A READY RECKONER FOR PERSONNEL ENGAGED IN ENVIRONMENTAL MANAGEMENT IN SMALL AND MEDIUM SCALE INDUSTRIES

CENTRAL POLLUTION CONTROL BOARD

Ministry of Environment, Forest & Climate Change

(GOVERNMENT OF INDIA)

SEPTEMBER - 23, 2020

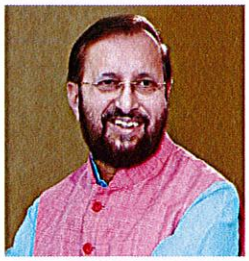
मंत्री
पर्यावरण, वन एवं जलवायु परिवर्तन,
सूचना एवं प्रसारण और
भारी उद्योग एवं लोक उद्यम
भारत सरकार

MINISTER
ENVIRONMENT, FOREST & CLIMATE CHANGE,
INFORMATION & BROADCASTING AND
HEAVY INDUSTRIES & PUBLIC ENTERPRISES
GOVERNMENT OF INDIA

सत्यमेव जयते

स्वच्छ भारत
एक कदम स्वच्छता की ओर

प्रकाश जावडेकर
Prakash Javadekar



MESSAGE

The Small and Medium Scale Industries are crucial for economic development and have significant contribution in providing employment opportunities. The government is committed to support the sector and make country self-reliant. The support and outreach programme for micro, small and medium enterprises sector in the country is aimed at growth of this sector in a sustainable and ecofriendly manner.

The compliance to environmental norms and environmental management has always been a challenge for small and medium scale industries due to manpower and financial constraints. Therefore, it is important to exercise environmentally responsible behavior through awareness towards regulatory obligations and inculcating confidence among the personnel engaged in handling environmental management activities.

I am hopeful that this booklet covering relevant components of environmental compliance in medium and small scale industries will be extremely useful for the personnel engaged in MSME sector.

Date: 18.09.2020

(Prakash Javadekar)

पर्यावरण भवन, जोर बाग रोड़, नई दिल्ली-110 003 फोन : 011-24695136, 24695132, फैक्स : 011-24695329
Paryavaran Bhawan, Jor Bagh Road, New Delhi-110 003,Tel. : 011-24695136, 24695132, Fax : 011-24695329
ई-मेल/E-mail : minister-efcc@gov.in

Babul Supriyo
Union Minister of State
Ministry of Environment, Forest & Climate Change
Government of India

सत्यमेव जयते

स्वच्छ भारत
एक कदम स्वच्छता की ओर

बाबुल सुप्रियो
केन्द्रीय राज्य मंत्री
पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय
भारत सरकार

MESSAGE

The Small and Medium Scale Industries are backbone of economy in the country and job provider for millions of people. The government is dedicated to supporting and encouraging small and medium scale industries, and facilitating understanding of environmental obligations and mandatory requirements. It has to be ensured that environmental regulations are compiled at all times and sustainable growth prevails.

This ready reckoner will create awareness among individuals involved in environmental management in small and medium scale industries and motivate them to work towards improving environmental performance in their respective sectors.

(Babul Supriyo)

Office: 5th Floor, Aakash Wing, Indira Paryavaran Bhawan, Jor Bagh Road, New Delhi-110 003
☎ (+91) 11- 24621921/22 • Fax : (+91) 11- 24695313
Cell : (+91) 9811777143 • 9810711980
E-mail : mos4ef.cc@gmail.com

सचिव
भारत सरकार
पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय
SECRETARY
GOVERNMENT OF INDIA
MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE

आर पी गुप्ता
R P Gupta

MESSAGE

Environmental pollution from industries is a matter of serious concern. Compliance of environmental norms carries equal responsibility on industries irrespective of their scale of operation. One of the main reasons for rampant violations in the sector is lack of awareness and attentiveness among the personnel engaged in on-site environmental management activities.

The mandatory and obligatory requirements such as clearances, consents and authorization, no objection certificates, membership of common environmental infrastructure facility, operation of effluent treatment plant and air pollution control devices needs to be closely supervised and adhered to.

I am hopeful that this booklet will help the personnel engaged in aforesaid activities to be abreast with regulations, timely schedule, obligatory submissions, understand important aspects of air, wastewater and hazardous waste management, basic troubleshooting tips and understand good and bad practices.

