

Parameters		<i>Reqd. as per CPCB guidelines</i>
	Total area	300 Sq. mtr
	Total skilled manpower	14
	PHYSICAL TEST	
	<i>Mandatory Parameter</i>	
1.	Conductivity	
2.	Colour	
3.	pH	
4.	Total Voltile Solids (TVS)	
5.	Total Dissolved Solids (SDS)	
6.	Suspended Solids (SS)	
7.	Turbidity	
8.	Temperature	
9.	Velocity of Flow	
10	Total Solids	
	Secondary Parameters (Minimum-3)	
1	Flocculation Test	
2	Odour	
3.	Salinity	
4.	Settleable Solids	
5.	Sludge Volume Index (SVI)	
	<i>CHEMICAL TESTS (Inorganic)</i>	
A	<i>General & Non-metalic</i>	
	<i>Mandatory Parameters</i>	
1	Acidity	
2	Alkalinity	
3	Ammoniacal Nitrogen	
4	Chloride	
5	Chlorine Residual	
6	Dissolved Oxygen	
7	Fluoride	
8	Hardness (Total and Calcium)	
9	Total Kjeldahl nitrogen	
10	Nitrite Nitrogen	
11	Nitrate Nitrogen	
12	Phosphate	
13	Sulphate	
	Secondary Parameters (Minimum-3)	
1	Bromide	
2	Carbon dioxide	
3	Chlorine Demand	
4	Iodine	
5	Sulphite	
6	Silica	
7	Cyanide	
8	Sulphide	
A	<i>TRACE METALS</i>	
	<i>Mandatory Parameters</i>	
1	Boron	
2	Cadmium	
3	Calcium	
4	Total Chromium	
5	Chromium (Hexavalent)	
6	Copper	
7	Iron	
8	Lead	
9	Magnesium	
10	Mercury	
11	Nickel	
12	Potassium	
13	Sodium	
14	Sodium Absorption Ratio (SAR) by Calculation	
15	Zinc	
	Secondary Parameters (Minimum-4)	

1	Arsenic	
2	Aluminium	
3	Barellium	
4	Barium	
5	Lithium	
6	Manganese	
7	Selenium	
8	Silver	
9	Strontium	
10	Tin	
11	Antimony	
12	Cobalt	
13	Vanadium	
C.	ORGANICS	
	Mandatory Parameters	
1	Bio-Chemical Oxygen demand (BOD)	
2	Chemical oxygen demand (COD)	
3	Oil & Grease	
4	Phenol	
5	Pesticide (Organo-chlorine, BHC, DDT, Aldrin Endosulphan etc and Organo-Phosphorous, malathion, methyl Parathion, ethion etc.	
	Secondary Parameters (Minimum-3)	
1	Total organic carbon (TOC)	
2	Adsorbable Organic Balogen (AOX)	
3	Surfactants	
4	Tanin and lignin	
5	Polychorinated biphenyl's (PCB's)	
6	Polycyclic aromatic hydrocarbon(PAH)	
7	Organic carbon in solid sample	
8	Carbon nitrogen ratio	
D	MICROBIOLOGICAL PARAMETERS	
	Mandatory Parameter	
1	Total Coliforms	
2	Faecal Coliforms	
3	Fecal Streptococci	
4	E.Coli	
	Secondary Parameter (Minimum-1)	
1	Total Plate Count	
2	Entrococcus	
3	Coliphage	
E	TOXICOLOGICAL	
	Mandatory Parameter	
1	Bioassay method for evaluation of Acute Toxicity using fish or estimation of fish survival	
	Secondary Parameter (Minimum-1)	
1	Bio-magnification and Bio-transformation studies	
2	Estimation of the effect at tissue level	
3	Measurement of toxicity Dephnia/other organism	
4	Measurement of toxicity factor (T _F) using zebra fish	
F	BIOLOGICAL (Not Mandatory)	
1	Benthic organisms count	
2	Macrophytic vegetation Identification	
3	Planktonic count	
4	Estimation of various Diversity indicator	
5	Saprobity index	
6	Chlorophyll Estimation	
7	Primary Productivity	
8	P/R Ratio	
G	CHARACTERIZATION OF HAZARDOUS WASTE (Not Mandatory)	
1	Preparation of leachate (TCLP) extract/water extract	

