BEFORE THE NATIONAL GREEN TRIBUNAL
PRINCIPAL BENCH, NEW DELHI

REVIEW APPLICATION No. 35 OF 2023

IN

ORIGINAL APPLICATION No. 189 OF 2019

IN THE MATTER OF:

M/s. Shri Kartikeya Pharma Units-II .... Applicant(s)

Versus

State of Telangana & Others .... Respondent(s)

REPORT OF THE TELANGANA POLLUTION CONTROL BOARD

RUNNING INDEX

Sl. No.	Particulars	Page Nos.
1.	Report of the Telangana Pollution Control Board dated 05.09.2024.	1 – 3
2.	**Annexure-I** – Consent for Establishment (CFE) Order dated 19.04.2017 issued by Respondent Board to M/s. Shri Kartikeya Pharma (SEZ Unit), Polepally (V), Jadcherla (M), Mahaboobnagar District (Applicant industry).	4 – 8
3.	**Annexure-II** – Central Pollution Control Board categorization circular dated 07.03.2016.	9 – 66
4.	**Annexure-III** – Consent for Operation (CFO) Order dated 23.01.2023 issued by Respondent Board to M/s. Shri Kartikeya Pharma (SEZ Unit), Polepally (V), Jadcherla (M), Mahaboobnagar District (Applicant industry).	67 – 71
5.	**Annexure-IV** – Respondent Board circular dated 30.09.2020.	72 – 73
6.	**Annexure-V** – Consent for Operation (CFO) & Hazardous Waste Authorization (HWA) Order dated 28.06.2023 issued by Respondent Board to M/s. Shri Kartikeya Pharma (SEZ Unit), Polepally (V), Jadcherla (M), Mahaboobnagar District (Applicant industry).	74 – 75
7.	**Annexure-VI** – Closure Order dated 22.07.2017 issued by Respondent Board to M/s. Shri Kartikeya Pharma (SEZ Unit), Polepally (V), Jadcherla (M), Mahaboobnagar District (Applicant industry).	76 – 78
8.	**Annexure-VII** – Temporary revocation of closure orders dated 22.08.2017 issued by Respondent Board to M/s. Shri Kartikeya Pharma (SEZ Unit), Polepally (V), Jadcherla (M), Mahaboobnagar District (Applicant industry).	79 – 80
9.	**Annexure-VIII** – Hon'ble NGT, Principal Bench, New Delhi disposal order dated 16.07.2018 in OA No. 165 of 2018.	81 – 82

Sl. No.	Particulars	Page Nos.
10.	**Annexure-IX** – Hon'ble NGT, Principal Bench, New Delhi order dated 15.04.2019 in OA No. 189 of 2019.	83 – 84
11.	**Annexure-X** – Joint Committee report dated 20.01.2020 in OA No. 189 of 2019.	85 – 144
12.	**Annexure-XI** – Hon'ble NGT, Principal Bench, New Delhi order dated 24.01.2020 in OA No. 189 of 2019.	145 – 152
13.	**Annexure-XII** – Respondent Board directions dated 05.01.2021 issued to M/s. Shri Kartikeya Pharma (SEZ Unit), Polepally (V), Jadcherla (M), Mahaboobnagar District (Applicant industry) levying Environmental Compensation.	153 – 157
14.	**Annexure-XIII** – Hon'ble NGT, Principal Bench, New Delhi disposal order dated 15.01.2021 in OA No. 189 of 2019.	158 – 169
15.	**Annexure-XIV** – Hon'ble NGT, Principal Bench, New Delhi order dated 22.05.2024 in RA No. 35 of 2023 in OA No. 189 of 2019.	170 – 171

Place: Hyderabad

Date: 06-09-2024.

COUNSEL FOR TELANGANA POLLUTION CONTROL BOARD.

REPORT DATED 05-09-2024 OF THE TELANGANA POLLUTION CONTROL BOARD IN REVIEW APPLICATION NO. 35 of 2023 IN ORIGINAL APPLICATION NO 189 OF 2019 BEFORE HON'BLE NGT (PB) FILED BY SRI SRAVAN KUMAR.

It is to submit that, review application No. 35 of 2023 in O.A. No.189 of 2019 filed by Sri Sravan Kumar in the matter of M/s. Shri Kartikeya Pharma before Hon'ble NGT (PB). The main pray of the review applicant is to consider the matter afresh after impleading the review-applicant and consider the submissions of the review applicant on merits as per the leave granted by the Hon'ble Supreme Court of India.

In this regard, the following points are herewith submitted:

General details:

1. M/s. Shri Kartikeya Pharma is located at Sy.No.408-412, 418-435, 437-445, Polepally (V), Jadcherla (M), Mahaboobnagar District and it is engaged in manufacturing of Herbal Products without using solvent.
2. The industry has applied for Consent for Establishment (CFE) order of the Board under Orange Category under line of activity "Ayurvedic and homeopathic medicine".
3. Accordingly, the Board issued Consent for Establishment (CFE) of the Board vide order dated 19.04.2017 for Aswagandha Extract – 1000 kg/day under Orange Category. (**Annexure – I**)
4. As per CPCB Categorization Circular dated: 07.03.2016, the line of activity "Ayurvedic and homeopathic medicine" falls under Orange Category. (**Annexure – II**)
5. The industry obtained Consent for Operation (CFO) of the Board latest vide order dated 23.01.2023 for production of Ashwagandha Extract – 3000 kg/day (900 TPA) with validity period upto 31.03.2032 under Orange Category. (**Annexure – III**)
6. The Central Pollution Control Board (CPCB) vide reference issued directions to all State Pollution Control Boards to implement revised categorization of industries under Red, Orange, Green and White Categories. It was stated that any further additions of any new or left over industrial sector and their categorization which is not listed in the revised list of Red, Orange, Green and White industrial sectors, shall be done at the level of concerned SPCB / PCC following revised criteria & guidelines and no concurrence of CPCB shall normally be required.
7. As per the directions of the CPCB, the Board constituted Categorization Committee for categorization of industrial sector not listed in the revised list of Red, Orange, Green and White Category of industrial sectors issued by CPCB.

The Categorization Committee of the Board had reviewed the new additional activities identified as per CPCB methodology during its meeting held on 24.08.2020 to categorize the same. After detailed discussions, the Committee had recommended the categorization of the certain additional activities / industries. As per the Board circular dated:30.09.2020, the line of activity "Herbal Products without using solvent" is categorized as Green Category. (**Annexure – IV**).

8. Subsequently, the industry vide letter dated:18.05.2023 made submission that they are manufacturing only one product "KSM-66 Ashwagandha root extract" based on aqueous extraction and do not use any solvents and thus fall under Green Category. The industry requested to issue amendment of CFO change the category from Orange category to Green category.
9. Accordingly, the Board vide order dated 28.06.2023 issued an amendment to CFO change the category from Orange to Green. (**Annexure – V**).
10. This office has forwarded report to the JCEE, Zonal Office, Hyderabad on 21.06.2023 for change of category.

The chronology of events pertaining to the OA No.189 of 2019 (PB) and other related Original Applications are herewith submitted below:

11. The Respondent Board reviewed the industry in the Task Force committee held on 21.07.2017 and issued closure orders to the industry vide order dated: 22.07.2017 for operating industry without obtaining CFO & HWA of the Board and causing severer air and water pollution the area. (**Annexure – VI**).
12. Subsequently, based on the corrective measures taken up by the industry, the Board revoked the closure orders vide order dated 22.08.2017 with certain directions. (**Annexure – VII**).
13. A case was filed before Hon'ble NGT (PB) vide Case No.165 of 2018 by Kosgi Venkataiah, Mudireddypally (V), Rajpur (M), Mahabubnagar District against pollution caused by Pharma and Bulk Drug Industries (Formulations industries) established in vicinity of Polepalli village, Munlagadda Tanda, Rayapalli Village, Mudireddypalli villages.
14. The Hon'ble NGT (PB) disposed of the case by order dated 16.07.2018 stating that proceedings of the notice dated 16.12.2016 issued by the Respondent Board (TGPCB) should be concluded within a period of 2 weeks. Order of the Hon'ble NGT (PB) dated:16.07.2018 is herewith **annexed as – VIII.**
15. An O.A No. 189 of 2019 was filed by Sri Sravan Kumar, Advocate before the Hon'ble NGT, Principal Bench, New Delhi alleging that the pollution is being caused by Pharma Companies at TSIIC, SEZ, Poiepally, Jadcherla, Mahabubnagar District. The Hon'ble NGT vide order dated 15.04.2019, directed the TSPCB to look into the matter and take appropriate action in accordance with law and furnish factual action taken

report. Order of the Hon'ble NGT (PB) dated:15.04.2019 is herewith **annexed as – IX.**

16. The Hon'ble NGT, New Delhi vide order dated 20.09.2019 constituted Joint Committee comprising of CPCB & TSPCB.
17. The Joint Committee inspected the industries and surrounding area from 30.10.2019 to 31.10.2019 and from 10.12.2019 to 12.12.2019. In compliance to the above orders of Hon'ble NGT, the Joint Committee filed report dated 20.01.2020 on 20.01.2020. Copy of the Joint Committee report dated:20.01.2020 is herewith **annexed as – X.**
18. The Hon'ble NGT vide order dated 24.01.2020 directed the Board to take further action in terms of the recommendations of the Joint Committee and compensation may be assessed & recovered on 'Polluter pays Principle' after following due procedure of hearing the concerned polluters and submit ATR to the Hon'ble NGT. (**Annexure – XI**)
19. As per orders of the Hon'ble NGT (PB), the Respondent Board issued directions to 11 nos. vide Order dated: 05.01.2021 imposing Environmental Compensation including the review-applicant. (**Annexure – XII**).
20. The Action Taken Report dated 12.01.2021 was filed before the Hon'ble NGT, New Delhi. The report filed by the Board was taken on record by the Hon'ble NGT, New Delhi on 15.01.2021. The Hon'ble NGT has disposed the O.A.No.189 of 2019 vide order dated 15.01.2021, directing TSPCB to recover the assessed compensation, taking coercive measures for default in payment, including closure till compliance and also consider revision so as to recover the entire period of default, following process of law. (**Annexure – XIII**). The industry has paid the Environmental Compensation (EC) amount of Rs. 9,00,000/-.

The Board will adhere to the directions of the Hon'ble NGT if any on the above matter.

Date: 05.09.2024

Place: Hyderabad.

ENVIRONMENTAL ENGINEER

ENVIRONMENTAL ENGINEER
Telangana Pollution Control Board
Regional Office, Hyderabad,
4th Floor, Spoorthi Bhavan,
Hyderabad Collectorate Complex,
Lakdikapul, Hyderabad-500 004.

(4) Annexure – I

TELANGANA STATE POLLUTION CONTROL BOARD
ZONAL OFFICE: HYDERABAD

R. Ravinder Reddy
Joint Chief Environmental Engineer

H.No.6-3-1219, Sy.No.TS No.1 Part,
Block - C, Ward No.91,
Near Country Club, Uma Nagar,
Begumpet, Hyderabad
Email: jcee-zhyd-tspcb@telangana.gov.in

BY REGD. POST WITH ACK. DUE

CONSENT ORDER FOR ESTABLISHMENT – ORANGE CATEGORY

Order No.679-MHB/TSPCB/ZO-HYD/CFE/TS-iPASS/2017- 36 **Date: 19.04.2017**

Sub: TSPCB – ZOH – CONSENT FOR ESTABLISHMENT (CFE) – **M/s. Shri Kartikeya Pharma (SEZ Unit), Sy.No.408-412, 418-435, 437-445, Polepally (V), Jadcherla (M), Mahaboobnagar District (TS-iPASS)** - Consent for Establishment of the Board under Sec.25 of Water (Prevention and Control of Pollution) Act, 1974 and under Sec.21 of Air (Prevention and Control of Pollution) Act, 1981 – Issued – Reg.

Ref:
1. Industry's CFE application received through TS-iPASS website on 06.04.2017 at TSPCB, RO, Hyderabad.
2. TSPCB, RO, Hyderabad verification report date: 10.04.2017 and received by Zonal Office on 11.04.2017.
3. CFE Committee meeting held on 19.04.2017at TSPCB, Zonal Office, Hyderabad.

* * *

1. In the reference cited, an application was submitted to the Board seeking Consent for Establishment (CFE) to set up Ashwagandha Extraction Unit with production capacities as mentioned below, with a proposed project cost of **Rs. 555.3 Lakhs.**

Sl. No.	Proposed Product	Total Quantity
1.	Ashwagandha Extract	1000 Kg/day

2. As per the application, the above activity is to be located at **Sy.No.408-412, 418-435, 437-445, Polepally (V), Jadcherla (M), Mahaboobnagar District.**

3. The above site was inspected by the Environmental Engineer, Regional Office, Hyderabad, T.S.Pollution Control Board on 07.04.2017 and found that the industry is surrounded by **East:** Internal Roads followed by M/s.Mylan Lbaoratory; **West:** Open land; **North:** Internal Roads ; **South:** Internal Roads .

4. The Board, after careful scrutiny of the application, verification report of Regional Officer, Hyderabad, recommendation by the CFE Committee meeting held on **19.04.2017** at TSPCB, Zonal Office, Hyderabad, hereby issues CONSENT FOR ESTABLISHMENT to the industry, under Section 25 of Water (Prevention and Control of Pollution) Act, 1974 and under Section 21 of Air (Prevention and Control of Pollution) Act, 1981 and the rules made there under. This Order is issued to manufacture the products mentioned at para (I) only.

(5)

5. This Consent Order now issued is subject to the conditions mentioned in Schedule 'A' and Schedule 'B'.

6. This order is issued from pollution control point of view only. Zoning and other regulations are not considered duly meeting the prescribed standards.

19/4/2017

JOINT CHIEF ENVIRONMENTAL ENGINEER

Encl: Schedules "A & B".

To
M/s. Shri Kartikeya Pharma (SEZ Unit),
Sy.No.408-412, 418-435, 437-445,
Polepally (V), Jadcherla (M),
Mahaboobnagar District – 509301

Copy submitted to the Member Secretary, TSPCB, Board Office, Hyderabad for information.
Copy to the Additional Director, State Level Single Window Clearance Committee, Commisionerate of Industries, Chiragali Lane, Abids Hyderabad for information.
Copy to the Environmental Engineer, TSPCB, Regional Office, Hyderabad for information and necessary action.

(6)

SCHEDULE – A

1. Separate meters with necessary pipe-line shall be provided for assessing the quantity of water used for each of the purposes mentioned below.
    a. Industrial cooling.
    b. Domestic purposes.
    c. Processing whereby water gets polluted and pollutants are easily bio-degradable.
2. The industry shall provide a minimum stack height (H) to the DG sets as per the following formula.

    H = h + 0.2 SQRT (KVA)
    KVA = Total generation capacity, h = Height of building where DG Set is installed.
3. The generator shall be installed in a closed area with a silencer and suitable noise absorption systems. The ambient noise level shall not exceed 75 dB(A) during day time and 70 dB(A) during night time measured from a distance of 5mtrs from the DG Set.
4. The industry shall install and commission appropriate control and ventilation system for controlling the air pollution.
5. The industry shall take appropriate measures to ensure that the ground level concentrations shall comply with revised National Ambient Quality Norms notified by MoE&F, GoI on 16.11.2009.
6. Floor washing shall be admitted into the effluent collection system only and shall not be allowed to find their way in storm drains or open areas. The applicant shall maintain good house keeping both within the factory and in the premises. All pipe valves, sewers, and drains shall be leak proof.
7. The solid waste arising in the premises shall be properly collected and disposed off.
8. There shall not be any perceptible odour outside the industry's premises.
9. All the rules and regulations notified by Ministry of Environment and Forests, Govt. of India in respect of noise pollution control measures shall be followed to avoid nuisance to public.
10. The proponent shall take measures to comply with the provisions laid down under Noise pollution (Regulation and Control) Amendment Rules, 2010 dated 11.01.2010 issued by MoE&F, GoI to control the noise to the prescribed levels.
11. The applicant shall obtain Consents for operation regularly from TSPCB, as required Under Sec. 25/26 of the Water (P&C of P) Act, 1974 and Under Sec. 21/22 of the Air (P&C of P) Act, 1981, for operation of the industry, before starting trial production. The Consent for Operation will be accorded only after ensuring compliance of all the conditions stipulated in this order.
12. The applicant shall comply with and carryout conditions issued by the Board in this consent order scrupulously. The applicant is liable for legal action as per the provisions of the relevant Acts in case of non-compliance of any conditions of the consent order.
13. Notwithstanding anything contained in this conditional letter or consent, the Board hereby reserves its right and power Under Sec. 27(2) of Water (Prevention and Control of Pollution) Act, 1974 and Under Sec.21 (4) of Air (Prevention and Control of Pollution) Act, 1981 to review any or all the conditions imposed herein and to make such alternation as deemed fit and stipulate any additional conditions for the purpose of the Act by the Board.
14. The applicant shall exhibit the consent of the Board in the factory premises at a conspicuous place for the information of the inspecting officers of different departments.
15. Telangana State Pollution Control Board reserves the right to review, impose additional condition or conditions, revoke, change or alter the terms and conditions of this Order. Also the Board reserves the right to withdraw the CFE without any prejudice/ notice on receiving any complaints by the Board regarding Environmental Pollution problems caused by the industry.
16. The industry is liable to pay compensation for any environmental damage caused by it, as fixed by the Collector and District Magistrate as civil liability.

17. Rain Water Harvesting (RWH) structure (s) shall be established on the plant site so that the ground water is recharged by the storm water.
18. The industry shall comply with Rules & Regulations notified by Ministry of Law and Justice, Govt. of India, regarding the Public Liability Insurance Act, 1991.
19. Any person aggrieved by an order made by the State Board under Section 25, Section 26, Section 27 of Water Act, 1974 or Section 21 of Air Act, 1981 may within thirty days from the date on which the order is communicated to him, prefer an appeal as per Telangana State Water rules, 1976 and Air Rules 1982, to such authority (herein after referred to as the Appellate Authority) constituted under Section 28 of the Water (prevention and Control of Pollution) Act, 1974 and Section 31 of the Air (Prevention and Control of Pollution) Act, 1981.

SCHEDULE – B

1. This order is valid for a period of 5 years from the date of issue.
2. The proponent shall report progress on implementation of the project to this office and T.S. Pollution Control Board, Regional Office, Hyderabad regularly.
3. The source of water is provided through Bore well and the maximum permitted water consumption shall not exceed the following quantities.

S. No.	Purpose	Total Consumption (KLD)
1.	Process	18.0 KLD
2.	Washing	2.0 KLD
3.	Boiler Feed	2.0 KLD
4.	Cooling	0.5 KLD
5.	Domestic	0.2 KLD
	Total	**22.7 KLD**

4. The maximum waste water generation (KLD) shall not exceed the following:

S. No.	Wastewater generation	Proposed (KLD)
1.	Process	18.0 KLD
2.	Washing	2.0 KLD
3.	Boiler Blow Down	0.1 KLD
4.	Cooling Bleed off	0.1 KLD
5.	Domestic	0.2 KLD
	Total:	**20.4 KLD**

Effluent source	Standards to be complied	Mode of final disposal
Process &Washings, Boiler blow down and Cooling bleed off(20.2 KLD)	pH - 5.5 - 9.0, Total Suspended Solids - 200.0 mg /l, Oil & Grease - 10.0 mg /l, Biochemical Oxygen Demand (3 days at 27^0 C) - 30.0 mg /l	After treatment in ETP, the treated effluents shall be used for onland gardening
Domestic effluents (0.2 KLD)	---	Septic tank followed by soak pit.

5. The industry shall construct and commission Effluent Treatment Plant (ETP) along with commissioning of the industry. After treatment in ETP the treated wastewater shall be used for on land for gardening within the industry premises by duly complying the standards stipulated by the Board.
6. Air pollution Control equipment shall be installed along with the commissioning of the activity and shall comply with the following for controlling air pollution.