[R P Gupta]

इंदिरा पर्यावरण भवन, जोर बाग रोड, नई दिल्ली-110 003 फोन: (011) 24695262, 24695265, फैक्स: (011) 24695270
INDIRA PARYAVARAN BHAWAN, JOR BAGH ROAD, NEW DELHI-110 003 Ph.: (011) 24695262, 24695265, Fax: 011-24695270
E-mail: secy-moef@nic.in, Website: moef.gov.in

शिव दास मीना, भा.प्र.से.
अध्यक्ष
Shiv Das Meena, I. A. S.
Chairman

केन्द्रीय प्रदूषण नियंत्रण बोर्ड
पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय, भारत सरकार
CENTRAL POLLUTION CONTROL BOARD
MINISTRY OF ENVIRONMENT, FOREST & CLIMATE CHANGE, GOVT. OF INDIA

FOREWORD

The regulatory compliance and environmental management has always been a challenge in small and medium scale industries due to manpower, financial and technical constraints. While, various actions for promoting environmental friendly operation in small industries, such as facilitating Common Effluent Treatment Plants (CETPs) and Common Hazardous Waste Treatment Storage & Disposal Facilities (CHWTSDFs) to provide ease of environmental management in units, which operate with limited skilled manpower and resources. The improvements is not substantial and subpar with benchmarks. This document is prepared with an objective of providing plant owner, operators and field personnel, with basic understanding of regulatory obligations, their responsibilities, differentiating between good and bad practices and enclosed self-evaluation format will help users is assessing their strengths and identifying areas requiring serious efforts.

This ready reckoner has been prepared under the supervision of Dr. Prashant Gargava, Member Secretary and conceptualized & edited by Shri Prasoon Gargava, Regional Director, CPCB, Vadodara in the present form with support from Dr. Arvind Kumar Jha, Sc. D, Dr.Nirpendra Semwal, Sc. C and Mrs. Garima Sharma, AS & Sc. D. I acknowledge and appreciate the work done by them in bringing out this booklet.

I hope, the readers will find it useful for effective management of environmental activities in their units.

(Shiv Das Meena)

'परिवेश भवन' पूर्वी अर्जुन नगर दिल्ली-110 032, भारत
'Parivesh Bhawan', East Arjun Nagar, Delhi-110 032, India
Tel. +91-11-22307233, Tele Fax : +91-11-22304948, e-mail: ccb.cpcb@nic.in

CONTENTS

Disclaimer: *This document is purely a concise ready reckoner to create awareness among personnel engaged in environmental management in small & medium scale industries. Users are advised to regularly refer provisions made under various acts intended for prevention & control of pollution and protection of environment as amended from time to time, besides conditions stipulated in environmental clearance, consent, authorization and prescribed by other statutory authorities through orders/circulars/notices/notifications for compliance.*

LIST OF ABBREVIATIONS

1.	APCS	- AIR POLLUTION CONTROL SYSTEM
2.	CCA	- CONSOLIDATED CONSENT AND AUTHORIZATION
3.	CETP	- COMMON EFFLUENT TREATMENT PLANT
4.	CHWTSDF	- COMMON HAZARDOUS WASTE TREATMENT STORAGE & DISPOSAL FACILITY
5.	CPCB	- CENTRAL POLLUTION CONTROL BOARD
6.	CTO	- CONSENT TO OPERATE
7.	ETP	- EFFLUENT TREATMENT PLANT
8.	H&OW (M&TM)	- HAZARDOUS AND OTHER WASTE (MANAGEMENT & TRANSBOUNDARY MOVEMENT)
9.	LSI	- LARGE SCALE INDUSTRY
10.	MSI	- MEDIUM SCALE INDUSTRY
11.	NOC	- NO OBJECTION CERTIFICATE
12.	OCEMS	- ONLINE CONTINUOUS EMISSION / EFFLUENT MONITORING SYSTEM
13.	PCC	- POLLUTION CONTROL COMMITTEE
14.	PPE	- PERSONAL PROTECTIVE EQUIPMENT
15.	SPCB	- STATE POLLUTION CONTROL BOARD
16.	SSI	- SMALL SCALE INDUSTRY