2	Corrosivity	
3	Ignitability (Flash Point)	
4	Reactivity	
5	Toxicity	
6	Determination of various parameters in leachates/waste i.e. metal, pesticides etc.	
H	SOIL/ SLUDGE & SEDIMENT	
	Mandatory Parameter	
1	Boron	
2	Cation Exchange Capacity	
3	Electrical Conductivity	
4	Nitrogen available	
5	Organic carbon/matter	
6	pH	
7	Phosphorous available	
8	Phosphate (ortho)	
9	Phosphate (total)	
10	Potassium	
11	SAR in soil extract	
12	Sodium	
13	Soil moisture	
14	Total Kjehtdal Nitrogen	
15	Calorific value	
	Secondary Parameter (Minimum-10)	
1	Ammonia	
2	Bicarbonate	
3	Calcium	
4	Calcium carbonate	
5	Chloride	
6	Colour	
7	Exchangeable Sodium Percentage	
8	Gypsum requirement	
9	H. Acid	
10	Heavy Metal	
11	Magnesium	
12	Mechanical soil analysis	
13	Nitrate	
14	Nitrite	
15	Polycyclic aromatic hydrocarbon	
16	Pesticide	
17	Potash	
18	Sulphate	
19	Sulphur	
20	Total organic carbon	
21	Total Water soluble salt	
22	Water holding capacity	
II	AIR PARAMETERS	
A	AMBIENT AIR/FUGITIVE EMISSIONS	
	Mandatory Parameter	
1	Nitrogen Dioxide	
2	Sulphur dioxide	
3	Total suspended particulate matter	
4	Respirable Suspended Particulate matter	
	Secondary Parameter (Minimum-4)	
1	Ammonia	
2	Carbon Monoxide	
3	Chlorine	
4	Fluoride	
5	Total Non methane hydrocarbon	
6	Lead	
7	Methane	
8	Ozone	
9	Benzene, Toluene & Xylene (BTX)	
10	Polycyclic Aromatic Hydrocarbon, Benzopyrine & others	
11	Respirable Fine Particulate Matter	

B	STACK GASES/SOURCE EMISSION	
	<i>Mandatory Parameters</i>	
1	Particulate Matter	
2	Sulphur Dioxide	
3	Velocity and flow	
4	Carbon dioxide	
5	Carbon monoxide	
6	Temperature (by temp probe)	
7	Oxygen	
8	Oxides of nitrogen	
	<i>Secondary Parameters (Minimum-5)</i>	
1	Acid mist	
2	Ammonia	
3	Chlorine	
4	Fluoride (Particulate)	
5	Fluoride (Gaseous)	
6	Hydrogen chloride	
7	Total Hydrocarbon	
8	Hydrogen sulphide	
9	Carbon Disulphide	
10	Mercaptan	
C.	NOISE LEVEL	
	<i>Mandatory Parameters</i>	
1	Noise level measurement (20 to 140 dBa)	
D	METEOROLOGICAL PARAMETERS	
	<i>Mandatory Parameters</i>	
1	Ambient Temperature	
2	Wind direction	
3	Wind speed	
4	Relative Humidity	
	<i>Secondary parameters (Minimum required at least one parameter)</i>	
1	Solar radiation	
2	Rain fall	
E	VEHICLE EMISSION MONITORING PARAMETERS	
	<i>Mandatory Parameters</i>	
1	Carbon monoxide	
2	Smoke Density	

	Secondary Parameters (Optional)		
1	Oxides of nitrogen		
2	Hydrocarbon		
	Instruments /Equipments		
	Water/Waste water analysis		
1	Alpha/Beta radioactivity counter		
2	Analytical balance (weighing upto 0.01mg) *		
3	AOX/TOX Analyzer		
4	Atomic Absorption Spectrophotometer (Falame)*		
5	Atomic Absorption Spectrophotometer with Graphite furnace and hydride generation system		
6	Auto clave *		
7	Automatic Burette Digital		
8	Binocular Microscope		
9	Bottom sampler		
10	BOD incubator*		
11	Centrifuge *		
12	COD Digester with aluminum heating block system*		
13	Colony Counter (Electronic)		
14	Conductivity meter*		
15	Current meter		
16	Depth sampler		
17	Digester with condensers		
18	Digestion chamber (fume hood)*		
19	Dissolved oxygen meter		
20	Flame photometer *		
21	Filtration assembly with vacuum pump*		
22	Flocculator (jar testing apparatus)		
23	Gas Chromatograph with ECD, FID, NPD, FPD*		
24	Gas chromatograph with Mass Spectrometer (GC-MS)		
25	Heating Mantle		
26	High pressure liquid chromatograph (HPLC)		
27	Hot air oven *		
28	Hot plate (different size)*		
29	Incubators for Bacteriological test *		
30	Ion Chromatograph		
31	Inductively coupled plasma (ICP) spectrometer		
32	Laminar flow (Inoculation chamber) *		
33	Liquid handling systems (dispensers)		
34	Mercury Analyzer Digital		
35	Magnetic stirrer with hot plate*		
36	Mechanical shaker*		
37	Microwave Digester		
38	Muffle furnace*		
39	pH meter with combined glass electrode *		
40	Portable analyzer kit (DO,pH, Temp. Cond)		
41	Precision Balance weighing up to 1mg		
42	Rotary evaporator *		
43	Specific Ion meter (Microprocessor controlled)		
44	Spectrophotometer (Ultra violet visible)		
45	Spectrophotometer (visible)*		
46	Stereo Microscope		
47	Standard weights		
48	TKN Analyzer semi automatic with aluminum block digester		
49	Total Organic Carbon Analyzer		
50	Turbidity meter*		
51	Ultrasonic water bath		
52	Vacuum pump*		
53	Water Purification System (RO based)		
54	Water Distillation Assembly (Glass)*		

