

HEAD OFFICE

गौरा देवी पर्यावरण भवन

Uttarakhand Pollution Control Board
46-B, SIDCUL IT Park, Sahasradhara Road,
Dehradun(Uttarakhand)



उत्तराखण्ड प्रदूषण नियंत्रण बोर्ड

46-बी, सिडकुल, आईटीओ पार्क, सहस्रधारा रोड, देहरादून (उत्तराखण्ड)

UEPPCB/HO/Gen/83/2020/1775-
361

Dated: 07-2-2020

To

Sh P.K. Gupta,
Additional Director and Div. head IPC-VII
Central Pollution Control Board,
East Arjun Nagar,
Delhi-32


**Sub: Compliance of Hon'ble NGT order dated 14.11.2019 in the matter of
O.A. No. 1038/2019 regarding,**

Sir,

This has reference to letter of this Board dated 05.02.2020 on the above-mentioned subject, vide which information in Format-A and Form-B was sent to CPCB. In continuation of the same, please find enclosed herewith the "Action Plan for Environment Management in Rudrapur Industrial Area (CPA)" as approved by the committee under the Chairmanship of Chief Secretary, Uttarakhand on dated 30.01.2020.

Encls: as above

Yours faithfully


(S.P. Subudhi)
Member Secretary

PI update Appdatur

SPW
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SB (Madda)

ACTION PLAN
FOR ENVIRONMENT MANAGEMENT
RUDRAPUR INTEGRATED INDUSTRIAL AREA,
UDHAM SINGH NAGAR, UTTARAKHAND, INDIA
PREPARED BY



UTTARAKHAND ENVIRONMENT PROTECTION
POLLUTION CONTROL BOARD

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ACTION PLAN FOR INTEGRATED INDUSTRIAL AREA, RUDRAPUR, UDHAM SINGH NAGAR, (Core Area and Impact Area) UTTARAKHAND