A Ready Reckoner Reference For A Few Environmental Obligations During Plant Operations To Manage Small And Medium Scale Industries

1.0 Introduction

Environmental performance of any industry is not only important from regulatory compliance point of view but also has link with brand image and public perception besides moral responsibility towards environmental protection. A well-structured environmental management cell with trained professionals are mostly established in large scale industries but small and medium scale industries (SSI and MSI) normally lack in such provisions due to various reasons. The person responsible for environmental management in SSI and MSI is normally loaded with several additional tasks. Limitations with respect to area, resources and skills in small scale industries are well known and therefore several promotional and support initiatives are taken by the Government of India from time to time.

Common environmental infrastructure facilities like common effluent treatment plants (CETP), common hazardous waste treatment storage and disposal facilities (CHWTSDF) are great support to MSI and SSI for better environmental management. Regulatory environmental compliance carries equal weightage for all industries, irrespective of their scale of operation. Based on the large number of inspections and monitoring carried out in industries for verification of environmental compliance, it is felt that lack of awareness and attentiveness in personnel engaged in SSI and MSI for environmental management results in environmental non-compliance. The top management is supposed to take care of the mandatory and obligatory requirement before start of operation of the industry which includes necessary clearances, consents and authorization, NOCs, membership of common environmental infrastructure facility (wherever required),

establishment of effluent treatment plant, stacks/vents with adequate air pollution control devices and handling facility for hazardous waste before disposal. These works are generally carried out by consultant organizations engaged by the units.

This reference document is intended to serve as ready reckoner for the persons involved in various activities related with environmental management. Set of questions is given in Appendix-1 for self evaluation. Some of the useful web links for detailed information on various aspects are also compiled and given as Appendix-2 with this document.

2.0 Management of Consent and Authorization

Based on industrial sector categorization (categorization of industries by CPCB), Consent to Operate (CTO) or Consolidated Consent and Authorization (CCandA) is issued by the State Pollution Control Board (SPCB) or Pollution Control Committee (PCC) to an industry after issuance of Consent to Establish followed by erection and commissioning. The consent is issued under Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981 based on applicability. If the handling of Hazardous Waste is involved within the industrial premises, authorization under the Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 is also granted by the State Pollution Control Board or Pollution Control Committee. These consent and authorization are renewed and/or amended from time to time.

WHAT TO DO ON RECEIPT OF THE CONSENT AND AUTHORIZATION?

A. Thoroughly read and understand all terms and conditions prescribed in consent and authorization including standard limits specified for emissions and treated wastewater discharge; note down the validity period, specified standard limits for air and treated wastewater discharge.

B. Any error identified with respect to the name of products, permitted production quantity, discharge/disposal quantities, parameters and limits prescribed or with respect to any other condition prescribed should be brought to the notice of SPCB/PCC for clarification/ amendment immediately.

C. Make the manufacturing workforce aware about their role in compliance of conditions given in consent.

D. Arrange a display board with following details in prominent size outside the gate of industry premises and update at required frequency:

S.No.	Details	Frequency of update
1.	Name of the Unit with complete postal address and contact email/ phone numbers.	Update in case of change in name or contact details.
2.	Consent details and validity.	Update on renewal and amendments
3.	Sector, scale and category of the unit (Pharma/Dye/Textile/ Cement/Tannery etc.; Small/Medium/Large; Red/Orange/Green/White).	Update in case of change in status.
4.	Information regarding quantity of product manufactured and raw materials used.	Update in case of change in status.
5.	Fuel type and consumption, emission standards, point of emission discharge (Stack/ vents), height of stack, capacity of DG sets, latest emission quality analysis report.	Update in case of change in status. Emission and discharge quality to be updated on receipt of every latest analysis report.
6.	Water source and quantity of water consumption, wastewater generation (quantity and quality), mode of disposal of treated wastewater, discharge standards, latest treated effluent quality analysis report.	Update in case of change in status. Treated wastewater quality to be updated on receipt of every latest analysis report.
7.	Hazardous waste authorization details such as category of waste generated as per Hazardous and Other Waste (Management & Transboundary Movement) Rules, 2016, generation quantity. Details of hazardous waste utilization and its permission (if any) and final mode of waste disposal.	Update in case of change in status. Generation and disposal quantity of hazardous waste on monthly basis.

