ENVIRONMENTAL AUDIT SCHEME AND THE GUIDELINES FOR ENVIRONMENTAL AUDITORS

mspcb

MEGHALAYA STATE POLLUTION CONTROL BOARD

FOREWORD

Meghalaya has natural advantages for industrial development due to abundance of mineral resources, agricultural/horticultural resources and Forests based resources. The peaceful industrial climate and the business acumen of the people coupled with promotional policy of Government and infrastructural facilities like Power, Water, Land and Transportation has led to rapid industrialization in the last two decades. Industrialization is always associated with degradation of the environment quality as a result of the discharge of liquid effluent, gaseous emission and disposal of Solid waste. In order to minimize the impact of industrialization on the Environment quality, the activity needs to be regulated through regular monitoring and strict enforcement of the Environmental Regulations, norms and standards. The task is a big challenge to the SPCBs in the Country as Environmental Regulators and enforcers mainly due to the shortage of Technical and Scientific manpower including inadequate infrastructure facilities faced by them.

The Conference of the Chairmen & the Member Secretaries of the Central Pollution Control Board and the State Pollution Control Boards/Committee's held on 17-04-2012 at New Delhi, felt the need that every SPCB should evolve a monitoring mechanism in the form of Third party Monitoring/ Environmental auditing which is in conformity with the provision of the National Manufacturing Policy,2011 to verify the Environmental Statement Report filed by the industries as required under Rule 14 of the Environmental(Protection) Rules,1986.

In the backdrops of the above exigencies, the MSPCB has formulated the Environmental Audit Scheme and guidelines for Environmental Auditing to be implemented in the State initially for highly polluting industries under Red Category. The Scheme is expected to be a vital Management tool for environmental governance of industries and deliver oriented result in maintenance of environmental quality.

The effort put in by Shri J.F. Lamurong, Assistant Environmental Engineer and the supervision of Shri J.H. Nengnong, Member Secretary in formulating the guidelines is duly acknowledged.

(C.P.Marak,IFS)
CHAIRMAN
Meghalaya State Pollution Control Board
Shillong

INDEX

Sl No.	PARTICULARS	Page No.
1.0	Background and Introduction	1
2.0	Environmental Audit	1
3.0	Objective of Scheme	2
4.0	Definition and Terminology	2
5.0	Environmental Audit Scheme-Applicability of Scheme	3
6.0	Registration/Recognitions of Environmental Auditor	3
6.1	Eligibility for Environmental Auditor	3
7.0	The Guidelines to be followed by Auditor	4
8.0	List of Auditors	6
9.0	Complaint against Auditor.	6
10.0	Action/Direction upon filing of Audit Reports	6
11.0	Submission of Reports	7
12.0	Consequences of failure to file Audit Report.	7

LIST OF ANNEXURE

A.	Industries under "Red" category	8
B.	List of Laboratory Instruments	11
C.	List of Parameters to be analysed	12
D.	Recognized Environmental Auditors	25
E.	Application Form	26

LIST OF PROFORMA

I.	Proforma for Intimation to Conduct an Environmental Audit	14
II.	Format of the Environmental Audit Report	15
III.	Adequacy Certificate of Environmental Management System	23
IV.	Certificate for Sampling and Analysis	24

1.0 BACKGROUND AND INTRODUCTION

According to the provisions of Rule 14 of the Environment (Protection) Rules, 1986, every industry, operation or process granted Consent under the Water (Prevention & Control Pollution) Act 1974 and Air (Prevention & Control Pollution) Act 1986 requires to submit on Environmental statement in prescribed form for the financial year ending 31st March to the State Pollution Control Board before 30th September every year. The role of the State Pollution Control Board is to scrutinize the statement and give its feed back to the industry for taking corrective measures. The State Board may also conduct auditing of the statement as and whenever required to verify authenticity of the information.

The National Manufacturing Policy, 2011 also emphasize on introduction of third party monitoring mechanism in Environmental compliance considering the man-power shortage in State Pollution Control Board. The subject matter was discussed during the interactive meeting of Chairmen & Member Secretaries of Pollution Control Boards/Committee held on 17-04-2012 at New Delhi organized by the Central Pollution Control Board where it was decided that State Pollution Control Boards shall take appropriate consideration to have a system of Third Party monitoring/inspection mechanism so as to supplement the relatively low man-power for having better decision making.

In the context of the above provision, the Gujarat Pollution Control Board has introduced the scheme of Environmental Auditing by third party agency to serve both the purpose of verification of Environmental Statement submitted under Environment (Protection) Rules, 1986 and also the system of engagement of Third Party agency to monitor Environmental Compliance.

Considering the effectiveness of the system as experienced by the Gujarat Pollution Control Board, The Meghalaya State Pollution Control Board felt necessary to introduce the scheme of Environmental Auditing of industries and their development projects starting with the highly polluting industries falling under Red Category.