55	Water Bath (Thermostatic control)		
	Hazardous Waste Analysis		
56	Bomb Colorimeter		
57	Elemental analyzer		
58	Flash point apparatus		
59	Karl fisher moisture content meter		
60	Toxicity characteristic leaching procedure (TCLP) system		
61	X-Ray Fluorescence (XRF) Spectrometer		
62	Zero head space extractor (ZHE)		
	Air/Emission Analysis		
63	BTX analyzer (PID/FID detector)		
64	BTX calibrator		
65	Canister		
66	CO analyzer (Non-dispersive infrared principle)		
67	Conditioning unit/room for balance		
68	Detector tubes of different pollutants with pump		
69	Dust analyzer (Beta Attenuation/TOEN)		
70	Exhaust CO/HC analyzer		
71	Flue gas analyzer		
72	Gas Chromatograph with Air sampling port , FID & PFPD detectors, with compatible ATD system		
73	<i>Handy sampler for gaseous monitoring*</i>		
74	High temperature probe for stack monitoring		
75	<i>High Volume sampler with flow controller /brush less motor + calibration kit*</i>		
76	Low flow pump		
77	<i>Meteorological sensors with mast WS, WD , Temp. humidity*</i>		
78	Micro balance (Readability 1ug)		
79	Multi calibration system		
80	Multi channel recorder		
81	Multi calibration kit portable		
82	<i>Noise level meter*</i>		
83	NO-NO ₂ -Nox Analyzer (Chemiluminescence based)		
84	Ozone analyzer (ultraviolet)		
85	Permeation tubes for calibration		
86	PM _{2.5} Sampler		
87	<i>RSPM sampler with flow controller/bush less motor +calibration kit*</i>		
88	Smoke density meter		
89	SO ₂ Analyzer (Pulsed Fluorescence based)		
90	Soap bubble meter		
91	<i>Stack monitoring kit with High Temp. Probe*</i>		
92	Wet gas meter		
	Infrastructural Equipment		
93	Air conditioner (split type)		
94	Air conditioner (window type)		
95	Cold room for sample storage		
96	Computer with printer (data logger)		
97	Refrigerator (frost free, CFC free)		
98	Uninterrupted Power Supply (UPS) system 7.5KVA		

* The Bold and Italic Instruments /equipments are bare minimum according to the CPCB Guidelines LATS/9/2008-2009.

Comparative Statement of Labs applied as per CPCB norms

		<i>Reqd. as per CPCB guidelines</i>	M/s Idma Laboratories Ltd., 391 Industrial Area Phase-1, Panchkula
	Total area	300 Sq. mtr	
	Total skilled manpower	14	
	PHYSICAL TEST		
	<i>Mandatory Parameter</i>		
1.	Conductivity	+	
2.	Colour	+	
3.	pH	+	
4.	Total Volatile Solids (TVS)	+	
5.	Total Dissolved Solids (SDS)	+	
6.	Suspended Solids (SS)	+	
7.	Turbidity	+	
8.	Temperature	+	
9.	Velocity of Flow	+	
10	Total Solids	+	
	Secondary Parameters (Minimum-3)		
1	Flocculation Test	+	
2	Odour	--	
3.	Salinity	+	
4.	Settleable Solids	+	
5.	Sludge Volume Index (SVI)	+	
	CHEMICAL TESTS (Inorganic)		
A	<i>General & Non-metallic</i>		
	<i>Mandatory Parameters</i>		
1	Acidity	+	
2	Alkalinity	+	
3	Ammoniacal Nitrogen	+	
4	Chloride	+	
5	Chlorine Residual	+	
6	Dissolved Oxygen	+	
7	Fluoride	+	
8	Hardness (Total and Calcium)	+	
9	Total Kjeldahl nitrogen	+	
10	Nitrite Nitrogen	+	
11	Nitrate Nitrogen	+	
12	Phosphate	+	
13	Sulphate	+	
	Secondary Parameters (Minimum-3)		
1	Bromide	+	
2	Carbon dioxide	+	
3	Chlorine Demand	+	
4	Iodine	+	
5	Sulphite	+	
6	Silica	+	
7	Cyanide	+	
8	Sulphide	+	
A	<i>TRACE METALS</i>		
	<i>Mandatory Parameters</i>		
1	Boron	+	
2	Cadmium	+	
3	Calcium	+	
4	Total Chromium	+	
5	Chromium (Hexavalent)	+	
6	Copper	+	
7	Iron	+	
8	Lead	+	
9	Magnesium	+	
10	Mercury	+	
11	Nickel	+	
12	Potassium	+	