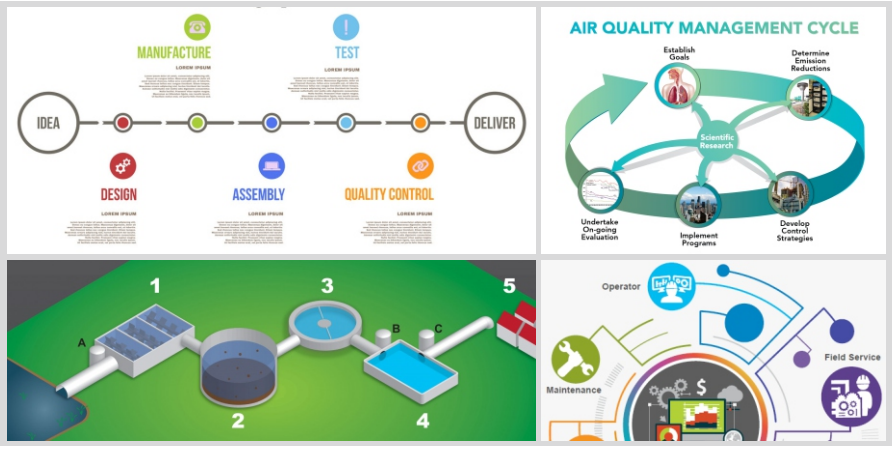
E. Arrange four more displays in respective plant areas; either wall painted or boards or electronic display to make the industrial unit more systematic and easy to manage.

I. Schematic of important production processes with mass balance.

II. Effluent Treatment Plant (ETP) with capacities of equipments/ treatment units.

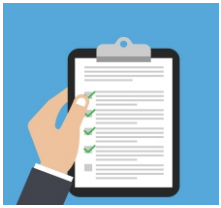
III. Air Pollution Control System (APCS) with capacities.

IV. Maintenance/calibration schedules in respective plant areas.



Set of information to be kept updated and handy

(I) Copy of the consent and authorization and permission under Rule 9 of Hazardous and Other Wastes (Management and Transboundry Movement), Rules, 2016 in case of recycler/ reprocessor.



(ii) Raw material consumption on monthly basis.

(iii) Product manufactured on monthly basis and manufacturing process in brief.

(iv) Material balance on monthly basis.

(v) Water balance on monthly basis and ETP details in brief along

with designed treatment capacity.

(vi) Total quantity of daily water intake, wastewater generated, wastewater treated, reused (if any) and treated wastewater.

(vii) Fuel consumption on monthly basis and details of air pollution control systems installed for flue gas/process emissions.

(viii) Waste generation in the process and updated inventory of waste lying within the premises in categorized manner.

(ix) Hazardous waste management hierarchy including treatment and disposal, maintenance of hazardous waste manifest for disposed waste, all necessary permissions, if waste is imported.

(x) Membership certificate of CETP, CHWTSDF and/or any other common environmental infrastructure facility.

(xi) Copies of latest emission/effluent monitoring reports.

(xii) If applicable, make and model of online continuous effluent and emission monitoring system (OCEMS), maintenance/ calibration records of OCEMS, OCEMS generated data and comparison with manual monitoring data.

(xiii) Training records of employees.

(xiv) Notices/directions received from CPCB/SPCB/PCC and compliance reports submitted.

Updated information/records are helpful for preparation of compliance statement and can be kept in digital form (soft copy) for easy accessibility. Use IT tools to keep the information handy and updated.

Remember the date of expiry of the consent and authorization and apply well in advance for renewal as per duration specified by SPCB/PCC.

3.0 Compliance Reporting

It is wise to make schedule for reporting / submission of compliance reports/statements to respective SPCB/PCC and Regional Office of Ministry of Environment and Forests (if environmental clearance is obtained) based on applicability.