S. No.	Details of Stack	Stack 3
1	Attached to:	HSD oil fired boiler
2	Capacity	1.5 TPH
3	Fuel	HSD
4	Stack height from GL	30 mtrs
5	Air Pollution Control Equipment	Dust collector
6	Standards to be complied	SPM -115 mg/Nm^3

(8)

7. The industry shall provide suitable air pollution control equipment to the HSD oil fired boiler of capacity 1.5 TPH and shall meet the Board prescribed standards.
8. The industry shall provide separate energy meter for the operation of the ETP & APCE and shall submit the monthly reading to Regional Office, Hyderabad.
9. The industry shall not discharge any waste water outside the plant premises under any circumstances.
10. The industry shall not dispose any solid waste outside the factory premises.
11. The industry shall install water meters to measure the actual water consumption and waste water discharge.
12. The industry shall not cause odour nuisance in the surrounding area.
13. The industry shall not cause any air pollution/dust nuisance in the surrounding environment.
14. The industry shall develop 33% of the total area as thick green belt all along the boundary of the unit and also in the vacant places with all tall growing trees with wide leaf area.
15. The industry shall comply with all the Rules and Regulations specified in Water (P&C of P) Act, 1974, Air (P&C of P) Act, 1981 and Hazardous and other Wastes (Management and Transboundary Movement) Rules, 2016.
16. The industry shall not manufacture any extra products or extra capacities without obtaining CFE/CFO of the Board.
17. The industry shall not take up trial production without obtaining Consent for Operation of the Board.
18. Rain Water Harvesting (RWH) structure (s) shall be established on the plant site so that the ground water is recharged by the storm water.
19. The industry shall comply with Rules & Regulations notified by Ministry of Law and Justice, Govt. of India, regarding the Public Liability Insurance Act, 1991.
20. The industry shall comply with all the directions issued by the Board from time to time.
21. Concealing the factual data or submission of false information / fabricated data and failure to comply with any of the conditions mentioned in this order may result in withdrawal of this order and attract action under the provisions of relevant pollution control Acts.
22. The Board reserves its right to modify above conditions or stipulate any further conditions and to take action including revoke of this order in the interest of environment protection.
23. This Order is issued to the industry without prejudice to the action taken by the Task Force of the Board.

19/4/2012

JOINT CHIEF ENVIRONMENTAL ENGINEER

To
M/s. Shri Kartikeya Pharma (SEZ Unit),
Sy.No.408-412, 418-435, 437-445,
Polepally (V), Jadcherla (M),
Mahaboobnagar District

(9) Annexure – II

केन्द्रीय प्रदूषण नियंत्रण बोर्ड
CENTRAL POLLUTION CONTROL BOARD
(पर्यावरण एवं वन मंत्रालय, भारत सरकार)
(MINISTRY OF ENVIRONMENT & FORESTS, GOVT. OF INDIA)

No.B-29012/ESS(CPA)/2015-16/

March 07, 2016

To

The Chairman
All the State Pollution Control Boards / Pollution Control Committees
(List Attached)

SUB: MODIFIED DIRECTIONS UNDER SECTION 18(1)(b) OF THE WATER (PREVENTION & CONTROL OF POLLUTION) ACT, 1974 and THE AIR (PREVENTION & CONTROL OF POLLUTION) ACT, 1981 REGARDING HARMONIZATION OF CLASSIFICATION OF INDUSTRIAL SECTORS UNDER RED / ORANGE / GREEN / WHITE CATEGORIES.

WHEREAS, under section 16 (2)(b) of the Water (Prevention and Control of Pollution) Act, 1974 and under Section 16 (2)(c) of the Air (Prevention & Control of Pollution) Act, 1981, one of the functions of the Central Pollution Control Board (CPCB), constituted under the Water (Prevention and Control of Pollution) Act, 1974, is to coordinate activities of the State Pollution Control Boards (SPCBs) and Pollution Control Committees (PCCs); and

WHEREAS, under section 16 (2)(c) of the Water (Prevention and Control of Pollution) Act, 1974 and under Section 16 (2)(d) of the Air (Prevention & Control of Pollution) Act, 1981, one of the functions of the CPCB is to provide technical assistance and guidance to SPCBs and PCCs; and

WHEREAS, it was brought to the notice of CPCB, that different SPCBs / PCCs were following different criteria for classification of industrial sectors under Red/Orange/ Green category and that classification was being used by the SPCBs/ PCCs for grant of consents to industries and for Inventorization / surveillance of industries.

WHEREAS, the issue regarding classification of industries was deliberated upon in the 56th Conference of Chairmen & Member Secretaries of CPCB & SPCBs/PCCs held on August 31, 2010 and a working group comprising of representatives from SPCBs & CPCB was constituted to prepare a consolidated list of industrial sectors falling under Red/Orange/Green category to bring uniformity in classification of industrial sectors across the country;

'परिवेश भवन' पूर्वी अर्जुन नगर, दिल्ली-110032
'Parivesh Bhawan', East Arjun Nagar, Delhi - 110032
दूरभाष/Tel. : 43102030, फैक्स/Fax : 22305793, 22307078, 22307079, 22301932, 22304948
ई-मेल/e-mail : cpcb@nic.in वेबसाईट/Website : www.cpcb.nic.in

(10)

WHEREAS, the report prepared by the Working Group was discussed in the 57th Conference of Chairmen & Member Secretaries of CPCB& SPCBs/PCCs held in Delhi on September 15, 2011, wherein some modifications were proposed;

WHEREAS, the final report of the working group was prepared, incorporating the suggestions/observations made in the 57th Conference of Chairmen and Member Secretaries of CPCB & SPCBs/PCCs and in exercise of the powers delegated to the Chairman, CPCB under Section 18(1)(b) of the Water Act, 1974, following directions were issued for compliance to all SPCBs/PCCs to maintain uniformity in categorization of industries as red, orange and green as per list finalized by CPCB, which identified 85 types of industrial sectors as 'Red', 73 industrial sectors as 'Orange' and 86 sectors as 'Green':

a). To maintain uniformity in categorization of industries under Red/ Orange/Green category, the SPCBs /PCCs shall adopt the list as finalized by CPCB based on the recommendations of that Working Group for grant of Consent, inventorization of industries under Red, Orange and Green categories and other related activities.

(b). The SPCBs/PCCs shall revise the list of Red, Orange and Green categories of industries operating in their jurisdiction based on the criteria specified in the final report of that Working Group and submit the same to CPCB within 90 days in hard copy as well as soft copy;

WHEREAS, later-on, it was observed that the process of categorization thus far was primarily based on the size of the industries and consumption of resources and pollution due to discharge of emissions and effluents and its likely impact on health was not considered as primary criteria;

WHEREAS, there have been proposals from the SPCBs / PCCs and industrial associations for categorization of the industrial sectors in a more pragmatic manner. The issue was discussed during the national level conference of the Environment Ministers of the States, held in New Delhi during April 06-07, 2015 and also during the Conference of the Chairmen and Member Secretaries of CPCB and SPCBs/PCCs held in New Delhi on April 08, 2015. Accordingly, a 'Working Group' comprising of the Members from Central Pollution Control Board and State Pollution Control Boards representing the States of Andhra Pradesh, Punjab, Tamilnadu, West Bengal, Madhya Pradesh and Maharashtra, was constituted to revisit the criteria of categorization of industries and suggest rationale based on pollution potential for categorization of industrial sectors and adopting it for implementation of pollution control plan;

WHEREAS, the Working Group has developed the criteria of categorization of industrial sectors based on the concept of Pollution Index which is a function of the emissions (air pollutants), effluents (water pollutants), hazardous wastes generated and consumption of resources. For this purpose the references are taken from the the Water (Prevention and Control

(11)

of Pollution) Cess (Amendment) Act, 2003, Standards so far prescribed for various pollutants under Environment (Protection) Act , 1986 and Doon Valley Notification, 1989 issued by MoEFCC. The Pollution Index (PI) of any industrial sector is a number from 0 to 100 and the increasing value of PI denotes the increasing degree of pollution load from the industrial sector;

WHEREAS , based on the series of consultations with SPCBs, different Government / Non-government Institutions including industries and MoEFCC , the following criteria on 'Range of Pollution Index 'for the purpose of categorization of industrial sectors has been finalized:

- Industrial Sectors having Pollution Index score of 60 and above – Red category
- Industrial Sectors having Pollution Index score of 41 to 59 -Orange category
- Industrial Sectors having Pollution Index score of 21 to 40 -Green category
- Industrial Sectors having Pollution Index score incl. & upto 20 -White category

WHEREAS, based on the revised criteria, the 'Final Report on Revised Categorization of Industrial Sectors under Red/Orange/Green/White' has been evolved. The 'Categorization' is based on the relative pollution potential of the industrial sectors and grouping of the industrial sectors based on the use of raw materials, manufacturing process adopted and pollutants likely to be generated;

WHEREAS, based on relative Pollution Index, the number of industries in various categories are as under :

i. The Red category of industrial sectors: 60
ii. The Orange category of industrial sectors: 83
iii. The Green category of industrial sectors: 63 and
iv. The Newly introduced White category: 36

WHEREAS, there shall be no necessity of obtaining the Consent to Operate" for White category of industries and an intimation to concerned SPCB / PCC shall suffice;

WHEREAS, the purpose of categorization is to ensure that the industry is established in a manner consistent with the environmental objectives and to prompt industrial sectors to adopt cleaner technologies, ultimately resulting in generation of no or minimum pollutants.

WHEREAS the new categorization system shall also facilitate in self-assessment by industries;

Now, therefore, in exercise of the powers delegated to the Chairman, CPCB under Section 18(1)(b) of the Water (Prevention & Control of Pollution) Act, 1974 and Section 18(1)(b) of the Air (Prevention & Control of Pollution), Act , 1981 the earlier Directions issued in June 2012 in the context of categorisation of industries as Red, Orange & Green are withdrawn with immediate effect and following **'Directions'** are hereby issued for compliance by all SPCBs and PCCs :

(12)

1. That the SPCBs and PCCs shall adopt the Revised Criteria of categorization of industrial sectors as detailed in table nos. F1, F2, F3 and F4 and Revised Lists of Red, Orange, Green and White categories of industrial sectors, presented at table no. G2, G3, G4 and G5 respectively, in the 'Final Report' as attached herewith immediately.
2. That all pending applications for consideration of 'Consent to Establish' and 'Consent to Operate' and future such applications shall be processed as per revised criteria.
3. That the SPCBs and PCCs will provide the list of industries identified in each category existing in the State which have been considered for grant of consents. SPCBs/PCCs will forward the list of such industries before 31.05.2016 and the same will be uploaded on the websites of respective SPCB/PCC.

4. That the 'Revised Lists of Red, Orange, Green and White category of industrial sectors' shall be used by the SPCBs and PCCs for Consent Management and inventorization of industries under Red, Orange ,Green and White categories. Siting of industries shall be only in conforming areas. SPCBs / PCCs shall evolve sector specific plans for control of pollution and industrial surveillance for verifying compliance.

5. That the SPCBs and PCCs shall revise /prepare the inventory of Red, Orange, Green and White categories of industries operating in their jurisdiction based on the revised criteria specified in the Final Report and submit the same to CPCB within 90 days i.e., before 30.05.2016 in hard copy as well as soft copy.

6. That the listed category of industries or those identified later-on under different categories shall not be linked to sanction of loan /finance or bank proceedings.

7. That any further addition of any new or left-over industrial sector and their categorization which is not listed in the revised list of Red, Orange, Green and White industrial sectors, shall be done at the level of concerned SPCB /PCC following revised criteria & guidelines as detailed in the attached document and no concurrence of CPCB shall normally be required. It is further clarified that while categorizing the industries, fractional numbers shall be rounded off to nearest integer.

(13)

The SPCBs/PCCs shall acknowledge the receipt of directions and submit the 'Action Taken Report' in compliance with these directions to CPCB before 15.04.2016.

(Arun Kumar Mehta)
Chairman
7/3/16

Copy to:

1. The Chief Secretary of all the States and UTs
2. The Secretary ,
   Ministry of Micro, Small and Medium Entrepreneurs
   Udyog Bhawan, Rafi Marg, New Delhi - 110 011
3. The Secretary ,
   Ministry of Heavy Industries
   Udyog Bhawan, Rafi Marg, New Delhi - 110 011
4. The Secretary,
   Ministry of New and Renewable Energy
   Block-14, CGO Complex,
   Lodhi Road,New Delhi-110 003,
5. The Advisor(CP Division)
   Ministry of Environment ,Forests and Climate Change
   Indira Paryavaran Bhawan
   Jor Bagh Road, New Delhi – 110 003
6. All Zonal Offices of CPCB

(A. B. Akolkar) 5.3.16
Member Secretary

(14)

Final Document on Revised Classification of Industrial Sectors Under

Red, Orange, Green and White Categories

(February 29, 2016)

Central Pollution Control Board

Delhi

(15)

Executive Summary

Categorization of Industrial Sectors under Red, Orange, Green and White Category

The Ministry of Environment, Forest and Climate Change (MoEFCC) had brought out notifications in 1989, with the purpose of prohibition/ restriction of operations of certain industries to protect ecologically sensitive Doon Valley. The notification introduced the concept of categorization of industries as " Red", "Orange "and "Green" with the purpose of facilitating decisions related to location of these industries. Subsequently, the application of this concept was extended in other parts of the country not only for the purpose of location of industries, but also for the purpose of Consent management and formulation of norms related to surveillance / inspection of industries.

The concept of categorization of industries continued to evolve and as different State Pollution Control Boards interpreted it differently, a need arose to bring about necessary uniformity in its application across the country. In order to harmonize the 'Criteria of categorization', Directions were issued by CPCB under Section 18(1)(b) of the Water (Prevention & Control of Pollution) , Act, 1974 to all SPCBs/PCCs to maintain uniformity in categorization of industries as red, green and orange as per list finalized by CPCB, which identified 85 types of industrial sectors as 'Red', 73 industrial sectors as 'Orange' and 86 sectors as 'Green'.

The process of categorization thus far was primarily based on the size of the industries and consumption of resources. The pollution due to discharge of emissions & effluents and its likely impact on health was not considered as primary criteria. There was demand from the SPCBs / PCCs and industrial associations for categorization of the industrial sectors in a more transparent manner. Accordingly, the issue was discussed thoroughly during the national level conference of the Environment Ministers of the States, held in New Delhi during April 06-07, 2015 and a 'Working Group' comprising of the members from CPCB, APPCB, TNPCB, WBPCB, PPCB, MPPCB and Maharashtra PCB is constituted to revisit the criteria of categorization of industries and recommend measures for making the system transparent and rational.

The Working Group has developed the criteria of categorization of industrial sectors based on the Pollution Index which is a function of the emissions (air pollutants), effluents (water pollutants), hazardous wastes generated and consumption of resources. For this purpose the references are taken from the the Water (Prevention and Control of Pollution) Cess (Amendment) Act, 2003, Standards so far prescribed for various pollutants under Environment (Protection) Act , 1986 and Doon Valley Notification, 1989 issued by MoEFCC. The Pollution Index PI of any industrial sector is a number from 0 to 100 and the increasing value of PI denotes the increasing degree of pollution load from the industrial sector. Based on the series of brain storming sessions among CPCB, SPCBs and MoEFCC , the following criteria on 'Range of Pollution Index 'for the purpose of categorization of industrial sectors is finalized.

(16)

- Industrial Sectors having Pollution Index score of 60 and above – Red category
- Industrial Sectors having Pollution Index score of 41 to 59 –Orange category
- Industrial Sectors having Pollution Index score of 21 to 40 –Green category
- Industrial Sectors having Pollution Index score incl.&upto 20 -White category

The newly introduced White category of industries pertains to those industrial sectors which are practically non-polluting such as Biscuit trays etc. from rolled PVC sheet (using automatic vacuum forming machines), Cotton and woolen hosiers making (Dry process only without any dying/washing operation), Electric lamp (bulb) and CFL manufacturing by assembling only, Scientific and mathematical instrument manufacturing, Solar power generation through photovoltaic cell, wind power and mini hydel power (less than 25 MW).

The salient features of the 'Re-categorization' Exercise are as follows:

- Due importance has been given to relative pollution potential of the industrial sectors based on scientific criteria . Further, wherever possible, splitting of the industrial sectors is also considered based on the use of raw materials, manufacturing process adopted and in-turn pollutants expected to be generated.
- The Red category of industrial sectors would be 60.
- The Orange category of industrial sectors would be 83.
- The Green category of industrial sectors would be 63.
- Newly introduced White category contains 36 industrial sectors which are practically non-polluting.
- There shall be no necessity of obtaining the Consent to Operate" for White category of industries. An intimation to concerned SPCB / PCC shall suffice.
- No Red category of industries shall normally be permitted in the ecologically fragile area / protected area.

The purpose of categorization is to ensure that the industry is established in a manner which is consistent with the environmental objectives. The new criteria will prompt industrial sectors willing to adopt cleaner technologies, ultimately resulting in generation of fewer pollutants. Another feature of the new categorization system lies in facilitating self-assessment by industries as the subjectivity of earlier assessment has been eliminated. This 'Re-categorization' is a part of the efforts, policies and objective of present government to create a clean & transparent working environment in the country and promote the Ease of Doing Business.

Other similar efforts include installation of Continuous Online Emissions/ Effluent Monitoring Systems in the polluting industries, Revisiting of the CEPI (Comprehensive Environment Pollution Index) concept for assessment of polluted industrial clusters, Revision of existing industrial Emission/Effluent discharge standards, initiation of special drive on pollution control activities in Ganga River basin and many more in coming future.

---

(17)

Revised Criteria of Categorization of Industries

"Securing industrial pollution control in accordance with the Water (Prevention & Control of Pollution) Act, 1974 and Air (Prevention & Control of Pollution) Act, 1981 by linking with categorization of industries, consent management and vigilance – 'In context of Red, Orange, Green and White categories of industries"

A: Genesis of Categorization:

- The Ministry of Environment, Forest and Climate Change (MoEFCC) had brought out notifications, which inter-alia refers to Prohibition/ Restriction on operation of industries to protect ecologically sensitive areas or areas of specific importance. This has for the first time brought the concept of categorization of industries to" Red", "Orange "and "Green" and restrict their operation in certain areas of importance. Therefore, it is at-once interpreted that Red, Orange and Green categorization is linked with location specific needs.
- The notification of MoEF was first brought on 2nd February,1989 in case of "Restriction on location of industries, mining operations and other developmental activities in Doon Valley in "Uttarakhand" and thereafter another notification on 24th February 1999 regarding restriction on the setting up of industries in Dahanu Taluka in Maharashtra. The categorization had been made mainly on the basis of size of the industries, man power and consumption of resources.
- However, in other parts of the country, there have been variations in context to the classification of industries under Red, Orange and Green categories. SPCBs / PCCs were following their own criteria in different States thereby creating confusion.
- In order to harmonize the 'Criteria of categorization', a 'Working Group' was formed as per resolution passed during the 57th Conference of the Chairmen & Member Secretaries of CPCB and SPCBs. Based on the recommendations of the Working Group, Directions dated 4/6/2012 under Section 18(1)(b) of the Water

(18)

(Prevention & Control of Pollution) , Act, 1974 were issued to all SPCBs/PCCs with the effects to maintain uniformity in categorization of industries as red, green and orange as per list finalized by the Working Group. This indicative list included 85 types of industrial sectors as 'Red', 73 industrial sectors as 'Orange' and 86 sectors as 'Green'. However, these identified categories have not been assigned with scores as per existing criteria/ or any new criteria

B: Categorization criteria used by SPCBs/PCCs:

SPCBs and PCCs use the criteria of Red, Orange and Green categories for consent management and vigilance purposes for carrying out inspections to verify compliance to the stipulated standards. However the above categorization do not emphasize on sector-specific plan for control of pollution in accordance with priority based on pollution index.

C: Gap in the process:

1. The categorization has been made mainly on the basis of size of the industries and consumption of resources. The pollution due to discharge of emissions & effluents and its impact on health was not considered as primary criteria.
2. Categorization was on random basis, no scoring system was adopted.