2.0 ENVIRONMENTAL AUDIT SCHEME

Environmental audit is a management tool comprising of a systematic, documented, periodic and objective evaluation of how well the Environment Management Systems are performing with the aim of,

- Waste prevention and reduction.
- Assessing compliance with regulatory requirements.
- Facilitating control of environmental practices by a company's management and placing environmental information in the public domain.

3.0 OBJECTIVE OF SCHEME

The scheme was introduced with a view to:

- Enforcing discipline amongst the industries.
- Arming MSPCB as well as the Associations of industries in the concerned areas with the necessary information and,
- Doing regular monitoring of different industries scattered in the entire State of Meghalaya with a perspective of environmental protection & sustainable development.

4.0 DEFINITION AND TERMINOLOGY

For the purpose of Environmental Audit the following terminologies are used.

Auditor: shall mean Environmental auditor recognized by the Meghalaya State Pollution Control Board.

Audit Report or 'Report': shall mean Environmental Audit Report required to be submitted under the Scheme in the prescribed format.

Environmental Management System: shall include treatment plants, equipment and processes for liquid effluents, air emissions, noise, solid waste and other pollutants. Also collection, treatment, conveyance and disposal system for such waste and other pollutants.

An environmental audit may include environmental compliance audits, environmental site assessments, environmental risk assessments including safety & health aspects, EMS gap assessments, EMS audits, and/or internal EMS audits, with reference to pollutants.

Schedule: means Schedule to this Scheme, as specified by the MSPCB.

Specified Product: shall mean products/processes specified in Schedule I of this Scheme.

MSPCB: shall mean Meghalaya State Pollution Control Board.

NEERI: shall mean National Environmental Engineering Research Institute.

AQC: shall mean Analytical Quality Control.

ETP : shall mean Effluent Treatment Plant.

CETP: shall mean Common Effluent Treatment Plant.

TSDF: shall mean Treatment Storage & Disposal Facility.

EARs: Environmental Audit Reports

Audit Team: An Audit team shall consist of 4 (four) persons in the form of Environmental Engineer, Chemical Engineer, Micro biologist and Chemist. The details in this regard are mentioned at 6.1 of the guidelines.

5.0 ENVIRONMENTAL AUDIT SCHEME

Applicability of the Scheme:

(a) This Scheme shall apply to all the industrial units manufacturing and/or processing any one or more of the products categorized as Red Category and situated in the State of Meghalaya listed at Schedule 1 (ANNEXURE-A).

(b) All common facilities i.e. CETPs /TSDFs etc of the State.

(c) Any other industries manufacturing products which may be categorize by the Board from time to time.

6.0 REGISTRATION OR RECOGNITIONS FOR AN ENVIRONMENTAL AUDITOR

Any firm or group of persons having the eligibility criteria as stipulated herein and is desirous of practicing as an Environment Auditor in the State of Meghalaya shall approach the MSPCB for Registration for that purpose. The request for registration shall be made by the applicant in the prescribed form at Annexure –E and shall be accompanied by copy of relevant certificates etc. Request shall also be accompanied by a Demand Draft of Rs. 20,000/- (Rupees twenty thousand) only as registration fee drawn in favour of Member Secretary, Meghalaya State Pollution Control Board, Shillong

6.1 ELIGIBILITY CRITERIA FOR AN ENVIRONMENTAL AUDITOR

The applicant must have manpower; experience, qualifications and laboratory facilities as stated under to qualify for an Environmental Auditor.

a) **Qualification :** Each Audit team must comprise of at least four member; having following qualification.

i) A person possessing a degree in Environmental Engineering or a degree in Civil Engineering with specialization in Environmental Engineering as an elective subject awarded by the recognized University or Institute in India or abroad.

ii) A person possessing a degree in Chemical Engineering/Technology awarded by a recognized University or Institute in India or abroad.

iii) A person possessing a degree in Chemistry or Environmental Science awarded by a recognized University or Institute in India or abroad.

iv) A person possessing a degree in Micro Biology/Bio-chemistry awarded by a recognized University or Institute in India or abroad.

b) Experience: Out of four members at least one Engineer (Chemical or Environmental) and one Scientist (Chemistry or Microbiologist) should have a minimum experience of ONE YEAR in the field of the Environmental Management System, in a chemical industry.

c) **Number of teams:** An Auditor can have maximum three numbers of teams for audit work having man power, qualifications and experience as shown at (a) and (b). In other words no auditor shall have more than three teams having above stated qualifications and experience for the team members.

d) **Number of Audits:** No auditor shall take up more than fifteen Environmental Audit jobs per team and maximum numbers of Environmental Audit jobs to be submitted by each auditor per year shall not exceed forty five under any circumstances; irrespective of number of teams and/or team members.

e) **Laboratory :**

i) **Space :** Each auditor must have an adequate laboratory having an area of minimum 30 Square meter for one team; 40 square meter for two teams and 50 square meter for three teams.

ii) Instruments/parameters: The applicant shall have self reliant laboratory with duly calibrated all necessary and required instruments as per Annexure- B and shall have qualified and trained human resources so as to analyze the parameters shown in list annexed as per Annexure C.

f) **Recognition:** Each auditor must have valid recognition from MSPCB from time to time depending upon the validity of registration. No auditor shall submit Environmental Audit Report for an industry if he is derecognized as such report will not be accepted by the Board.