S. No.	Name of compliance*	Due date*	Actual Date of submission
1	Six monthly compliance statements for Environmental Clearance		
2	Environmental Audit Report	31st Jan.	
3	Annual Environment Statement	30th Sept.	
4	Annual return of hazardous waste generation	30th June	
5	Annual report of biomedical waste generation, if health care facility exists in industry premises	30th June	
6	Annual return of electronic waste	30th June	
7	.....	.....	.....
8	.....	.....	.....
9	.....	.....	.....
10	.....	.....	.....

**Correct/modify/add, as applicable.*

4.0 Wastewater (Effluent) Management

Important aspects for understanding

A. Characteristics of raw water used and wastewater generated.

B. Regular check on characteristics of treated wastewater with analysis of key parameters.

S. No.	Parameter*	Prescribed standard/ Desired value	Monitoring result
1.	pH		
2.	TSS		
3.	BOD		
4.	COD		
5.	NH_3-N		
6.	MLSS in aeration Tank *(if provided)*		

**Correct/modify/add, if required.*

C. Quantum of water used, wastewater generation and treated wastewater reused.

D. Importance of parameters prescribed for discharge.

E. Consent conditions (existing and after each renewal), consent amendments and revision of standards at national level.

Ensure smooth operation of ETP

1. Maintain feed to ETP as per designed hydraulic capacity (in terms of KLD or MLD), parameters (e.g. pH, COD, BOD, TSS etc desired in influent) and operational parameters.
2. Operate ETP as per manual provided by ETP supplier/provider.
3. Display schedule of preventive maintenance, overhaul planning and training.
4. Ensure trained person for ETP operation and trained chemist to analyze operational and other required parameters.
5. Take help from expert/ technology provider for modification / upgradation of ETP in case of change in volume and/or characteristics of wastewater stream due to change in product or production process.

6. Ensure provision of flow measurement to keep a check on hydraulic load and maintain records.
7. Analyze operational parameters to check compliance and treatment efficiency from time to time and decide requirement of corrective measures.
8. Ensure spill-proof storage of chemicals used in ETP and un-interrupted power supply.
9. Understand basic trouble shooting of OCEMS and its data retrieval, wherever applicable.

Tips for Maintenance and Upkeep of ETP

1. Keep the ETP area clutter free with best housekeeping practices.
2. Arrange regular maintenance and repair to keep check on spills / leaks and to prevent sudden breakdown.
3. Avoid use of flexible pipes for transfer and handling of effluent in ETP and presence of fresh water line in ETP area.
4. Use color coded pipelines for effluent and other chemicals required for dosing etc.
5. Ensure use of adequate PPE for operation & maintenance of ETP.
6. Ensure safe approach for maintenance and monitoring.
7. Ensure periodic removal of deposited sludge from collection tank/equalization tank and other units of ETP and store properly before disposal.
8. Maintain adequate inventory of essential spare parts and chemicals required for treatment.
9. Maintain and strictly follow schedule of preventive maintenance and training.
10. Keep the aerators of aeration tank (if provided) operational to keep the biomass active even in case of temporary shut down of plant process.

DIFFERENTIATE BETWEEN GOOD AND BAD ETP

5.0 Source and Fugitive Emission Management

Important aspects for proper understanding

A. Characteristics of flue gas and process emissions of the unit.

B. Importance of pollutant parameters prescribed for emissions as per consent conditions (existing and after each renewal), consent amendments and revision of standards at national level.

C. Keep regular check on characteristics of stacks/vents-wise emissions.

S. No.	Parameter*	Prescribed standard/ Desired value	Monitoring result
	Stack/Vent Identity: (Name/Number)		
1.	Particulate matter		
2.	SO_2		
3.	NO_x		
4.	Acid mist		
5.	HCl		
6.	....		
7.	....		
	Stack/Vent Identity: (Name/Number)		
1.	Particulate matter		
2.	SO_2		
3.	NO_x		
4.	Acid mist		
5.	HCl		
6.	....		
7.	....		
	Stack/Vent Identity: (Name/Number)		
1.	Particulate matter		
2.	SO_2		
3.	NO_x		
4.	Acid mist		
5.	HCl		
6.	....		
7.	....		