D: Resolutions made during National Level Conferences

The issue was discussed thoroughly during the following national level conferences held in New Delhi:

- Conference of the Environment Ministers of Central Government and State Governments during April 06-07, 2015
- 59th Conference of Chairmen & Member Secretaries of Pollution Control Boards / Pollution Control Committees held on April 08, 2015

Accordingly following resolutions were made during the Conferences:

(19)

1. *A 'Working Group' comprising of the members from CPCB, APPCB, TNPCB, WBPCB, PPCB, MPPCB and Maharashtra PCB is constituted.*
2. *This WG shall revisit the categorization of industries that is based on pollution index criteria & environmental issues such as generation of emission, effluent and hazardous wastes.*
3. *The categorization will be done on the basis of composite score (0-100 marks) of Pollution Index given in accordance with the following weightage.*

Air Pollution Score based on parameters namely PM, CO, NOx, SOx, HMs , Benzene, Ammonia and other toxic parameters relevant to the industry.	*40 Marks*
Water Pollution Score based on parameters namely pH, TSS, NH_3-N, BOD, Phenol and other toxic pollutants relevant to the industry.	*40 Marks*
Hazardous wastes (land fillable, incinerable, recyclable) as generated by the industry.	*20 Marks*
Note : • *Parameters to be decided on the basis of the nature of the wastes generating from the industrial sector.* • *Industries having only either water pollution or air pollution, the score will be normalized wrt 100.*	

4. *Based on the score of the Pollution Index, following categorization be made :*
   - *Type of industries, if scores 60 and above be categorized as Red*
   - *Type of industries, if scores from 30 to 59 be categorized as Orange*
   - *Type of industries, if scores from 15 to 29 be categorized as Green*
   - *Type of industries, if less than 15 be categorized as White or non-polluting industry.*
5. *SPCBs/PCCs may issue consent to the industries*
   - *Red category of industries for 5 years.*
   - *Orange category of industries for 10 years.*
   - *Green category of industries for 15 years.*
   - *No necessity of consent for non-polluting industries.*
6. *No red categories of industries will be permitted to establish in eco-sensitive areas and protected areas.*

E: Follow-up Actions made on the Resolutions :-

- Accordingly, a Committee comprising the Chairmen of CPCB, APPCB, TNPCB, MPPCB, MPCB, PPCB, WBPCB and MS, CPCB was constituted vide CPCB OM dated

(20)

23.04.2015 to review & classify industrial sectors into different categories based on criteria of respective pollution potential.

- The categorization is made on the basis of following:
  - Quality of emissions (air pollutants) generated
  - Quality of effluents (water pollutants) generated
  - Types of hazardous wastes generated
  - Consumption of resources

- Reference is taken from the following :
  - The Water (Prevention and Control of Pollution) Cess Act, 1977
  - Standards so far prescribed for various pollutants under the Environment (Protection) Act , 1986
  - Doon Valley Notification, 1989 issued by MoEF.

F : Scoring Methodology :

The details on the scoring methodology in respect of the aforesaid 3 components is presented in the following tables F-1 to F-4 .

(२१)

Table F-1 : Water Pollution Scoring Methodology

Sl. No.	Activity / Types of Discharges	Score
Part A : Score W1 : Score based on types of expected criteria water-pollutants present in industrial processes waste waters. **Maximum of the following seven categories is to be taken.**		
W11	Waste-water which is polluted and the pollutants are - • not easily biodegradable (very high strength waste waters having BOD > 5000 mg/l); or • toxic; or • both toxic and not easily biodegradable. (Presence of criteria water pollutants having prescribed standard limits up-to 10 mg/l or having BOD > 5000 mg/l). For details appendix 1 may be referred)	30
W12	Non-toxic high strength polluted waste-water having BOD in the range of 1000-5000 mg/l and the pollutants are biodegradable. (Presence of criteria water pollutants having prescribed standard limits from 11 mg/l to 250 mg/l and having BOD strength in the range of 1000-5000 mg/l) . For details appendix 1 may be referred)	25
W13	Non toxic- polluted waste-water having BOD below 1000 mg/l and the pollutants are easily biodegradable. (Presence of criteria water pollutants having prescribed standard limits from 11mg/l to 250 mg/l and having BOD strength below 1000 mg/l) . For details appendix 1 may be referred)	20
W14	Waste-water generated from the chemical processes and which is polluted due to presence of high TDS (total dissolved solids) of inorganic nature. (Presence of criteria water pollutants having prescribed standard limits more than 250 mg/l. For details appendix 1 may be referred)	15
W15	Waste-water generated from the physical unit operations / processes and which is polluted due to presence of TDS (total dissolved solids) of inorganic nature and of natural origin like fresh-water RO rejects, boiler blow-downs, brine solution rejects etc. (Presence of criteria water pollutants having prescribed standard limits more than 250 mg/l. For details appendix 1 may be referred)	12
W16	Non-toxic polluted waste-water from those units which are: • Having the overall waste-water generation less than 10 KLD and • The pollutants are easily bio-degradable having BOD below 200 mg/l which can be easily treated in a single stage ASP (activated	12

(22)

	sludge process) based Effluent Treatment Plant. Note : This is a special category and is applicable to only those units having over-all liquid waste generation less than 10 KLD with low strength organic load.	
W17	Waste-water from cooling towers and cooling-re-circulation processes	10
Part B : Score W2 : Score based on huge discharges of any kind (Penalty Clause)		
W2	Industry having overall liquid waste generation of 100 KLD or more including industrial & domestic waste-water.	10
Overall Water Pollution Score W = W1+W2		

93

Appendix 1

- **Water Pollutants covered under Group W11:**

  - ✓ Free available Chlorine , Total residual chlorine, Fluoride (as F), Sulphide (as S), Free Ammonical Nitrogen, Dissolved phosphates (as P), Free ammonia (as NH3), Nitrate Nitrogen, Mercury (As Hg), Selenium (as Se), Hexa-valent chromium (as Cr + 6), Lead (as Pb), Tin , Vanadium (as V), Cadmium (as Cd), Manganese (as Mn), Total chromium (as Cr), Copper (as Cu), Iron (as Fe), Nickel (as Ni), Zinc (as Zn), Benzene, Arsenic (as As), Benzo-a-pyrene, Cyanide (as CN), Phenolic compounds (as C_6H_5OH) , Adsorbable Organic Halogens (AOX), Boron and /or
  - ✓ BOD strength of waste water > 5000 mg/l

- **Water Pollutants covered under Group W12:**

  - ✓ Sodium Absorption Ratio (SAR) , Biochemical oxygen demand (3 days at 27°C), Total Kjeldahl nitrogen (TKN), Ammonical nitrogen (as N), Suspended solids, Total nitrogen (as N), Chemical oxygen demand, Oils & grease and
  - ✓ BOD strength of waste water is in the range of 1000-5000 mg/l

- **Water Pollutants covered under Group W13:**

  - ✓ Sodium Absorption Ratio (SAR), Biochemical oxygen demand (3 days at 27°C), Total Kjeldahl nitrogen (TKN), Ammonical nitrogen (as N), Suspended solids, Total nitrogen (as N), Chemical oxygen demand and
  - ✓ BOD strength of waste water is below 1000 mg/l

- **Water Pollutants covered under Group W14 and W15:**

  Chlorides as Cl, Colour , Total dissolved solids (TDS - Inorganic)

- **Water Pollutants covered under Group W16**

  - ✓ BOD strength of waste water is below 200 mg/l and overall discharge is less than 10 KLD.

(24)

Table F-2 : Air Pollution Score

Sl. No.	Air Pollutants Group	'Range of Prescribed Standard ' of criteria pollutants	Marks
Part 1 : Score A1 = Score based on types of expected criteria Air Pollutants present in the emissions . Maximum of the following seven categories is to be taken. For details appendix 2 may be referred.			
1	Group A1A	Presence of criteria air pollutants having prescribed standard limits up-to 2 mg/Nm3	30
2	Group A1B	Presence of criteria air pollutants having prescribed standard from 3 to10 mg/Nm3	25
3	Group A1C	Presence of criteria air pollutants having prescribed standard from 11 to 50 mg/Nm3	20
4	Group A1D	Presence of criteria air pollutants having prescribed standard from 51 to 250 mg/Nm3	15
5	Group A1E	Presence of criteria air pollutants having prescribed standard from 251mg/Nm3 & above.	10
6	Group A1F	• Generation of fugitive emissions of Particulate Matters which are: o Not generated as a result of combustion of any kind of fossil-fuel. o Generated due to handling / processing of materials without involving the use of any kind of chemicals. o Which can be easily contained /controlled with simple conventional methods	10
7	Group A1G	• Generation of Odours which are : o Generated due to application of binding gums / cements /adhesives /enamels o Which can be easily contained /controlled with simple conventional methods	10
Part 2 : Score A2 = Score based on consumption of fuels and technologies required for air pollution control :			
6	Group A2F1	• All such industries in which the daily consumption of coal/fuel is more than 24 MT/day and the particular (Particulate/gaseous/process) emissions from which can be controlled only with high level equipments / technology like ESPs, Bag House Filters, High Efficiency chemical wet scrubbers etc.	10
7	Group A2F2	• All such industries in which the daily consumption of coal/fuel is from 12 MT/day to 24 MT/day and the particular (Particulate/gaseous/process) emissions from which can be controlled with suitable proven technology.	5
Overall Air Pollution Score -A = A1 + A2			

(25)

Appendix 2

- Air pollutants covered under Group A1A:

  Cd+Th, Dioxins & Furans, Mercury, Asbestos

- Air Pollutants covered under Group A1B:

  HF, Nickel+ Vanadium, HBr, Manganese, Lead, H2S, P2O5 as H3PO4

- Air Pollutants covered under Group A1C:

  Chlorine, Pesticide compounds, CH3Cl, TOC, Total Fluoride, Hydrocarbons, NH3, HCL vapour & Mist, H2SO4 Mist, SO2

- Air Pollutants covered under Group A1D:

  CO, PM, CO, NOx

- Air Pollutants covered under Group A1E:

  NOx with liquid-fuel, SO2 with liquid-fuel

(26)

Table F-3: Hazardous Waste Generation Score

Sl.No.	**Types of Hazardous Waste Generated as** per Schedule 1 / Schedule 2 of Hazardous Waste (Management, Handling & Trans-boundary Movement) Rules , 2008 . **Maximum of the following four categories is to be taken**	**Score**
HW1	• Land disposable HW which require special care & treatment for stabilization before disposal.	20
HW2	• Incinerable HW	15
HW3	• Land disposable HW which doesn't require treatment & stabilization before disposal. • High volume low effect wastes such as fly-ash, phspho-gypsum, red-mud, slags from pyro-metallurgical operations, mine tailings and ore beneficiation rejects)	10
HW4	• Recyclable HW, which are easily recyclable with proven technologies.	10

(27)

Table F-4 : Calculation Sheet

Industrial Sector - .....

1. Water Pollution Score (W)			
Scores	Waste Water Category	Value	
Score on W1			
Score on W2			
Water Pollution Score = W1+W2			
2. Air Pollution Score (A)			
Scores	Air Pollutant Category	Value	
Score on A1			
Score on A2	-	-	
Air Pollution Score = A1+A2			
3. Hazardous Waste Score (HW)			
Score	HW Category	Value	
HW			
Grand Total = W + A + HW			

Note :

1. Any of the industrial sector having only either air pollution (A) or water pollution (W) , the score will be normalized to 100 as per the following formula –

   Normalized Score = {100 x W (or A)} / 40

2. Any of the industrial sector having air pollution (A) and water pollution (W) both but no hazardous waste generation (H) , the joint score of air & water pollution will be normalized to 100 as per the following formula –

   Normalized Score = {100 x (W+A)} / 80

3. Any of the industrial sector having air pollution (A) & hazardous waste generation (H) but no water pollution (W), the joint score of air pollution & hazardous waste generation will be normalized to 100 as per the following formula –

   Normalized Score = {100 x (A+H)} / 60

4. Any of the industrial sector having water pollution (W) and hazardous waste generation (H) but no air pollution (A), the joint score of water pollution & hazardous waste generation will be normalized to 100 as per the following formula –

   Normalized Score = {100 x (W+H)} / 60

(28)

G : Developments :

i. The existing Red (85 sectors) , Orange (73 sectors) and Green (86 sectors) i.e a total of 244 industrial sectors have been assessed as per the proposed formula by the Working Group. For this purpose, concerned Engineers / Scientists from the Member SPCBs were also involved & consulted during May 28-29, 2015.

ii. After careful examination and consideration of the suggestions of concerned stake-holders the "Draft Document on Revised Concept of Categorization of Industrial Sectors " was prepared by the Committee and circulated to all the SPCBs, PCCs and concerned Ministries for their information & comments. The ' Draft Document ' was uploaded on the website of CPCB also for information & comments of one & all.

iii. The matter was discussed during the 170th Board Meeting also and issues raised by the Board Members pertaining to some of the industrial sectors were clarified.

iv. Responses were received from various concerned Ministries, SPCBs, Industrial Associations including individuals.

v. Based on the above, final meeting was convened by the Secretary , MoEFCC with CPCB and senior officers of MoEFCC on January 06, 2016 to resolve the issues appropriately and finalize the 'Re-categorization'. Accordingly , following modifications in the 'Range of Pollution Index 'for the purpose of categorization of industrial sectors were suggested :

- Industrial Sectors having Pollution Index score of 60 and above - Red category
- Industrial Sectors having Pollution Index score of 41 to 59 -Orange category
- Industrial Sectors having Pollution Index score of 21 to 40 -Green category
- Industrial Sectors having Pollution Index score incl.& upto 20 -White category

vi. Based on the final criteria as described in v above , the final categorization is as follows :

Category of Industrial Sector	Existing Categorization	Proposed (New) categorization
Red	85	60
Orange	73	83
Green	86	63
White	---	36
Total	244	242

vii. In the proposed categorization, some of the industrial sectors have been either deleted due to duplication or merged with similar type of sectors on account of same

29

characteristics of pollution generation. In a similar way, some of the industrial sectors are split into more sectors on account of variation in the raw materials / manufacturing process. As a result final totals of the existing and proposed categorization are different.

viii. The industrial sector which doesn't fall under any of the above four categories (Red, Orange, Green and White) , decision with regard to its categorization will be taken at the level of concerned SPCB/PCC by a committee headed by the Member Secretary , SPCB/PCC and comprising of two senior cadre Engineers / Scientists of the SPCB / PCC in accordance with the scoring-criteria specified in this document.

ix. The summary is presented in the following Table G-1 and final lists of Red, Orange, Green and White categories of industries are presented in Tables G-2, G-3, G-4 and G-5 respectively, which are self explanatory.

Table G-1: Final Summary Table Red , Orange, Green and White Categories of Industries (16-01-16)

Sl No.	Original Categorization	Initial Nos.	Addition by Splitting into further classes	Deletion/ Shifting to foot-note due to vague term / Merger / other reasons	Re-categorization to Red	Re-categorization to Orange	Re-categorization to Green	Re-categorization to White	Check
		1	2	3	4	5	6	7	(1+2) = (3 to 7)
1	Red	85	11	7	60	26	3	Nil	96=96
2	Orange	73	2	3	Nil	51	19	2	75=75
3	Green	86	Nil	3+2=5	Nil	6	41	34	86=86
Final Categorization		244	13	15	60 (Red)	83 (Orange)	63 (Green)	36 (White)	257 =257 (Total categories including in foot-note)

Table G-2 : Final List of Red Category of Industrial Sectors

Sl No.	Orgnl Sl.No	Industry Sector	W1	W2	W	A1	A2	A	H	W+A+H	Revised Category	REMARKS
1.	38	Isolated storage of hazardous chemicals (as per schedule of manufacturing, storage of hazardous chemicals rules ,1989 as amended)									R-R	As per provisions of Rules, to be kept under Red category especially for safety purposes.
2.	4	Automobile Manufacturing (integrated facilities)	30	-	30	20	-	20	10	60	R-R	i. Such types of plants are having either one or combinations of polluting activities viz. washing, metal surface finishing operations, pickling, plating, electro-plating , phosphating, painting , heat treatment etc. ii. Some of such plants may outsource some /all of the polluting activities. In such cases, after thorough inspection of such units by concerned SPCB, re-categorization of the industry shall be made accordingly.
3.	34	Industries engaged in recycling / reprocessing/ recovery/reuse of Hazardous Waste under schedule iv of HW(M, H& TBM) rules, 2008 - Items namely - Spent cleared metal catalyst containing copper,, Spent cleared metal catalyst containing zinc,,	30	-	30	20	-	20	10	60	R-R	All the three types of pollutants are expected.
4.	44	Manufacturing of lubricating oils ,grease and petroleum based products	20	-	20	20	-	20	20	60	R-R	Generates all sorts of pollution.
5.	66 E	DG Set of capacity > 5 MVA	-	-	-	20	5	25	-	62.5	R-R	i. Mainly air polluting. ii. DG sets consume the diesel @ 0.21 litres/hr/KVA at full load. iii. Average running is taken @ 12 hrs / day although many of the DG sets run for more than this period.
6.	31	Industrial carbon including electrodes and graphite blocks, activated carbon, carbon black	10	-	-	20	5	25	10	62.5	R-R	Mainly air polluting. Air pollution score is normalized to 100.

7.	39	Lead acid battery manufacturing(excluding assembling and charging of lead-acid battery in micro scale)	10	-	10	25	-	25	10	62.5	R-R	i. Mainly air polluting. Air pollution scores are normalized to 100. ii. Lead Acid Battery manufacturing consists of various stages which broadly involve (after producing or receiving lead oxide): Paste Mixing , Grid Casting , Grid Pasting & Curing , Hydro-setting, parting & enveloping , Stacking, grouping & inter-cell welding , Formation. iii. Exposure of workmen to lead during all or any of the processes outlined above exceeds the prescribed standards if appropriate equipment in this respect is not installed at any Battery Manufacturing Unit. iv. All of the above processes, some more than others, involve release of lead particles or fumes into the environment. Pollution from the above processes can be grouped into two possible types, viz: (a) Lead Oxide becomes airborne and there is Particulate Pollution (b) Fumes are generated and there is Gaseous Pollution
8.	62	Phosphate rock processing plant	30	-	30	20	-	20	-	62.5	R-R	i. The separation of phosphate rock from impurities and non-phosphate materials for use in fertilizer manufacture consists of beneficiation, drying or calcining at some operations, and grinding. Phosphate rock from the mines is first sent to beneficiation units to separate sand and day and to remove impurities. Steps used in beneficiation depend on the type of rock. ii. The water & air pollution scores are normalized to 100.

9.	66	Power generation plant [except Wind and Solar renewable power plants of all capacities and Mini Hydel power plant of capacity <25MW]	10	-	10	15	10	25		62.5	R-R	1. Mainly air polluting. It uses a mixture of biomass (agro based) and coal (< 10 %) as a fuel. Almost, round the year operation. 2 . In case of DG sets of 5 MVA & more and emissions of SO2 will take place due to use of liquid fuel. Air pollution score will be =20 + 10 = 30, Normalized score will be 75. 3. In case of 'Waste to Energy Plants' , water will be used for cooling and air score will be - 30+10 = 40.
10.	34	Industries engaged in recycling / reprocessing/ recovery/reuse of Hazardous Waste under schedule iv of HW(M, H& TBM) rules, 2008 - Items namely - Spent catalyst containing nickel, cadmium, Zinc, copper, arsenic, vanadium and cobalt,	30	-	30	25	-	25	10	65	R-R	All the three types of pollutants are expected.
11.	67	Processes involving chlorinated hydrocarbons	30	-	30	20	-	20	15	65	R-R	Chlorinated hydrocarbons are used in the manufacture of insecticides, pesticides and organo chloro pesticides. Effluents & emissions are toxic in nature.
12.	74	Sugar (excluding Khandsari)	20	10	30	15	10	25	10	65	R-R	i. This industrial sector is the one among the '17 categories of Highly Polluting Industries'. ii. Sugar mills generate all sorts of pollution problems.
13.	22	Fibre glass production and processing (excluding moulding)	-	-	-	20	-	20	20	67	R-R	i. The use of styrene in most methods of fiberglass production causes hazardous air pollution that is harmful to breathe at excessive levels. ii. It is mainly air polluting & HW generating industry. The air pollution & HW scores are normalized to 100. iii. In case of lead containing glass, the score of A1 will be 25 and final normalized score will be 75 and shall be categorized as Red.
14.	23	Fire crackers manufacturing and bulk storage facilities	-	-	-	20	-	20	20	67	R-R	i. This is the normalized score based on air pollution & HW generation. ii. Various hazardous chemicals are used in the manufacturing process. iii. These chemicals are namely Potassium Nitrate , Potassium per-chlorate, Barium Nitrate, Aluminium compounds, Copper Chloride etc.

													iv. These chemicals are highly hazardous and cause serious diseases among the workers. especially ability of blood to carry oxygen leading to headaches, methemoglobinemia and kidney problems , skin problems, thyroid metal fume etc.
15.	34	Industries engaged in recycling / reprocessing/ recovery/reuse of Hazardous Waste under schedule iv of HW(M, H& TBM) rules, 2008 - Items namely - Dismantlers Recycling Plants -- Components of waste electrical and electronic assembles comprising accumulators and other batteries included on list A, mercury-switches, activated glass cullets from cathode-ray tubes and other activated glass and PCB-capacitors, or any other component contaminated with Schedule 2 constituents (e.g. cadmium, mercury, lead, polychlorinated biphenyl) to an extent that they exhibit hazard characteristics indicated in part C of this Schedule.	-	-	-	30	0	30	10	67	R-R	Mainly air polluting and hazardous waste generating. Air & HW pollution scores are jointly normalized to 100.
16.	47	Milk processes and dairy products(integrated project)	20	10	30	20	5	25	-	68.75	R-R	i. Water as well as air polluting due to use of boilers. ii. Water & air pollution scores are normalized to 100.
17.	63	Phosphorous and its compounds	30	-	30	25	-	25	-	68.75	R-R	Water pollution & air pollution containing compounds of phosphorous are expected
18.	61	Pulp & Paper (waste paper based without bleaching process to manufacture Kraft paper)	20	10	30	15	10	25	0	68.75	R-R	Mainly water & air polluting . Water & air pollution scores are normalized to 100.
19.	13	Coke making , liquefaction, coal tar distillation or fuel gas making	30	-	30	20	-	20	20	70	R-R	It is a kind of petrochemical industry.