7.0 THE GUIDELINES TO BE FOLLOWED BY AUDITORS.

The following conditions must be followed by the Auditors while carrying out the Environmental Audit of industries/common facilities falling in schedule as per the MSPCB directions issued from time to time.

1. All the audit reports are to be submitted as per the format prescribed by the MSPCB as per Table - 2.
2. The EARs prepared and submitted by the auditors must be accompanied by adequacy & efficacy certificate in a format prescribed by MSPCB failing which the respective industry & auditor shall be held responsible; & EAR shall not be accepted. This may also lead to derecognition of auditor.
3. The EARs must include at least three observations covering all the three seasons. In other words, the industry under audit; shall be monitored at least thrice in a year by the auditor & the auditor shall collect at least three sets of samples of effluents (air + waste water + Solid/hazardous waste) from all discharge points & submit all data of three observations in EARs; otherwise EARs shall be considered incomplete and can be rejected.
4. The entire work of audit must be done by the auditor himself. In other words, the auditor shall be totally self sufficient and there shall be no dependence on other agencies for site visit of industries, collection of data & samples and analysis work etc and finally preparation of audit reports and

there shall be no sub-contracting. Any violation in this regard shall lead to de-recognization of the auditor.

5. The analysis of the effluent shall be done as per the standard methods only. In case of doubts the auditor can contact the Office of MSPCB.

6. The auditor must clearly report to MSPCB about any inconsistency and malpractice being committed/practiced by the industry e.g. dilution of effluents, by pass of untreated effluent or any other activities which are likely to create environmental pollution problems; & contrary to the directions issued through consent orders & other letters under the different Acts; by MSPCB.

7. The auditor shall thoroughly ascertain about all the products / by products manufactured by the industry & report to the MSPCB immediately by verifying excise registers, usage of raw materials and other production related documents, if there are any discrepancies.

8. The auditor shall follow the laboratory manual prescribed by MSPCB and standard methods for carrying out analysis of solid/hazardous waste & leachate.

9. The auditor must ascertain & report to MSPCB about the compliance made by the industry of the previous year's recommendation/observations of the auditor in the EARs.

10. The auditor shall report about % reduction in water consumption, power consumption & consumption of raw materials etc. carried out by the industries in its observations in the EARs compared to the previous year.

11. The auditor shall adopt AQC methods while doing analysis of effluents.

12. The auditor shall have adequate supporting technical & subordinate staff to cope with the audit work.

13. The auditor shall persue and emphasize about adoption of clean technology/cleaner production, waste minimization, waste reduction, waste exchange, reuse & recycling of effluents etc. & report about the same in EARs.

14. There are large number of industries which generates spent acid and hence correct details about treatment/disposal of the acid shall be mentioned in EARs.

15. The auditor must report about the valid CETP & TSDF membership of concerned industry in EARs.

16. The auditors must prepare the EARs of industries under audit before 31st December of the particular year after including observations of the month of December and send copies of the same to industry and MSPCB; before 31 January every year in next year.

17. No auditor shall work as a consultant to the industry/group of affiliated industries where one or more directors/proprietor/partners are common; for which he is appointed / selected as an auditor. The consultancy work includes

(1) analysis of effluent (waste water, air emission and solid/Hazardous Waste)

(2) design/operation/up gradation of Environment Management System

(3) carrying out EIA, EIS studies etc.

18. The auditor shall from time to time, upgrade his competence/manpower, laboratory facilities. He shall exercise the best, precise, and accurate Analytical Quality Control (AQC) system.

19. In case of change in the man power (any member of the team); same shall be communicated to the MSPCB in advance and the auditor shall also obtain the permission of the Board for its replacement.

20. No auditor shall sublet any work to any person while doing Environmental Audit.

21. The auditor shall have to fulfil all the conditions laid down by the MSPCB from time to time.

22. High levels of integrity, sincerity and ethics shall be maintained and followed by the auditors.

8.0 LIST OF AUDITORS :

Category of Environmental Auditors : Records of registered/recognized Environmental Auditors for industries will be maintained in the prescribed format annexed as Annexure –D. Listed Registered Auditors can also carry out Environmental Audit for common facilities and other industries as categorized by the Board from time to time.

9.0. COMPLAINTS AGAINST AUDITORS.

Complaints against the actions or conduct of a certified auditor will be reviewed and investigated by MSPCB using documented procedures. A valid substantiated complaint may result in cancellation of certification/recognition.

