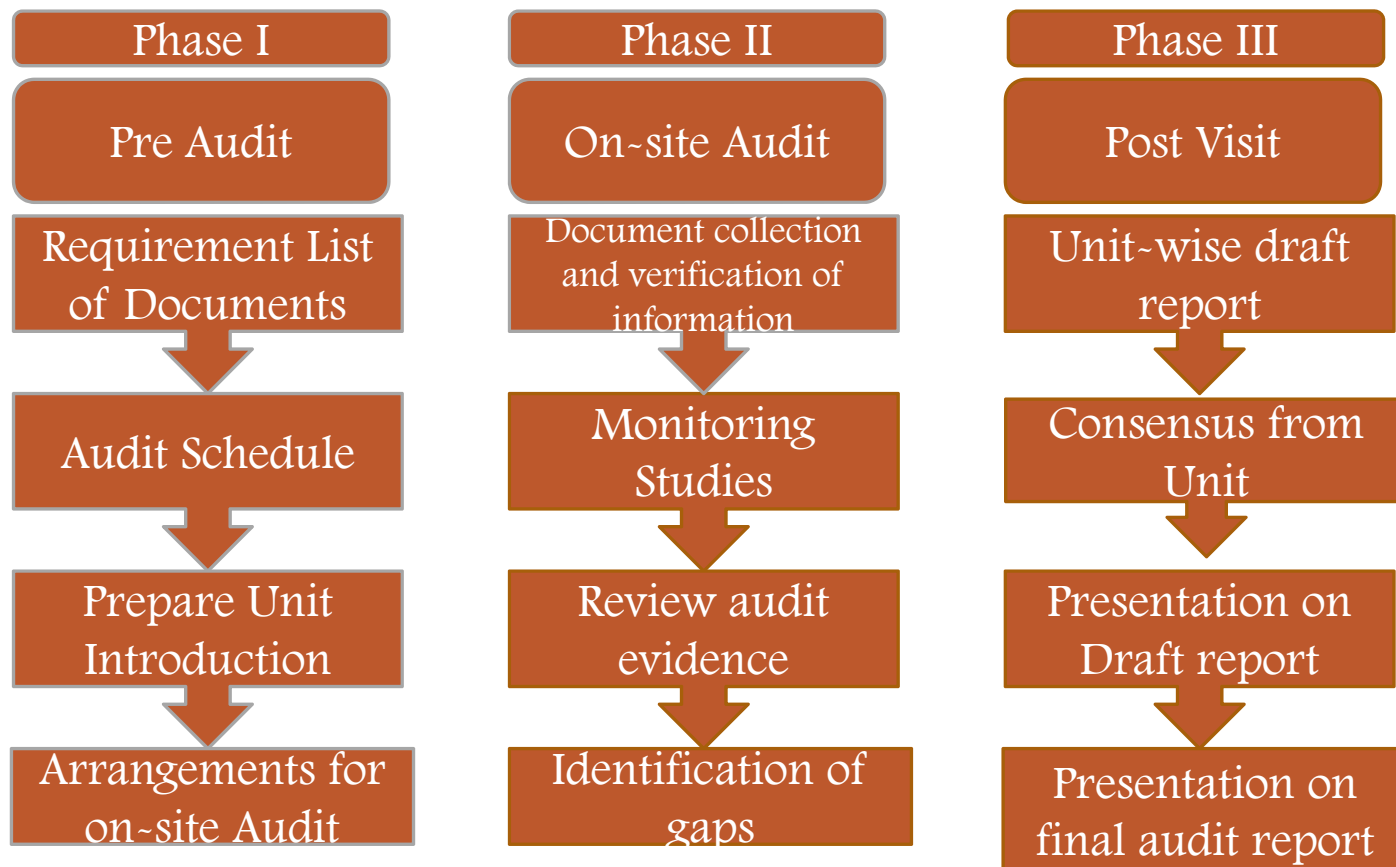
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1. A copy of Environment, CRZ, Forest and Wildlife Clearances obtained from MoEFCC/SEIAA
2. A copy of the compliance report of the conditions of Environment, CRZ, Forest and Wildlife Clearances obtained from MoEFCC/SEIAA
3. Consent condition compliance report as per the consent
4. A copy of the Environment Statement Report, which includes all the monthly details of raw material consumption, production details, water consumption details, pollution load, hazardous and solid waste, generated and plantations carried out etc.
5. The monitoring data of environment parameters such as ambient air quality, stack emissions, water quality, soil, noise etc.
6. Mines Static and Dynamic environmental monitoring data
7. Continuous Ambient & Emission Monitoring Data
8. Fly Ash Details on a monthly basis
9. Bio medical Annual Reports in Form IV

# Methodology

AUDIT PHASE	ACTIVITIES PERFORMED	TIME SCHEDULE
Phase I (Audit Preparation)	Preparatory activities for first visit of audit: <ul style="list-style-type: none"> <li>• Fixing Audit visit Schedule</li> <li>• Requirement list preparation</li> <li>• Compilation of units basic information from existing resources</li> <li>• Assessment checklist preparation</li> </ul>	4 weeks
Phase II (Audit visit Conduction)	Three visits to be conducted <b>First visit</b> – Site Inspection, Status verification of legal consents, clearances and approvals, collection of documents (legal consents & respective compliances)	8-10 months
	<ul style="list-style-type: none"> <li>• Document study</li> <li>• Drafting of compliance review checklist</li> </ul>	
	<b>Second visit</b> – <ul style="list-style-type: none"> <li>• Verification of compliances to legal permits/ clearances/ records/ NOCs</li> <li>• Preparation of Non conformity Status Paper</li> <li>• Preparation of CEC Action Plan</li> </ul>	
	<b>Third Visit</b> Monitoring of existing Environmental parameters	
Phase III (Documentation of Audit Findings)	<ul style="list-style-type: none"> <li>• Preparation of Draft CECA Status presentation</li> <li>• Presentation to Top Management</li> <li>• Preparation of CECA Report</li> </ul>	4-8 weeks