20.	41	Manufacturing of explosives, detonators, fuses including management and handling activities	30	-	30	20	-	20	20	70	R-R	i. Explosives manufacture and use contribute some measure of hazardous waste to the environment. ii. Nitroglycerin produces several toxic byproducts such as acids, caustics, and oils contaminated with heavy metals. These must be disposed of properly by neutralization or stabilization and transported to a hazardous waste landfill. iii. The use of explosives creates large amounts of dust and particulate from the explosion, and; in some cases, releases asbestos, **lead,** and other hazardous materials into the atmosphere.
21.	45	Manufacturing of paints varnishes, pigments and intermediate (excluding blending/mixing)	30	-	30	25	-	25	15	70	R-R	i. The process may cause considerable emissions of volatile organic compounds (VOC). VOC contribute to the creation of ozone in the lower layers of the atmosphere (photochemical air pollution) and can present danger to health. ii. Dust and odour may also be a problem. iii. Washing of vessels will contribute waste-waters. iv. Large quantity of HWs are also produced.
22.	56	Organic Chemicals manufacturing	30	-	30	20	-	50	20	70	R-R	Such types of industrial sectors generate all sorts of pollution.
23.	1	Airports and Commercial Air Strips	20	10	30	-	-	-	10	75	R-R	i. The Airports are generating mainly the waste-waters. ii. This is the water pollution normalized score for airports having discharge more than 100 KLD. iii. The airports / strips having discharge less than 100 KLD will have score of 50 and hence orange category. iv. If the score is normalized wrt water + HW both, then all the airports will come under Orange category (score - 58.33).
24.	3	Asbestos and asbestos based industries	-	-	-	30	-	30	10	75	R-R	i. This is mainly air polluting industry. ii. Final score is based on air pollution score only. iii. Asbestos is cardinogenic and banned in many countries.
25.	5	Basic chemicals and electro chemicals and its derivatives including manufacturing of acid	30	-	30	-	-	-	10	75	R-R	i. Standards prescribed for Inorganic Chemicals are adopted. ii. It is mainly water polluting industry having effluents which are toxic and not easily biodegradable.

												iii. Water pollution score normalized to 100 is undertaken. iv. The earlier Red category industrial sector namely "Hydrocyanic acid and its derivatives " is also merged under this industrial sector.
26.	7	Cement	-	-	-	20	10	30	-	75	R-R	This is mainly air polluting industry & hence normalized air pollution score.
27.	9	Chlorates, per-chlorates & peroxides	30	-	30	-	-	-	-	75	R-R	i. It is mainly water polluting industry having effluents which are toxic and not easily biodegradable. ii. Water pollution score normalized to 100 is undertaken.
28.	10	Chlorine, fluorine, bromine, iodine and their compounds	30	-	30	-	-	-	-	75	R-R	i. It is mainly water polluting industry having effluents which are toxic and not easily biodegradable. ii. Water pollution score normalized to 100 is undertaken.
29.	16	Dyes and Dye- Intermediates	30	-	30	20	5	25	20	75	R-R	i. This industrial sector is the one among the '17 categories of Highly Polluting Industries'. ii. Such types of industrial sectors generate all sorts of pollution.
30.	26	Health-care Establishment (as defined in BMW Rules)	20	10	30	-	-	-	-	75	R-R	i. Mainly water polluting. ii. The water pollution score is normalized to 100 & valid for Hospitals having total waste-water generation > 100 KLD. iii. The hospitals with incinerator will be categorized as Red irrespective of the quantity of the waste-water generation. iv. The hospitals having total waste-water generation less than 100 KLD and without incinerator, the normalized water pollution score will be 50 and will be categorized as Orange category.
31.	29	Hotels having overall waste-water generation @ 100 KLD and more.	20	10	30	15	-	15	-	75	R-R	i. Mainly water polluting. Small boiler may be installed. ii. The water pollution score is normalized to 100 & valid for Hotels having waste-water generation > 100 KLD. iii. The hotels having more than 20 rooms and waste-water generation less than 100 KLD and having a coal / oil fired boiler , the pollution score will be 35/40 & are categorized as Orange. iv. The hotels having more than 20 rooms and waste-water generation less than 10 KLD and

												having no-boiler & no hazardous waste generation, the pollution score will be 20 & are categorized as Green.
32.	34	Industries engaged in recycling / reprocessing/ recovery/reuse of Hazardous Waste under schedule iv of HW(M, H& TBM) rules, 2008 - Items namely - Lead acid battery plates and other lead scrap/ashes/residues not covered under Batteries (Management and Handling) Rules, 2001. [* Battery scrap, namely: Lead battery plates covered by ISRI, Code word "Rails" Battery lugs covered by ISRI, Code word "Rakes". Scrap drained/dry while intact, lead batteries covered by ISRI, Code word "rains".	30	-	30	25	--	25	20	75	R-R	All the three types of pollutants are generated.
33.	34	Industries engaged in recycling / reprocessing/ recovery/reuse of Hazardous Waste under schedule iv of HW(M, H& TBM) rules, 2008 - Items namely - Integrated Recycling Plants -- Components of waste electrical and electronic assembles comprising accumulators and other batteries included on list A, mercury-switches, activated glass cullets from cathode-ray tubes and other activated glass and PCB-capacitors, or any other component contaminated with Schedule 2 constituents (e.g. cadmium, mercury, lead, polychlorinated biphenyl) to an extent that they exhibit hazard characteristics indicated in part C of this Schedule.	30	-	30	25	-	25	20	75	R-R	All the three types of pollutants are expected.
34.	43	Manufacturing of glue and gelatin	30	10	40	20	-	20	-	75	R-R	Highly water polluting & obnoxious air polluting.
35.	49	Mining and ore beneficiation	30	10	40	15	5	20	-	75	R-R	Both air and water polluting. Score is normalized with air & water pollution.

36.	52	Nuclear power plant	10	-	10	30	-	30	15	75	R-R	i. Mainly air polluting due to incinerator. Others - cooling water. ii. Air pollution score is normalized to 100.
37.	58	Pesticides (technical) (excluding formulation)	30	-	30	25	-	25	20	75	R-R	i. This industrial sector is the one among the '17 categories of Highly Polluting Industries'. ii. Such types of industrial sectors generate all sorts of pollution.
38.	64	Photographic film and its chemicals	30	-	30	-	-	-	-	75	R-R	i. Silver salts and other chemicals are used in preparation. Slight quantity of effluents is generated. ii. Water pollution scores are normalized to 100.
39.	68	Railway locomotive work shop/Integrated road transport workshop/Authorized service centers	20	10	30	-	-	-	10	75	R-R	i. Mainly water polluting industry. Water is used in the washing of locomotives, road transport vehicles during servicing. ii. This score is valid for those Centers having discharge more than 100 KLD. iii. Service Centers having waste-water generation < 100 KLD, the normalized score will be =(100*20)/40= 50.
40.	84	Yarn / Textile processing involving any effluent/emission generating processes including bleaching, dyeing, printing and colouring	30	10	40	15	-	15	20	75	R-R	In this sector all sorts of pollution are generated.
41.	8	Chlor Alkali	30	10	40	20	10	30	10	80	R-R	i. This industrial sector is the one among the '17 categories of Highly Polluting Industries'. ii. Chlor-alkali units are having different section like NaOH, Cl2, SBP etc which are having toxic effluents. Additionally, fuel consumption is also on higher-side.
42.	70	Ship Breaking Industries	30	-	30	30	-	30	20	80	R-R	i. The ship-breaking industry creates numerous hazards for the coastal and marine environment. ii. Ship-breaking releases a large number of dangerous pollutants, induding toxic waste, oil, poly-chlorinated biphenyls, and heavy metals, into the waters and sea bed. iii. While most of the oil is removed before a ship is scrapped, sand used to mop up the remaining oil is thrown into the sea. High concentrations of oil and grease are then found in the coastal waters, choking marine life.

170

												iv. Solid waste strewn on the shore, 45 tonnes on any given day according to a study by the Central Pollution Control Board, also finds its way into the sea. v. Adding to the stress on coastal waters, the organic load from the thousands of workers living in cramped conditions with little or no sanitary facilities results in unacceptably high levels of BOD.
43.	53	Oil and gas extraction including CBM (offshore & on-shore extraction through drilling wells)	30	-	30	-	-	-	20	83	R-R	i. Mainly water polluting & hazardous waste generating. ii. The water pollution & HW generation scores are normalized to 100.
44.	36	Industry or process involving metal surface treatment or process such as pickling/ electroplating/paint stripping/ heat treatment using cyanide bath/ phosphating or finishing and anodizing / enamellings/ galvanizing	30	-	30	-	-	-	20	83	R-R	Mainly water polluting & toxic hazardous waste generating industry. Scores are normalized to 100.
45.	80	Tanneries	30	-	30	-	-	-	20	83	R-R	Mainly water polluting & hazardous waste generating industry. Scores are normalized to 100.
46.	65	Ports and harbour, jetties and dredging operations	30	10	40	15	10	25	20	85	R-R	This category contain all sorts of pollution.
47.	77	Synthetic fibers induding rayon ,tyre cord, polyester filament yarn	30	10	40	25	10	35	10	85	R-R	This sector generates all sorts of pollution problems.
48.	81	Thermal Power Plants	30	10	40	20	10	30	15	85	R-R	i. This industrial sector is the one among the '17 categories of Highly Polluting Industries'. ii. TPP generate all sorts of pollution problems.
49.	71	Slaughter house (as per notification S.O.270(E)dated 26.03.2001)and meat processing industries, bone mill, processing of animal horn, hoofs and other body parts	25	10	35	-	-	-	-	87.5	R-R	Mainly water polluting and obnoxious odour generating industry. The water pollution score is normalized to 100
50.	2	Aluminium Smelter	30	10	40	20	10	30	20	90	R-R	i. This industrial sector is the one among the '17 categories of Highly Polluting Industries'. ii. This sector is generating all sorts of pollution i.e. air, water and HW.
51.	12	Copper Smelter	30	10	40	20	10	30	20	90	R-R	i. This industrial sector is the one among the '17 categories of Highly Polluting Industries'. ii. Integrated Copper Smelters contain all sorts of

												pollution.
52.	20	Fertilizer (basic) (excluding formulation)	30	10	40	20	10	30	20	90	R-R	i. This industrial sector is the one among the '17 categories of Highly Polluting Industries'. ii. Generates all sorts of pollution.
53.	37	Iron & Steel (involving processing from ore/ integrated steel plants) and or Sponge Iron units	30	10	40	20	10	30	20	90	R-R	i. This industrial sector is the one among the '17 categories of Highly Polluting Industries'. ii. Such types of industrial sectors generate all sorts of pollution.
54.	61	Pulp & Paper (waste paper based units with bleaching process to manufacture writing & printing paper)	25	10	35	25	10	35	20	90	R-R	Waste paper based Pulp & Paper mills with bleaching process generate all sorts of pollution.
55.	85	Zinc Smelter	30	10	40	20	10	30	20	90	R-R	i. This industrial sector is the one among the '17 categories of Highly Polluting Industries'. ii. Integrated Zinc smelter generates all sorts of pollution problems.
56.	55	Oil Refinery (mineral Oil or Petro Refineries)	30	10	40	25	10	35	20	95	R-R	i. This industrial sector is the one among the '17 categories of Highly Polluting Industries'. ii. Such types of industrial sectors generate all sorts of pollution.
57.	59	Petrochemicals Manufacturing (including processing of Emulsions of oil and water)	30	10	40	25	10	35	20	95	R-R	i. This industrial sector is the one among the '17 categories of Highly Polluting Industries'. ii. Such types of industrial sectors generate all sorts of pollution. iii. The earlier red category industrial sector namely "Processing of Emulsions of Oil & Water " is merged with this industrial sector.
58.	60	Pharmaceuticals	30	10	40	30	5	35	20	95	R-R	i. This industrial sector is the one among the '17 categories of Highly Polluting Industries'. ii. Such types of industrial sectors generate all sorts of pollution.
59.	61	Pulp & Paper (Large-Agro + wood) , Small Pulp & Paper (agro based-wheat straw/rice husk)	30	10	40	25	10	35	20	95	R-R	i. This industrial sector is the one among the '17 categories of Highly Polluting Industries'. ii. Large /Small Agro based Pulp & Paper mills contribute all sorts of pollution problems.
60.	15	Distillery (molasses / grain / yeast based)	30	10	40	-	-	-	-	100	R-R	Mainly water polluting industry. Final score is the normalized water pollution score.

Note :

i. Under the column Revised Category, the full forms of the abbreviations are as follows :

a. R-R means original category was Red and revised category is also Red
b. R-O means original category was Red and revised category is Orange
c. O-O means original category was Orange and revised category is also Orange
d. O-G means original category was Orange and revised category is Green
e. O-W means original category was Orange and revised category is White
f. G-O means original category was Green and revised category is Orange
g. G-G means original category was Green and revised category is also Green
h. G-W means original category was Green and revised category is White

ii. There are specific remarks in respect of some of the industrial sectors. These sectors are either merged with other relevant sectors or deleted due to duplication. The overall details are as follows :

Sl No.	Original Sl No.	Industry Sector	Original Category	Remarks
1	14	Common treatment and disposal facilities(CETP, TSDF, E-waste recycling, CBMWTF, effluent conveyance project, incinerator, solvent/acid recovery plant, MSW sanitary land fill site)	R	i. All such facilities are classified as Red but special category projects as these are parts of pollution control facilities. ii. In case of CETP , the categorization will depend upon the category of member industries being served.
2	18	Processing of Emulsions of Oil & Water		It is a part of Petrochemical industries. Transferred and merged with the industrial sector namely 'Petrochemicals' at Sl. No. 54.
3	27	Heavy engineering including ship building (with investment on Plant & Machineries more than Rs 10 crores)	R	Most of the pollution generating processes / operations under this category are similar to the industry category namely "Automobile Manufacturing (integrated facilities)" at Sl . No. 1 and may be referred accordingly.
4	30	Hydrocyanic acid and its derivatives	R	Have been merged with the red category industrial sector namely " Basic chemicals and electro chemicals and its derivatives including manufacturing of acid " at Sl. No. 24
5	32	Industrial estates/ parks / complexes/ areas/ export processing zones/ SEZs/ Biotech parks/ leather complex	R	The classification will depend upon the category(ies) of the industries operating / proposed to be permitted in the area. In this context, guidelines prescribed in EIA Notification, 2006 shall be followed.
6	33	Industrial inorganic gases namely- a) Chemical gas- Acetylene, hydrogen, chlorine, fluorine, ammonia, sulphur dioxide, ethylene, hydrogen-sulphide, phosphine b) Hydrocarbon gases- Methane , ethane, propane	R	These gases are generally secondary products and produced alongwith other main products. To be classified as per the main parent plant.
7	69	Reprocessing of used oils & waste oils	R	i. The industry generates mainly the air pollution and oil bearing hazardous wastes. The normalized (air pollution & HW generation score is 58.33. ii. To be deleted as already covered under HW Recyclers / Re-processors (Used oils / Waste Oils) under Orange Category

Table G-3 : Final List of Orange Category of Industrial Sectors

Final Sl. No.	Orgnl S.No	Industry Sector	W1	W2	W	A1	A2	A	H	W+A+H	Revised category	Remarks
1.	20	Dismantling of rolling stocks (wagons/ coaches)	--	--	--	15	--	15	10	41.67	O-O	Emissions of dust and generation of waste oils take place during dismantling. Air pollution & HW generation scores (15+10=25) are normalized to 100.
2.	5	Bakery and confectionery units with production capacity > 1 TPD. (With ovens / furnaces)	20	--	20	15	--	15	--	43.75	O-O	
3.	10	Chanachur and ladoo from puffed and beaten rice(muri and shira) using husk fired oven	20	--	20	15	--	15	--	43.75	O-O	Normal water and air polluting.
4.	23	Coated electrode manufacturing	15	0	15	20	0	20	0	43.75	**G-O**	Preparation of core wire / rod, preparation of dry mix, preparation of wet mix, application of coating by extrusion, baking of coated electrodes
5.	24	Compact disc computer floppy and cassette manufacturing / Reel manufacturing	15	0	15	20	0	20	0	43.75	**G-O**	Generates waste-water and process emissions.
6.	24	Flakes from rejected PET bottle	20	-	20	15	-	15	-	43.75	R-O	Normal water & air pollutions are generated.
7.	30	Food and food processing including fruits and vegetable processing	20	--	20	15	--	15	--	43.75	O-O	Normal water and air polluting.
8.	40	Jute processing without dyeing	20	--	20	15	--	15	--	43.75	O-O	CPCB has notified standards for this category. Both air and water pollutions are generated.
9.	56	Manufacturing of silica gel	15	0	15	20	0	20	0	43.75	**G-O**	Waste-waters containing TDS and emissions of H_2SO_4 are generated.

10.	45	Manufacturing of tooth powder, toothpaste, talcum powder and other cosmetic items	20	--	20	15	--	15	--	43.75	O-O	Both air and water pollution are generated.
11.	55	Printing or etching of glass sheet using hydrofluoric acid	15	--	15	20	--	20	--	43.75	O-O	Both air and water pollution are generated.
12.	65	Silk screen printing, sari printing by wooden blocks	20	--	20	15	--	15	--	43.75	O-O	Wash-water and PM emissions from boilers .
13.	76	Synthetic detergents and soaps(excluding formulation)	20	-	20	15	-	15	-	43.75	R-O	i. This is the score for units having generation of waste-waters less than 100 KLD. ii. The units having waste-water generation more than 100 KLD will become mainly water polluting and accordingly normalized water pollution score will be 75 and be categorized as Red.
14.	71	Thermometer manufacturing	15	--	15	20	--	20	--	43.75	O-O	Process - making glass bulb, forming reservoir in the glass tube for fluid, inserting fluid, scale marking. Use of fuel to heat the glass tubes and hydrofluoric acid to seal the scaling. Small quantities of spent acids are generated.
15.	14	Cotton spinning and weaving (medium and large scale)	--	--	--	15	--	37.5	10	47.5	O-O	Mainly air polluting industry. Sources of air pollution (PM) are the fine particles of cotton from spinning process. Air pollution score is normalized to 100.
16.	1	Almirah, Grill Manufacturing (Dry Mechanical Process)	--	--	--	20	--	20	--	50	O-O	Air pollution due to spray painting (emissions of VOCs). Units without painting operations shall be categorized as White.

17.	2	Aluminium & copper extraction from scrap using oil fired furnace (dry process only)	--	--	--	20	--	20	10	50	O-O	i. Normalized Air pollution score. ii. Significant air pollution due to melting (emissions of SO2, PM).
18.	3	Automobile servicing, repairing and painting (excluding only fuel dispensing)	20	--	20	20	--	20	10	50	O-O	Normal water & air polluting and recyclable waste oil generating. If the waste water generation is more than 100 KLD, it will become mainly water polluting and Red category unit.
19.	4	Ayurvedic and homeopathic medicine	20	--	20	15	--	15	15	50	O-O	
20.	7	Brickfields (excluding fly ash brick manufacturing using lime process)	--	--	--	20	--	20	--	50	O-O	Significantly air polluting.
21.	8	Building and construction project more than 20,000 sq. m built up area	20	--	20	20	--	20	--	50	O-O	1. In the pre-construction stage , it is mainly air polluting due to generation of dust (PM) emissions. 2. After construction, it is mainly water polluting. If the discharge is more than 100 KLD, it will be having the normalized score of 75 and be categorized as Red.
22.	6	Ceramics and Refractories	-	-	-	20	-	20	-	50	R-O	i. Mainly air polluting industry. ii. This score is for the units having coal consumption < than 12 MT/day. iii. For the units having coal consumption > 12 MT /day, the normalized air pollution score will be 62.5 and shall be categorized as Red.