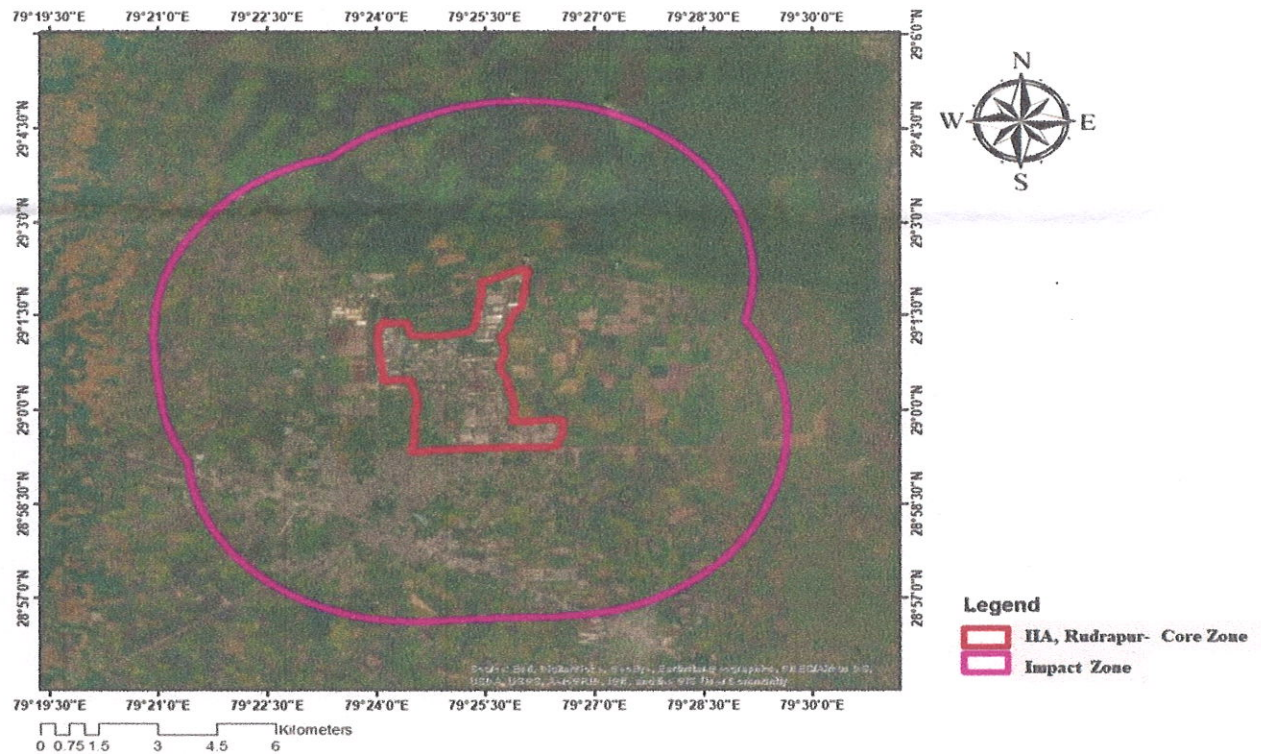
1. Background

In 2009, the Ministry of Environment and Forests (MoEF), Govt of India in association with Central Pollution Control Board (CPCB), New Delhi and Indian Institute of Technology (IIT), New Delhi have carried out an environmental assessment of industrial clusters across the country named Comprehensive Environmental Pollution Index (CEPI) with the aim of identifying polluted industrial clusters and prioritizing planning needs for the improvement of environment quality in all industrial clusters and nation as a whole. CEPI is a rational number and it is used to characterize the quality of the environment at a given location following the algorithm of source, pathway, and receptor. It is an indicator of environment quality, as CEPI increases, there will be adverse effects on the receiving environment. Therefore, CEPI is a valuable tool for environmental decision making by policymakers. In 2016, the criterion for determining CEPI was revised. CPCB revised its CEPI criteria and laid out components which included, scale of industrial activity, scale of exceedance of environmental quality (level of exposure), health related statistics and compliance status of industries. Based on the CEPI-2016 criterion, CPCB carried out further monitoring in the year 2017-18 where it was found that number of identified polluted industrial clusters went up to 100. The said number includes 38 critically polluted, 31 severely polluted and remaining 31 as other polluted areas.

If the CEPI score exceeds 70, the industrial cluster is treated as critically polluted, if the CEPI score is 60–70, the industrial cluster is treated as severely polluted. For such cases, detailed investigations and studies are carried out for appropriate estimation of extent of environmental damage and proper remedial action plan. In the report of CPCB, Polluted Industrial Area Udhm Singh Nagar (IIA Rudrapur) was found Critically Polluted with CEPI score 81.26. As per orders of Hon'ble NGT in OA no 1038/2019 and letter of CPCB dated 25.10.2019, Action Plan for Environment Management is to be sent to CPCB considering the critical pollutants along with the map of core area and 5km impact area around the core area.

2. Integrated Industrial Area Rudrapur

Integrated Industrial Area, Rudrapur is in the district of Udham Singh Nagar, Uttarakhand. It has a total industrial area of 2,363.17 Acres. The boundary coordinated of Integrated Industrial Area, Rudrapur and its 5 km impact area are shown in Fig 1.



IIA Rudrapur, Core Zone-Boundary Edges		Impact AreaBoundary edges	
Longitude	Latitude	Longitude	Latitude
79.434885	29.037060	79.457283	29.077944
79.441626	28.990332	79.484765	28.965157
79.407932	28.989000	79.367696	28.961588
79.400889	29.022312	79.369837	29.059027

Figure 1. Boundary demarcation and coordinates of Integrated Industrial Area, Rudrapur and 5 Km Impact Area

3. Integrated Industrial Area Rudrapur: Industries and Waste Water Generation

Integrated Industrial Area, Rudrapur is in the district of Udham Singh Nagar, Uttarakhand. It has a total industrial area of 2,363.17 Acres (<https://www.siidcul.com/industrial-estate/iie-pant-nagar>). Further, industries are classified into red, orange and green category based on their respective pollution load. In IIA Rudrapur, classification of different scale of industries is also accomplished, **Table 1**.

Table 1. Classification of different scale of industries in IIA Rudrapur

Industrial Scale/ Category	Green	Orange	Red
Small Scale	97	65	25
Medium Scale	24	29	10
Large Scale	40	64	33
Total Industries	161	158	68

The total water consumption and wastewater generation for each category of industry is mentioned in **Table 2** (source, Ganga XGN, UEPPCB portal, as on 31.10.2019).