Ensure smooth operation of Air Pollution Control Systems

1. Maintain parameters as considered for design and operation.
2. Maintain and review analysis results of relevant parameters.
3. Maintain records of scrubbing media/chemical consumption in APCS and sludge/residues/solids generation, storage and disposal.
4. Maintain operation of APCS as per manual provided by supplier/ technology provider.
5. Ensure safe and adequate monitoring facility for flue gas/process emissions from stack/vents. Please refer Emission Regulation Part-III of CPCB.
   (http://www.cpcbenvis.nic.in/scanned%20reports/EMISSION%20REGULATIONS%20PART_3.pdf).
6. Ensure trained manpower for efficient operation and monitoring.
7. Modify/upgrade APCS with the help of expert/technology provider in case of change in discharge quantity and/or characteristics of flue gas or process emissions due to change in product or production process or production capacities or fuel.
8. Maintain records of results for reference and decide requirement of preventive maintenance.
9. Maintain adequate storage of chemicals/media for APCS.
10. Understand basic trouble shooting of OCEMS (wherever applicable) and data retrieval.

Tips for Maintenance and Upkeep of APCS

1. Keep the APCS area clutter free with best housekeeping practices.
2. Fugitive emissions, spills and leaks (from joints, flanges, ducts etc) should be prevented with regular maintenance and repair.
3. Store dust/ash or liquid waste collected from APCS properly at a designated place before disposal. Dust/ash should be contained by appropriate measures like curtains/ wind shields/ water sprinkling/ complete covering.

4. The liquid waste from scrubbers, etc. may either be processed further for resource recovery after obtaining permission or treated in ETP.
5. The duct or piping system for flue gas/process emissions should be color coded to show the movement of the flue gas or process emissions for easy identification/understanding.
6. Ensure usage of adequate PPE for monitoring as well as O&M of APCS.
7. Ensure safe access for maintenance and monitoring.
8. Maintain adequate inventory of essential spare parts, filter bags (if used) and chemicals required.
9. Ensure regular maintenance and calibration of OCEMS, if installed.

Do not run the utility or process plant if APCS attached is not functional or taken off-line for repair/maintenance.

EXAMPLES OF STACK MONITORING FACILITY WITH DIFFERENCE

Stack with proper ladder and safe platform and maintained with anti corrosive paint

6.0 Hazardous Waste Management

Important aspects for proper understanding

A. Source of each type of waste and its relevant parameters of characterization like pH, heavy metals, pesticides, calorific value (CV), flash point, auto ignition, leachability etc.

B. Mode of disposal prescribed in authorization for each waste.

C. Authorization conditions (existing and after each renewal / amendments) and revision of standards / guidelines / protocols at national level.

D. Conditions prescribed by CHWTSDF or the actual user of the waste, as the case may be.

E. Mechanism of manifest system.

Ensure Proper Management Of Hazardous Waste

1. Utilize or pre-process or co-process or incinerate and land fill in a secured common or captive landfill site as prescribed in authorization issued by SPCB/PCC.
2. Prepare storage plan based on the compatibility of different type of generated waste with due consideration of nature such as reactivity, flamability, corrosivity.
3. Store Hazardous waste in such a manner that it does not spill, leak and discharge in open.
4. Store hazardous waste in demarcated and well ventilated place with adequate provision for collection and disposal of leaks, spills or leachate.
5. Label hazardous waste bags and drums with non-washable marker for type and name of waste, date of collection, quantity and intended use.
6. Provide storage area with doors of proper size and safe access for movement of waste as well as to deal with any emergency situation.

7. The hazardous waste storage floor height to be kept at least 10cm above the highest water lugging level during monsoon.
8. Inspect hazardous waste storage areas to check leak and spill and any such possibility. Containers with liekly potential of leak should be replaced.
9. Regulate entry in hazardous waste shed with supervision.
10. Provide permanent signage for hazardous waste storage site and maintain good housekeeping.
11. In general, upto 90 days storage of hazardous waste is allowed as per Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 before final disposal as per condition given in Authorization but small generators may get additional time from SPCB/PCC depending on generation capacities like:

    (i) small generators (up to ten tons per annum hazardous waste generation) may be permitted up to 180 days;
    (ii) actual users may also be permitted up to 180 days of their annual capacity;
    (iii) occupiers who do not have access to any treatment, storage, disposal facility in the concerned State;
    (iv) the waste which needs to be specifically stored for development of a process for its recycling, recovery, pre-processing, co-processing or utilization; and
    (v) in any other case, on justifiable grounds up to 180 days.