10.0 ACTION/DIRECTION UPON FILING OF AUDIT REPORTS.

a) **Audit Report indicating that the industry is not meeting with the statutory provisions :** Where the audit report of a particular unit indicates that the industry does not meet with the requirements as prescribed by or under the aforesaid statutory provisions and that the industry has not complied with the terms and conditions of the consent/provisional consent/NOC and those contained in any general or special Circular/Order of the MSPCB, the industry shall be liable to be subjected to appropriate directions including direction for closure or for payment of compensation for affected people and areas, betterment of environment and general monitoring subject to appropriate direction of the court and of all statutory authorities. The MSPCB shall place this fact before the court by producing a report to that effect and that industry shall be liable to be subjected to appropriate directions including direction for closure and/or directions for payment of compensation.

b) **Audit Report not found correct in respect of the information supplied by the industry:** Where the audit report is found to be incorrect or inaccurate in respect of material particulars

for an industry by the NEERI, MSPCB or any other appropriate agency, which may be appointed by the MSPCB, that industry shall be liable to be subjected to appropriate directions of any statutory authorities, including direction for closure of that industry and / or for payment of compensation, etc

c) **The responsibility of auditors (audit report of the auditor if found incorrect or inaccurate):** The auditor whose report is found to be incorrect or inaccurate in respect of material particulars by the NEERI, the MSPCB or any other appropriate agency, which may be appointed by the MSPCB, such auditor shall be liable to be derecognized by the MSPCB and the report of the same auditors in respect of other indusial units shall also be liable to be rejected.

The aforesaid action shall be taken without prejudice to any other minimal or civil liability to which such auditors might have exposed themselves to.

11.0. SUBMISSION OF REPORT:

(a) **Scrutiny fee:** All the specified industry shall ensure that all environmental audit report prepared by the auditors which are recognized by MSPCB is to be accompanied with appropriate scrutiny fee of Rs.20,000/- (Rupees Twenty thousand only) for the industry falling under Red category, by Demand Draft in favour of Member Secretary, MSPCB, Shillong at the time of submitting to MSPCB.

(b) **Existing Industries:** All the industries falling in Schedule I are required to submit their first and subsequent Environmental Audit Report by the 30th June every year with adequate fees to MSPCB.

(c) **New/ proposed industries :** All the industries & common facilities covered under Schedule I which may be set up in any month during a particular year shall submit EAR for a period up to 31st January of the next year; e.g. if an industry/common facility starts its production/operation in say August'15, then it shall prepare EAR through appropriate auditor for a period of August'15 to 31st December'15 (even through it may be on trial run) and must submit EAR before 31 January'16; with necessary scrutiny fees.

12.0 CONSEQUENCES OF FAILURE TO FILE AUDIT REPORT

If any industry does not submit its audit report as per the time schedule prescribed in this scheme, it shall stop all manufacturing and production activity and the Public Health Engineering Department (PHED)/Municipal Board/Meghalaya Energy Corporation Ltd. (MeECL) shall disconnect the supply of water and electricity to such unit. The MSPCB shall intimate the particulars of such defaulting units, including address and electricity meter number to the PHED/ Municipal Board/MeECL within two weeks from the date of expiry of the time limit stipulated for filing the environmental audit report. The PHED/Municipal Board/MeECL shall comply with such intimation and disconnect water/electricity of the said unit within one week of receipt of such intimation.

ANNEXURE-A

SCHEDULE - I

12.0 INDUSTRIES UNDER "RED" CATEGORY:

Heavily or highly polluting industries /activities requiring Consent/ Authorisation from the State Pollution Control Board.

A. Industries identified by MoEF, GOI as heavily polluting.

1. Aluminium smelter
2. Cement
3. Chlor alkali
4. Copper Smelter
5. Distillery including Fermentation industry
6. Dyes and Dye-intermediates
7. Fertilizer
8. Iron and Steel (Involving processing from ore/crap/Integrated steel plants)
9. Oil refinery (Mineral oil or Petro Refineries)
10. Pesticides (Technical) (excluding formulation)
11. Petrochemicals (Manufacture of and not merely use of as raw material)
12. Pharmaceuticals (Basic) Excluding formulation)
13. Pulp & Paper (Paper manufacturing with or without pulping)
14. Sugar (excluding Khandsari)
15. Tanneries
16. Thermal power plants
17. Zinc smelter

B. Industries manufacturing following products or carrying out following activities:-

18. Anodizing
19. Asbestos and asbestos-based industries
20. Automobiles manufacturing /assembling
21. Ceramic/refractories
22. Chemical, petrochemical and electrochemical including manufacture of acids such as sulphuric Acid, Nitric Acid, Phosphoric Acid etc.
23. Chlorates, perchlorates and peroxides
24. Chlorine, Flurorine, bromine, iodine and their compounds
25. Coke making, coal liquefaction, coal tar distillation or fuel gas making
26. Common Effluent Treatment Plant