13	Sodium	+	
14	Sodium Absorption Ratio (SAR) by Calculation	+	
15	Zinc	+	
	Secondary Parameters (Minimum-4)		
1	Arsenic	+	
2	Aluminium	+	
3	Barellium	+	
4	Barium	+	
5	Lithium	+	
6	Manganese	+	
7	Selenium	+	
8	Silver	+	
9	Strontium	+	
10	Tin	+	
11	Antimony	+	
12	Cobalt	+	
13	Vanadium	+	
C.	ORGANICS		
	Mandatory Parameters		
1	Bio-Chemical Oxygen demand (BOD)	+	
2	Chemical oxygen demand (COD)	+	
3	Oil & Grease	+	
4	Phenol	+	
5	Pesticide (Organo-chlorine, BHC, DDT, Aldrin Endosulphan etc and Organo-Phosphorous, malathion, methyl Parathion, ethion etc.	+	
	Secondary Parameters (Minimum-3)		
1	Total organic carbon (TOC)	+	
2	Adsorbable Organic Balogen (AOX)	+	
3	Surfactants	+	
4	Tanin and lignin	+	
5	Polychorinated biphenyl's (PCB's)	+	
6	Polycyclic aromatic hydrocarbon(PAH)	+	
7	Organic carbon in solid sample	+	
8	Carbon nitrogen ratio	+	
D	MICROBIOLOGICAL PARAMETERS		
	Mandatory Parameter		
1	Total Coliforms	+	
2	Faecal Coliforms	+	
3	Fecal Streptococci	+	
4	E.Coli	+	
	Secondary Parameter (Minimum-1)		
1	Total Plate Count	+	
2	Entrococcus	+	
3	Coliphage	+	
E	TOXICOLOGICAL		
	Mandatory Parameter		
1	Bioassay method for evaluation of Acute Toxicity using fish or estimation of fish survival	+	
	Secondary Parameter (Minimum-1)		
1	Bio-magnification and Bio-transformation studies	+	
2	Estimation of the effect at tissue level	+	
3	Measurement of toxicity Dephnia/other organism	+	
4	Measurement of toxicity factor (T _F) using zebra fish	+	
F	BIOLOGICAL (Not Mandatory)		
1	Benthic organisms count	+	
2	Macrophytic vegetation Identification	+	
3	Planktonic count	+	
4	Estimation of various Diversity indicator	+	
5	Saprobity index	+	
6	Chlorophyll Estimation	+	
7	Primary Productivity	+	
8	P/R Ratio	+	

G	CHARACTERIZATION OF HAZARDOUS WASTE (Not Mandatory)		
1	Preparation of leachate (TCLP) extract/water extract	+	
2	Corrosivity	+	
3	Ignitability (Flash Point)	+	
4	Reactivity	+	
5	Toxicity	+	
6	Determination of various parameters in leachates/waste i.e. metal, pesticides etc.	+	
H	SOIL/ SLUDGE & SEDIMENT		
	Mandatory Parameter		
1	Boron	+	
2	Cation Exchange Capacity	+	
3	Electrical Conductivity	+	
4	Nitrogen available	+	
5	Organic carbon/matter	+	
6	pH	+	
7	Phosphorous available	+	
8	Phosphate (ortho)	+	
9	Phosphate (total)	+	
10	Potassium	+	
11	SAR in soil extract	+	
12	Sodium	+	
13	Soil moisture	+	
14	Total Kjehldal Nitrogen	+	
15	Calorific value	+	
	Secondary Parameter (Minimum-10)		
1	Ammonia	+	
2	Bicarbonate	+	
3	Calcium	+	
4	Calcium carbonate	+	
5	Chloride	+	
6	Colour	+	
7	Exchangeable Sodium Percentage	+	
8	Gypsum requirement	+	
9	H. Acid	+	
10	Heavy Metal	+	
11	Magnesium	+	
12	Mechanical soil analysis	+	
13	Nitrate	+	
14	Nitrite	+	
15	Polycyclic aromatic hydrocarbon	+	
16	Pesticide	+	
17	Potash	+	
18	Sulphate	+	
19	Sulphur	+	
20	Total organic carbon	+	
21	Total Water soluble salt	+	
22	Water holding capacity	+	
II	AIR PARAMETERS		
A	AMBIENT AIR/FUGITIVE EMISSIONS		
	Mandatory Parameter		
1	Nitrogen Dioxide	+	
2	Sulphur dioxide	+	
3	Total suspended particulate matter	+	
4	Respirable Suspended Particulate matter	+	
	Secondary Parameter (Minimum-4)		
1	Ammonia	+	
2	Carbon Monoxide	+	
3	Chlorine	+	
4	Fluoride		
5	Total Non methane hydrocarbon	+	
6	Lead	+	
7	Methane	+	
8	Ozone	+	