Table 2. Total water consumption capacity and wastewater generation capacity

Type of industry	Total water capacity (MLD)	Total wastewater generation capacity (MLD)
Red category Industries	7.9	4.7
Orange category Industries	8.6	1.4
Green/white category Industries	5.4	2.6

4. CEPI, IIE Rudrapur

Based on the directions of Hon'ble NGT order no. 1038/2018 and order of Chairman of UEPPCB, the compilation of CEPI score monitoring for IIA Rudrapur, was conducted by SPCB in the month of December 2019. Detail of CEPI score as observed during the study is placed at Table-3.

Table 3. Details of CEPI Scores of Polluted Industrial Area, IIA, Rudrapur, Udham Singh Nagar monitored during December 2019

Zone and State	Name of PIA	Environment	Criterial pollutants	EPI Score	CEPI Score	Status of Environment
Uttarakhand	IIA Rudrapur	Air	PM ₁₀ , PM _{2.5} , CO	29.50	<u>77.7</u>	An _{29.5} Wc _{76.26} Ln _{21.0} (In 2018 Score was An _{23.3} Wc _{79.50} Ln ₂₆) Over all CEPI was 81.26
		Water	Phenol, T.Phos., TKN	76.25		
		Land	T.Hard., Fe, Mn	21.00		

5. Action plan for IIE Rudrapur

The basic identified sources of water pollution are Phenol, TKN, and Phosphate in Rudrapur. Mainly surface treatment units involving in electroplating, phosphating process; Ply wood manufacturing units and corn processing units are identified as the source of the se pollutants. However, untreated domestic sewage is also one of the major components of the surface water pollution. Action plan also involve solid waste management, air pollution control, water harvesting, green belt development etc.

6. Components of Action Plan

The proposed action plan for IIE Rudrapur, consists of following main points

1. Higher CEPI score is due to presence of critical pollutants in surface water, so main component of the action plan is to stringent the discharge norms from the present level.
2. Switchover from pet coke and coke to cleaner fuel in phased manner.
3. Installation of CAAQMS
4. Installation of OCEMS/ Continuous Stack Monitoring System in units
5. Monitoring of unaccountable discharge,
6. Development of Solid Waste Processing and Disposal Facility

Detailed Action Plan along with time frame for execution and responsible agencies is given at Table-4.

Table-4. Action Plan for Environment Management in IIA Rudrapur

S. No.	Action Point	Responsible Agency	Time Frame	Remarks
1	Expansion to the existing units and Permission to new units shall be given on the stringent Discharge norms or stringent CETP inlet norms after accessing the viability of the unit from the environment point of view.	UPCB/DIC	Immediate	Applicable to Core area and Impact area (5 Km) Regular Monitoring of such industries on Monthly basis.
2	Industries which are i) located in the non-network area of CETP, should operate ETP appropriately to meet outlet standards as stipulated by Board in the action plan (25% less than the standards prescribed by MoEF&C) ii) located in network area of CETP and connected with CETP are required to comply with CETP inlet norms as notified by UEPPCB from time to time. Failure to comply at any occasion will attract closure of the industry along with environment compensation (as per orders of Hon'ble NGT)	UPCB	Sept 2021	Applicable to Core area and Impact area (5 Km) During this period Existing Units are required to upgrade their Treatment Plants to meet out the Stringent norms
3	SIDCUL, Uttarakhand shall provide the needed infrastructure to collect waste water generating from the industries operating in non-networking area.	SIDCUL	March 2021	Applicable to Core area After laying down all the conveyor lines, all effluent will channelize to CETP.
4	All the un-accountable discharge at SIDCUL drains to be quantified and sources of the same to be identified and penalised. Ideally, there should not be any discharge except storm water in the drains.	SIDCUL/ UPCB/DIC	Regular Activity	Applicable to Core area Responsible agencies together will carry out detailed investigation for identification and take action against such discharge
5	Installation of OCEMMS and Camera at ETP/discharge Point by the units generating waste water (trade effluent)	UPCB through respective Industry	March 2021	Applicable to Core area and Impact area (5 Km) OCEMS including critical parameters

