

**Draft Action Plan
for Rejuvenation of
River Kalyani**

(River Stretch: Downstream of Pantnagar)

**Rudrapur, Distt. US Nagar
(Uttarakhand)**

Priority -III

January, 2019

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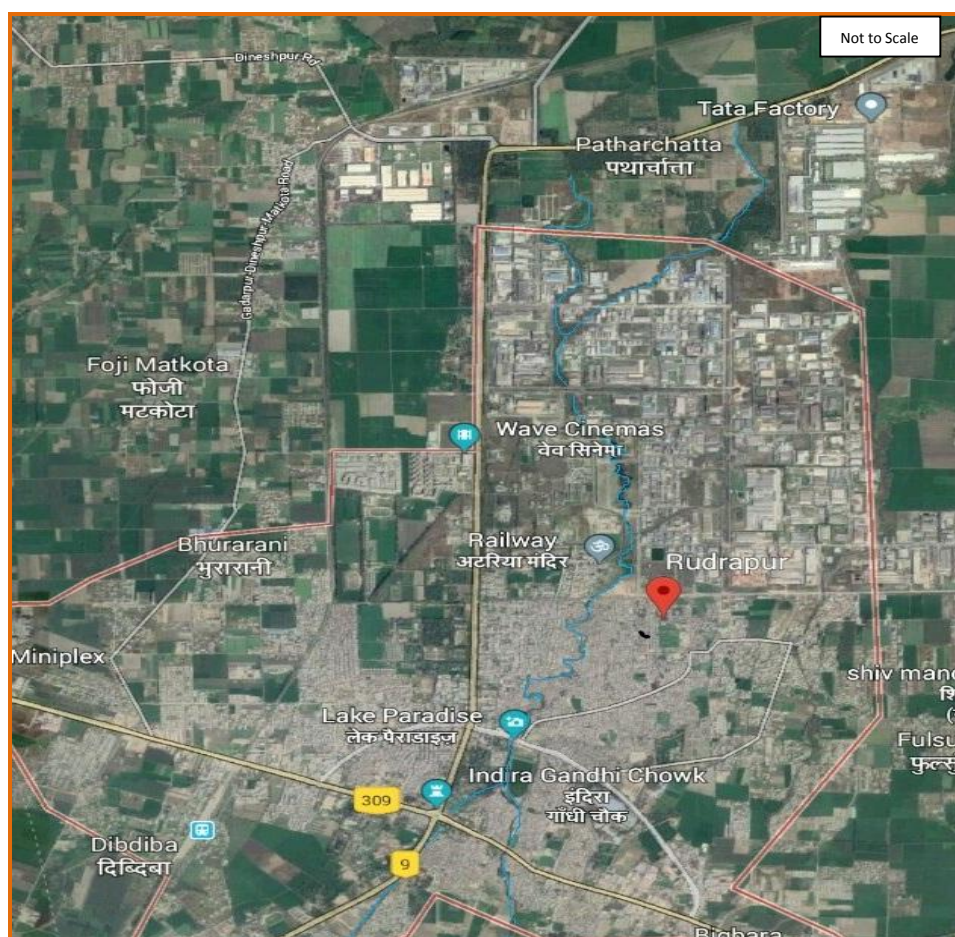
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1. INTRODUCTION

River Kalyani originating from the Tanda forest area of district Nainital and passing through agriculture fields of Pantnagar areas and followed by Integrated Industrial Estate (IIE), Pantnagar. River Kalyani receives wastewater from Common Effluent Treatment Plant (CETP) having installed capacity of 4. MLD, however, presently CETP receiving about 1.5 MLD to 1.8 MLD wastewater from 236 industrial Unit. About 286 industrial units are not connected with CETP as conveyer system is not available for those industries; however, individual industrial units have made their effluent treatment plant (ETP) as per requirement. River Kalyani receives treated wastewater from CETP through its storage lagoon and other industrial units where conveyer system is not available. Apart from these sources, it also receives municipal drains from residential areas of Rudrapur city located adjacent to the industrial Estates.



Google image of IIE, Pantnagar and Rudrapur town along with river Kalyani. (Not to scale)

2. WATER QUALITY GOALS:

It is an important aspect for maintain wholesomeness of river Kalyani in context of meeting water quality criteria for bathing. The natural flow of river Kalyani is very low. As it passes through IIE Pantnagar, it receives industrial wastewater and CETP outlet discharge as well as wastewater from residential areas. In order to meet the water quality criteria for bathing, it is imperative to maintain the wastewater quality characteristic within prescribed limit all the time by industrial Units and CETP all the time in relation to prescribed standards stipulated under Schedule – VI of the Environment (Protection) Rules, 1986.

Water quality characteristics of river Kalyani during the year 2018 is as given below:

A. River Kalyani at upstream of Pantnagar (US Nagar).

Month	pH	BOD (mg/L)	COD (mg/L)	DO (mg/L)
Jan-18	7.2	3.2	18	8.2
Feb-18	7.2	2.2	16	8
Mar-18	River Dry			
Apr-18	River Dry			
May-18	River Dry			
Jun-18	7.2	3.2	8	7.2
Jul-18	7.6	2.6	16	7.2
Aug-18	7.6	1.8	18	7.8
Sep-18	7.5	4	14	7.2
Oct-18	7.3	8	28	6.2
Nov-18	7.2	4.2	18	6.8
Dec-18	7.4	3.2	10	6.4
Average (Range)	7.35 (7.2-7.6)	3.6 (1.8-8)	16.22 (8-28)	7.22 (6.2-8.2)

B. River Kalyani at downstream of Pantnagar (US Nagar).

Month	pH	BOD (mg/L)	COD (mg/L)	DO (mg/L)
Jan-18	7.9	8.2	38	5.20
Feb-18	7.4	6	36	5.20
Mar-18	6.98	20	84	1.80
Apr-18	6.86	80	304	0.60
May-18	7.1	52	200	1.20
Jun-18	6.4	48	190	1.20
Jul-18	7.3	44	152	1.80
Aug-18	7.8	30	118	3.20
Sep-18	6.9	34	138	2.80
Oct-18	7.3	36	130	2.00
Nov-18	7.6	26	88	2.60
Dec-18	6.8	30	80	2.80
Average (Range)	7.19 (6.4-7.9)	34.51 (6-80)	129.83 (36-304)	2.53 (0.60-5.20)

Basis of Proposed Action Plan for rejuvenation of river Kalyani:

River Kalyani is a spring fed river and river water quality before entering into IIE, Pantnagar, as such not receives any direct source of pollution. Deterioration in water quality is reported mainly because of industrial wastewater and CETP outlet, Therefore, efficient operation of CETP as well as industries which are not connected with CETP, are matter of grave concerned; and therefore action plan for prevention and control of pollution of river Kalyani has been prepared based on the following components:

3. COMPONENTS OF ACTION PLAN:

The proposed action plan for rejuvenation of river Kalyani consisting following components:

3.1 Source Control:

Source control includes industrial pollution control and treatment and disposal of domestic sewage as detailed below:

(a) Industrial Pollution control:

- i. Inventorisation of industries: List of industries located in IIE, Pantnagar is given as **Annexure-1**.
- ii. Categories of industry and effluent quality: Industries which are connected with CETP, shall have to provide primary treatment system in order to meet prescribed CETP inlet standards as prescribed by UEPPCB (**Annexure-2**), however, industries which are not connected with CETP shall have to operate ETP appropriately to meet outlet standards as prescribed under the Environment (Protection) Rules, 1986 as amended.
- iii. Treatment of effluents, compliance with standards and mode of disposal of effluents.
- iv. Regulatory regime: Compliance of effluent outlet standards as prescribed under the Environment (Protection) Rules, 1986 as amended.

(b) Common Effluent Treatment Plant (CETP): As CETP receives wastewater from about 253 industrial units, therefore

appropriate operation of CETP is to be ensured to meet CETP outlet standards prescribed under the E(P) Rules, 1986 as amended (**Annexure-3**).

(c) Channelization, treatment, utilization and disposal of treated domestic sewage/Municipal drain.

- i. Identification of drains their discharge in the catchment of river Kalyani.
- ii. Estimation of quantity of sewage generated and requirement of treatment capacity.
- iii. Storm water drains now carrying sewage and sullage joining river Kalyani and interception and diversion of sewage to STP.
- iv. Treatment and disposal of septage and controlling open defecation.

(d) Solid Waste Management:

- i. Collection, segregation, transportation, disposal and treatment of municipal solid wastes generated from town in accordance of provisions of the Solid Waste Management Rules, 2016.
- ii. Restriction illegal disposal of solid waste along the river bank and flood plain zones.
- iii. Burning of solid waste should be strictly prohibited.
- iv. Construction and demolition wastes should be disposed in designated areas and no case it should be disposed in to river beds or flood plain zone.

3.2 River catchment/Basin management - Controlled ground water extraction and periodic quality assessment:

- i. Periodic assessment of groundwater resources and regulation and regulation of ground water extraction by industries particularly in over exploited and critical zones/blocks.
- ii. Ground water re-charging/rain water harvesting.
- iii. Periodic ground water quality assessment and remedial actions in case of contaminated ground water tube wells/bore wells or hand pumps.
- iv. Assessment of the need for regulating use of ground water for Irrigation purposes.

3.3 Flood Plain Zone.

- i. Regulating activities in flood plain zone.
- ii. Management of Municipal, Plastic, Hazardous, Bio-medical and Electrical and Electronic wastes.
- iii. Greenery development - Plantation plan.

3.4 Ecological/Environmental Flow (E-Flow)

- i. Issues relating to E-Flow.
- ii. Irrigation practices.

4. RIVER KALYANI REJUVENATION PLAN:

Following are the action plan for rejuvenation of river Kalyani as detailed below:

1.1 Industrial Pollution Control:

IIE, Pantnagar consisting of heterogeneous nature of industries, however, automobile and their ancillaries are prominent. Following are the action points for sector-wise pollution control:-

(i) Automobile Industries:

- (a) Wastewater containing metals shall be treated and disposed in order to meet prescribed standards.
- (b) Reuse of treated effluent shall be encouraged.
- (c) Metallic sludge, paint sludge etc. shall be collected, stored and disposed as per HW, Rules, 2016.

(ii) Electroplating Industries:

- (a) Electroplating industries which are the main source of metallic contamination of surface and ground water should be insisted for 'ZLD' system. Cyanide based electroplating process shall not be permitted.
- (b) All the electroplating units or having electroplating process or industrial processes which are likely to discharge effluents containing heavy metal or pollutants that may damage

environment, in such cases, UEPPCB shall make necessary amendments to the CCA (Consolidated Consent & Authorization) granted under the Water (Prevention and Control of Pollution) Act, 1974; the Air (Prevention and Control of Pollution) Act, 1981 and the Hazardous and Other Wastes (Management & Transboundary Movement) Rules, 2016, for incorporation of the effluent discharge standards for all the parameters as prescribed under Environment (Protection) Act, 1986.

- (c) All the industrial units should have consents under Water (Prevention and Control of Pollution) Act, 1974 and Air (Prevention and Control of Pollution) Act, 1981 as well as Authorisation under the Hazardous & Other Waste (Management & Transboundary Movement) Rules, 2016 as amended and Consents or Authorization as applicable should be granted or renewed only after verification or ensuring adequate systems for disposal of treated effluents or verification of compliances to the granted Consents/Authorization strictly.

(iii) Specific Action Points:

- (a) UEPPCB with the support of District Industry Centre (DIC) shall carryout inventory of industries within two months time and all the industries which are presently in operation without Consent under Water (Prevention and Control of Pollution) Act, 1974 and Air (Prevention and Control of Pollution) Act, 1981 as the case may be should be directed by UEPPCB to obtain consent within three months and failing which action should be taken by UEPPCB for closure of all such industrial units.
- (b) All the hazardous waste generating industries or the industries covered under Schedule-I of the Hazardous and Other Waste (Management & Transboundary Movement) Rules, 2016 as amended, should be directed to obtain authorization within a month from UEPPCB and failing which action should be taken by UEPPCB for closure of all such industrial units.
- (c) All the GPIs category industries have provided OCEMS at the outlet of ETPs. Industries will be directed to take measures to

transfer real time data with auto validation facilities to the UEPPCB and CPCB with immediate effect.

- (d) No industry should operate or continue manufacturing process unless they possess valid permission for ground water extraction from Central Ground Water Authority (CGWA). All such industries shall obtain groundwater extraction permission from the Central Groundwater Board (CGWA) within three month time period.
- (e) Small scale/tiny and service providing units located in urban or semi-urban limits like Dairies, Auto Service Stations etc., should not be allowed to dispose waste water effluents or sledges into drains, thereby ensuring not causing damages to drains or sewers. Such units should have minimum provision of Oil & Grease traps.
- (f) Drains carrying industrial wastewater shall be monitored regularly by the UEPPCB.
- (g) Burning of any kind of waste including industrial solid waste and agriculture residue should be completely prohibited.