9	Benzene, Toluene & Xylene (BTX)	+	
10	Polycyclic Aromatic Hydrocarbon, Benzopyrine & others	+	
11	Respirable Fine Particulate Matter	+	
B	STACK GASES/SOURCE EMISSION		
	<i>Mandatory Parameters</i>		
1	Particulate Matter	+	
2	Sulphur Dioxide	+	
3	Velocity and flow	+	
4	Carbon dioxide	+	
5	Carbon monoxide	+	
6	Temperature (by temp probe)	+	
7	Oxygen	+	
8	Oxides of nitrogen	+	
	<i>Secondary Parameters (Minimum-5)</i>		
1	Acid mist	+	
2	Ammonia	+	
3	Chlorine	+	
4	Fluoride (Particulate)	+	
5	Fluoride (Gaseous)	+	
6	Hydrogen chloride	+	
7	Total Hydrocarbon	+	
8	Hydrogen sulphide	+	
9	Carbon Disulphide	+	
10	Mercaptan	+	
C.	NOISE LEVEL		
	<i>Mandatory Parameters</i>		
1	Noise level measurement (20 to 140 dBa)	+	
D	METEOROLOGICAL PARAMETERS		
	<i>Mandatory Parameters</i>		
1	Ambient Temperature	+	
2	Wind direction	+	
3	Wind speed	+	
4	Relative Humidity	+	
	<i>Secondary parameters (Minimum required at least one parameter)</i>		
1	Solar radiation	+	
2	Rain fall	+	
E	VEHICLE EMISSION MONITORING PARAMETERS		
	<i>Mandatory Parameters</i>		
1	Carbon monoxide	+	
2	Smoke Density	+	
	<i>Secondary Parameters (Optional)</i>		
1	Oxides of nitrogen	+	
2	Hydrocarbon	+	
	Instruments /Equipments		
	Water/Waste water analysis		
1	Alpha/Beta radioactivity counter	+	
2	<i>Analytical balance (weighing upto 0.01mg) *</i>	+	
3	AOX/TOX Analyzer	+	
4	<i>Atomic Absorption Spectrophotometer (Falame)*</i>	+	

	<i>Secondary Parameters (Optional)</i>		
1	Oxides of nitrogen	+	
2	Hydrocarbon	+	
	Instruments /Equipments		
	Water/Waste water analysis		
1	Alpha/Beta radioactivity counter	+	
2	<i>Analytical balance (weighing upto 0.01mg) *</i>	+	
3	AOX/TOX Analyzer	+	
4	<i>Atomic Absorption Spectrophotometer (Falame)*</i>	+	
5	Atomic Absorption Spectrophotometer with Graphite furnace and hydride generation system	+	

6	Auto clave *	+	
7	Automatic Burette Digital	+	
8	Binocular Microscope	+	
9	Bottom sampler	+	
10	BOD incubator*	+	
11	Centrifuge *	+	
12	COD Digester with aluminum heating block system*	+	
13	Colony Counter (Electronic)	+	
14	Conductivity meter*	+	
15	Current meter	+	
16	Depth sampler	+	
17	Digester with condensers	+	
18	Digestion chamber (fume hood)*	+	
19	Dissolved oxygen meter	+	
20	Flame photometer *	+	
21	Filtration assembly with vacuum pump*	+	
22	Flocculator (jar testing apparatus)	+	
23	Gas Chromatograph with ECD, FID, NPD, FPD*	+	
24	Gas chromatograph with Mass Spectrometer (GC-MS)	+	
25	Heating Mantle	+	
26	High pressure liquid chromatograph (HPLC)	+	
27	Hot air oven *	+	
28	Hot plate (different size)*	+	
29	Incubators for Bacteriological test *	+	
30	Ion Chromatograph	+	
31	Inductively coupled plasma (ICP) spectrometer	+	
32	Laminar flow (Inoculation chamber) *	+	
33	Liquid handling systems (dispensers)	+	
34	Mercury Analyzer Digital	+	
35	Magnetic stirrer with hot plate*	+	
36	Mechanical shaker*	+	
37	Microwave Digester	+	
38	Muffle furnace*	+	
39	pH meter with combined glass electrode *	+	
40	Portable analyzer kit (DO,pH, Temp. Cond)	+	
41	Precision Balance weighing up to 1mg	+	
42	Rotary evaporator *	+	
43	Specific Ion meter (Microprocessor controlled)	+	
44	Spectrophotometer (Ultra violet visible)	+	
45	Spectrophotometer (visible)*	+	
46	Stereo Microscope	+	
47	Standard weights	+	
48	TKN Analyzer semi automatic with aluminum block digester	+	
49	Total Organic Carbon Analyzer	+	
50	Turbidity meter*	+	
51	Ultrasonic water bath	+	
52	Vacuum pump*	+	
53	Water Purification System (RO based)	+	
54	Water Distillation Assembly (Glass)*	+	
55	Water Bath (Thermostatic control)	+	
	Hazardous Waste Analysis		
56	Bomb Colorimeter	+	
57	Elemental analyzer	+	
58	Flash point apparatus	+	
59	Karl fisher moisture content meter	+	
60	Toxicity characteristic leaching procedure (TCLP) system	+	
61	X-Ray Fluorescence (XRF) Spectrometer	+	
62	Zero head space extractor (ZHE)	+	
	Air/Emission Analysis		
63	BTX analyzer (PID/FID detector)	+	
64	BTX calibrator	+	