27. Dry coal processing/Mineral processing industries like ore sintering, palletization, etc.
28. Explosives including detonators fuses etc.
29. Fermentation industry including manufacture of yeast, beer etc.
30. Fire crackers
31. Foundries
32. Glass and Fibre glass production and processing (excluding moulding)
33. Glue and gelatine
34. Heavy Engineering
35. Hospitals including Nursing Homes
36. Hot Mix plants
37. Hydrocyanic acid and its derivatives
38. Incineration plants
39. Industrial carbon including electrodes and graphite blocks, activated carbon, carbon black etc.
40. Industrial or inorganic gases namely
    (a) Chemical gases: Acetylene, Hydrogen, Chlorine, fluorine, ammonia, sulphur Dioxide, Ethylene,Hydrogen sulphide, Phosphine,
    (b) Hydrocarbon Gases: Methane, Butane,ethane, Propane
41. Industry or process involving electroplating operations
42. Industry or process involving foundry operations
43. Industry or process involving metal treatment or process such as picking, paint stripping,heat treatment, phosphating or finishing etc.
44. Lead re-processing & manufacturing including lead smelting
45. Lime manufacturing
46. Lubricating oils, greases or petroleum – based products
47. Milk processing and diary products (Integrated Project)
48. Mining and ore-beneficial.
49. Organic Chemical manufacturing
50. Parboiled rice mills
51. Paints and varnishes (excluding blending/mixing)
52. Petroleum products manufacturing & oil/crude oil/resides reprocessing
53. Phosphate rock processing plants
54. Phosphorous and its compounds
55. Photographic films and chemicals
56. Pigments and intermediates
57. Potable alcohol (IMFL) by blending or distillation of alcohol

58. Power generating plants (excluding D.G.Sets)
59. Processes involving chlorinated hydrocarbon
60. Ship-breaking
61. Slaughter houses and meat processing units.
62. Steel and steel products including coke plants involving use of any of the equipment's such as blast furnaces open hearth furnace, induction furnace or are furnace etc. or any of the operation or processes such as heat treatment acid pickling rolling or galvanizing ets.
63. Stone Crushers
64. Surgicals and medical products involving prophalacties and latex
65. Synthetic detergen and soap
66. Synthetic fiber including rayon, tyre cord, polyester filament yarn
67. Synthetic rubber excluding moulding
68. Synthetic rubber excluding moulding
69. Tobacco products including cigarettes and tobacco processing
70. Vegetable oils including solvent extracted oils, hydro-generated oils
71. Yarn textile processing involving scouring, bleaching, dyeing, printing or any effluent/ emission generating process.

ANNEXURE-B

LIST OF LABORATORY INSTRUMENTS:

a. pH meter
b. Balance
c. Hot Air Oven
d. Muffle furnace
e. COD Assembly
f. BOD Incubator
g. Conductivity meter
h. Spectrophotometer
i. Flame Photometer
j. Noise level meter
k. RDS
l. Stack Monitoring Kit
m. Phenol Distillation
n. Cyanide distillation
o. Hot plate
p. Stirrer

IN ADDITION IT IS DESIRABLE TO HAVE:

1. DO Meter
2. Selective Iron Electrode with meter
3. Kjeldhal Assembly (Total Nitrogen)
4. AAS (Atomic Absorption Spectrophotometer)
5. G.C.(Gas Chromatograph)
6. HPLC (High Performance Liquid Chromatograph
7. TOC (Total Organic Carbon) Analyser.

ANNEXURE-C

LIST OF PARAMETERS TO BE ANALYZED

WATER ANALYSIS

a. pH
b. Temperature
c. Total Suspended Solids (TSS)
d. Total Dissolved Solids (TDS)
e. Chemical Oxygen Demand (COD)
f. Bio Chemical Oxygen Demand (BOD)
g. Dissolved Oxygen (DO)
h. Conductivity
i. Turbidity
j. Alkalinity
k. Oil & Grease
l. Flouride
m. Phenolic Compound.
n. Sulphate
o. Nitrite
p. Heavy metals like Cr, Cu, As, Ni, Zn, Cd, Pb etc.

SOLID

1. Acidity
2. Total Phenol
3. Heavy Metal viz. Cu, Zn, Pb, NI, Cd, As, Hg, Cr, Co.
4. Total Organic Compound
5. Cyanide

AMBIENT AIR ANALYSIS

1. R.S.P.M.
2. S.P.M.
3. SO2 (Sulphure dioxide)
4. NO(Oxide of Nitrogen)
5. Cl22 (Free Chlorine)
6. H2S (Hydrogen Sulphide)
7. HCl (Hydrogen Chloride)
8. NH3 (Ammonia)
9. CS2
10. Acid Mist

PROCESS STACK/VENT EMISSION/FLUE GAS STACK EMISSION

1. P.M.
2. SO2 (Sulphure dioxide)
3. NO (Oxide of Nitrogen)
4. Cl22 (Free Chlorine)
5. HCl (Hydrogen Chloride)
6. NH
7. Hydrogen Demide
8. Br23
9. CS2
10. HBr (hydrogen Bromide)
11. HCN (Hydrogen Cyanide)

Table 1: Proforma for Intimation to Conduct an Environmental Audit

(To be submitted by the industry)

The Member Secretary,

Meghalaya State Pollution Control Board,

'Arden' Lumpyngngad,

Shillong - 793014

M/s._____, an Environmental Auditor (Recognized as authorized auditor by MSPCB, vide_____) has been engaged to conduct an environmental audit as per the guidelines issued by the MSPCB, Shillong. The details are as follows:

- Name of Industry :
- Address of the Industry:
- Brief description of activity :
- Site plan attached : YES/NO
- Phone, Fax and E-mail :
- Proposed period of audit :
- Proposed completion date:

Date : .....