1.2 Treatment of Sewage:

- (a) About 26 MLD sewage is generated from the entire city. It is informed that due to high water table (2 to 5 meter), sewage treatment and networking system have not found feasible. Therefore, no STP is proposed for the city.
- (b) 125 KLD capacity Septage Treatment Plant is proposed for Rudrapur city. Proposal of about Rs. 6.09 Cr. is under tendering process.
- (c) All municipal drains leading to river Kalyani should be identified and their interception and diversion along with treatment plan shall be prepared.
- (d) Drains carrying industrial wastewater shall not be diverted to CETP.
- (e) Septage management protocol shall be strictly followed.

Sewage Treatment Plan:

- (a) Uttarakhand Jal Nigam would undertake measurement of flow of the drain(s) and formulate detailed project report (DPR) for each drain for treatment.

- (b) The flow in each drain should exclude monsoon flow. Further, any drain if receiving fresh water from any escape channel etc, should be examined for its diversion rather than mixing with sewage.
- (c) DPRs should be submitted to the River Rejuvenation Committee (RRC) for consideration as a part of Ganga/Yamuna basin management plan.
- (d) Sewage treatment plan should also consider treatment and disposal of sewage from villages/gram panchayats/isolated settlements including discharge form toilets constructed under Swachh Bharat Abhiyan.
- (e) Hotels/Restaurants particularly located on road-side should not dispose untreated sewage and solid waste into nearby pubic drain or rivers, such establishments should be properly regulated and levied with fines as directed by Hon'ble NGT in Ganga matter in case of any violation.

4.3 Solid Waste Treatment and Disposal:

- (a) About 46.35 MTPD solid waste is generated from the Rudrapur city. Action plan for solid waste processing and disposal has been prepared by the Directorate of Urban Development based on cluster approach.
- (b) Door to Door collection of solid waste shall be encouraged and only segregated waste shall be accepted.
- (c) Biodegradable wastes shall be used for composting while recyclable waste shall be sent to registered recyclers.
- (d) Action Plan for Solid waste Management for Rudrapur town as prepared by the Urban Development Directorate, Uttarakhand shall be implemented.
- (e) No case Construction and Demolition waste shall be disposed in river bed or flood plain zone. Nagar Nigam Rudrapur shall identify the site for such wastes.

1.3 Ground Water Quality:

- (a) So far contamination of groundwater is not reported in the area, however groundwater quality monitoring shall be carried out at least twice in the year (winter: December-January and summer: May-June) at three locations to ascertain level of pollutants in groundwater.

- (b) CGWA would be requested to identify over exploited and critical blocks in the area with respect to the ground water extraction and industries be directed to comply with CGWA conditions.
- (c) UPPCB should be vigilant and conduct surprise inspection of the industry to rule out any forceful injection of industrial effluents into groundwater resources or disposal of effluent in rain water recharge pits.
- (d) No industrial unit should be establishment or allowed to continue its operation unless they obtain permission from CGWA for ground water extraction within three month.
- (e) Rain water harvesting of industrial, commercial and other institutions may be insisted upon by CGWA and groundwater recharging with only clean water be encouraged by CGWA.

4.5 Flood Plan Zone (FPZ):

The Uttarakhand Irrigation Department shall identity/demarcates Flood Plain Zone and regulate the activities. Such regulations would also cover:

- (a) Plantation in Flood Plain Zone (FPZ) – By State Forest Department.
- (b) Checking encroachments – By District/Local Administration.
- (c) Prohibition of disposal of municipal and bio-medical waste particularly in drains – By Local administration.
- (d) State Government may notify Flood Palin Zones – within six months.

4.6 Environmental Flow (E-Flow):

- (a) River Kalyani carrying very thin and lean flow of original water.

(b) Fresh water flowing through escape channels/small barrages should be checked. Good quality of water should not be used for dilution of pollution unless; required degree of treatment is achieved for municipal sewage and industrial effluents.

(c) To conserve water and good irrigation practices to be adopted by the farmers for which mass awareness programmes through media be provided in vernacular languages to the farmers by the Uttarakhand State Irrigation and Agriculture Departments.

4.7 Monitoring of Action Plan:

The proposed Action Plan will be monitored by the River Rejuvenation Committee (RRC) constituted by Government of Uttarakhand vide Office order dated 05.12.2018, under the overall supervision and co-ordination of Principal Secretary, Environment, Govt. of Uttarakhand.

5. ACTION PLAN:

Short Term and Long Term Action and the Identified Authorities for initiating actions and the time limits for ensuring compliance:

S.N.	Action plan for rejuvenation of river Kalyani	Organisation/ Agency Responsible for Execution of the Action Plan	Time Target
1.	Industrial Pollution Control		
	a) Action plans suggested under section - of the Action Plan.	UEPPCB	Within Three months.
	b) Inventorisation of the industries in the catchment area of River Kalyani covering assessment on aspects relating to Status of Consents under Water	DIC, US Nagar & UEPPCB	Within two months.

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	& Air Acts and Authorisation, Effluent Generation, ETP capacities and final mode of effluent discharges.		
	c) Actions against the Identified industries in operation without Consents under Water & Air Acts/Authorisation under the H & OW (M & TM) Rules, 2016 as amended.	UEPPCB	Within three months.
	d) Action against the industries not installed ETPs or ETPs exist but not operating or ETP outlet or treated effluent is not complying with effluent discharge norms.	UEPPCB	Within three months.
	e) Action against the GPIs which have not providing continuous real-time effluent quality data to UEPPCB and CPCB.	UEPPCB	Within a month.
	f) Routine /surprise inspection GPIs and Red category of industries for ensuring compliance of effluent discharge standards as prescribed under E(P) Rules, 1986, as amended.	Special Environmental Surveillance Task Force / UEPPCB	Regularly .
	g) Small scale/tiny and service providing units located in urban or semi-urban limits like Dairies, Auto Service Stations etc., have minimum provision of Oil & Grease traps.	UEPPCB	Within three month.
	h) Monitoring of drains carrying industrial	UEPPCB	Within a month.