65	Canister	+	
66	CO analyzer (Non-dispersive infrared principle)	+	
67	Conditioning unit/room for balance	+	
68	Detector tubes of different pollutants with pump	+	
69	Dust analyzer (Beta Attenuation/TOEN)	+	
70	Exhaust CO/HC analyzer	+	
71	Flue gas analyzer	+	
72	Gas Chromatograph with Air sampling port , FID & PFPD detectors, with compatible ATD system	+	
73	<i>Handy sampler for gaseous monitoring*</i>	+	
74	High temperature probe for stack monitoring	+	
75	<i>High Volume sampler with flow controller /brush less motor + calibration kit*</i>	+	
76	Low flow pump	+	
77	<i>Meteorological sensors with mast WS, WD , Temp. humidity*</i>	+	
78	Micro balance (Readability 1ug)	+	
79	Multi calibration system	+	
80	Multi channel recorder	+	
81	Multi calibration kit portable	+	
82	<i>Noise level meter*</i>	+	
83	NO-NO ₂ -Nox Analyzer (Chemiluminescence based)	+	
84	Ozone analyzer (ultraviolet)	+	
85	Permeation tubes for calibration	+	
86	PM _{2.5} Sampler	+	
87	<i>RSPM sampler with flow controller/bush less motor +calibration kit*</i>	+	
88	Smoke density meter	+	
89	SO ₂ Analyzer (Pulsed Fluorescence based)	+	
90	Soap bubble meter	+	
91	<i>Stack monitoring kit with High Temp. Probe*</i>	+	
92	Wet gas meter	+	
	Infrastructural Equipment		
93	Air conditioner (split type)	+	
94	Air conditioner (window type)	+	
95	Cold room for sample storage	+	
96	Computer with printer (data logger)	+	
97	Refrigerator (frost free, CFC free)	+	
98	Uninterrupted Power Supply (UPS) system 7.5KVA	+	

* The Bold and Italic Instruments /equipments are bare minimum according to the CPCB Guidelines LATS/9/2008-2009.

Comparative Statement of Labs applied as per CPCB norms

		<i>Reqd. as per CPCB guidelines</i>	
	Total area	300 Sq. mtr	
	Total skilled manpower	14	
	PHYSICAL TEST		
	<i>Mandatory Parameter</i>		
1.	Conductivity	+	
2.	Colour	+	
3.	pH	+	
4.	Total Volatile Solids (TVS)	+	
5.	Total Dissolved Solids (SDS)	+	
6.	Suspended Solids (SS)	+	
7.	Turbidity	+	
8.	Temperature	+	
9.	Velocity of Flow	+	
10.	Total Solids	+	
	Secondary Parameters (Minimum-3)		
1	Flocculation Test	+	
2	Odour	--	
3.	Salinity	+	
4.	Settleable Solids	+	
5.	Sludge Volume Index (SVI)	+	
	CHEMICAL TESTS (Inorganic)		
A	<i>General & Non-metallic</i>		
	<i>Mandatory Parameters</i>		
1	Acidity	+	
2	Alkalinity	+	
3	Ammoniacal Nitrogen	+	
4	Chloride	+	
5	Chlorine Residual	+	
6	Dissolved Oxygen	+	
7	Fluoride	+	
8	Hardness (Total and Calcium)	+	
9	Total Kjeldahl nitrogen	+	
10	Nitrite Nitrogen	+	
11	Nitrate Nitrogen	+	
12	Phosphate	+	
13	Sulphate	+	
	Secondary Parameters (Minimum-3)		
1	Bromide	+	
2	Carbon dioxide	+	
3	Chlorine Demand	+	
4	Iodine	+	
5	Sulphite	+	
6	Silica	+	
7	Cyanide	+	
8	Sulphide	+	
A	<i>TRACE METALS</i>		
	<i>Mandatory Parameters</i>		
1	Boron	+	
2	Cadmium	+	
3	Calcium	+	
4	Total Chromium	+	
5	Chromium (Hexavalent)	+	
6	Copper	+	
7	Iron	+	
8	Lead	+	
9	Magnesium	+	
10	Mercury	+	
11	Nickel	+	
12	Potassium	+	
13	Sodium	+	

14	Sodium Absorption Ratio (SAR) by Calculation	+	
15	Zinc	+	
	Secondary Parameters (Minimum-4)		
1	Arsenic	+	
2	Aluminium	+	
3	Barellium	+	
4	Barium	+	
5	Lithium	+	
6	Manganese	+	
7	Selenium	+	
8	Silver	+	
9	Strontium	+	
10	Tin	+	
11	Antimony	+	
12	Cobalt	+	
13	Vanadium	+	
C.	ORGANICS		
	Mandatory Parameters		
1	Bio-Chemical Oxygen demand (BOD)	+	
2	Chemical oxygen demand (COD)	+	
3	Oil & Grease	+	
4	Phenol	+	
5	Pesticide (Organo-chlorine, BHC, DDT, Aldrin Endosulphan etc and Organo-Phosphorous, malathion, methyl Parathion, ethion etc.	+	
	Secondary Parameters (Minimum-3)		
1	Total organic carbon (TOC)	+	
2	Adsorbable Organic Balogen (AOX)	+	
3	Surfactants	+	
4	Tanin and Iignin	+	
5	Polychorinated biphenyl's (PCB's)	+	
6	Polycyclic aromatic hydrocarbon(PAH)	+	
7	Organic carbon in solid sample	+	
8	Carbon nitrogen ratio	+	
D	MICROBIOLOGICAL PARAMETERS		
	Mandatory Parameter		
1	Total Coliforms	+	
2	Faecal Coliforms	+	
3	Fecal Streptococci	+	
4	E.Coli	+	
	Secondary Parameter (Minimum-1)		
1	Total Plate Count	+	
2	Entrococcus	+	
3	Coliphage	+	
E	TOXICOLOGICAL		
	Mandatory Parameter		
1	Bioassay method for evaluation of Acute Toxicity using fish or estimation of fish survival	+	
	Secondary Parameter (Minimum-1)		