(44)

175

176

23.	11	Coal washeries	15	10	25	15	-	15	-	50	R-O	i. Wet washeries are mainly water polluting industry generating effluents which are having inorganic SS & TDS. Additionally, air pollution due to PM emissions is also generated. ii. Water & air pollution scores are jointly normalized to 100.
24.	16	Dairy and dairy products (small scale)	20	--	20	20	--	20	--	50	O-O	Water and air polluting both.
25.	18	DG set of capacity >1MVA but < 5MVA	--	--	--	20	--	20	--	50	O-O	Mainly air polluting . air pollution score is normalized to 100.
26.	17	Dry coal processing, mineral processing, industries involving ore sintering, pelletisating, grinding & pulverization	-	-	-	20	-	20	-	50	R-O	Mainly air polluting industry. Final score is the normalized air pollution score.
27.	19	Fermentation industry including manufacture of yeast, beer, distillation of alcohol (Extra Neutral Alcohol)	20	-	20	-	-	-	-	50	R-O	i. Mainly water polluting industry. This is the normalized water pollution score for units having discharge < 100 KLD. ii. For the units having discharge > 100 KLD, the normalized water pollution score will be 75 and shall be accordingly categorized as Red.
28.	21	Ferrous and Non- ferrous metal extraction involving different furnaces through melting, refining, re-processing, casting and alloy-making	-	-	-	15	5	20	10	50	R-O	i. Mainly air polluting. ii. This score is applicable to secondary production of ferrous & non-ferrous metals (excluding lead) up-to 1 MT/hour production.

												iii. For lead, the normalized air pollution score will be = (100*25)/40= 62.5 and is categorized as Red. iv. For Induction Furnace clubbed with AOD furnace – separate calculation shall be made based on the capacity of the furnaces. In such industries, the molten metal from induction furnace is transferred to AOD furnace where other metals like manganese and nickel are added to get the metal of desired constituents. The lime and silicon are also added for reduction of the metal oxides to the base metal. the normalized air pollution score will be = (100*25)/40= 62.5 and is categorized as Red.
29.	26	Fertilizer (granulation / formulation / blending only)	--	--	--	20	--	20	--	50	O-O	Air polluting.
30.	27	Fish feed, poultry feed and cattle feed	--	--	--	20	--	20	--	50	O-O	Obnoxious odour , H2S etc. AP score is normalized to 100
31.	28	Fish processing and packing (excluding chilling of fishes)	20	--	20	--	--	--	--	50	O-O	Mainly water polluting. WP score is normalized to 100.

178

32.	31	Forging of ferrous and non- ferrous metals (using oil and gas fired furnaces)	--	--	--	20	--	20	--	50	O-O	Heating furnace. Mainly air polluting.
33.	32	Formulation/pelletization of camphor tablets, naphthalene balls from camphor/ naphthalene powders.	--	--	--	20	--	20	--	50	O-O	Mainly air polluting. Emissions of Benzene, HC are expected.
34.	33	Glass ceramics, earthen potteries and tile manufacturing using oil and gas fired kilns, coating on glasses using cerium fluorides and magnesium fluoride etc.	--	--	--	20	--	20	--	50	O-O	Mainly air polluting. Emissions of SO2 are expected.
35.	35	Gravure printing, digital printing on flex, vinyl	20	--	20	20	--	20	10	50	O-O	Waste waters , emissions of VOCs
36.	36	Heat treatment using oil fired furnace (without cyaniding)	--	--	--	20	--	20	--	50	O-O	Mainly air polluting and noise generating. AP Score is normalized to 100.
37.	28	Hot mix plants	-	-	-	20	-	20	-	50	R-O	Mainly air polluting. Air pollution scores are normalized to 100.
38.	37	Hotels (< 3 star) or hotels having > 20 rooms and less than 100 rooms.	20	--	20	20	--	20	--	50	O-O	Mainly water polluting. WP score is normalized to 100.
39.	38	Ice cream	20	--	20	20	--	20	--	50	O-O	Wash-water and boilers / oven for pasteurization.
40.	34	Industries engaged in recycling / reprocessing/ recovery/reuse of Hazardous Waste under schedule iv of HW(M, H& TBM) rules, 2008 - Items namely - Paint and ink Sludge/residues	-	-	-	20	0	20	0	50	R-O	Mainly air polluting. Air pollution score is normalized to 100
41.	34	Industries engaged in recycling / reprocessing/ recovery/reuse of Hazardous Waste under schedule iv of HW(M, H& TBM) rules, 2008 - Items namely - Brass Dross „ Copper Dross„ Copper Oxide Mill Scale„ Copper Reverts, Cake & Residues„ Waste Copper and copper alloys in	10	-	10	20	-	20	10	50	R-O	Mainly air polluting.

		dispersible form,, Slags from copper processing for further processing or refining ,, Insulated Copper Wire,, Scrap/copper with PVC sheathing including ISRI-code material namely "Druid" ,, Jelly filled Copper cables ,, Zinc Dross-Hot dip Galvanizers SLAB,, Zinc Dross-Bottom Dross,, Zinc ash/Skimming arising from galvanizing and die casting operations,, Zinc ash/Skimming/other zinc bearing wastes arising from smelting and refining,, Zinc ash and residues including zinc alloy residues in dispersible from,,										
42.	35	Industry or processes involving foundry operations	-	-	-	20	-	20	-	50	R-O	i. This score is valid for the foundries having capacity < 5 MT/hr as such units require the coal/coke @ < 500 kg/hr. ii. The units having capacity of 5 MT/hr and more, the coal/coke consumption will be more than 500 kg/hr and the normalized score will be 62.5 and classified accordingly as Red.
43.	40	Lime manufacturing (using lime kiln)	-	-	-	20	-	20	-	50	R-O	Mainly air polluting
44.	41	Liquid floor cleaner, black phenyl, liquid soap, glycerol mono-stearate manufacturing	20	--	20	20	--	20	--	50	O-O	Both air and water pollution are generated.

180

45.	42	Manufacturing of glass	10	-	-	20	-	20	-	50	R-O	i. Mainly air polluting (melting at 1500ºC and refining . ii. In case of lead glass , the score of A1 will be 25 and accordingly the normalized scores will be 62.5 i.e. Red .
46.	43	Manufacturing of iodized salt from crude/ raw salt	12	--	12	20	--	20	--	50	O-O	Boiling in Evaporators (multiple effect evaporators), centrifuging, iodization with KIO3 mixing . Mainly air polluting. Air pollution score is normalized to 100.
47.	42	Manufacturing of mirror from sheet glass	--	--	--	20	--	20	--	50	O-O	Evaporator & furnace for heating the metal to be applied as reflector on mirror. Mainly air polluting.
48.	44	Manufacturing of mosquito repellent coil	--	--	--	20	--	20	--	50	O-O	Mainly air polluting. Toxic fumes are expected.
49.	46	Manufacturing of Starch/Sago	25	-	25	15	-	15	-	50	R-O	i. Water and air polluting industry. Boiler is used for steam generation. ii. Water & air pollution scores are normalized to 100
50.	46	Mechanized laundry using oil fired boiler	20	--	20	20	--	20	--	50	O-O	Both air and water pollution are generated.
51.	47	Modular wooden furniture from particle board, MDF< swan timber etc, Ceiling tiles/ partition board from saw dust, wood chips etc., and other agricultural waste using synthetic adhesive resin, wooden box making (With boiler)	--	--	--	20	--	20	--	50	O-O	1. Mainly air polluting. Boiler as well as VOCs from use of adhesives. 2. Without boiler, it will be a Green category industry.
52.	50	New highway construction project	-	-	-	20	-	20	-	50	R-O	Mainly air polluting project.

53.	51	Non-alcoholic beverages(soft drink) & bottling of alcohol/non alcoholic products	20	-	20	15	5	20	-	50	R-O	i. Both air and water polluting. Score is normalized with air & water pollution. This score is valid for industries having waste-water generation < 100 KLD. ii. For the units having waste-water generation > 100 KLD the , normalized score would be 62.5 and categorized as Red.
54.	49	Paint blending and mixing (Ball mill)	20	--	20	20	--	20	10	50	O-O	Both air and water pollution are generated.
55.	62	Paints and varnishes (mixing and blending)	20	0	0	20	0	20	0	50	G-O	Waste-waters as well as fumes of VOCs due to solvents, pigments, varnishes.
56.	51	Ply-board manufacturing(including Veneer and laminate) with oil fired boiler/ thermic fluid heater(without resin plant)	0	--	0	20	--	20	--	50	O-O	Mainly air polluting because of use of boiler. AP score is normalized to 100
57.	52	Potable alcohol (IMFL) by blending, bottling of alcohol products	20	--	20	--	--	--	--	50	O-O	Mainly water polluting. WP score is normalized to 100.
58.	54	Printing ink manufacturing	20	--	20	20	--	20	--	50	O-O	1. Pigments, binders and solvents are used. 2. Boiler is also used. 3. Emissions of VOCs take place.
59.	70	Printing press	20	0	20	20	0	20	0	50	G-O	Colored waste-waters containing dyes and VOC emissions are generated.
60.	59	Reprocessing of waste plastic including PVC	20	--	20	20	--	20	--	50	O-O	Large quantities of wash-water and fugitive emissions are generated.
61.	61	Rolling mill (oil or coal fired) and cold rolling mill	10	--	10	20	--	20	--	50	O-O	Mainly air polluting. Air pollution score is normalized to 100. Others - cooling water and recyclable waste oils etc. are generated.
62.	67	Spray painting, paint baking, paint shipping	--	--	--	20	--	20	10	50	O-O	Mainly air polluting. Emissions of VOCs and HC are generated.

182

63.	72	Steel and steel products using various furnaces like blast furnace /open hearth furnace/induction furnace/arc furnace/submerged arc furnace /basic oxygen furnace /hot rolling reheated furnace	10	-	10	20	-	20	10	50	R-O	i. Mainly air polluting. In the emissions, oxides of manganese, nickel etc. are also present. ii. Air pollution score is normalized to 100.
64.	73	Stone crushers	-	-	-	20	-	20	-	50	R-O	Mainly air polluting. Air pollution score is normalized to 100.
65.	75	Surgical and medical products including prophylactics and latex	20	-	20	20	-	20	-	50	R-O	Both air as well as water polluting. Air and water pollution scores are normalized to 100.
66.	85	Tephlon based products	0	0	0	20	0	20	0	50	G-O	Due to spraying applications, emissions (HC) are generated
67.	70	Thermocol manufacturing (with boiler)	--	--	--	20	--	20	--	50	O-O	Polystyrene is heated. Mainly air polluting with boiler.
68.	82	Tobacco products including cigarettes and tobacco/opium processes	20	-	20	20	-	20	-	50	R-O	Such industries generate both air as well as water pollution. These scores are normalized to 100.
69.	72	Transformer repairing/ manufacturing (dry process only)	--	--	--	20	--	20	10	50	O-O	Mainly air polluting because of ovens, shot-blasting etc.
70.	73	Tyres and tubes vulcanization/ hot retreating	10	--	10	20	--	20	--	50	O-O	Mainly air polluting . Emissions of PM, VOCs and obnoxious odour are generated.
71.	83	Vegetable oil manufacturing including solvent extraction and refinery /hydrogenated oils	20	-	20	15	5	20	10	50	R-O	i. All sorts of pollution are generated. ii. This score is valid for plants having waste-water generation < 100 KLD. iii. If the waste-water generation is more than 100 KLD, the unit shall be classified as Red.
72.	74	Wire drawing and wire netting	20	--	20	--	--	--	--	50	O-O	Mainly water polluting. WP score is normalized to 100.

73.	21	Dry cell battery (excluding manufacturing of electrodes) and assembling & charging of acid lead battery on micro scale	30	--	30	15	--	15	10	55	O-O	Water and air polluting both.
74.	50	Pharmaceutical formulation and for R & D purpose (For sustained release/ extended release of drugs only and not for commercial purpose)	20	--	20	20	--	20	15	55	O-O	i. All sorts of pollution are generated. ii. R&D activities are to be shifted to Red category.
75.	78	Synthetic resins	20	-	20	20	-	20	15	55	R-O	All sorts of pollution are generated.
76.	79	Synthetic rubber excluding molding	20	-	20	20	-	20	15	55	R-O	i. Most synthetic rubber is created from two materials, styrene and butadiene. Both are currently obtained from petroleum. ii. Process is similar to a part of Petrochemical plants.
77.	9	Cashew nut processing	25	--	25	20	--	20	--	56	O-O	Normal water and air polluting.
78.	12	Coffee seed processing	25	--	25	20	--	20	--	56	O-O	Normal water & air polluting industry.
79.	57	Parboiled Rice Mills	25	-	25	20	-	20	-	56	R-O	i. Rice Mills are generating both air and water pollution. Waste-waters are having high strength in respect of BOD. ii. This is the normalized air & water pollution score for units having waste-water generation < 100 KLD and fuel consumption less than 12 MTD. iii. For units having waste-water generation > 100 KLD or fuel consumption > 12 MTD or both , the unit shall be classified as Red.

80.	29	Foam manufacturing	--	--	--	20	--	20	15	58	O-O	i. Raw material is polyurethane, latex etc. ii. Emissions of VOCs and HAPs. CH3Cl2 and similar compounds as blowing agents. iii. Outdated raw materials and spoiled slots are discarded as HW.
81.	34	Industries engaged in recycling / reprocessing/ recovery/reuse of Hazardous Waste under schedule iv of HW(M, H& TBM) rules, 2008 - Items namely - Used Oil – As per specifications prescribed from time to time.	10	0	10	20	0	20	15	58.33	R-O	Mainly air polluting and hazardous waste generating industry. Air pollution & HW scores are normalized to 100
82.	34	Industries engaged in recycling / reprocessing/ recovery/reuse of Hazardous Waste under schedule iv of HW(M, H& TBM) rules, 2008 - Items namely - Waste Oil ---As per specifications prescribed from time to time.	-	-	-	20	0	20	15	58.33	R-O	Mainly air polluting and hazardous waste generating industry. Air pollution & HW scores are normalized to 100.
83.	56	Producer gas plant using conventional up drift coal gasification (linked to rolling mills glass and ceramic industry refectories for dedicated fuel supply)	--	--	--	20	--	20	15	58.33	O-O	Mainly air polluting & tar (HW) generating. SO2, CO, NOx are generated. Tar is the by-product and utilized by other industries in co-processing.

Note :

i. Under the column Revised Category, the full forms of the abbreviations are as follows :

a. R-R means original category was Red and revised category is also Red
b. R-O means original category was Red and revised category is Orange
c. O-O means original category was Orange and revised category is also Orange
d. O-G means original category was Orange and revised category is Green
e. O-W means original category was Orange and revised category is White
f. G-O means original category was Green and revised category is Orange
g. G-G means original category was Green and revised category is also Green
h. G-W means original category was Green and revised category is White

ii. *There are specific remarks in respect of some of the industrial sectors. These sectors are either merged with other relevant sectors or deleted due to duplication / vague category. The overall details are as follows:*

Sl No.	Original Sl No.	Industry Sector	Original Category	Remarks
1	24	Excavation of sand from the river bed (excluding manual excavation)	O	Since such types of activities cause ecological disturbances, the instructions issued by the government from time to time be followed. To be categorized by MoEF&CC.
2	39	Infrastructure Development Project	O	Vast variety of such projects come under such category. This is to be decided by the concerned SPCB in line of EIA Notification , 2006.
3	53	Power press	O	Very vague term hence deleted. Such types of general engineering units have already been covered.

Table G-4 : Final List of Green Category of Industrial Sectors

Sl. No.	Orgnl Sl. No.	Industry Sector	W1	W2	W	A1	A2	A	H	W+A+H	Revised Category	Remarks
1.	2	Aluminium utensils from aluminium circles by pressing only (dry mechanical operation)	–	–	–	10	–	10	–	25	G-G	Minor air pollution due to some fugitive PM emissions from buffing operations.
2.	6	Ayurvedic and homeopathic medicines (without boiler)	10	–	10	–	–	–	–	25	G-G	Small quantities of waste-waters are generated from washing operations.
3.	8	Bakery /confectionery /sweets products (with production capacity <1tpd (with gas or electrical oven)	10	–	10	–	–	–	–	25	G-G	Small quantities of waste-waters are generated from washing operations.
4.	6	Bi-axially oriented PP film along with metalizing operations	10	–	10	–	–	–	–	25	O-G	Mainly extrusion process involving Cooling water recirculation
5.	10	Biomass briquettes (sun drying) without using toxic hazardous wastes	–	–	–	10	–	10	–	25	G-G	Minor air pollution due to some fugitive PM emissions from pulverization / mixing operations.
6.	13	Blending of melamine resins & different powder, additives by physical mixing	–	–	–	10	–	10	–	25	G-G	Minor air pollution due to some fugitive PM emissions from pulverization / mixing operations.
7.	15	Brass and bell metal utensils manufacturing from circles(dry mechanical operation without re-rolling facility)	–	–	–	10	–	10	–	25	G-G	Minor air pollution due to some fugitive PM emissions from buffing operations.
8.	16	Candy	10	–	10	10	–	10	–	25	G-G	Small quantities of waste-water and minor

												PM emissions are generated.
9.	17	Cardboard or corrugated box and paper products (excluding paper or pulp manufacturing and without using boilers)	–	–	–	10	–	10	–	25	G-G	This score is valid with Small gas / electricity operated oven / furnace for making glue.
10.	18	Carpentry & wooden furniture manufacturing (excluding saw mill) with the help of electrical (motorized) machines such as electrical wood planner, steel saw cutting circular blade, etc.	–	–	–	10	–	10	–	25	G-G	Minor air pollution due to some fugitive PM emissions from cutting operations.
11.	19	Cement products (without using asbestos / boiler / steam curing) like pipe ,pillar, jafri, well ring, block/tiles etc.(should be done in closed covered shed to control fugitive emissions)	–	–	–	10	–	10	–	25	G-G	Minor air pollution due to some fugitive PM emissions from mixing operations.
12.	20	Ceramic colour manufacturing by mixing & blending only (not using boiler and wastewater recycling process)	–	–	–	10	–	10	–	25	G-G	Minor air pollution due to some fugitive PM emissions.
13.	11	Chilling plant, cold storage and ice making	10	–	10	–	–	–	–	25	O-G	Cooling water recirculation only.
14.	13	Coke briquetting (sun drying)	–	–	–	10	–	10	–	25	O-G	Mainly air polluting industry. Sources of air pollution (PM) are pulverizes and mixers. Air pollution score is normalized to 100.
15.	28	Cotton spinning and weaving (small scale)	–	–	–	10	–	10	–	25	G-G	Minor PM emissions from spinning process.
16.	17	Dal Mills	–	–	–	10	–	10	–	25	O-G	Some fugitive emissions of PM.

187

188

17.	29	Decoration of ceramic cups and plates by electric furnace	–	–	–	10	–	10	–	25	G-G	Fumes of enamels. Minor air pollution.
18.	19	Digital printing on PVC clothes	–	–	–	10	–	10	–	25	O-G	Minor emissions / odour generations are expected.
19.	25	Facility of handling, storage and transportation of food grains in bulk	–	–	–	10	–	10	–	25	O-G	Some fugitive emissions of PM during handling of grains.
20.	36	Flour mills (dry process)	–	–	–	10	–	10	–	25	G-G	Fugitive dust emissions.
21.	41	Glass , ceramic, earthen potteries, tile and tile manufacturing using electrical kiln or not involving fossil fuel kiln	–	–	–	10	–	10	–	25	G-G	Minor fugitive emissions only.
22.	34	Glue from starch (physical mixing) with gas / electrically operated oven /boiler.	–	–	–	10	–	10	–	25	O-G	Some fugitive emissions of PM during mixing of raw materials.
23.	42	Gold and silver smithy (purification with acid smelting operation and sulphuric acid polishing operation) (using less or equal to 1 litre of sulphuric acid/ nitric acid per month)	–	–	–	10	–	10	–	25	G-G	Minor fumes from cleaning process.
24.	36	Heat treatment with any of the new technology like ultrasound probe , induction hardening , ionization beam, gas carburizing etc.	10	–	10	10	–	10	–	25	O-G	• Cooling waters and minor heat fumes. • Finalization of categorization subject to field verification.
25.	46	Insulation and other coated papers (excluding paper or pipe manufacturing)	–	–	–	10	–	10	–	25	G-G	Minor fumes due to application of poly-urethane
26.	49	Leather foot wear and leather products (excluding tanning and hide processing except cottage scale)	–	–	–	10	–	10	–	25	G-G	Minor fumes due to use of adhesives / gums.