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	wastewater.		
	i) Prohibition of Burning of any kind of waste including agro-residue.	Nagar Nigam, Rudrapur / District Administration	Within a month.
	j) Operation of CETP in order to meet the prescribed outlet effluent discharge standards and performance monitoring.	SIIDCUL / UEPPCB	Within a month
	k) Laying of conveyer network for areas of IIE where conveyer network in not available	SIIDCUL	Within six months.
	l) Installation of Online Continuous Effluent Monitoring System at CETP outlet and 24x7 data transfer connectivity to CPCB and UEPPCB.	SIIDCUL	Within 15 days.
2.	Sewage Treatment & Disposal Plan		
	a) Estimation of total sewage generation, existing treatment facilities, quantum of disposal of sewage presently through drains and / the gaps in sewage treatment capacity.	Uttarakhand Jal Nigam / Nagar Nigam, Rudrapur	Within two months.
	b) To undertake measurement of flow of all the drains presently contributing pollution load in river Kalyani and formulate Detailed Project Report (DPR) for each drain and submit DPR to RRC. Plan for utilization of treated water (at least 75%) should be a part of DPR. Proposal should	Uttarakhand Jal Nigam / Nagar Nigam, Rudrapur	Within two months.

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	include installation of OCEMS & PTZ camera at STP Outlet.		
	c) Channelization including diversion of sewage generated from household / township / villages to sewer lines and interception of all drains (excluding drains carrying industrial wastewater) for ensuring proper treatment through appropriate treatment system.	Jal Nigam / Nagar Nigam, Rudrapur	Within six months after commissioning of Treatment system
	d) Ensuring dairy / automobile service stations and Hotels/ Restaurants should have their own treatment system and levy of fine in case found violation.	UEPPCB / Nagar Nigam, Rudrapur.	Within three months.
	e) Monitoring of STP outlet effluent quality w.r.t. STPs effluent discharge norms prescribed under E(P) Rules, 1986 as amended.	UEPPCB.	After commissioning of STP.
	f) Establishment of Septage Treatment Plant of 125 KLD capacity at Rampura, Rudrapur..	Uttarakhand Jal Nigam / Nagar Nigam, Rudrapur	Within six months.
4.	Solid Waste Treatment and Disposal		
	a) Implementation of Action plan for Solid Waste Management for Rudrapur town prepared by Urban Development Directorate, Uttarakhand shall be implemented. No case collected solid waste shall be disposed illegally into river bed /flood plain zone.	Urban Development Directorate / Nagar Nigam, Rudrapur.	Within a year.
	b) Door to door collection of	Nagar Nigam,	Within a

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	solid waste shall be encouraged.	Rudrapur.	month.
	c) Composting will be made out of bio-degradable waste and recyclable waste shall be disposed thorough registered recyclers.	Nagar Nigam, Rudrapur.	Within two months.
	d) Construction and demolition waste shall be disposed in designated area/place only. Designated place shall be earmarked by the Local authority.	Nagar Nigam, Rudrapur.	Within a month.
5.	Ground Water Quality		
	a) Groundwater quality monitoring at three locations during summer (May-June) and winter (December-January)	UEPPCB	Within a month.
	b) Identification of over exploited and critical area w.r.t. groundwater extraction.	CGWA	Within six months.
	c) To conduct periodic surprise inspection of industries to rule out any forceful injection of industrial wastewater in to groundwater or disposal of wastewater through rainwater recharging pit.	UEPPCB / CGWA	Regularly
	d) All the industry should be directed to obtain necessary permission for groundwater extraction from CGWA.	UEPPCB /CGWA	Within three month.
	e) Ensure rainwater harvesting by industries, commercial complexes / institutions and	CGWA	Within six months.

	groundwater recharging with clean water.		
6.	Flood Plain Zone (FPZ)		
	a) Demarcation of flood plain zone and notification of Flood Plain Zone	Uttarakhand Irrigation Department.	Within six months.
	b) Plantation in Flood Plain Zone	Uttarakhand Forest Department	By next monsoon .
	c) Checking encroachment in the FPZ of Kalyani River.	District Administration, US Nagar / Nagar Nigam, Rudrapur	Within three months.
	d) Prohibition of disposal of municipal plastic waste and biomedical wastes particularly in drains and FPZ.	Local Administration / Nagar Nigam, Rudrapur	Within a month.
7.	Environmental Flow (E-Flow) and Irrigation Practices		
	a) Measurements of Kalyani River flow of at upstream and downstream of Rudrapur town and maintain record.	Uttarakhand Irrigation Department.	Regularly
	b) To conserve water and good irrigation practices to be adopted by the farmers by organising mass awareness programmes through media in vernacular language.	Uttarakhand Irrigation Department / Department of Agriculture.	Regularly .

Annexure-1

List of industries connected with CETP, IIE, Pantnagar (US Nagar).

SN	Name of Industry	Address	
1	Britannia Industries Ltd	Sector-01,Plotno.-01	Connected
2	Parle Biscuit Pvt Ltd	Sector-01,Plotno.-03	Connected
3	SPP Food Products Pvt Ltd	Sector-01,Plotno.-04	Connected
4	TVS Srichakra Ltd	Sector-01,Plotno.-07	Connected
5	Dukes Products India Ltd	Sector-01,Plotno.-08	Connected
6	Nestle India Ltd	Sector-01,Plotno.-18	Connected
7	Lancer Food Products	Sector-01,Plotno.-2A	Connected
8	Haldiram Snacks Pvt Ltd	Sector-01,Plotno.-2-B	Connected
9	Murliwala Agrotech	Sector-02,Plotno.-01	Connected
10	Obeetee Textiles	Sector-02,Plotno.-01-A	Connected
11	Geeta Industries Pvt Ltd	Sector-02,Plotno.-02	Connected
12	Graffiti Exports Food Division	Sector-02,Plotno.-03	Connected
13	Interpump Hydraulics	Sector-02,Plotno.-03A	Connected
14	Dabur India Ltd Unit 2nd	Sector-02,Plotno.-04	Connected
15	Kusalava International Ltd	Sector-02,Plotno.-10	Connected
16	Titan Company Ltd (Jewellery division)	Sector-02,Plotno.-10-A	Connected
17	Titan Company Ltd	Sector-02,Plotno.-10-B&C	Connected
18	Khatri Aromas	Sector-02,Plotno.-12	Connected
19	Signode India Ltd	Sector-02,Plotno.-13	Connected
20	Radiant Polymers Pvt Ltd	Sector-02,Plotno.-13-A	Connected
21	Interarch Building Products Pvt Ltd	Sector-02,Plotno.-14	Connected
22	Polygel Industries Pvt Ltd	Sector-02,Plotno.-15	Connected
23	Kores Printer Technologies Pvt Ltd	Sector-02,Plotno.-15-A	Connected
24	Dabur India Ltd unit 1st	Sector-02,Plotno.-16	Connected
25	Bhagwati Products Ltd	Sector-02,Plotno.-18	Connected
26	Radhu Products Pvt Ltd	Sector-02,Plotno.-19	Connected
27	S.I. Auto Pack	Sector-02,Plotno.-20	Connected
28	Prabha Engineers	Sector-02,Plotno.-21	Connected
29	Manjushree Technopack Ltd Unit 2nd	Sector-02,Plotno.-23	Connected
30	Manjushree Technopack Ltd Unit 1st	Sector-02,Plotno.-23-A	Connected
31	Sai Enterprises	Sector-02,Plotno.-23-B	Connected
32	Asian Thai Foods & Investments Pvt Ltd	Sector-03,Plotno.-1to4	Connected
33	Fine Biotics Pharma Ltd	Sector-03,Plotno.-05	Connected
34	Parksons Packaging Ltd	Sector-03,Plotno.-08,09,10	Connected
35	Daffy Cosmetics Pvt Ltd	Sector-03,Plotno.-11	Connected
36	SFC foods	Sector-03,Plotno.-12	Connected
37	Deccan Healthcare	Sector-03,Plotno.-13	Connected
38	Kasa light and Electronics Pvt Ltd	Sector-03,Plotno.-14	Connected
39	Garg industries	Sector-03,Plotno.-15	Connected
40	Jovees Herbal Care	Sector-03,Plotno.-16	Connected
41	Well Pack Industries	Sector-03,Plotno.-18	Connected
42	Accacia Biotech	Sector-03,Plotno.-20	Connected
43	JMC Works Pvt Ltd	Sector-03,Plotno.-21	Connected
44	Maxchem Pharmaceuticals Pvt Ltd	Sector-03,Plotno.-22	Connected
45	Sushima laboratories	Sector-03,Plotno.-23	Connected
46	Luman Industries Ltd	Sector-03,Plotno.-26	Connected