	and having investment above 100 Crore. (Red and Orange)																													
6	Municipal Solid Waste Treatment Facility at IIE Rudrapur (As per SWM Rules 2016)	SIDCUL	March 2023	Applicable to Core area																										
7	E-Waste/ Battery Waste collection Centre	SIDCUL	March 2021	Applicable to Core area																										
8	For bringing down CEPI score from 77.7 to 60, nearly reduction of 25% in current CEPI score is needed, which can be attained when i) all the large, small and medium scale units shall have adequately designed/ operated and maintained pollution control facilities, and Common Facilities are also having adequate capacity and are having state of art technologies (so that “D” Factor shall be Zero) and ii) the present discharge standards for both industrial units (either discharging directly or discharging into CETP) surface water index to be reduce to 25%. To attain 25% reduction, it is required that the present discharge norms w.r.t Phenol, TKN and Total Phosphate as well as BOD and COD to be stringent by 25% from the current level. This applicable to Core Area as well as Impact area	UPCB	Standards to be notified in 03 Months. Units will be given time up to Sept 2021 to comply with the proposed standards	Applicable to Core area and Impact area (5 Km) <table><tr><th>Present Standard</th><th>Proposed standard</th></tr><tr><td colspan="2">General Discharge Std. and CETP outlet</td></tr><tr><td>BOD 30mg/l</td><td>BOD 22mg/l</td></tr><tr><td>COD 250mg/l</td><td>COD 185mg/l</td></tr><tr><td>Phosphate 5.0mg/l</td><td>Phosphate 3.5mg/l</td></tr><tr><td>Phenolic comp. 1.0mg/l</td><td>Phenolic comp. 0.75mg/l</td></tr><tr><td>TKN 100mg/l</td><td>TKN 75 mg/l</td></tr><tr><td colspan="2">CETP Inlet Standard</td></tr><tr><td>BOD 550mg/l</td><td>BOD 400mg/l</td></tr><tr><td>COD 1100mg/l</td><td>COD 800mg/l</td></tr><tr><td>Phosphate Not given</td><td>Phosphate 5mg/l</td></tr><tr><td>Phenolic comp. 5.0mg/l</td><td>Phenolic comp. 3.5mg/l</td></tr><tr><td>TKN Not given</td><td>TKN 100 mg/l (new proposed)</td></tr></table>	Present Standard	Proposed standard	General Discharge Std. and CETP outlet		BOD 30mg/l	BOD 22mg/l	COD 250mg/l	COD 185mg/l	Phosphate 5.0mg/l	Phosphate 3.5mg/l	Phenolic comp. 1.0mg/l	Phenolic comp. 0.75mg/l	TKN 100mg/l	TKN 75 mg/l	CETP Inlet Standard		BOD 550mg/l	BOD 400mg/l	COD 1100mg/l	COD 800mg/l	Phosphate Not given	Phosphate 5mg/l	Phenolic comp. 5.0mg/l	Phenolic comp. 3.5mg/l	TKN Not given	TKN 100 mg/l (new proposed)
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9	Compulsory setup of Sewage Treatment Plants by the units which are having more than 05 KLD sewage generation (except those connected with CETP/ CSTP)	UPCB/DIC/ SIDCUL	March 2021	Applicable to Core area and Impact area (5 Km)																										
10	All the new projects have to submit detailed water abstraction/ water harvesting/ re-use plan and has to execute the same by providing the same in the layout of the plant. Existing units have to do the same in a time bound manner	UPCB/DIC/ SIDCUL	Immediate Sept 2021	Applicable to Core area and Impact area (5 Km) Applicable to Core area and Impact area (5 Km)																										

