

**GUJARAT POLLUTION CONTROL BOARD
HEAD OFFICE, "PARYAVARAN BHAVAN"
SECTOR-10 A, GANDHINAGAR.**

OFFICE ORDER

SUB: Guidelines for Schedule – I and II Environment Auditors for limiting the frequency of Air, Water & Hazardous waste samples collection & analysis during Environment Audit of Industries

A need was felt to devise a methodology in form of guidelines to have uniformity in sampling and analysis during environment audit of industry. Gujarat Pollution Control Board (GPCB) has framed guidelines for Schedule – I and II Environment auditors and obtained suggestions from expert members of the committee constituted under the Environment Audit Scheme.

All the recognized Schedule – I and II Environment Auditors shall follow the guidelines attached herewith in order to streamline the sampling and analysis pattern while carrying out Environment Audit work of industries under the provisions of Environment Audit Scheme.

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14/9/2022
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Member Secretary

No. GPCB/ENV AUDIT/411/ 683163, Dt: 14/09/2022.

14 SEP 2022

Issued to: All Schedule I and II Environment Auditors (Through e-mail only)

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Guidelines for Schedule – I and II Environment Auditors for limiting the frequency of Air, Water & Hazardous waste samples collection & analysis during Environment Audit of Industries

I. Criteria for collection of water & waste water Sample:

A. If industry is discharging final treated effluent into CETP;

- i. Discharge Quantity:- less than 25 KLD: 01 sample per monitoring (final outlet of industry)
- ii. Discharge Quantity: 25 to 50 KLD: Total 2 samples per monitoring (each from inlet & final outlet of industry)
- iii. Discharge Quantity:- more 50 KLD: Total 3 samples per monitoring (each from inlet, outlet of primary or secondary treatment unit and final Outlet of industry)

B. If industry is not discharging final treated effluent into CETP;

- i. Discharge Quantity:- less than 25 KLD: Total 2 samples per monitoring (each from inlet & final outlet of industry)
- ii. Discharge Quantity:- 25 KLD or more: Total 3 samples per monitoring (each from inlet, outlet of primary or secondary treatment unit and final Outlet of industry)

II. Criteria for analysis of parameters in waste water sample :

A. Analysis of all the parameters, as mentioned in the consolidated consent and authorization (CCA) of the Board, in the waste water sample of final outlet during only one season.

B. For remaining all seasons sampling & analysis of following parameters to be carried out in waste water samples collected as (I) above.

i. Criteria parameters as listed below

pH

Temperature

Total Suspended Solids

Total Dissolved Solids

Biochemical Oxygen Demand (BOD) (3 days at 27°C)

Chemical Oxygen Demand (COD)

Ammonical Nitrogen

- ii. In addition to above, maximum 05 industry specific relevant parameters (Heavy metals, Fluoride, Sulphide, Cyanide, Phenolic compound etc if required).

III. Criteria for Ambient Air Quality Monitoring :

A. In GIDC Estate :

No Ambient Air quality Monitoring for industry located in GIDC Estates. In such cases results of National Ambient Air Quality Monitoring Programme (NAMP) / State Ambient Air Quality Monitoring Programme (SAMP) shall be mentioned in the Environment Audit Report

[Note: Except for R 17 category large scale industries.]

B. Outside GIDC Estate:

i. Based on Total Premises Area of Industry :

- a. Total Premises Area : less than 5000 square meter:** 02 samples - one in upward & one in downward of wind direction each in only one season (Preferably winter)
- b. Total Premises Area: 5000 to 10,000 square meter:** 03 samples - one in upward & two in downward of wind directions in only one season (Preferably winter)
- c. Total Premises Area : more than 10,000 square meter:** at least 03 samples - one in upward & two in downward of wind directions in 02 seasons

ii. Criteria parameters for Ambient air quality monitoring are listed below:

Particulate Matter (PM₁₀)

Particulate Matter (PM_{2.5})

Sulfur Dioxide (SO₂)

Nitrogen Dioxide (NO₂)

C. For the R17 Category large scale industries (Irrespective of location and total premises area) ; all 03 seasons ambient air quality monitoring irrespective of premises area of industry (at 3 locations - one in upward & two in downward of wind directions at suitable location)

- i. In case of R 17 category large scale industries Maximum 03 additional industry specific parameters shall be monitored in addition to above mentioned Criteria parameters for Ambient air quality monitoring, if required.**

[Note: Ambient air monitoring shall be carried out for 08 hours during general working shift.]

IV. Criteria for Process Gas Emission:

Sampling and Analysis of Process Gas Emission monitoring to be carried out as per latest Consolidated Consent and Authorization (CCA) of GPCB.

V. Criteria for Flue Gas Emission:

A. In case of use of cleaner fuel (NG, LPG, LNG, PNG etc.) : No flue gas sampling & analysis shall be carried out

B. In case of all other approved fuel:

- i. Boiler capacity less than 5 TPH or Thermic Fluid Heater of equivalent capacity: one season sampling (preferably winter).
- ii. Boiler capacity 5 to 10 TPH or Thermic Fluid Heater of equivalent capacity: Two seasons sampling
- iii. Boiler capacity more than 10 TPH or Thermic Fluid Heater of equivalent capacity: All 03 seasons sampling

VI. Criteria for D.G. Sets:

A. Stand by D.G. Sets*:

- i. Less than 500 KVA capacity: Exempted from monitoring during Environment Audit work.
- ii. 500 to 1000 KVA capacity: One season monitoring (One sample in a season)
- iii. More than 1000 KVA capacity: Two seasons monitoring (One sample in each season)

B. Continuous operational D.G. Sets:

- i. Less than 500 KVA: One season monitoring (One sample in a season)
- ii. 500 to 1000 KVA: Two seasons monitoring (One sample in each season)
- iii. more than 1000 KVA: Three seasons monitoring (One sample in each season)

[*Note: Time and Schedule for D.G. Set monitoring shall be mutually decided by Industry and Auditor.]

VII. Criteria for Noise Monitoring:

A. Small Scale Industries: Noise monitoring of one set of sample during only one season.

B. Medium and Large Scale Industries: Noise monitoring of at least two set of sample during only one season. Justification for noise monitoring at more than two locations should be clearly mentioned in the Environment Audit Report.

VIII. Criteria for Hazardous waste sampling:

- A. Sampling & analysis of chemical sludge from waste water treatment shall not be carried out during the Environment Audit work. However, details regarding ETP waste generation, transportation and disposal shall be mentioned in Environment Audit report.
- B. Sampling & analysis of process waste/hazardous waste during only one season in case of process waste generation quantity more than 10 MT/Month.
 - i. Criteria parameters for waste analysis as listed below:
 - pH
 - Moisture Content
 - Total Alkalinity
 - Calorific value
 - Chloride
 - ii. In addition to above, maximum 03 industry specific relevant parameters if required.