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47	Bal Pharma Ltd	Sector-04,Plotno.-01,02,03,06,09	Connected
48	Castlite	Sector-04,Plotno.-04	Connected
49	Pankaj Gas Cylinders Ltd	Sector-04,Plotno.-05,06,07	Connected
50	K.L. Packaging	Sector-04,Plotno.-09B	Connected
51	Wabco India Ltd	Sector-04,Plotno.-11	Connected
52	Acme Cleantech Solutions Pvt Ltd	Sector-05,Plotno.-03to08,29to34	Connected
53	HP India Sales Pvt Ltd	Sector-05,Plotno.-09to11-A,35to37-A	Connected
54	Naari Pharma Pvt Ltd	Sector-05,Plotno.-14to16,55to57	Connected
55	Aica laminates India Pvt Ltd	Sector-05,Plotno.-23,26,45,48	Connected
56	Delta Power Solution India Pvt Ltd	Sector-05,Plotno.-38	Connected
57	Emami Ltd	Sector-05,Plotno.-40,41	Connected
58	Rudra Autotech Engineering Pvt Ltd	Sector-05,Plotno.-42-B	Connected
59	Bhavani Industries Ltd	Sector-05,Plotno.-44	Connected
60	Maini Scaffold System	Sector-06,Plotno.-01,01A,02	Connected
61	Essar Packaging Pvt Ltd	Sector-06,Plotno.-05	Connected
62	Mohit Rubber Foam India Pvt Ltd	Sector-06,Plotno.-06	Connected
63	Rudrapur Electro Mach Pvt Ltd	Sector-06,Plotno.-07	Connected
64	Adinath Forging Pvt Ltd	Sector-06,Plotno.-08	Connected
65	Abhipriya Business India Pvt Ltd	Sector-06,Plotno.-09	Connected
66	Banco Products India Pvt Ltd	Sector-06,Plotno.-11	Connected
67	Autotech Engineers & Suppliers	Sector-06,Plotno.-12	Connected
68	Nagesh Industries	Sector-06,Plotno.-13	Connected
69	Boltmaster India Pvt Ltd	Sector-06,Plotno.-14,15,16	Connected
70	Auto Ignition Ltd Unit 2nd	Sector-06,Plotno.-17,18	Connected
71	Khandelwal laboratories	Sector-06,Plotno.-20	Connected
72	Goldstar footwear Pvt Ltd	Sector-06,Plotno.-21	Connected
73	Grandeur agrotech Pvt Ltd	Sector-06,Plotno.-22	Connected
74	Samruddhi industries Ltd	Sector-06,Plotno.-24,25	Connected
75	Replica remedies Pvt Ltd	Sector-06,Plotno.-32	Connected
76	Steel engineers	Sector-06,Plotno.-33	Connected
77	SLG bright wires	Sector-06,Plotno.-34	Connected
78	Colossus trade links Ltd	Sector-06,Plotno.-35	Connected
79	Best quality fasteners	Sector-06,Plotno.-36	Connected
80	Minda corporation Ltd unit 3rd	Sector-06,Plotno.-38	Connected
81	Pilot industries Ltd	Sector-06,Plotno.-39,45to49	Connected
82	RR enterprises	Sector-06,Plotno.-40	Connected
83	Singla forging	Sector-06,Plotno.-41	Connected
84	Goodwear fashion Pvt Ltd	Sector-06,Plotno.-42	Connected
85	Pee aar automotive	Sector-06,Plotno.-43to44	Connected
86	TKT plasto moulders	Sector-06,Plotno.-50	Connected
87	Adarsh electro plating works	Sector-06,Plotno.-51	Connected
88	Shakti Packaging	Sector-06,Plotno.-56	Connected
89	Caparo engineering India Ltd	Sector-06,Plotno.-57	Connected
90	Real inner spring technologies Pvt Ltd unit 1st	Sector-06,Plotno.-58	Connected
91	Craftsmen	Sector-06,Plotno.-60	Connected
92	Windals precision Pvt Ltd	Sector-06,Plotno.-62	Connected
93	Somani foods	Sector-06,Plotno.-63	Connected
94	Pritpal singh and company	Sector-06,Plotno.-64	Connected