11	Zero Liquid Discharge by the units wherever techno economically feasible	UPCB		Feasibility reports to be reviewed by UEPPCB on case to case basis.
12	Prohibition on establishment of new industries which are based on Coke and Pet Coke.	UPCB/DIC	Immediate	Applicable to Core area and Impact area (5 Km)
13	Switch over from Pet coke to other cleaner fuel in industries	UPCB	Immediate	Applicable to Core area and Impact area (5 Km)
	Time Bound Switch over of from Coke to other cleaner fuel in Industries	UPCB	March 2023	
	Establishment of newer units based on cleaner fuel such as LPG/ CNG/ Bio Fuels/ HSD	UPCB/DIC	Immediate	
14	BAT to be used for new industries. Such as Electric Arc Furnace, Induction Furnace in place of Cupola Furnace	UPCB/DIC	Immediate	Applicable to Core area and Impact area (5 Km)
15	Installation of Continuous Stack emission system by the units which are principally air polluting and having investment more than 100 Crore	UPCB	March 2021	Applicable to Core area and Impact area (5 Km) Especially for the units using solid fuel.
16	Complete prohibition on open burning of municipal solid waste, Biomass, plastic, horticulture waste etc in the demarcated zone.	SIDCUL/ DIC/ Nagar Nigam/ Agriculture/ Horticulture Dept.	Immediate	Applicable to Core area and Impact area (5 Km)
17	Green Cover to be defined as large canopy based trees (Lawns, Small horticulture/ flowering species not to be considered as Green Belt).33% Green Belt to be ensured	SIDCUL/ DIC/ UPCB		Applicable to Core area and Impact area (5 Km)
	A. New Units B. Existing Units		Immediate March 2021	
18	All existing units have to develop their greenbelt area by providing large canopy trees and air pollution absorbing species. Stipulation of greenbelt out side the	SIDCUL, DIC, Forest Dept.	March 2021	Applicable to Core area and Impact area (5 Km)

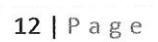
	project premises such as avenue plantation, social forestry.			
19	Identification of dumping site for Boiler Ash in an designated area	UEPPCB, SIDCUL, Dist. Admn.	March 2022	Applicable to Core area
20	Installation of CAAQMS at IIE Rudrapur by Industry Association/ SIDCUL in consultation with UEPPCB	SIDCUL, Industry Association	March 2022	Applicable to Core area
21	Initiation and execution of Ground water recharge program in Group Housing Societies, Government Establishments	Development Authority/ Dist. Admn.	March 2021	Applicable Impact area (5 Km)
22	Inventory of the Industrial slum developed in and around IIE Rudrapur and close all unlawful units.	DIC /SIDCUL/ Dist. Admn.	March 2021	Applicable to Impact area (5 Km)
23	All municipal drains leading to river Kalyani should be identified and their interception and diversion along with erection and commissioning of sewage treatment plant.	Uttarakhand Jal Nigam, Jal Sansthan	March 2023	Applicable to Impact area (5 Km) This is also the part of River Rejuvenation Plan and direction have been issued to authorities
24	Transportation of Construction and mining material in covered Vehicle.	Nagar Nigam, Transport Department/ Mining Dept. / Dist Admn.	Immediate	Also Applicable to Core area and Impact area (5 Km)
25	Regular De-silting of the drains.	SIDCUL/ Nagar Nigam	Regular Activity	Applicable to Core area and Impact area (5 Km)
26	Surface Water Quality Monitoring of the Rivers and Ground water quality monitoring in and around the IIE Rudrapur and its impact Zone (for General Parameters) on monthly basis, by UPCB	UPCB	Regular Activity	Monitoring Points will be fixed by March 2020. Continuous monitoring will be started from April 2020
27	Pre-and Post Monsoon Study for calculation of CEPI score (Monitoring to be done by Third Party) (April and October)	UPCB	Regular Activity	

28	Source Apportionment Study of IIE Rudrapur and Impact Area and Carrying Capacity Study & Study for Assessment to restore the damaged environment.	UPCB	March 2022	
29	Quarterly inspection of the industrial area by Drone.	UPCB/ Dist Admn	Regular Activity	Monitoring will be initiated from April 2020.

List of Abbreviation: -

DIC: District Industry Centre
SIDCUL: State Industrial Development Corporation of Uttarakhand Ltd
UPCB: Uttarakhand Pollution Control Board

Map of Integrated Industrial Area Rudrapur (CPA), Udham Singh Nagar, Uttarakhand



Annexure-1

Map of 5 KM Impact Area for Integrated Industrial Area Rudrapur (CPA), Udham Singh Nagar, Uttarakhand