1	Bio-magnification and Bio-transformation studies	+	
2	Estimation of the effect at tissue level	+	
3	Measurement of toxicity Dephnia/other organism	+	
4	Measurement of toxicity factor (T _F) using zebra fish	+	
F	BIOLOGICAL (Not Mandatory)		
1	Benthic organisms count	+	
2	Macrophytic vegetation Identification	+	
3	Planktonic count	+	
4	Estimation of various Diversity indicator	+	
5	Saprobity index	+	
6	Chlorophyll Estimation	+	
7	Primary Productivity	+	
8	P/R Ratio	+	
G	CHARACTERIZATION OF HAZARDOUS WASTE (Not Mandatory)		
1	Preparation of leachate (TCLP) extract/water extract	+	
2	Corrosivity	+	
3	Ignitability (Flash Point)	+	
4	Reactivity	+	
5	Toxicity	+	
6	Determination of various parameters in leachates/waste i.e. metal, pesticides etc.	+	
H	SOIL/ SLUDGE & SEDIMENT		
	Mandatory Parameter		
1	Boron	+	
2	Cation Exchange Capacity	+	
3	Electrical Conductivity	+	
4	Nitrogen available	+	
5	Organic carbon/matter	+	
6	pH	+	
7	Phosphorous available	+	
8	Phosphate (ortho)	+	
9	Phosphate (total)	+	
10	Potassium	+	
11	SAR in soil extract	+	
12	Sodium	+	
13	Soil moisture	+	
14	Total Kjehlal Nitrogen	+	
15	Calorific value	+	
	Secondary Parameter (Minimum-10)		
1	Ammonia	+	
2	Bicarbonate	+	
3	Calcium	+	
4	Calcium carbonate	+	
5	Chloride	+	
6	Colour	+	
7	Exchangeable Sodium Percentage	+	
8	Gypsum requirement	+	
9	H. Acid	+	
10	Heavy Metal	+	
11	Magnesium	+	
12	Mechanical soil analysis	+	
13	Nitrate	+	

14	Nitrite	+	
15	Polycyclic aromatic hydrocarbon	+	
16	Pesticide	+	
17	Potash	+	
18	Sulphate	+	
19	Sulphur	+	
20	Total organic carbon	+	
21	Total Water soluble salt	+	
22	Water holding capacity	+	
II	AIR PARAMETERS		
A	AMBIENT AIR/FUGITIVE EMISSIONS		
	<i>Mandatory Parameter</i>		
1	Nitrogen Dioxide	+	
2	Sulphur dioxide	+	
3	Total suspended particulate matter	+	
4	Respirable Suspended Particulate matter	+	
	<i>Secondary Parameter (Minimum-4)</i>		
1	Ammonia	+	
2	Carbon Monoxide	+	
3	Chlorine	+	
4	Fluoride		
5	Total Non methane hydrocarbon	+	
6	Lead	+	
7	Methane	+	
8	Ozone	+	
9	Benzene, Toluene & Xylene (BTX)	+	
10	Polycyclic Aromatic Hydrocarbon, Benzopyrine & others	+	
11	Respirable Fine Particulate Matter	+	
B	STACK GASES/SOURCE EMISSION		
	<i>Mandatory Parameters</i>		
1	Particulate Matter	+	
2	Sulphur Dioxide	+	
3	Velocity and flow	+	
4	Carbon dioxide	+	
5	Carbon monoxide	+	
6	Temperature (by temp probe)	+	
7	Oxygen	+	
8	Oxides of nitrogen	+	
	<i>Secondary Parameters (Minimum-5)</i>		
1	Acid mist	+	
2	Ammonia	+	
3	Chlorine	+	
4	Fluoride (Particulate)	+	
5	Fluoride (Gaseous)	+	
6	Hydrogen chloride	+	
7	Total Hydrocarbon	+	
8	Hydrogen sulphide	+	
9	Carbon Disulphide	+	
10	Mercaptan	+	
C.	NOISE LEVEL		
	<i>Mandatory Parameters</i>		
1	Noise level measurement (20 to 140 dBa)	+	