27.	50	Lubricating oil, greases or petroleum based products (only blending at normal temperature)	–	–	–	10	–	10	–	25	G-G	Minor fumes at the time of transfers from one container to other.
28.	54	Manufacturing of pasted veneers using gas fired boiler or thermic fluid heater and by sun drying	–	–	–	10	–	10	–	25	G-G	1. Minor fumes due to application of gums / adhesives / pastes etc. 2. This score is valid only for gas fired boiler.3. The units having coal fired boilers shall be categorized as Orange.
29.	59	Oil mill Ghani and extraction (no hydrogenation / refining)	10	–	10	–	–	–	–	25	G-G	Small quantities of floor washings & equipments washings are generated.
30.	48	Packing materials manufacturing from non asbestos fibre, vegetable fibre yarn	–	–	–	10	–	10	–	25	O-G	Some fugitive emissions of PM are expected.
31.	65	Phenyl/toilet cleaner formulation and bottling	–	–	–	10	–	10	–	25	G-G	Minor fumes of VOCs in the work zone
32.	67	Polythene and plastic processed products manufacturing (virgin plastic)	10	–	10	10	–	10	–	25	G-G	Cooling water & emissions due to mixing of raw materials.
33.	68	Poultry, Hatchery and Piggery	–	–	–	10	–	10	–	25	G-G	Obnoxious odour containing H_2S, CH_4 etc. and fugitive PM emissions
34.	69	Power looms (without dye and bleaching)	–	–	–	10	–	10	–	25	G-G	Minor emissions of PM.
35.	71	Puffed rice (muri) (using gas or electrical heating system)	–	–	–	10	–	10	–	25	G-G	Minor emissions of PM.
36.	57	Pulverization of bamboo and scrap wood	–	–	–	10	–	10	–	25	O-G	Some fugitive emissions of PM are expected.
37.	72	Ready mix cement concrete	–	–	–	10	–	10	–	25	G-G	PM emissions.
38.	73	Reprocessing of waste cotton	–	–	–	10	–	10	–	25	G-G	PM emissions.
39.	60	Rice mill (Rice hullers only)	–	–	–	10	–	10	–	25	O-G	PM emissions are generated. Mainly air

												polluting. AP score is normalized to 100
40.	62	Rolling mill (gas fired) and cold rolling mill	10	–	10	10	–	10	–	25	O-G	Mainly air polluting. AP score is normalized to 100
41.	75	Rubber goods industry (with gas operated baby boiler)	–	–	–	10	–	10	–	25	G-G	Some PM emissions and obnoxious odour.
42.	63	Saw mills	–	–	–	10	–	10	–	25	O-G	Mainly air polluting. PM and noise are generated.
43.	77	Soap manufacturing (hand made without steam boiling / boiler)	10	–	10	–	–	–	–	25	G-G	Small quantities of waste-water are generated.
44.	80	Spice grinding (upto-20 HP motor)	–	–	–	10	–	10	–	25	G-G	Small quantities of fugitive emissions of raw materials.
45.	66	Spice grinding (>20 hp motor)	–	–	–	10	–	10	–	25	O-G	Mainly air polluting. Fugitive emissions of PM.
46.	81	Steel furniture without spray painting	–	–	–	10	–	10	–	25	G-G	Obnoxious gases from welding as well as noise pollution.
47.	82	Steeping and processing of grains	10	–	10	–	–	–	–	25	G-G	Washing waters are generated.
48.	86	Tyres and tube retreating (without boilers)	–	–	–	10	–	10	–	25	G-G	Due to applications of binding gum / adhesives / cement, some obnoxious fumes may generate.
49.	22	Chilling plant and ice making without using ammonia	12	–	12	–	–	–	–	30	G-G	Cooling water and brine water circuits. Spillages / blow down may take place
50.	26	CO2 recovery	12	–	12	–	–	–	–	30	G-G	Normal water pollution from scrubbing action
51.	32	Distilled water (without boiler) with electricity as source of heat	12	–	12	–	–	–	–	30	G-G	TDS as distillation residues

52.	45	Hotels (up to 20 rooms and without boilers)	12	–	12	–	–	–	–	30	G-G	This score is valid for hotels having overall waste-water generation less than 10 KLD.
53.	53	Manufacturing of optical lenses (using electrical furnace)	12	–	12	–	–	–	–	30	G-G	Small quantities of waste-waters containing TDS, SS are generated.
54.	58	Mineralized water	12	–	12	–	–	–	–	30	G-G	RO Rejects.
55.	68	Tamarind powder manufacturing	12	--	12	15	--	15	--	33.75	O-G	• Dried tamarind fruits - cleaned and after soaking them in water they are boiled in steam jacketed kettle for about 40-45 minutes. Then pulp is extracted in pulper and dried in drum type drier and on cooling, the final product is packed. • Generates small quantities of waste waters and air emissions. Joint score is normalized to 100.
56.	15	Cutting, sizing and polishing of marble stone	15	--	15	--	--	--	--	37.5	O-G	Mainly water polluting . Water pollution score is normalized to 100.
57.	22	Emery powder (fine dust of sand) manufacturing	--	--	--	15	--	15	--	37.5	O-G	Air polluting. PM emissions take place during various stages of grindings of naturally occurring minerals.
58.	25	Flyash export, transport & disposal facilities	-	-	-	15	-	15	-	37.5	R-G	• This is mainly air polluting activity. • This is the normalized score based on air pollution.
59.	48	Mineral stack yard / Railway sidings	15	-	15	15	-	15	-	37.5	R-G	• Mainly air pollution due to loading, unloading, storage and transportation of the minerals.

												• Waste-water generation mainly during rains only.
60.	54	Oil and gas transportation pipeline	-	-	-	10	5	15	-	37.5	R-G	• Contains small gas based power plants up-to 5 MWs. • Air pollution score is normalized to 100. • In case , if these power plants are bigger / liquid fuel / oil based, scores will be calculated accordingly.
61.	64	Seasoning of wood in steam heated chamber	--	--	--	15	--	15	--	37.5	O-G	Air pollution due to use boiler for supply of steam. Air pollution score is normalized to 100.
62.	84	Synthetic detergent formulation	--	--	--	15	--	15	--	37.5	G-G	• This score is valid for the industries which are not manufacturing LABSA. It is procured from outside. • Small quantities of emissions are generated from mini boiler. • Air pollution score is normalized to 100.
63.	69	Tea processing (with boiler)	--	--	--	15	--	15	--	37.5	O-G	With boiler, it is an orange category industry. Without boiler, it will be green category industry.

Note :

i. *Under the column Revised Category, the full forms of the abbreviations are as follows :*
   a. *R-R means original category was Red and revised category is also Red*
   b. *R-O means original category was Red and revised category is Orange*
   c. *O-O means original category was Orange and revised category is also Orange*
   d. *O-G means original category was Orange and revised category is Green*
   e. *O-W means original category was Orange and revised category is White*
   f. *G-O means original category was Green and revised category is Orange*
   g. *G-G means original category was Green and revised category is also Green*
   h. *G-W means original category was Green and revised category is White*

ii. *There are specific remarks in respect of some of the industrial sectors. These sectors are either merged with other relevant sectors or deleted due to duplication. The overall details are as follows :*

Sl No.	Original Sl No.	Industry Sector	Original Category	Remarks
1	47	Jobbing and Machining	G	Vague category to be deleted, as such activities have already been covered in other categories.
2	66	Reel manufacturing	G	Already covered in other categories. Hence, deleted
3	1	Assembling of acid lead batteries (up to 10 batteries per day excluding lead plate casting)	G	Already covered in Orange category. Hence, deleted
4	5	Automobile fuel outlets (only dispensing)	G	Minor air pollution due to some fugitive emissions during fuel filling operations. May be exempted from the purview of Consent management.
5	30	Diesel generator sets (15 KVA to 1 MVA)	G	• Normal operation – 12 hrs a day. • Consumption of diesel = 1680 litres for 1 MVA DG set at full load @ 0.21 litres / KVA / hr. • Stand-alone DG Sets having total capacity 1 MVA or less and equipped with acoustic enclosures alongwith adequate stack height may be exempted from the purview of Consent management. Higher capacity DG sets have already been covered under Red / Orange categories .

Table G-5: Final List of White Category of Industries

Sl. No.	Orgnl Sl. No.	Industry Sector	W1	W2	W	A1	A2	A	H	W+A+H	Revised Category
1.	3	Assembly of air coolers /conditioners ,repairing and servicing	--	--	--	--	--	--	--	--	G-W
2.	4	Assembly of bicycles ,baby carriages and other small non motorizing vehicles	--	--	--	--	--	--	--	--	G-W
3.	7	Bailing (hydraulic press)of waste papers	--	--	--	--	--	--	--	--	G-W
4.	9	Bio fertilizer and bio-pesticides without using inorganic chemicals	--	--	--	--	--	--	--	--	G-W
5.	11	Biscuits trays etc from rolled PVC sheet (using automatic vacuum forming machines)	--	--	--	--	--	--	--	--	G-W
6.	12	Blending and packing of tea	--	--	--	--	--	--	--	--	G-W
7.	14	Block making of printing without foundry (excluding wooden block making)	--	--	--	--	--	--	--	--	G-W
8.	21	Chalk making from plaster of Paris (only casting without boilers etc. (sun drying / electrical oven)	--	--	--	--	--	--	--	--	G-W
9.	25	Compressed oxygen gas from crude liquid oxygen (without use of any solvents and by maintaining pressure & temperature only for separation of other gases)	--	--	--	--	--	--	--	--	G-W
10.	27	Cotton and woolen hosiers making (Dry process only without any dying / washing operation)	--	--	--	--	--	--	--	--	G-W
11.	31	Diesel pump repairing and servicing (complete mechanical dry process)	--	--	--	--	--	--	--	--	G-W
12.	33	Electric lamp (bulb) and CFL manufacturing by assembling only	--	--	--	--	--	--	--	--	G-W

13.	34	Electrical and electronic item assembling (completely dry process)	--	--	--	--	--	--	--	--	G-W
14.	23	Engineering and fabrication units (dry process without any heat treatment / metal surface finishing operations / painting)	--	--	--	--	--	--	--	--	O-W
15.	35	Flavoured betel nuts production/ grinding (completely dry mechanical operations)	--	--	--	--	--	--	--	--	G-W
16.	37	Fly ash bricks/ block manufacturing	--	--	--	--	--	--	--	--	G-W
17.	38	Fountain pen manufacturing by assembling only	--	--	--	--	--	--	--	--	G-W
18.	39	Glass ampules and vials making from glass tubes	--	--	--	--	--	--	--	--	G-W
19.	40	Glass putty and sealant (by mixing with machine only)	--	--	--	--	--	--	--	--	G-W
20.	43	Ground nut decorticating	--	--	--	--	--	--	--	--	G-W
21.	44	Handloom/ carpet weaving (without dying and bleaching operation)	--	--	--	--	--	--	--	--	G-W
22.	48	Leather cutting and stitching (more than 10 machine and using motor)	--	--	--	--	--	--	--	--	G-W
23.	51	Manufacturing of coir items from coconut husks	--	--	--	--	--	--	--	--	G-W
24.	52	Manufacturing of metal caps containers etc	--	--	--	--	--	--	--	--	G-W
25.	55	Manufacturing of shoe brush and wire brush	--	--	--	--	--	--	--	--	G-W
26.	57	Medical oxygen	--	--	--	--	--	--	--	--	G-W
27.	60	Organic and inorganic nutrients (by physical mixing)	--	--	--	--	--	--	--	--	G-W
28.	61	Organic manure (manual mixing)	--	--	--	--	--	--	--	--	G-W
29.	63	Packing of powdered milk	--	--	--	--	--	--	--	--	G-W
30.	64	Paper pins and u clips	--	--	--	--	--	--	--	--	O-W
31.	58	Repairing of electric motors and generators (dry mechanical process)	--	--	--	--	--	--	--	--	G-W
32.	74	Rope (plastic and cotton)	--	--	--	--	--	--	--	--	G-W

33.	76	Scientific and mathematical instrument manufacturing	--	--	--	--	--	--	--	--	G-W
34.	78	Solar module non conventional energy apparatus manufacturing unit	--	--	--	--	--	--	--	--	G-W
35.	79	Solar power generation through solar photovoltaic cell, wind power and mini hydel power (less than 25 MW)	--	--	--	--	--	--	--	--	G-W
36.	83	Surgical and medical products assembling only (not involving effluent / emission generating processes)	--	--	--	--	--	--	--	--	G-W

Note : Under the column Revised Category, the full forms of the abbreviations are as follows :

a. *R-R means original category was Red and revised category is also Red*
b. *R-O means original category was Red and revised category is Orange*
c. *O-O means original category was Orange and revised category is also Orange*
d. *O-G means original category was Orange and revised category is Green*
e. *O-W means original category was Orange and revised category is White*
f. *G-O means original category was Green and revised category is Orange*
g. *G-G means original category was Green and revised category is also Green*
h. *G-W means original category was Green and revised category is White*

(66)

Annexure

केन्द्रीय प्रदूषण नियंत्रण बोर्ड
CENTRAL POLLUTION CONTROL BOARD
(पर्यावरण एवं वन मंत्रालय, भारत सरकार)
(MINISTRY OF ENVIRONMENT & FORESTS, GOVT. OF INDIA)

No. B-29012/ESS/CPA/2015-16 19.08.2015

Sub: "Harmonization of Classification of industries under Red / Orange / Green / White Categories".

During the Conference of the Environment Ministers of States held in New Delhi during April 06-07, 2015, it was resolved to adopt pollution potential criteria for categorization of Red, Orange & Green categories of industries and that a Committee be constituted with State representatives. Further, in the 59th Conference of Chairmen & Member Secretaries of Pollution Control Boards/PCCs held in New Delhi on April 08, 2015, it was agreed to constitute a Committee to look into categorization system of industries based on their respective pollution potential index.

2. Accordingly, a Committee comprising the Chairmen of CPCB, APPCB, TNPCB, MPPCB, MPCB, PPCB, WBPCB and MS, CPCB was constituted vide CPCB OM dated 23.04.2015 to review & classify industrial sectors into different categories based on criteria of respective pollution potential indices.

3. The existing Red (85 sectors) , Orange (73 sectors) and Green (86 sectors) industrial sectors have been assessed as per the proposed formula by a group of Scientists from CPCB . For this purpose , concerned Engineers / Scientists from the Member SPCBs of the Committee were also involved & consulted during May28-29, 2015.

4. After careful examination and consideration of the suggestions of concerned stake-holders the "Draft Document on Revised Concept of Categorization of Industrial Sectors " is prepared by the Committee .

In this context, the Undersigned is directed to forward a copy of the " Draft Document on Revised Concept of Categorization of Industrial Sectors to all the SPCBs, PCCs and concerned Ministries for their comments. Accordingly, the same is enclosed herewith and all the SPCBs, PCCs and concerned Ministries are, hereby requested to provide their comments by 04.09.2015. The comments may kindly be sent through hard copy as well as soft copy at e-mail: nkgupta.cpcb@nic.in , nkgcpcb@hotmail.com .

Encl : As above

[N.K. Gupta]
Incharge - ESS

To:

1. All the State Pollution Control Boards / Pollution Control Committees
2. The Secretary, Ministry of Micro Small and Medium Enterprises, New Delhi
3. The Secretary, Ministry of Heavy Industries & Public Enterprises, New Delhi
4. The Advisor & Incharge , CP Division, MoEFCC, New Delhi
5. CPCB Website

'परिवेश भवन' पूर्वी अर्जुन नगर, दिल्ली-110032
'Parivesh Bhawan', East Arjun Nagar, Delhi - 110032
दूरभाष / Tel. : 43102030, फैक्स / Fax : 22305793, 22307078, 22307079, 22301932, 22304948
ई-मेल / e-mail :cpcb@nic.in वेबसाईट / Website : www.cpcb.nic.in

(67) Annexure – III

TELANGANA STATE POLLUTION CONTROL BOARD
ZONAL OFFICE: HYDERABAD

H.No.6-3-1219, TS No.1 Part, Block - C, Ward No.91, Near Country Club,
Uma Nagar, Begumpet, Hyderabad. Phone: 040-23402495
Email: jcee-zhyd-tspcb@telangana.gov.in

CONSENT & HW AUTHORIZATION ORDER – ORANGE CATEGORY

Consent Order No:679-MBNR/TSPCB/ZOH/TS-iPASS/CFO/2023- 653 **Date:23.01.2023**

(Consent Order for Existing/New or altered discharge of sewage and/or trade effluents/outlet under Section 25/26 of the Water (Prevention & Control of Pollution) Act, 1974 and amendments thereof and Operation of the plant under section 21 of Air (Prevention & Control of Pollution) Act, 1981 and amendments thereof) and Authorization / Renewal of Authorization under Rule 6 of the Hazardous and other Wastes (Management and Transboundary Movement) Rules, 2016.

CONSENT is hereby granted under section 25/26 of the Water (Prevention & Control of Pollution) Act, 1974 and under section 21 of Air (Prevention & Control of Pollution) Act, 1981 (hereinafter referred to as 'the Acts') and Authorization under the provisions of HW (M & H) Rules (herein after referred to as 'the Acts' 'the Rules') the rules and orders made thereunder to:

M/s. Shri Kartikeya Pharma (SEZ Unit),
Sy.No.408-412, 418-435, 437-445, Polepally (V),
Jadcherla (M), Mahaboobnagar District

(hereinafter referred to as 'the Applicant') authorizing to operate the industrial plant, to discharge the effluents from the outlets and the quantity of Emissions per hour from the chimneys as detailed below:

i) Outlets for discharge of effluents:

Outlet No.	Outlet Description	Max Daily Discharge (After Expansion)	Point of Disposal	Prescribed Standards
1	Process	18.0 KLD	After pre-treatment, the treated effluents shall be sent to M/s. PETL.	Inlet parameters of CETP prescribed by the Board.
2	Washing	2.0 KLD		
3	Boiler Blow Down	0.1 KLD		
4	Cooling Bleed off	0.1 KLD		
5	Domestic	0.2 KLD	Septic tank followed by soak pit.	---

ii) Emissions from chimneys:

Chimney No.	Description of Chimney (After Expansion)	Quantity of Emissions at peak flow in m^3/hr	Parameter Emission Standards
1.	Attached to LPG fired boiler of capacity 3.0 TPH	---	SPM – 115 mg/Nm^3
2.	Attached to LPG fired boiler of capacity 3.0 TPH (Standby)	---	SO_2 – 600 mg/Nm^3. At 6% dry O_2, for solid fuel and 3% dry O_2 for liquid fuel
			NOx – 600 mg/Nm^3. At 6% dry O_2, for solid fuel and 3% dry O_2 for liquid fuel

iii) Hazardous Waste Authorization: (Form – 2) [See Rule 6(2)]:

M/s. Shri Kartikeya Pharma (SEZ Unit), Sy.No.408-412, 418-435, 437-445, Polepally (V), Jadcherla (M), Mahaboobnagar District is hereby granted an authorization to operate a facility for collection, reception, storage, transport and disposal of the following wastes with quantities as mentioned below:

(68)

S.No.	Name and quantity of the Hazardous waste (After Expansion)	Stream	Disposal option
--	--	--	--

This order is subject to the provisions of 'the Acts' and 'the Rules' and orders made thereunder and further subject to the terms and conditions incorporated in the schedule A, B and C enclosed to this order.

This consent is valid for manufacture the following products along with quantities only

S.No.	Product & By product	Capacity (After Expansion)
1	Ashwagandha Extract	3000 Kg/day (900 TPA)

This combined order of consent & Hazardous Waste Authorization shall be valid for a period ending with the **31.03.2032**. ***The industry shall pay the consent fees annually from the financial year 2029-30 to till the validity of the consent order.***

The payment of annual consent fee for every financial year (i.e., April to March) within the stipulated time period i.e., 1st quarter of every financial year (April - June) is mandatory for the industry. Failing which, the validity of the Consent Order automatically stands cancelled and operation of industry without valid Consent attracts penal action under the provision of Water Act, Air Act & Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016.