12. Create awareness among all plant personnel about the hazard associated with hazardous waste generated and stored.
13. Use proper PPEs while handling the hazardous waste.
14. Provide adequate firefighting system near hazardous waste storage shed.

EXAMPLES OF HAZARDOUS WASTE STORAGE AREA WITH DIFFERENCE

Hazardous waste stored in hapahazard manner

Well demarcated hazardous waste storage

7.0 Do's and Don'ts for improved environmental performance

DO'S	DON'TS
Networking with similar type of industries for new ideas and best practices. 	Never operate any plant process activity without requisite permissions, consent and authorization.
Regularly visit important websites for updates on rules, regulations and notifications 	Never operate plant process without checking all safety aspects
Find out scope to minimize generation of effluent, emissions and waste by process modification, process optimization and raw material substitution	Never operate your plant without operational adequate pollution control devices.
Analyze monitoring results trends for corrective measures. 	Never overlook your regulatory obligations.
Maintain schedule of activities including preventive maintenance. 	Never leave spills/ leaks /unauthorized discharges/ emissions unattended.
Promote activities related with plantation, energy saving, water conservation & improved housekeeping. 	Never hide/manipulate facts & figures.

SELF-EVALUATION OF PREPAREDNESS

Evaluate your preparedness for environmental management based on your answers for given questions.

- If the answer is 'Fully' → ***3 points***
- If the answer is 'Partly' → ***2 points***
- If the answer is 'Not sure' → ***1 point***

	Question	Score
1.	Have you understood the norms and conditions stipulated in the clearance, consent, authorization and membership of common environmental infrastructural facilities obtained?	
2.	Have you compiled the information, which you are supposed to keep handy and updated all the time?	
3.	Have you prepared a calendar for submission of statutory compliance reports/statements with due dates?	
4.	Is the ETP adequate to handle the quantity and characteristics of the wastewater generated?	
5.	Have you provided adequate APCS to handle the flue gas and process emissions generated?	
6.	Have you provided stack monitoring facilities as per Emission Regulation Part – III of CPCB?	
7.	Do you have required provision to handle and store hazardous waste generated before disposal?	
8.	Do you maintain adequate inventory for chemicals and spares required for operation and maintenance of ETP?	
9.	Do you maintain adequate inventory for chemicals and spares required for operation and maintenance of APCS?	

	Question	Score
10.	Have you developed basic understanding of trouble shooting and data retrieval from OCEMS?	
11.	Have you ensured good housekeeping and easy access to units of ETP and APCS for maintenance and repair?	
12.	Do you analyze the trend of monitoring data generated to find out scope for improvement or corrective measures?	
13.	Do you organize awareness programme for workforce of your unit to make them aware about their role in environmental compliance?	
14.	Do you ensure use of PPEs?	
15.	Have you done adequate plantation in the plant premises?	
	TOTAL SCORE	

Score <20 : Serious immediate efforts are required with training.

Score 21 to 30 : Close supervision and continuous efforts required.

Score 31 to 40 : Reasonably prepared with chances to excel.

Score >40 : Excellent and ready to demonstrate model in peer group.

IMPORTANT WEB LINKS

Please visit relevant website.

1. ***Central Pollution Control Board:***

https://cpcb.nic.in

(i) For online monitoring system updates:

https://www.cpcb.nic.in/online-monitoring-of-industrial-emission/

(ii) Source emission and discharge standards:

https://cpcb.nic.in/effluent-emission/

(iii) Hazardous waste related technical guidelines :

https://cpcb.nic.in/technical-guidelines/

(iv) Standard operating procedure for recycling of hazardous waste:

https://cpcb.nic.in/sop-for-hw-specific/

(v) Important relevant Hon'ble National Green Tribunal order:

https://cpcb.nic.in/ngt-court-cases/

2. ***Ministry of Environment, Forests and Climate Change (www.moef.gov.in)***

(i) For important changes in rules and regulations and standards:

http://moef.gov.in/rules-and-regulations/environment-protection/

(ii) Sensitive areas related notifications:

http://moef.gov.in/rules-and-regulations/esa-notifications/

(iii) Different circulars and guidelines:

http://moef.gov.in/e-citizen/circulars-orders-guidelines/circulars-2/

(iv) Environment clearance/ Forest Clearance/Wildlife clearance

related information:
https://parivesh.nic.in/

3. *Website address of State Pollution Control Boards and Pollution Control Committees (alphabetically)*