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95	Hardev batteries	Sector-06,Plotno.-65	Connected
96	Bonsai udyog	Sector-06,Plotno.-68	Connected
97	ADO conmat India	Sector-06,Plotno.-68-A	Connected
98	Mitter fastener	Sector-06,Plotno.-69	Connected
99	Right tight fasteners	Sector-06,Plotno.-70	Connected
100	Holostik India Ltd	Sector-06,Plotno.-71,72,73	Connected
101	Orbit Industries	Sector-07,Plotno.-02	Connected
102	Mahalaxmi associates	Sector-07,Plotno.-05	Connected
103	Dwarfish pharmaceuticals	Sector-07,Plotno.-08	Connected
104	Khandelwal industries	Sector-07,Plotno.-09	Connected
105	Unimax International	Sector-07,Plotno.-1&10	Connected
106	Karuna enterprises	Sector-07,Plotno.-11	Connected
107	Shree balaji industries LLP	Sector-07,Plotno.-12	Connected
108	Technocract connectivity system pvt ltd	Sector-07,Plotno.-21	Connected
109	Nikhil pipe	Sector-07,Plotno.-22	Connected
110	Citizen exports	Sector-07,Plotno.-23	Connected
111	Precitech enclosures system Pvt Ltd	Sector-07,Plotno.-24	Connected
112	Parvatesh packaging	Sector-07,Plotno.-25	Connected
113	Jiwan plasto moulds corporation	Sector-07,Plotno.-26	Connected
114	Real inner spring technologies Pvt Ltd unit 2nd	Sector-07,Plotno.-27,28	Connected
115	Hemant industries	Sector-07,Plotno.-29	Connected
116	Kapil enterprises	Sector-07,Plotno.-29	Connected
117	Oxford plast India Pvt Ltd	Sector-07,Plotno.-31	Connected
118	Anand precision works	Sector-07,Plotno.-33	Connected
119	Uttaranchal packaging Pvt Ltd	Sector-07,Plotno.-36	Connected
120	Roshan industries	Sector-07,Plotno.-37	Connected
121	Chirag enterprises	Sector-07,Plotno.-34	Connected
122	Savvak engineering innovation Pvt Ltd	Sector-07,Plotno.-42	Connected
123	Avs lighting solution (dolphin)	Sector-07,Plotno.-43,44	Connected
124	Indian ink and chemicals industries	Sector-07,Plotno.-45	Connected
125	Om industries	Sector-07,Plotno.-46	Connected
126	Surya polypet Pvt Ltd	Sector-07,Plotno.-47	Connected
127	Narayani industries	Sector-07,Plotno.-47A	Connected
128	Sudtrac linkages Pvt Ltd	Sector-07,Plotno.-48,49	Connected
129	Shiva Enterprises	Sector-07,Plotno.-50	Connected
130	Phoenix engineering	Sector-07,Plotno.-51,52,53	Connected
131	GPM industries	Sector-07,Plotno.-54,55	Connected
132	Maple packaging and logistics	Sector-07,Plotno.-56	Connected
133	Mangla tubes	Sector-07,Plotno.-57	Connected
134	Shanti refrigeration industries Pvt Ltd unit 2	Sector-07,Plotno.-57	Connected
135	Suryodaya textiles pvt ltd	Sector-07,Plotno.-59,63	Connected
136	BCH Electric ltd	Sector-07,Plotno.-64,68	Connected
137	Sree durga fibre products Pvt Ltd	Sector-07,Plotno.-69,70,71	Connected
138	Tosha transformer	Sector-07,Plotno.-72	Connected
139	Emkay automobile industries	Sector-07,Plotno.-73,76	Connected
140	Empathy pharmaceuticals engg Ltd	Sector-07,Plotno.-77	Connected
141	Rajhans pressing	Sector-07,Plotno.-78,79	Connected
142	Rajesh Export	Sector-07,Plotno.-80,81	Connected
143	Ganpati gases	Sector-07,Plotno.-82	Connected
144	Sri balaji agro pharma	Sector-07,Plotno.-83	Connected
145	Eco pet industries LLP	Sector-07,Plotno.-85	Connected

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146	Tulip diagnostics Pvt Ltd unit 2nd	Sector-07,Plotno.-86	Connected
147	Voltas Limited	Sector-08,Plotno.-2-5	Connected
148	Shirdi Industries Ltd	Sector-09,Plotno.-01	Connected
149	Green ply industries Ltd	Sector-09,Plotno.-02	Connected
150	Tvl engineers pvt ltd	Sector-09,Plotno.-05	Connected
151	Archidply Industries Ltd	Sector-09,Plotno.-07	Connected
152	Rama Panels Pvt :Ltd	Sector-09,Plotno.-08	Connected
153	BST Textiles pvt ltd	Sector-09,Plotno.-09	Connected
154	Mahalaxmi Polypack Pvt Ltd	Sector-09,Plotno.-3A,3B,3C&3D	Connected
155	C & S Himoina Pvt Ltd	Sector-09,Plotno.-12-A	Connected
156	Perfetti Van Melle India Limited	Sector-09,Plotno.-14-B	Connected
157	SRF Limited	Sector-09,Plotno.-14-C	Connected
158	L G Balakrishnan & Bros Limited	Sector-09,Plotno.-16	Connected
159	Metal Man Micro Turner	Sector-09,Plotno.-17	Connected
160	Sansera Engineering Pvt Ltd	Sector-09,Plotno.-18	Connected
161	Roop Polymer Ltd	Sector-09,Plotno.-19	Connected
162	Varroc Engineering Pvt Ltd	Sector-09,Plotno.-20	Connected
163	Om enterprises	Sector-09,Plotno.-21-A	Connected
164	Schneider Electric IT Business India Pvt Ltd	Sector-09,Plotno.-7-B,7-C	Connected
165	SBR Auto company ltd	Sector-09,Plotno.-7-D	Connected
166	Eden motors	Sector-09,Plotno.-7-F	Connected
167	Advik hitech Pvt Ltd	Sector-09,Plotno.-7-A	Connected
168	Shiv shakti biotechnology ltd	Sector-09,Plotno.-7-G	Connected
169	Aurangabad auto engg pvt ltd	Sector-09,Plotno.-7-H	Connected
170	Universal Comfort Systems Pvt Ltd	Sector-10,Plotno.-01	Connected
171	Neel Auto Pvt Ltd	Sector-10,Plotno.-04	Connected
172	Minda corporation Ltd (Uno)	Sector-10,Plotno.-05	Connected
173	Aurangabad Electricals Limited	Sector-10,Plotno.-06	Connected
174	Neel Metal Product Pvt Ltd	Sector-10,Plotno.-08	Connected
175	Minda corporation Ltd (Spark)	Sector-10,Plotno.-09&9A	Connected
176	Bajaj auto Ltd	Sector-10,Plotno.-10	Connected
177	Pricol Limited	Sector-10,Plotno.-11	Connected
178	Lumax DK Auto Industries Ltd	Sector-10,Plotno.-11-A&12	Connected
179	Micro turner-V	Sector-10,Plotno.-13	Connected
180	Shakti Polymers	Sector-10,Plotno.-13-A	Connected
181	Suprajit Engineering Ltd	Sector-10,Plotno.-14	Connected
182	Badve Engineering Limited	Sector-10,Plotno.-15	Connected
183	Endurance Technologies Limited	Sector-10,Plotno.-3&7	Connected
184	Ginger	Sector-Commercial,Plotno.-01	Connected
185	Kamal industries	Sector-IIDC,Plotno.-01	Connected
186	M.R. tubes	Sector-IIDC,Plotno.-03	Connected
187	Transcon power Pvt Ltd	Sector-IIDC,Plotno.-04	Connected
188	Jainsons herbo lab Pvt Ltd	Sector-IIDC,Plotno.-06	Connected
189	Viney corporation	Sector-IIDC,Plotno.-07	Connected
190	Makmaul laboratories Pvt Ltd	Sector-IIDC,Plotno.-08	Connected
191	Perfect sales corporation	Sector-IIDC,Plotno.-12	Connected
192	Sure and cure formulation India Pvt Ltd	Sector-IIDC,Plotno.-13	Connected
193	Apex industries	Sector-IIDC,Plotno.-15	Connected
194	Shanu enterprises	Sector-IIDC,Plotno.-16	Connected
195	Diamond forever international	Sector-IIDC,Plotno.-17	Connected
196	Baaz autos	Sector-IIDC,Plotno.-19	Connected