Place : .....

Signature and name of the authorized person of the industry

Table 2: Format of the ENVIRONMENTAL AUDIT REPORT

Meghalaya State Pollution Control Board,

'Arden' Lumpyngngad,

Shillong - 793014

Phone : 0364 – 2521533,2522802,2521514,2522726

(To be submitted in triplicate)

(Period from..... To.....)

(A)	**GENERAL**	
1.	*Name of the Industry*	
2.	*Location :*	
3.	*Registered Office Address:*	
4.	*Month & Year of establishment:*	
5.	*No. of workers employed :*	
	Male/Female :	
6.	*No. of electrical connections*	
	With service numbers :	
	- Total connected load :	
	- Electric consumption per tonne:	
	Of product manufactured	
	- Percentage enhancement in energy:	
	Saving as compared to previous year.	
7.	*Number of D.G. Set & their capacity :*	
8.	*Name/Residential address of all directors/ partners:*	
	Telephone Nos. :	
	(Residential & Industrial):	
	Fax No. :	
	E-mail of Industry :	
	E-mail Partners/Directors:	

9	*No. of shifts & timings :*	
10	*Name & Address of the in charge of*	
11	*Environment/Safety Division/Cell/Unit:*	
12.	*No. of days during which production activities were in operation during the Audit period covered*	
13.	*Has the industry obtained ISO 9000/ ISO 14000/OSHAS 18000/Any other EM accreditation/Certification recognition?*	
14.	*Whether the industry has adopted cleaner production/cleaner technology/CDM?*	
(B)	**PRODUCT DETAILS**	
1.	*Name of products(s) & capacity with Yield/purity per day.*	
2.	*Name of all by products and its quantity per day:*	
3.	*Date of commencement of production for each product. Whether production is as per consented quantity.*	
4.	*All raw materials required per kg of the product(s).*	
5.	*Whether the manufacturing process is continuous :or batch wise. Indicate the batch capacity. If the process is in batch operation, no. of batches/month along with the duration of the completion of each batch.*	
6.	*Detailed manufacturing process with schematic flow diagram, list of unit operation & processes & with all chemical reactions, along with the time required (in hrs)for completion of each unit opera-tion/ process and the total time for completion of the entire batch. Mass balance in respect of the quantity of water, input of raw materials and waste water generation.* *(Attach separate sheet)*	

(C)	WATER	
1.	*The quantity of water consumed per day as well as per tonne of product manufactured. (Attach water balance diagram)* over the last three years.*	
2.	*The quantity of waste water (trade effluent) generated per tonne of each product per day, as well as per batch* over the last three years.*	
3.	*The particulars of effluent treatment plant* *(Attach separate sheets)* *- Name and Size of each unit* *- Capacity of ETP* *- Flow diagram & Hydraulic diagram, of ETP to be submitted.* *- Whether lighting arrangement around ETP is provided.* *- Whether separate energy meter is installed for effluent treatment plant. If yes,* *readings of the meter for consumption every month* *Whether flow meters are provided at the inlet and outlet of the ETP. Please* *indicate the type of the flow meter.*	
4.	*The method of disposal of final treated effluent and the point of disposal* *(Please attach sketch)*	
5.	*The quality of trade effluent at the inlet and outlet of ETP and at various stages of treatment (Attach separate sheets)*	
6.	*The quantity and quality of sewage and its method of treatment and disposal* *(Attach separate sheets)* *a) As per norms* *b) Total pollution load**	
7.	*The open area available for disposal of the effluent*	

8	*Whether the quality of treated effluent meets the specified norms. If no: the extent of deviation and reasons thereof.*	
9.	*Improvement in effluent quality and quantity since previous environmental audit based on performance evaluation of effluent management systems. If yes, provide details* *(Attach separate sheets)*	
10	*Retrofitting undertaken to improve performance of ETP. If yes, provide details.*	
11	*Major problems encountered during operation of effluent treatment facilities, if any and reasons thereof.*	
12	*The details about the operator/chemist responsible for operation & maintenance of effluent treatment plant:* *- Name of the operators/employees* *- Qualification & Experience of each Operator/ employee whether trained in such operation or not.* *- Salary of operators/employees.*	
13.	*The current status of consent under the Water Act-1974.*	
(D)	**AIR ACT**	
1.	*No. of the flue gas stacks, their height(from ground level)nature & consumption of fuel*	
2.	*The details pertaining to the stack monitoring facilities*	
3.	*Number of process stacks, their height(from ground level) source, expected pollutants & the details pertaining to the provisions of stack monitoring facilities.*	
4.	*The quality of emission from each flue gas stack & the process stack & the extent of deviation from them.*	
5.	*The ambient air quality within the factory premises, along with the number of ambient air quality monitoring stations outside the industry.*	