D	METEOROLOGICAL PARAMETERS		
	<i>Mandatory Parameters</i>		
1	Ambient Temperature	+	
2	Wind direction	+	
3	Wind speed	+	
4	Relative Humidity	+	
	<i>Secondary parameters (Minimum required at least one parameter)</i>		
1	Solar radiation	+	
2	Rain fall	+	
E	VEHICLE EMISSION MONITORING PARAMETERS		
	<i>Mandatory Parameters</i>		
1	Carbon monoxide	+	
2	Smoke Density	+	
	<i>Secondary Parameters (Optional)</i>		
1	Oxides of nitrogen	+	
2	Hydrocarbon	+	
	Instruments /Equipments		
	Water/Waste water analysis		
1	Alpha/Beta radioactivity counter	+	
2	<i>Analytical balance (weighing upto 0.01mg) *</i>	+	
3	AOX/TOX Analyzer	+	
4	<i>Atomic Absorption Spectrophotometer (Falame)*</i>	+	
5	Atomic Absorption Spectrophotometer with Graphite furnace and hydride generation system	+	
6	<i>Auto clave *</i>	+	
7	Automatic Burette Digital	+	
8	Binocular Microscope	+	
9	Bottom sampler	+	
10	<i>BOD incubator*</i>	+	
11	<i>Centrifuge *</i>	+	
12	<i>COD Digester with aluminum heating block system*</i>	+	
13	Colony Counter (Electronic)	+	
14	<i>Conductivity meter*</i>	+	
15	Current meter	+	
16	Depth sampler	+	
17	Digester with condensers	+	
18	<i>Digestion chamber (fume hood)*</i>	+	
19	Dissolved oxygen meter	+	
20	<i>Flame photometer *</i>	+	
21	<i>Filtration assembly with vacuum pump*</i>	+	
22	Flocculator (jar testing apparatus)	+	
23	<i>Gas Chromatograph with ECD, FID, NPD, FPD*</i>	+	
24	Gas chromatograph with Mass Spectrometer (GC-MS)	+	
25	Heating Mantle	+	
26	High pressure liquid chromatograph (HPLC)	+	
27	<i>Hot air oven *</i>	+	
28	<i>Hot plate (different size)*</i>	+	
29	<i>Incubators for Bacteriological test *</i>	+	
30	Ion Chromatograph	+	
31	Inductively coupled plasma (ICP) spectrometer	+	
32	<i>Laminar flow (Inoculation chamber) *</i>	+	

33	Liquid handling systems (dispensers)	+	
34	Mercury Analyzer Digital	+	
35	Magnetic stirrer with hot plate*	+	
36	Mechanical shaker*	+	
37	Microwave Digester	+	
38	Muffle furnace*	+	
39	pH meter with combined glass electrode *	+	
40	Portable analyzer kit (DO,pH, Temp. Cond)	+	
41	Precision Balance weighing up to 1mg	+	
42	Rotary evaporator *	+	
43	Specific Ion meter (Microprocessor controlled)	+	
44	Spectrophotometer (Ultra violet visible)	+	
45	Spectrophotometer (visible)*	+	
46	Stereo Microscope	+	
47	Standard weights	+	
48	TKN Analyzer semi automatic with aluminum block digester	+	
49	Total Organic Carbon Analyzer	+	
50	Turbidity meter*	+	
51	Ultrasonic water bath	+	
52	Vacuum pump*	+	
53	Water Purification System (RO based)	+	
54	Water Distillation Assembly (Glass)*	+	
55	Water Bath (Thermostatic control)	+	
	Hazardous Waste Analysis		
56	Bomb Colorimeter	+	
57	Elemental analyzer	+	
58	Flash point apparatus	+	
59	Karl fisher moisture content meter	+	
60	Toxicity characteristic leaching procedure (TCLP) system	+	
61	X-Ray Fluorescence (XRF) Spectrometer	+	
62	Zero head space extractor (ZHE)	+	
	Air/Emission Analysis		
63	BTX analyzer (PID/FID detector)	+	
64	BTX calibrator	+	
65	Canister	+	
66	CO analyzer (Non-dispersive infrared principle)	+	
67	Conditioning unit/room for balance	+	
68	Detector tubes of different pollutants with pump	+	
69	Dust analyzer (Beta Attenuation/TOEN)	+	
70	Exhaust CO/HC analyzer	+	
71	Flue gas analyzer	+	
72	Gas Chromatograph with Air sampling port , FID & PFPD detectors, with compatible ATD system	+	
73	Handy sampler for gaseous monitoring*	+	
74	High temperature probe for stack monitoring	+	
75	High Volume sampler with flow controller /brush less motor + calibration kit*	+	
76	Low flow pump	+	
77	Meteorological sensors with mast WS, WD , Temp. humidity*	+	
78	Micro balance (Readability 1ug)	+	

79	Multi calibration system	+	
80	Multi channel recorder	+	
81	Multi calibration kit portable	+	
82	Noise level meter*	+	
83	NO-NO ₂ -Nox Analyzer (Chemiluminescence based)	+	
84	Ozone analyzer (ultraviolet)	+	
85	Permeation tubes for calibration	+	
86	PM _{2.5} Sampler	+	
87	RSPM sampler with flow controller/bush less motor +calibration kit*	+	
88	Smoke density meter	+	
89	SO ₂ Analyzer (Pulsed Fluorescence based)	+	
90	Soap bubble meter	+	
91	Stack monitoring kit with High Temp. Probe*	+	
92	Wet gas meter	+	
	Infrastructural Equipment		
93	Air conditioner (split type)	+	
94	Air conditioner (window type)	+	
95	Cold room for sample storage	+	
96	Computer with printer (data logger)	+	
97	Refrigerator (frost free, CFC free)	+	
98	Uninterrupted Power Supply (UPS) system 7.5KVA	+	

* The Bold and Italic Instruments /equipments are bare minimum according to the CPCB Guidelines LATS/9/2008-2009.