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197	Puritech	Sector-IIDC,Plotno.-23	Connected
198	Kapil enterprises	Sector-IIDC,Plotno.-24	Connected
199	Komal metal finisher	Sector-IIDC,Plotno.-25	Connected
200	Raaj industries	Sector-IIDC,Plotno.-26	Connected
201	Shanti refrigeration industries Pvt Ltd	Sector-IIDC,Plotno.-27,28	Connected
202	PG copybox industries	Sector-IIDC,Plotno.-29	Connected
203	Source automotive parts	Sector-IIDC,Plotno.-30	Connected
204	Ashoka metal industries	Sector-IIDC,Plotno.-31	Connected
205	Sag rubber	Sector-IIDC,Plotno.-32	Connected
206	Polar auto and engg industrial Pvt Ltd	Sector-IIDC,Plotno.-33	Connected
207	Lal ji Gopi nath ji industries	Sector-IIDC,Plotno.-34	Connected
208	Mac personal care Pvt Ltd	Sector-IIDC,Plotno.-37	Connected
209	Jupiter gases Pvt Ltd	Sector-IIDC,Plotno.-38	Connected
210	Chawala auto components	Sector-IIDC,Plotno.-39	Connected
211	Naturence herbals	Sector-IIDC,Plotno.-42	Connected
212	Auto Comp Corporation panse Pvt Ltd	Sector-IIDC,Plotno.-43	Connected
213	Avanti metal	Sector-IIDC,Plotno.-43	Connected
214	Sikands Ltd	Sector-IIDC,Plotno.-44,44-A,45	Connected
215	Taurus parentrals Pvt Ltd	Sector-IIDC,Plotno.-46-A	Connected
216	Shirdi organics Pvt Ltd	Sector-IIDC,Plotno.-47	Connected
217	Chhabra gas suppliers	Sector-IIDC,Plotno.-48A	Connected
218	Alpha plus industries	Sector-IIDC,Plotno.-49	Connected
219	Puri electronics Pvt Ltd	Sector-IIDC,Plotno.-53	Connected
220	Maxmed life sciences Pvt Ltd	Sector-IIDC,Plotno.-54	Connected
221	Falcon contracts Pvt Ltd	Sector-IIDC,Plotno.-55	Connected
222	Maxima solutions	Sector-IIDC,Plotno.-56	Connected
223	Rudrapur tubes India Pvt Ltd	Sector-IIDC,Plotno.-57	Connected
224	SPM automotive components Pvt Ltd	Sector-IIDC,Plotno.-58,65	Connected
225	Om sai motor industries	Sector-IIDC,Plotno.-64	Connected
226	Feezo chem formulation Pvt Ltd	Sector-IIDC,Plotno.-59,66	Connected
227	Himalayan auto era India Pvt Ltd	Sector-IIDC,Plotno.-60,61,67,68	Connected
228	Steel bird international	Sector-IIDC,Plotno.-62,63,69	Connected
229	Devbhoomi polymers Pvt Ltd	Sector-IIDC,Plotno.-86	Connected
230	V.T. engineering	Sector-IIDC,Plotno.-87,88	Connected
231	PLG pharmaceuticals	Sector-IIDC,Plotno.-89	Connected
232	Aries drugs Pvt Ltd	Sector-IIDC,Plotno.-90	Connected
233	Tulbros formulation	Sector-IIDC,Plotno.-91	Connected
234	Himalaya polytech Pvt Ltd	Sector-IIDC,Plotno.-93,94	Connected
235	MSS filtration engg process Pvt Ltd	Sector-IIDC,Plotno.-95	Connected
236	Jai durga packers	Sector-IIDC,Plotno.-96	Connected

OFFICE ORDER


In pursuance to notification of the Ministry of Environment, Forests and Climate Change, Govt. of India vide S.O.- 4(E) of 1st January, 2016, the Uttarakhand Environment Protection and Pollution Control Board (UEPPCB), Dehradun hereby prescribe following inlet quality standards for **Common Effluent Treatment Plant (CETP)** located at the Integrated Industrial Estate (IIE), Pantnagar, Distt. US Nagar, Uttarakhand, based on the design parameters submitted by CETP operator to UEPPCB:

1. Inlet effluent quality standards for CETP, IIE, Pantnagar, Distt. US Nagar shall be as given below:

S.N.	Parameters	Concentration (Maximum)
1.	pH	5.5 – 9.0
2.	BOD	550 mg/L
3.	COD	1100 mg/L
4.	Total Dissolved Solids (TDS)	2100 mg/L
5.	Total Suspended Solids (TSS)	1500 mg/L
6.	Oil & Grease	20 mg/L
7.	Phenolic Compounds (as C ₆ H ₅ OH)	5.0 mg/L
8.	Ammonical Nitrogen (as N)	50.0 mg/L
9.	Cynide (as CN)	2.0 mg/L
10.	Hexavalent Chromium (as Cr ⁶⁺)	2.0 mg/L
11.	Total Chromium (as Cr)	2.0 mg/L
12.	Copper (as Cu)	3.0 mg/L
13.	Lead (as Pb)	1.0 mg/L
14.	Nickel (as Ni)	3.0 mg/L
15.	Zinc (as Zn)	15.0 mg/L
16.	Arsenic (as As)	0.2 mg/L
17.	Mercury (as Hg)	0.01 mg/L
18.	Cadmium (as Cd)	1.0 mg/L
19.	Selenium (as Se)	0.05 mg/L
20.	Fluoride (as F)	15.0 mg/L
21.	Boron (as B)	2.0 mg/L
Radio Active Materials		
22.	Alpha Emitters, micro curie/mL	10 ⁻⁷
23.	Beta Emitters, micro curie/mL	10 ⁻⁸

2. To achieve above limit, individual contributing units are required to pre-treat their wastewater/effluent before discharging to common conveyance system. All contributing industries shall ensure compliance of above limits with immediate effect.
3. CETP outlet quality standards shall be as per treated effluent quality standards notified under the Environment (Protection) Rules, 1986 as amended 01.01.2016.