JOINT CHIEF ENVIRONMENTAL ENGINEER

Encl: Schedules A, B & C

To
M/s. Shri Kartikeya Pharma (SEZ Unit),
Sy.No.408-412, 418-435, 437-445, Polepally (V),
Jadcherla (M), Mahaboobnagar District
Email: kartikeya999@yahoo.com

Copy submitted to the Member Secretary, TSPCB, Board Office, Hyderabad for information.
Copy to the General Manager, District Industries Centre, Mahaboobnagar for information.
Copy to the Environmental Engineer, Regional Office, Hyderabad for information and necessary action. **The EE, RO, Hyderabad is further directed to ensure that the industry pays the annual consent fees for every financial year (i.e., April to March)within the stipulated time period i.e., 1st quarter of every financial year (April-June) and the EE, RO, Hyderabad shall report to this office, if any non-compliance by the industry.**

(69)

SCHEDULE – A

1. The applicant shall make applications through online for renewal of Consent (under Water & Air Acts) and Authorization under HWM Rules at least 120 days before the date of expiry of this order, along with prescribed fee under Water and Air Acts for obtaining Consent & HW Authorization of the Board. The applicant can also apply for Auto Renewal of the CFO atleast 30 days before the expiry of this order as per the procedure and eligibility stipulated in the Board Circular dt.19.11.2015 & 08.12.2015 (available in Board's Website: http://tspcb.cgg.gov.in/Pages/Circulars.aspx).
2. Concealing the factual data or submission of false information/ fabricated data and failure to comply with any of the conditions mentioned in this order may result in withdrawal of this order and attract action under the provisions of relevant pollution control Acts.
3. The industry may explore the possibility of tapping the solar energy for their energy requirements.
4. Any person aggrieved by an order made by the State Board under Section 25, Section 26, Section 27 of Water Act, 1974 or Section 21 of Air Act, 1981 may within thirty days from the date on which the order is communicated to him, prefer an appeal as per Rules, to such authority (hereinafter referred to as the Appellate Authority) constituted under Section 28 of the Water (Prevention and Control of Pollution) Act, 1974 and Section 31 of the Air (Prevention and Control of Pollution) Act, 1981.
5. The Board reserves its right to modify above conditions or stipulate any further conditions and to take action including revoke of this order in the interest of protection of public health and environment.

SCHEDULE - B

Special Conditions:

1. **The CFO & HWA order issued to M/s. Shri Kartikeya Pharma (SEZ Unit), Sy.No.408-412, 418-435, 437-445, Polepally (V), Jadcherla (M), Mahaboobnagar District vide Consent Order No. 679-MHB/TSPCB/ZOH/TS-iPASS/CFO/2022-593, date: 30.12.2022 which is valid upto 31.03.2032 stands cancelled.**
2. **The industry has paid consent fee for a period upto 31.03.2029. The industry shall pay the consent fees annually from the financial year 2029-30 to till the validity of the consent order i.e., upto 31.03.2032.**
3. **The industry shall pay consent fee annually as per the rates notified in GO MS No. 22. The payment of annual consent fee shall be made at the concerned RO for every financial year (i.e., April to March) within the stipulated time period i.e., 1st quarter of every financial year (April - June) is mandatory for the industry. Failing which, the validity of the Consent Order automatically stands cancelled and operation of industry without valid Consent attracts penal action under the provision of Water Act, Air Act & Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016.**
4. **The industry either paying annual fee or total fee for consented period, shall pay the balance consent fee as per the revised rates as applicable from time to time.**
5. The industry shall take steps to reduce water consumption to the extent possible and consumption shall NOT exceed the quantities mentioned below

Sl No	Purpose	Quantity (After Expansion)
1	Process	36.0 KLD
2	Washing	4.0 KLD
3	Boiler Feed	3.0 KLD
4	Cooling	1.0 KLD
5	Domestic	0.7 KLD
	Total	**44.7 KLD**

6. The industry should comply with the National ambient air quality standards as per MoEF, GoI notification dated. 18.11.2009 along the premises of the factory as prescribed below.

S. No.	Parameters	Standards in $\mu g/m^3$

1	Particulate Matter(PM_{10})	100
2	Particulate Matter ($PM_{2.5}$)	60
3	SO_2	80
4	NOx	80

Noise Levels: Day time (6 AM to 10 PM) - 75 dB (A)
Night time (10 PM to 6 AM) - 70 dB (A).

7. The industry shall not increase the capacity beyond the permitted capacity mentioned in this order, without obtaining CFE/CFO of the Board.
8. The industry shall regularly operate Effluent Treatment Plant (ETP) for treatment of process and washings, boiler blow down and cooling bleed off effluents. After pre-treatment in ETP, the treated wastewater shall be lifted to M/s. PETL for further treatment and disposal.
9. The industry shall use LPG as fuel for the boiler of capacity 2 x 3 TPH (one as Standby) and shall meet the Board prescribed standards.
10. The industry shall maintain separate energy meter for the operation of the ETP and shall submit the monthly reading to Regional Office, Hyderabad.
11. The industry shall not discharge any waste water outside the plant premises under any circumstances.
12. The industry shall maintain water meters to measure the actual water consumption and waste water discharge.
13. The industry shall not cause odour nuisance in the surrounding area.
14. The industry shall not cause any air pollution/dust nuisance in the surrounding environment.
15. The industry shall develop 33% of the total area as thick green belt all along the boundary of the unit and also in the vacant places with all tall growing trees with wide leaf area.
16. The industry should maintain the following records and the same should be made available to the Board Officials during the inspection.
    a) Production details, RG-I records and Central Excise Returns.
    b) Effluents generated, treated in ETP, resued / PETL.
    c) Log Books for pollution control systems.
    d) Daily solid waste generated and disposed.
17. The industry shall maintain good housekeeping with-in the premises.
18. The industry shall submit Environmental Statement in Form V before 30th September every year as per Rule No.14 of Environmental (Protection) Act, 1986.
19. The industry shall take all precautionary and safety measures during process operations
20. The industry shall comply with all the directions issued by the Board from time to time.
21. This Order is issued to the industry without prejudice to the action taken by the Task Force of the Board.
22. The conditions stipulated in this order are without any prejudice to rights and contentions of this Board in any Hon'ble court of Law.

SCHEDULE - C
(See Rule 6(2))

(Conditions of Authorization for occupier or operator handling hazardous wastes)

1. The industry shall give top priority for waste minimization and cleaner production practices.
2. The industry shall not store hazardous waste for more than 90 days as per the Hazardous & other wastes (Management and Transboundary Movement) Rules, 2016.
3. The industry shall store Used / Waste Oil and Used Lead Acid Batteries in a secured way in their premises till its disposal.
4. The industry shall not dispose Waste oils to the traders and the same shall be disposed to the authorized Reprocessors/ Recyclers.

(71)

5. The industry shall dispose Used Lead Acid Batteries to the manufacturers / dealers on buyback basis.
6. The industry shall take necessary practical steps for prevention of oil spillages and carry over of oil from the premises.
7. The industry shall maintain 7 copy manifest system for transportation of waste generated and a copy shall be submitted to Board Office and concerned Regional Office.
8. The industry shall maintain good housekeeping & maintain proper records for Hazardous Wastes stated in Authorisation.
9. The industry shall maintain proper records for Hazardous Wastes stated in Authorisation in FORM-3 and file annual returns in Form- 4 Rules 6(5), 13(8), 16(6) and 20(2) as per of the Hazardous & other wastes (Management, Transboundary Movement) Rules, 2016.
10. The industry shall submit the condition wise compliance report of the conditions stipulated in Schedule B & C of this Order on half yearly basis to Board Office, Hyderabad and concerned Regional Office.
11. The industry shall dispose the e-waste to authorised recyclers / re-processors only.

JOINT CHIEF ENVIRONMENTAL ENGINEER

RR

To
M/s. Shri Kartikeya Pharma (SEZ Unit),
Sy.No.408-412, 418-435, 437-445,
Polepally (V), Jadcherla (M),
Mahaboobnagar District.

203

TELANGANA STATE POLLUTION CONTROL BOARD

Paryavarana Bhavan, A-III, Industrial Estate, Sanathnagar, Hyderabad-500 018
Phone : 040-23887500

O/C

(72)

Annexure-IV

CIRCULAR

Circular No.94/TSPCB/Categorization/HO/2016 -911 **Dt.30.09.2020**

Sub: TSPCB – Categorization – CPCB Directions dt. 07.03.2016 regarding Harmonization of Classification of Industrial Sectors – Implementation of Additional Categories decided by the Categorization Committee of the Board - Order issued – Reg.

Ref:
1. CPCB Lr.No.B-29012/ESS(CPA)/2015-16, dt. 07.03.2016.
2. Board Circular Memo No.94/TSPCB/Categorisation/HO/2016-93, dated 16.04.2016.
3. Board Procds. No.94/TSPCB/Categorisation/HO/2016-2497, dt. 19.12.2016.
4. Lr.No.11/Gen/TSPCB/Unit-I/HO/2018-1831 Dt. 08.08.2018.
5. Board Circular No.94/TSPCB/Gen/CFE/HO/2016, dt. 19.05.2020.
6. Board Circular No.94/TSPCB/Gen/CFE/HO/2016, dt. 28.07.2020.
7. Meeting of Categorization Committee held on 24.08.2020.

DESPATCHED
ON: 5/10/2020

* * * * *

The Central Pollution Control Board vide reference 1st cited issued directions to all State Pollution Control Boards to implement revised categorization of industries under Red, Orange, Green and White Categories. It was stated that any further additions of any new or left over industrial sector and their categorization which is not listed in the revised list of Red, Orange, Green and White industrial sectors, shall be done at the level of concerned SPCB / PCC following revised criteria & guidelines and no concurrence of CPCB shall normally be required.

As per the directions of the CPCB, the Board vide reference 3rd cited constituted Categorization Committee for categorization of industrial sector not listed in the revised list of Red, Orange, Green and White Category of industrial sectors issued by CPCB. The Committee has been categorizing the additional categories of industries as per the methodology prescribed by the CPCB and the Board is implementing the same and additional categories were communicated vide circulars 4th, 5th & 6th cited above.

The Categorization Committee of the Board had reviewed the new additional activities identified as per CPCB methodology during its meeting held on 24.08.2020 to categorize the same. After detailed discussions, the Committee had recommended the categorization of the additional activities / industries as follows:

S.N	Industry Sector	Category
1.	Cotton seed Ginning / De-linting by Mechanical means	Green
2.	Cotton seed De-linting by Acid use (effluent > 100 KLD)	Red
3.	Cotton seed De-linting by Acid use (effluent < 100 KLD)	Orange
4.	Seed processing by Solar drying	Green
5.	Seed processing – drying with fuel	Orange
6.	Cob drying (fuel consumption more than 12 TPD)	Orange
7.	Cob drying (fuel consumption less than 12 TPD)	Green
8.	Crop research and development	Orange
9.	Seed processing with isolated storage of LPG of atleast 50 T	Red
10.	Metal Injection Moulding using Electrical heater	Green
11.	Metal Injection Moulding with fuel burning more than 12 TPD.	Orange
12.	Manufacture of Egg Trays	Green

(73)

13.	Autoclave Aerated Concrete Blocks / Bricks with fuel consumption more than 12 TPD	Orange
14.	Autoclave Aerated Concrete Blocks / Bricks with fuel consumption less than 12 TPD	Green
15.	Granite / Stone Cutting and Polishing	Green
16.	Solvent recovery through Distillation	Red
17.	Recovery of Organics from Mother Liquors including Piperazine	Red
18.	Manufacture of Lithium Ion & Lithium Polymer Cell & Battery	Orange
19.	Manufacture of Rubber Tyres with effluent generation more than 100 KLD and fuel consumption more than 12 TPD	Red
20.	Manufacture of Rubber Tyres with effluent generation less than 100 KLD and fuel consumption less than 24 TPD	Orange
21.	Manufacture of tubes from butyl rubber	Orange
22.	Bottling of Anhydrous Ammonia and Manufacture of Liquid Ammonia with Ammonia Storage of at least 60 T	Red
23.	Manufacture of Herbal Products using solvent extraction	Orange
24.	Herbal Products without using solvent	Green
25.	Engineering without painting	White (existing Sl. No. 14)
26.	Solar Power generation through solar photovoltaic cells, Plants of all capacities / Wind Power generation Plants of all capacities / Mini Hydel Power Plants having capacity less than 25 MW.	White (existing Sl. No. 35 modified)

In view of the above, all ROs, ZOs & Divisional Heads at Head office are directed to follow and implement the above categorization of industries with immediate effect.

Sd/-
MEMBER SECRETARY

To

1. All Divisional Heads, Board Office.
2. The Joint Chief Environmental Engineer, Zonal Office, Hyderabad / RC Puram
3. All Regional Officers (Hyderabad / Rangareddy-I / Medchal / Warangal / Ramagudem / Kothagudem / Nalgonda / Nizamabad / Medak – I & Medak – II)

Copy submitted to the Member Secretary, CPCB, Delhi for favour of kind information.

Copy submitted to the Commissioner of Industries, Chirag Ali Lane, Abids, Hyderabad for kind information and with a request to direct the concerned to incorporate the above categories in TS-iPASS system.

Copy to Sri Anil Kumar, Technical Director, NIC, New Delhi with a request to direct the concerned to incorporate the above categories in TSOCMMS system.

// T.C.F.B.O//

VR reddy

Senior Environmental Engineer

(RP)

(74) Annexure - V

TELANGANA STATE POLLUTION CONTROL BOARD
ZONAL OFFICE: HYDERABAD

H.No.6-3-1219, TS No.1 Part, Block - C, Ward No.91, Near Country Club,
Uma Nagar, Begumpet, Hyderabad. Phone: 040-23402495
Email: jcee-zhyd-tspcb@telangana.gov.in

Order No: 679-MBNR/TSPCB/ZOH/CFO/2023- 287 **Date: 28.06.2023**

Sub: TSPCB – ZO-HYD - Consent for Operation (CFO) & Hazardous Waste Authorization (HWA) Order – **M/s. Shri Kartikeya Pharma (SEZ Unit), Sy.No.408-412, 418-435, 437-445, Polepally (V), Jadcherla (M), Mahaboobnagar District** – Amendment – Issued – Reg.

Ref:
1. CFO Order No. 679-MBNR/TSPCB/ZOH/TS-iPASS/CFO/2023-653, dated: 23.01.2023 valid upto 31.03.2032.
2. Industry's representation dt: 09.05.2023 requesting for change of category.
3. O.A No 24 of 2023 filed before Hon'ble NGT (SZ), Chennai.
4. TSPCB, Regional Office, Hyderabad Lr. No. 1070/ TSPCB/ ROH/ RRD/ CFO/2023-342 vide report dated: 21.06.2023 and received by Zonal office, Hyderabad on 22.06.2023.
5. The CFO Committee meeting held on 22.06.2023 at TSPCB, Zonal Office, Hyderabad.
6. Industry letter dt: 22.06.2023 furnishing information.

* * *

In the reference 1st cited, the Board had issued Consent order under Water & Air Acts to **M/s. Shri Kartikeya Pharma (SEZ Unit), Sy.No.408-412, 418-435, 437-445, Polepally (V), Jadcherla (M), Mahaboobnagar District** with a validity period upto 30.11.2031 to manufacture the following products along with quantities:

S.No.	Product & By product	Capacity (After Expansion)
1	Ashwagandha Extract	3000 Kg/day (900 TPA)

In the reference 2nd cited, the industry has submitted representation dt: 09.05.2023 requesting the Board for amendment to CFO stating that their line of activity falls under Green category instead of orange category as they are manufacturing Ashwagandha root extract using solely aqueous (water) extraction without using any chemicals or solvents.

Vide reference 4th cited, the EE, RO, Hyderabad submitted a report on the representation of the industry and on the latest status with regard to OA No.24 of 2023 filed before the Hon'ble NGT, Chennai.

Vide reference 5th cited, the Consent for Operation committee in its meeting held on 22.06.2023 examined the representation of the industry, RO report and the Case filed before the Hon'ble NGT, Chennai. . During meeting, the representative of the industry attended the meeting and gave a presentation on the process adopted for manufacturing Ashwagandha root extract. The committee noted that as per CPCB categorization of the industries, the line of activity " Herbal products without using solvents " falls under Green Category (Sl. No. 80), whereas the line of activity i.e., Herbal products using solvents falls under Orange category (Sl. No. 120). The committee noted that the process as described by the industry representative does not involve solvents or any chemicals. The herbal product i.e, Ashwagandha is produced/extracted using water. Hence, the line of activity falls under Green category (Sl. No. 80).

The committee further noted that an OA No.24 of 2023 was filed by Sri Kosgi Venkataiah & others Vs Union of India & others before the Hon'ble NGT, Chennai seeking for implementation of the directions given by Principal Bench of Hon'ble National Green Tribunal in O.A. No. 189/2018, particularly with reference to the levy and collection of environmental compensation. The above matter came up for hearing before the Hon'ble NGT on 17.05.2023. The counsel for the 14th respondent i.e., M/s. Shri Kartikeya Pharma (SEZ Unit), Sy.No.408-412, 418-435, 437-445, Polepally (V), Jadcherla (M), Mahaboobnagar District appeared and made submissions that

(75)

their industry is manufacturing a herbal product i.e., Ashwagantha and hence it is not covered under the EIA Notification and further submitted that the present application itself is unjust since the Reassessment process is still pending and not attained the final review yet.

The standing Counsel of the Board vide mail dt.23.05.2023 informed that the Tribunal directed the PCB to refer to the fact whether the 14th respondent attracts EIA notification and also directed to mention the category under which the industries fall.

The committee recommended that the category of the industry shall be considered as Green category and also opined that the line of activity does not attract the provisions of EIA Notification, 2006 and recommended to consider the request of the industry for change of category from Orange category to Green category.

Hence, as per the decision of the CFO Committee, an amendment is hereby issued to the existing Consent Order & Hazardous Waste authorisation as specified below issued, vide reference 1st cited:

CONSENT & HW AUTHORIZATION ORDER – ORANGE CATEGORY

This consent is valid for manufacture the following products along with quantities only

S.No.	Product & By product	Capacity (After Expansion)
1	Ashwagandha Extract	3000 Kg/day (900 TPA)

Shall be read as

CONSENT & HW AUTHORIZATION ORDER – GREEN CATEGORY

This consent is valid for manufacture the following products along with quantities only

S.No.	Product & By product	Capacity (After Expansion)
1	Ashwagandha Extract	3000 Kg/day (900 TPA)

All other conditions stipulated in the original Consent & HW Authorisation Order issued vide reference 1st cited shall remains same.

JOINT CHIEF ENVIRONMENTAL ENGINEER

To
M/s. Shri Kartikeya Pharma (SEZ Unit),
Sy.No.408-412, 418-435, 437-445, Polepally (V),
Jadcherla (M), Mahaboobnagar District
Email: kartikeya999@yahoo.com

Copy to the Environmental Engineer, Regional Office, Hyderabad for information and necessary action.

Annexure – VI

(76)

TELANGANA STATE POLLUTION CONTROL BOARD

Paryavarana Bhavan, A-III, Industrial Estate, Sanathnagar, Hyderabad-500 018
Phones : 040-23887500 Fax: 040 – 23887519

BY REGD. POST WITH ACK. DUE

Order No. MHB- /TSPCB/U-I/TF/2017- 1211 **Date:22.07.2017**

Sub : M/s. Shri Kartikeya Pharma (SEZ Unit), Sy.No.408-412, 418-435, 437-445, Polepally (V), Jadcherla (M), Mahaboobnagar District – Water (Prevention and Control of Pollution) Amendment Act, 1988 - Air (Prevention and control of Pollution) Amendment Act, 1987 – Non compliance of the Board directions - **Closure Orders - Issued – Reg.**

Ref : 1. Adverse news item appeared in 'Eenadu' Telugu daily news paper on 16.07.2017
2. Inspection of your industry by the Joint Inspection team on 16.07.2017.
3. Notice issued to your industry on 20.07.2017
4. Hearing held on 21.07.2017 at Board office, Hyderabad.

***

1. WHEREAS, you are operating the industry located at Sy.No.408-412, 418-435, 437-445, Polepally (V), Jadcherla (M), Mahaboobnagar District.

2. WHEREAS, the Board issued issued CFE vide order dt: 19.04.2017 for production of Ashwagandha Extract – 1000 kg/day.

3. WHEREAS, an adverse news item appeared in "Eenadu" daily news paper on 16.07.2017 regarding pollution being caused by the pharmaceutical units located at SEZ, Polepally in the surrounding area of Gundlagadda Thanda, Polepally (V), Jedcharla (M), Mahaboobnagar District.

4. WHEREAS, the team of Board officials inspected your industry and surrounding areas on 16.07.2017 and the details of inspection are as follows:

i. Surrounding of the industry premises:

- The team has contacted residents of the Gundlagadda thanda. They informed that they are facing health problems and not able to drink the water from the borewell due to pollution from the Pharma units.

- Only one borewell is available in the thanda from which the water is being used by villagers for cooking and other general purpose such as washing. The analysis of the borewell water at Gundlagadda thanda is as follows:

Parameters	Unit	Results
pH at 25^{0}C	-	8.15
Total Suspended Solids	mg/L	46
Total Dissolved Solids	mg/L	2,980
Chemical Oxygen Demand	mg/L	150

The presence of high TDS and COD indicate contamination of borewell.