(i) Andhra Pradesh State Pollution Control Board:
http://appcb.ap.nic.in

(ii) Arunachal Pradesh State Pollution Control Board:
http://www.apspcb.org.in

(iii) Assam State Pollution Control Board:
http://www.pcbassam.org

(iv) Bihar State Pollution Control Board:
http://bspcb.bih.nic.in

(v) Chhattisgarh State Pollution Control Board:
http://www.enviscecb.org

(vi) Goa State Pollution Control Board:
https://goaspcb.gov.in

(vii) Gujarat State Pollution Control Board:
http://gpcb.gov.in

(viii) Haryana State Pollution Control Board:
http://hspcb.gov.in

(ix) Himachal Pradesh State Pollution Control Board:
http://hppcb.nic.in

(x) Jharkhand State Pollution Control Board:
http://www.jspcb.org

(xi) Karnataka State Pollution Control Board:
http://kspcb.kar.nic.in

(xii) Kerala State Pollution Control Board:
http://www.keralapcb.nic.in

(xiii) Madhya Pradesh State Pollution Control Board:
http://www.mppcb.nic.in

(xiv) Maharashtra State Pollution Control Board:
http://mpcb.gov.in

(xv) Manipur State Pollution Control Board:
http://www.pcbmanipur.org

(xvi) Meghalaya State Pollution Control Board:
http://megspcb.gov.in

(xvii) Mizoram State Pollution Control Board:
http://mizenvis.nic.in

(xviii) Nagaland State Pollution Control Board:
http://npcbngl.nic.in

(xix) Odisha State Pollution Control Board:
http://ospcboard.org

(xx) Punjab State Pollution Control Board:
http://www.ppcb.gov.in

(xxi) Rajasthan State Pollution Control Board:
http://www.rpcb.rajasthan.gov.in

(xxii) Sikkim State Pollution Control Board:
http://spcbsikkim.org

(xxiii) Tamil Nadu State Pollution Control Board:
http://www.tnpcb.gov.in

(xxiv) Telangana State Pollution Control Board:
http://tspcb.cgg.gov.in/default.aspx

(xxv) Tripura State Pollution Control Board:
http://tspcb.tripura.gov.in

(xxvi) Uttar Pradesh State Pollution Control Board:
http://www.uppcb.com

(xxvii) Uttrakhand State Pollution Control Board:
http://ueppcb.uk.gov.in

(xxviii) West Bengal State Pollution Control Board:
http://www.wbpcb.gov.in

(xxix) Delhi Pollution Control Committee:
http://www.dpcc.delhigovt.nic.in/indexdup.php

(xxx) Puducherry Pollution Control Committee:
http://dste.puducherry.gov.in/ppccmain.htm

(xxxi) Chandigarh Pollution Control Committee:
http://chandigarh.gov.in/dept_cpcc.htm

(xxxii) Daman & Diu and Dadra & Nagar Haveli Pollution Control Committee:
http://www.pccdaman.info

(xxxiii) Andaman & Nicobar Islands Pollution Control Committee:
http://forest.and.nic.in/frst-environment1.htm#pollution

(xxxiv) Lakshadweep Pollution Control Committee:
http://lakshadweep.nic.in/depts/laktech/feedback.htm

(xxxv) Jammu Kashmir State Pollution Control Committee/ Ladakh Pollution Control Committee:
http://jkspcb.nic.in

* * *

CENTRAL POLLUTION CONTROL BOARD

Ministry of Environment, Forest & Climate Change

(GOVERNMENT OF INDIA)

'**Parivesh Bhawan**' East Arjun nagar, delhi - 110 032 India
Phone : 011 4310 2030; twitter handle 011 43102485
website : www.cpcb.nic.in

Scan this QR Code to visit our website for more information

multicolourservices@gmail.com