This issues with approval of Competent Authority of the Board.


 (S.P. Subudhi)
 Member Secretary

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Annexure-3

MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE

NOTIFICATION

New Delhi, the 1st January, 2016

S.O. 4(E).—In exercise of the powers conferred by sections 6 and 25 of the Environment (Protection) Act, 1986 (29 of 1986), the Central Government hereby makes the following rules further to amend the Environment (Protection) Rules, 1986, namely:—

1. **Short title and Commencement.**—(1) These rules may be called the Environment (Protection) Amendment Rules, 2015.

(2) They shall come into force on the date of their publication in the Official Gazette.

2. In the Environment (Protection) Rules, 1986, in Schedule-I,—

(a) the serial number 41 and the entries relating thereto, shall be omitted;

(b) for serial number 55 and the entries relating thereto, the following serial number and entries shall be substituted, namely:—

S. No.	Industry	Parameter	Standards		
(1)	(2)	(3)	(4)		
"55.	Common Effluent Treatment Plants (CETP)				
	A. Inlet Quality Standards	For each Common Effluent Treatment Plant (CETP), the State Board will prescribe Inlet Quality Standards for General Parameters, Ammonical-Nitrogen and Heavy metals as per design of the Common Effluent Treatment Plant (CETP) and local needs & conditions.			
	B: Treated Effluent Quality Standards		Max. permissible values (in milligram/litre except for pH and Temperature)		
			Into inland surface water	On land for irrigation	Into sea
		General Parameters			
		pH	6 - 9	6 - 9	6 - 9
		Biological Oxygen Demand, BOD ₃ , 27 °C	30	100	100
		Chemical Oxygen Demand (COD)	250	250	250*
Total Suspended Solids (TSS)		100	100	100	
Fixed Dissolved Solids (FDS)	2100**	2100**	NS*		

Specific parameters			
Temperature, °C	Shall not exceed more than 5°C above ambient water temperature	Shall not exceed more than 5°C above ambient water temperature	Shall not exceed more than 5°C above ambient water temperature
Oil & Grease	10	10	10
Ammonical –Nitrogen	50	NS*	50
Total Kjeldahl Nitrogen (TKN)	50	NS*	50
Nitrate- Nitrogen	10	NS*	50
Phosphates, as P	5	NS*	NS*
Chlorides	1000	1000	NS*
Sulphates, as SO ₄	1000	1000	NS*
Flouride	2	2	15
Sulphides, as S	2	2	5
Phenolic compounds (as C ₆ H ₅ OH)	1	1	5
Total Res. Chlorine	1	1	1
Zinc	5	15	15
Iron	3	3	3
Copper	3	3	3
Trivalent Chromium	2	2	2
Manganese	2	NS*	2
Nickel	3	NS*	3
Arsenic	0.2	NS*	0.2
Cyanide, as CN	0.2	NS*	0.2
Vanadium	0.2	NS*	0.2
Lead	0.1	NS*	0.1
Hexavalent Chromium	0.1	NS*	0.1
Selenium	0.05	NS*	0.05
Cadmium	0.05	NS*	0.05
Mercury	0.01	NS*	0.01
Bio-assay test	As per industry-specific standards	As per industry-specific standards	As per industry-specific standards

*NS-Not specified

Notes:

1. *Discharge of treated effluent into sea shall be through proper marine outfall. The existing shore discharges shall be converted to marine outfalls. In cases where the marine outfall provides a minimum initial dilution of 150 times at the point of discharge and a minimum dilution of 1500 times at a point 100 m away from discharge point, then, the State Board may relax the Chemical Oxygen Demand (COD) limit:

<p>Provided that the maximum permissible value for Chemical Oxygen Demand (COD) in treated effluent shall be 500 milligram/litre.</p> <p>2. *Maximum permissible Fixed Dissolved Solids (FDS) contribution by constituent units of a Common Effluent Treatment Plant (CETP) shall be 1000 milligram/litre. In cases where Fixed Dissolved Solids (FDS) concentration in raw water used by the constituent units is already high (i.e. it is more than 1100 milligram/litre) then the maximum permissible value for Fixed Dissolved Solids (FDS) in treated effluent shall be accordingly modified by the State Board.</p> <p>3. In case of discharge of treated effluent on land for irrigation, the impact on soil and groundwater quality shall be monitored twice a year (pre- and post-monsoon) by Common Effluent Treatment Plants (CETP) management. For combined discharge of treated effluent and sewage on land for irrigation, the mixing ratio with sewage shall be prescribed by State Board.</p>	
<p align="center">4. Specific parameters for some important sectors, selected from sector-specific standards</p>	
Sector	Specific Parameters
Textile	Bio-assay test, Total Chromium, Sulphide, Phenolic compounds
Electroplating Industries	Oil & Grease, Ammonia-Nitrogen, Nickel, Hexavalent Chromium, Total Chromium, Copper, Zinc, Lead, Iron, Cadmium, Cyanide, Fluorides, Sulphides, Phosphates, Sulphates,
Tanneries	Sulphides, Total Chromium, Oil & Grease, Chlorides
Dye & Dye Intermediate	Oil & Grease, Phenolic compounds, Cadmium, Copper, Manganese, Lead, Mercury, Nickel, Zinc, Hexavalent Chromium, Total Chromium, Bio-assay test, Chlorides, Sulphates,
Organic chemicals manufacturing industry	Oil & Grease, Bio-assay test, Nitrates, Arsenic, Hexavalent Chromium, Total Chromium, Lead, Cyanide, Zinc, Mercury, Copper, Nickel, Phenolic compounds, Sulphides
Pharmaceutical industry	Oil & Grease, Bio-assay test, Mercury, Arsenic, Hexavalent Chromium, Lead, Cyanide, Phenolic compounds, Sulphides, Phosphates."