6.	*The status of consent under the Air Act-1981.*	
7.	*The details of air pollution control measures for all process & flue gas stacks.*	
8.	*Improvement in emission quality since previous environmental audit based on performance evaluation of air pollution management system.* *If yes, provide details. (Attach separate sheets)*	
9.	*Retrofitting undertaken to improve emission quality. If yes, provide details.*	
10.	*Major problems encountered during operation of control device, if any and reasons thereof.*	
	** Whether production is as per consented quantity*	
	NOTE : Total pollution load each for air, water and hazardous waste should have mentioned along with the quality of effluent, emission or solid waste as the case may be. Whether measures taken for reduction of pollution load.	
(E)	**HAZARDOUS (SOLID) WASTE:**	
1.	*The quantity, sources & composition of hazardous waste/solid waste from each process/sources over the last three years.* *(Total sludge generation per tonne of product) – whether it is as per the consented quantity.*	
2.	*a) The method of storage, treatment & disposal of hazardous/solid waste. The details should include area of storage and disposal and whether storage and disposal system is covered and made impervious (pucca) The quantity of Hazardous waste sent to TSDF. Please also indicate how the quantity of hazardous /solid shall be reduced in next three months.*	
	b) The data/information about leachate generation, quantity & characteristics and treatment facility.	
3.	*The status of authorization under the EPA-86 for solid waste.*	
	Plan, if any to reduce hazardous waste generation or its recycling.	

(F)	**SITE PLAN**	
1.	*The site plan showing the location of effluent treatment plant, final point of disposal of effluent, sampling point, drainage line, stacks, solid waste storage, disposal area & green belt (its width).*	
(G)	**RESOURCE RECOVERY**	
1.	*The details regarding resource recovery including treated effluent for recycle/reuse from environmental pollution control system including effluent treatment plant.*	
	The details regarding resource recovery/by product recovery from manufacturing process by using cleaner production technology.	
(H)	**HEALTH**	
1.	*Whether any hazard is involved in the manufacturing or from the work environment. Yes/ No* *If yes, provide details thereof.*	
2.	*Whether industry has pre-employment & periodical medical examinationfacilities.* *Yes/No* *If yes, provide details thereof.*	
3.	*Whether health records are maintained regarding adverse effect on the health of workers. Yes/No* *If yes, provide details thereof.*	
4.	*Whether industry has appointed a factory medical officer.* *Yes/No.* *If yes; full time or part time. Include the details about the name, address and qualification of the factory medical officer.*	
5.	*Details of medical facilities available. (Please tick (√) correct column:-* *Dispensary/Ambulance/Hospitals/First Aid box.*	
6.	*Whether sanitary facilities like water closets, Urinals, bathroom are provided & are satisfactory.*	

(I)	**ACCIDENTS**			
1.	*The details of accidents in the factory if any & remedial measures taken*			
(J)	**SAFETY MEASURES**			
1.	*General Environment of the factory. Please tick (√) the appropriate column*			
	a. House Keeping	*Good*	*Fair*	*Poor*
	b. Dustiness	*High*	*Medium*	*Low*
	c. Lighting	*Good*	*Fair*	*Poor*
	d. Ventilation	*Good*	*Fair*	*Poor*
2.	*Whether the following protective appliances are provided to all the persons*			
	Goggles	*Yes/No (Utilization level)*	*If yes; How many?*	
	Gloves	*Yes/No (Utilization level)*		
	Gumboot	*Yes/No (Utilization level)*		
	Helmet	*Yes/No (Utilization level)*		
	Skin Cream	*Yes/No (Utilization level)*		
	Soap	*Yes/No (Utilization level)*		
	Ear Plug	*Yes/No (Utilization level)*		
	Face Masks	*Yes/No (Utilization level)*		
	Clothing	*Yes/No (Utilization level)*		
3.	*The details of facilities for disaster management/ gas leakage.*			
4.	*Whether on site/off site emergency plans are prepared and are being implemented/upgraded regularly; please give details*			
5.	*Whether records of occupational hazards are maintained?*			
6.	*Preventive measures adopted to minimize occupational hazard.*			
(K)	**REMEDIAL MEASURES**			
1.	*The details of sources; monitoring & measures taken for control of noise pollution in & around the industrial premises*			
2.	*The measures taken for prevention treatment & control of odor nuisance in & around the industrial premises*			
3.	*The details in respect of cases/complaints under the Water Act-1974, the Air Act-1981 & the EPA-1986*			

4.	*The compliance report with respect to all the conditions of NOC/Consent (Under all the Acts)*	
5.	*Incidents of spillages, leakages etc. and remedial measures thereof.*	
6.	*Whether insurance policy obtained under PLI Act. Yes/No If yes, provide details*	
(L)	**WATER CESS**	
1.	*The details regarding payment of the Water Cess for the previous & current year*	

(M) The name and address of the Consultant engaged by the Company/Industry.