# CECA: Phase wise





# Audit Tools

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- ❑ After the desktop study of all the documents the following study tools will be evolved for facilitating the audit study:
  - ❖ Data & Document Requirement list
  - ❖ Assessment Checklist as per Environmental Law, Rules & Regulations
  - ❖ Condition wise Checklist as per Individual Legal Documents for each unit
  - ❖ Prepared Detailed Checklist for Water, Air, HW, Noise etc.

# Deliverables of CEC Audit

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All the below activities will be customized and put together in a form of CEC Audit Report:

- ❑ Time Targeted Action plans for each and every point of improvement
- ❑ Streamlining of the EMC at Corporate and Unit Level
- ❑ Synchronizing the internal and external communication system
- ❑ Monitoring schedules of the legal compliance at unit, corporate and 3rd party level
- ❑ Clarity in roles and responsibilities of EMC at Corporate and Unit Level
- ❑ SOPs for each and every activity like EC procedure, post EC obtaining, application of consent, renewal of consents & permissions etc.

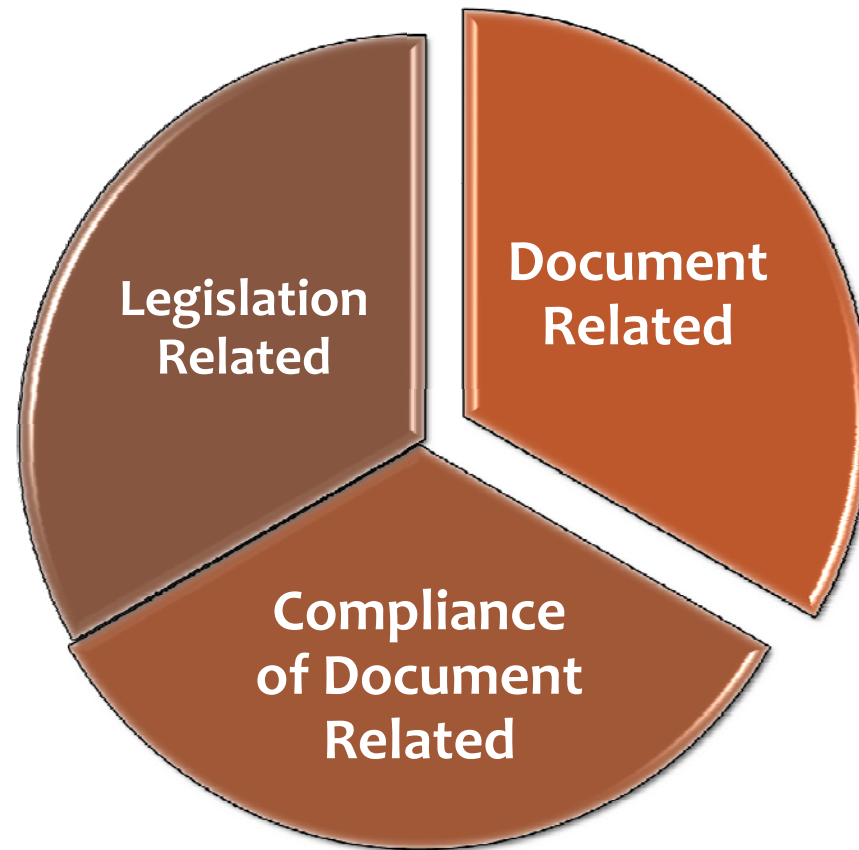
# Learnings

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- ❑ Review mechanism of compliance to be strengthened
- ❑ Proper structured reporting system to be established
- ❑ Clarity in roles & responsibilities of Environment Management Cell (EMC) to be communicated
- ❑ Awareness about Rules and Guidelines issued by Central and State Govt. to be spread widely
- ❑ Inter and Intra departmental non alignment of Communication to be improved
- ❑ Additional qualified manpower to be acquired wherever there is a shortage
- ❑ Regular training to be provided to existing manpower
- ❑ Budgetary requirements for compliance to be fulfilled on priority

# Findings of CEC Audit

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# Common Concerns: Corporate Level

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- ❑ Corporate Environment Policy
- ❑ Corporate Environment Management Cell
- ❑ SOP for effective implementation of Co-processing Guidelines, Hazardous Waste Management Rules, Fugitive Emission Guidelines
- ❑ Public Hearing
- ❑ Corporate Social Responsibility

# Common Concerns: Unit Level

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- ❑ Formation of Environment Management Cell
- ❑ Installation of Continuous Online Monitoring System for AAQM & Stack & linking with CPCB website
- ❑ Monitoring of Environmental Parameters
- ❑ Environmental Monitoring (Industry specific)
- ❑ CGWA compliance
- ❑ Effective implementation of Fugitive Emission and other CPCB Guidelines
- ❑ Effective implementation of Waste (Hazardous, Solid, Plastic, Bio-medical and E-waste) Rules



THANK YOU