(N) It is hereby declared that all the information submitted in and with respect to this format i correct and we will be responsible for any lapse regarding incorrect or incomplete information.

(A)

Name & Signature of the responsible persons of the industry/ organization institute/ CETP/ TSDF with the stamp.

(B)

Name & Signature of all the members of Audit Team

Name and Signature

1.....

2.....

3.....

4.....

Name and Signature

1.....

2.....

3.....

4.....

Table 3 : Adequacy Certificate of Environmental Management System

M/s._____of_____ is recognized by the MSPCB, Shillong under the Environmental Audit Scheme as an environmental auditor for the purpose of the auditing, having carried out Environmental audit of,

- M/s.

- Located at;

- Manufacturing products: *Product (s)* *Capacity*

Having completed the environmental audit based on personal monitoring, and audit report, prepared as per the MSPCB guidelines, it is certified that the Environmental Management System (EMS) provided by this industry for the products manufactured and capacity as stated above is

- *Liquid effluent* : _____*m3/day*
- *Solid/Hazardous Waste* : _____*kg/Day*
- *Air emission (flue gas* : *Adequate/not adequate, efficacious*

Stacks as well as process */not efficacious (Pl. strike out which is not applicable.)*

This certificate is valid for the audit report only. However, it is subject to automatic cancellation in case of any change in product profile/capacity, quality and quantity of effluent emission (Air + Waste Water + Solid/Hazardous) and efficiency of EMS equipment.

This Certificate forms part of environmental audit report.

Name & Address of the ***ENVIRONMENTAL AUDITOR***

Signature of ***ENVIRONMENTAL AUDITOR***

Date :.....

Place:.....

Table 4 : Certificate for Sampling and Analysis

This is to certify that the following samples of emissions (air, water, waste water, solid and hazardous wastes) have been collected and analyzed as per the following details:

Sample details	Sampling location	Collected by	Sample collection	
			Date	Time

- *Parameters analyzed on site :*
- *Parameters analyzed off site :*
- *Whether samples were preserved as per standard procedure for off site analysis: Yes/No*
- *Parameters analyzed by auditors team:*
- *Parameters analyzed by third party :*
- *Name & Address of the laboratory:*
- *Whether the laboratory is classified under Schedule I of the MSPCB*
- *Method followed for analysis*
- *Air emission*
- *Water/Waste Water*
- *Solid Waste*
- *Hazardous Waste*

This is to certify that the third party laboratory in which the analysis has been done is approved under EPA/Accredited by NABL/recognized by MSPCB.

Date:.....

Time :.....

Name & Address of the ENVIRONMENTAL AUDITOR

Signature of ENVIRONMENTAL AUDITOR

ANNEXURE-D

SCHEDULE-II

RECOGNIZED ENVIRONMENTAL AUDITORS

Sl. No	Institute Name	Validity	Contact Details

ANNEXURE-E

APPLICATION FORM

To,

The Member Secretary,

Meghalaya State Pollution Control Board,

'Arden' Lumpyngngad, Shillong.

Sub. : Application For Environmental Auditors.

1.	Names of the firm: Address with pin code: Telephone: Fax:				
2.	Names of the Laboratory: [if different] of the firm: Address with pin code: Telephone: Fax:				
3	Names, addresses and technical qualifications of members of each Team of Auditors				
3.1		Name	Designation	Qualification	Experience
3.2	A person processing a degree in Environmental Engineering awarded by a University recognized in India or abroad.				
3.3	A person possessing a degree in Chemical Engineering awarded by a University recognized in India or abroad.				
3.4	A person possessing a degree in Chemistry awarded by a University recognized in India or abroad.				
3.5	A person possessing a degree in Micro Biology awarded by a University recognized in India or abroad.				

Note :

1. The Team shall have at least two members possessing any one or more of the aforesaid qualifications. With a minimum of one year's experience in environmental management systems related to chemical industry.

2. Rs.20,000/-, non refundable application scrutiny fees be sent alongwith this application by DD drawn in favour of Member Secretary,'Meghalaya State Pollution Control Board' and payable at Shillong.

3. An undertaking declaring all the four members of the team are employees/ Partner(s)/ Director(s) and not associated elsewhere be submitted on duly authenticated stamp paper of Rs.100/-

4. Separate sheet may be used, if required

Encl.: As above.

Signature and Name of authorised person

mspcb

Meghalaya State Pollution Control Board,
'Arden' Lumpyngngad, Shillong - 793014