- The villagers informed that the Kunta is located within SEZ and which is 500 mts. away from Gundlagadda thanda is polluted due to the discharges from M/s. Shilpa Medicare Ltd., and other storm water from upstream units. The physical observations of Kunta water indicate turbid and black colour sediment layer observed in the bottom indicating anaerobic conditions.

Kunta Water at the down stream of M/s. Shilpa Medicare Ltd.,

Parameters	Unit	Results
pH at 25^{0}C	-	8.4
Total Suspended Solids	mg/L	63
Total Dissolved Solids	mg/L	3,473
Chemical Oxygen Demand	mg/L	161

The analysis report of the Kunta water indicate high COD and TDS.

(77) (149)

ii. **Within the industry premises**

- The brown coloured sludge was observed at the oulet of the industry in the storm water drain. A sample of sludge was collected for analysis from the outside of unit.
- Similar type of sludge was observed in the drains within the industry due to the washing of trays which are kept in the large shed adjacent to the wall. The sample of these tray washings was also collected to ascertain whether it matches with the sludge collected outside the industry.
- The analysis of sludge shows that it is having highly volatile matter upto 91% and a pH of 4.3 indicative of highly acidic organic sludge. As per analysis it is not hazardous in nature but will cause severe pollution when discharged to outside surface water.
- The downstream of M/s. Karthikeya and M/s. Mylan areas were inspected and storm water drain from these areas are joining into a small nala which is flowing towards downstream of thanda.

Drain Downstream of your industry.

Parameters	Unit	Results (7139)
pH at 25°C	-	8.4
Total Suspended Solids	mg/L	157
Total Dissolved Solids	mg/L	**2,114**
Chemical Oxygen Demand	mg/L	123

The analysis data show presence of COD which could be due to the sludge discharge from your industry.

5. WHEREAS, the Board has reviewed the status of industry in the Task Force Committee meeting held on 21.07.2017. Your industry representatives and the representatives of TSIIC, Shamshabad, Rangareddy District and complainants (Residents of Gundlagadda Thanda) have attended the meeting.

The complainants informed the following:

i. The Polepally-SEZ is located adjacent to Gundlagadda thanda. A kunta is located between thanda and SEZ
ii. The industries in SEZ are causing heavy air, water pollution. The water in the kunta & in the borewell of the Thanda is totally polluted.
iii. They are having agricultural lands of about 200 acres near to SEZ. About 50 – 60 acres of their land surrounding the kunta got polluted.
iv. The residents are facing severe health problems and crop yield is also drastically reduced.
v. They are not having sufficient potable water for their daily basic needs viz., drinking, cooking & washings etc.,

Your industry representative attended the meeting and stated that you are carrying out only trial production and have not started commercial production of Ashwagandha Extract. You will immediately obtain CFO of the Board and further stated that the process is completely organic / herbal processing and not using any chemicals in the process.

The committee after detailed discussions recommended to issue closure orders to the industry for the following reasons:

- The industry has started operations without obtaining CFO & HWA of the Board.
- During the inspection, a fixed pipe line from process area to outside the industry premises was observed, which may be used for discharging the effluents.
- Brown coloured water was observed at the outlet of the industry in the storm water drain. A sample of the drain water was collected for analysis and the analysis reports is as follows :

Parameters	Unit	Results
pH at 25°C	-	8.4
Total Suspended Solids	mg/L	157
Total Dissolved Solids	mg/L	**2,114**
Chemical Oxygen Demand	mg/L	123

The analysis report of the sludge drain water indicated COD (123 mg/l) and TDS (2114 mg/l) i..e., the industry is discharging untreated waste water outside their premises.

- Brown colored sludge was observed in the drains within the industry due to the washing of trays, which are kept in the large shed adjacent to the wall.

- A sample of sludge was collected from the drain leading to outside their industry premises. The analysis of sludge shows that it is having highly volatile matter upto 91% and pH of 4.3 indicative of highly acidic organic sludge. As per analysis it is not hazardous in nature but it will cause severe pollution when discharged to outside surface water.

- The downstream area of the industry was inspected and storm water drain from the industry is joining into a small nala which is flowing towards downstream of Thanda, thereby causing water pollution in the area.

6. After careful consideration of material facts of the case, the Board is of the firm opinion that you are not complying with the Board directions and causing severe air and water pollution in the surrounding area. Under the Powers vested with the T.S. Pollution Control Board under Section 33 (A) of the Water (Prevention and Control of Pollution) Amendment Act, 1988 and under Section 31 (A) of the Air (Prevention and Control of Pollution) Amendment Act, 1987 for the reasons stated above, the **Board hereby issues closure orders to your industry** in the interest of protecting public health and environment.

7. You are directed to take note that if you continue to operate your industry even after receipt of this orders, you will be liable for prosecution in the court of Metropolitan Magistrate **or** Judicial Magistrate of the first class under section 41(2) of Water (Prevention and Control of Pollution) Amendment Act, 1988 and under section 37 (1) of Air (Prevention and Control of Pollution) Amendment Act, 1987, the punishment for which includes imprisonment for a term which shall not be less than one year six months which may be extended to six years and with fine.

8. You are further directed to take note that the TSSPDCL, has been ordered to disconnect the Power Supply to your industry with immediate effect. Should you resort to run your industry by means of diesel generator **or** any mechanical device, you will be attracting prosecution under section 41(2) of Water (Prevention and Control of Pollution) Amendment Act, 1988 and under section 37 (1) of Air (Prevention and Control of Pollution) Amendment Act, 1987.

Sd/-
MEMBER SECRETARY

To
M/s. Shri Kartikeya Pharma (SEZ Unit),
Sy.No.408-412, 418-435, 437-445, Polepally (V),
Jadcherla (M), Mahaboobnagar District

Copy to :

1. The Chairman & Managing Director, TSSPDCL, H. No. 6-1-50, Mint Compound, Greater Hyderabad for information and necessary action.
2. The District Collector, Mahaboobnagar District for favour of information.
3. The Superintending Engineer (Operations), TSSPDCL., Mettugadda, Mahaboobnagar for information and necessary action.
4. The JCEE, ZO, Hyderabad for information and necessary action.
5. The Environmental Engineer, Regional Office, Hyderabad for information and necessary action.
6. Concerned file.

//T.C.F.B.O//

Senior Environmental Engineer
(Unit -I)

SHRI KARTIKEYA PHARMA HYD. SEZ Unit-II

23/07/2017
9640057722

TELANGANA STATE POLLUTION CONTROL BOARD

Paryavarana Bhavan, A-III, Industrial Estate, Sanathnagar, Hyderabad-500 018
Phones : 040-23887500 Fax: 040 – 23887519

(79)

BY REGD. POST WITH ACK. DUE

Annexure – VII

Order No. MHB-Polepally/TSPCB/U-I/TF/2017 -1529 **Date:22.08.2017**

Sub: M/s. Shri Kartikeya Pharma (SEZ Unit), Sy.No.408-412, 418-435, 437-445, Polepally (V), Jadcherla (M), Mahaboobnagar District - Water (Prevention and Control of Pollution) Amendment Act, 1988 - Air (Prevention and Control of Pollution) Amendment Act, 1987 – **Temporary Revocation of Closure Orders - Issued – Reg.**

Ref :
1. Order No. MHB- /TSPCB/U-I/TF/2017-1211 dated 22.07.2017.
2. Your industry letter dated 28.07.2017.
3. Inspection of your industry by the Board officials on 31.07.2017.
4. Hearing held on 18.08.2017 at Board office, Hyderabad.

***

1. WHEREAS, you are operating the industry located at Sy. No.S-20, S-21, S-22,S-23, & S-24-A at GIP, Jadcherla, Polepally (V), Balanagar (M), Mahaboobnagar District.

2. WHEREAS, the Board issued CFE vide order dt: 19.04.2017 for production of Ashwagandha Extract – 1000 kg/day.

3. WHEREAS, the Board vide reference 1st cited issued closure orders to your industry for operating the units without CFO of the Board.

4. WHEREAS, vide reference 2nd cited, you have requested the Board for revocation of closure orders.

5. WHEREAS, the Board officials inspected your industry on 31.07.2017 and observed the compliance on the closure order conditions as follows:

Sl.No.	Conditions	Compliance
1.	The Industry has started operations without obtaining CFO & HWA of the Board	Order dated 17.08.2017 valid upto 31.03.2022.
2.	During inspection, a fixed pipe line from process area to outside the industry premises was observed, which may be used for discharging effluents.	The industry has removed pipeline which is connected to out side industry. Now the industry has connected pipe line to the ETP.
3.	Brown coloured water was observed at the outlet of the industry in the storm water drain. A sample of the drain water was collected for analysis and the analysis reports indicated COD (123 mg/l) and TDS (2114 mg/l) i.e., the industry is discharging untreated waste water outside the their premises.	The industry has cleared the sludge drain water in the storm water drain
4.	Brown colored sludge was observed in the drains within the industry due to the washing of trays, which are kept in the large shed adjacent to the wall.	The industry has constructed below ground level collection tank for collection of sludge. The industry has provided pipe line connection to ETP for pumping sludge.
5.	A sample of sludge was collected from the drain leading to outside their industry premises. The analysis of sludge shows that it is having highly volatile matter upto 901% of p^H of 4.3 indicative of highly acidic organic sludge. As per analysis it is not hazardous in nature but it will cause severe pollution when discharged to outside surface water.	--
6.	The downstream area of the industry was inspected and storm water drain from the industry is	During inspection, no effluents were observed in drain.

(80)

	joining into a small nala which is flowing towards downstream of Thanda, thereby causing water pollution in the area.	

6. WHEREAS, vide reference 4th cited, the Board has reviewed the status of industry in the Task Force Committee meeting held on 18.08.2017. Your industry representatives attended the meeting and requested for revocation of closure orders stating the following:

   i. Using only fresh water for cleaning Ashwagandha roots and there is no possibility of pH – 4.3 in the sludge sample collected from the drain during the inspection on 16.07.2017.
   ii. Taken all the measures to comply with the Board directions.

   The committee after detailed discussions, recommended to issue temporary revocation of closure orders for a period upto 28.02.2018 with certain conditions.

7. After careful consideration of material facts of the case, the Board hereby issue temporary revocation of closure orders for a period upto 28.02.2018 with the following conditions:

   i. The industry shall comply with all conditions stipulated in the CFO order of the Board.
   ii. The industry shall not discharge any effluent within / outside the plant premises.
   iii. The industry shall reuse the treated waste water / send to M/s PETL as per the CFO order.
   iv. The industry shall submit a BG of Rs.1.0 lakh with a validity period of one year within a week towards the compliance of Board directions and the BG shall be renewed before its expiry till further orders from the Board.

8. The T.S.S.P.D.C.L has been directed to restore the power supply to your industry temporarily for a period upto 28.02.2018.

9. These orders are issued under Section 33(A) of the Water (Prevention and Control of Pollution) Amendment Act, 1988 and under Section 31(A) of the Air (Prevention and Control of Pollution) Amendment Act, 1987.

10. You are hereby directed to note that, should you misuse these orders to operate the unit violating any of the conditions mentioned above, your unit will be closed under section 33(A) of Water (Prevention and Control of Pollution) Amendment Act, 1988 and section 31(A) of the Air (Prevention and Control of Pollution) Amendment Act, 1987. You will also be liable for prosecution in the court of Metropolitan Magistrate or Judicial Magistrate of the first class under section 41(2) of the Water (Prevention and Control of Pollution) Amendment Act, 1988 and under section 37(1) of the Air (Prevention and Control of Pollution) Amendment Act, 1987, the punishment for which includes imprisonment for a term which shall not be less than one year six months and which may be extended to six years with fine.

Sd/-
MEMBER SECRETARY

To
M/s. Shri Kartikeya Pharma (SEZ Unit),
Sy.No.408-412, 418-435, 437-445, Polepally (V),
Jadcherla (M), Mahaboobnagar District

//T.C.F.B.O//

Senior Environmental Engineer
(Unit - I)

(81)

BEFORE THE NATIONAL GREEN TRIBUNAL
PRINCIPAL BENCH, NEW DELHI

Original Application No. 165 of 2018

Annexure – VIII

IN THE MATTER OF :

Kosgi Venkataiah Vs. UOI & Ors.

CORAM:
HON'BLE MR. JUSTICE RAGHUVENDRA S. RATHORE, JUDICIAL MEMBER
HON'BLE DR. SATYAWAN SINGH GARBYAL, EXPERT MEMBER

Present:	**Applicant**	**Mr. Pankaj Kumar Tiwari, Adv. & Mr. Sravan Kumar, Adv.**
	Respondent no.1	**Mr. Kumar Abhishek, Adv**
	Respondent no. 2	**Mrs. Sharmila Upadhyay, Adv, Mr. Krishna Kanodia, Advs, Ms. Niti Chaudhary, L.A**
	Respondent no.9	**Mr. S.Udatai Kr. Sagar, Mr. Mrityunjai Singh, Advs**
	Respondent no. 10,11,12,13,14&16	**M.r. Ransawa Roy Gawai, Ms. Poonam Anand, Advs**
	Respondent no. 15	**Mr. Koshy John, Adv**
	Respondent no.17	**Mr. Hemandra Sharma, Adv**
	Respondent no. 19	**Mr. Nikhil Nayyar and Ms. Smriti Shah, Advs.**
	CGWA	**Mr. Ardhendumauli Kr. Prasad, Mr. Shashank Saxena, Advs**

	Date and Remarks	Orders of the Tribunal
	Item No. 29 **July 16, 2018**	Heard the Learned Counsels appearing for the parties. Learned Counsel appearing for Telangana Pollution Control Board submits that he is not able to state as to whether proceedings arising out of notice dated 16-12-2016 has been concluded or not. In the circumstances of the case, we deem it proper to direct Telangana Pollution Control Board to conclude the proceedings arising out of their own notice issued on 16-12-2016, if not decided so far. Proceedings should be concluded within a period of two weeks. In case said proceedings have been concluded, the applicant would be at liberty to seek redress in accordance to law, if he has any grievances to the order passed by the Pollution Control Board. Consequently, Original Application NO. 165 of 2018

(82)

	Item No. 29 **July 16, 2018**	stands disposed of with the aforesaid liberty. .....,JM (Raghuvendra S. Rathore) .....,EM (Dr. Satyawan Singh Garbyal) (16.07.2018)

jg

(83) Annexure – IX

Item No. 51 Court No. 1

BEFORE THE NATIONAL GREEN TRIBUNAL
PRINCIPAL BENCH, NEW DELHI

Original Application No. 189/2019

Sarvan Kumar, Advocate Applicant(s)

Versus

State of Telangana Respondent(s)

Date of hearing: 15.04.2019

CORAM:
HON'BLE MR. JUSTICE ADARSH KUMAR GOEL, CHAIRPERSON
HON'BLE MR. JUSTICE RAGHUVENDRA S. RATHORE, JUDICIAL MEMBER
HON'BLE DR. SATYAWAN SINGH GARBYAL, EXPERT MEMBER

Application is registered based on a compliant received by post

ORDER

Allegation in this letter, which has been treated as an application, is that pollution is being caused by Pharma companies at TSIIC SEZ in Jadcharla of Mahaboob Nagar in Telangana.

The applicant has relied upon order dated 16.07.2018 passed by this Tribunal in *O.A. No. 165/2018, Kosgi Venkataiah Vs. UOI & Ors.* directing the Telangana Pollution Control Board (TPCB) to conclude the proceedings pending before it.

Let TPCB look into the matter, take appropriate action in accordance with law and furnish a factual and action taken report in the matter within two months by e-mail at ngt.filing@gmail.com.

A copy of this order, along with complaint, be sent to the TPCB by e-mail for compliance.

(84)

Needless to say that order of National Green Tribunal is binding as a decree of Court and non-compliance is actionable by way of punitive action including prosecution, in terms of the National Green Tribunal Act, 2010.

List for further consideration on 01.08.2019.

Adarsh Kumar Goel, CP

Raghuvendra S. Rathore, JM

Dr. Satyawan Singh Garbyal, EM

April 15, 2019
Original Application No. 189/2019
DV

(85)

BEFORE THE NATIONAL GREEN TRIBUNAL

PRINCIPAL BENCH, NEW DELHI

ORIGINAL APPLICATION No. 189 OF 2019

Annexure – X

IN THE MATTER OF:

Sravan Kumar, Advocate .... Applicant(s)

Versus

State of Telangana .... Respondent(s)

RUNNING INDEX

Place: Hyderabad

Date: 20-01-2020.

BEFORE THE NATIONAL GREEN TRIBUNAL, PRINCIPAL BENCH, NEW DELHI

Original Application No. 189 of 2019

INSPECTION REPORT FILED ON BEHALF OF JOINT COMMITTEE AS PER ORDER DATED SEPTEMBER 20, 2019.

1. PREAMBLE:

In the matter of Original Application No.189 of 2019, the Hon`ble National Green Tribunal (NGT), Principal Bench, New Delhi directed the Central Pollution Control Board (CPCB) and Telangana State Pollution Control Board (TSPCB) to file a joint report after three months in view of the fact that the industrial area in question i.e., TSIIC SEZ, located at Polepally Village in Jadcherla Mandal of Mahabubnagar District in Telangana is a polluted area and the industries in question are red category industries, strict vigilance is required to be maintained for upholding the environmental norms vide order dated 20.09.2019. TSPCB will be the nodal agency for compliance. The Hon`ble NGT also felt that the TSPCB may enforce the principle of `Polluter Pays` in respect of units which have been found to be violating the environmental norms or which may be here after be found to be doing so and compliance in this regard may also be included in the next report.

2. MEMBERS OF JOINT COMMITTEE:

Subsequently members were nominated to the Joint Committee by CPCB and TSPCB as per the Hon`ble NGT`s directions and the details of thememberS nominated are furnished below:

1. Mr.S.Jeyapaul, Senior Scientist, CPCB, Regional Directorate (South), Bengaluru and
2. Mr.G.Hanumantha Reddy, Joint Chief Environmental Engineer (FAC), TSPCB, Zonal Office, Hyderabad.

3. PRELIMINARY MEETING:

The Joint Committee held its **preliminary meeting** at TSPCB, ZonalOffice, Hyderabad on **29.10.2019** at **11.00 A.M.** The Joint Committee discussed in length about the Hon`ble National Green Tribunal, Principal Bench, New Delhi order dated 20.09.2019 and various actions taken by TSPCB earlier on this matter.

4. JOINT COMMITTEE INSPECTION – FIRST PHASE:

In the first phase, the Joint Committee along with Regional Office officials of Hyderabad of Telangana State Pollution Control Board (TSPCB) visited the TSIIC SEZ Polepally area **on 30th& 31st October 2019**. The Joint Committee first met the petitioner in this case Shri Kosgi Venkataiah, Mudireddipally Village, Jadcherla Mandal, Mahabubnagar District and enquired about the pollution issues faced by the people there. The petitioner explained the issues faced by them and requested the Committee to take action against the polluting industries and requested for compensation for loss of fertile lands, ground water, agriculture yield etc. to the affected persons of surrounding villages. The petitioner also joined with the Joint Committee during monitoring of Ground Water and Surface Water in that area on 30.10.2019. The Joint Committee inspected few

(87)

industries at SEZ Polepally on 31.10.2019 and collected liquid effluent and ground water samples. The samples collected as above were handed over to the Central Laboratory of TSPCB, Hyderabad for further analysis. The details of industries inspected and monitored on 31.10.2019 are given below:

1. M/s Hetero Labs Ltd., Unit – I, Sy. Nos. 440-441, TSIIC, SEZ, Polepally (V), Jadcherla (M).
2. M/s Hetero Labs Ltd., Unit – I, Sy. Nos. 410-411, TSIIC, SEZ, Polepally (V), Jadcherla (M).
3. M/s Hetero Biopharma Ltd., Unit – I, Sy. Nos. 440-441, TSIIC, SEZ, Polepally (V), Jadcherla (M).
4. M/s Shilpa Medicare Ltd., (Formerly Raichem Life Sciences Pvt. Ltd.), Plot No. S-20 to 23 & 24-A, Polepally (V), Jadcherla (M).

5. JOINT COMMITTEE INSPECTION – SECOND PHASE:

The Joint Committee along with Regional Office officials of TSPCB, Hyderabad inspected TSIIC SEZ Polepally, Jadcherla (M) and RangareddygudaVillage in Balanagar (M) of Mahabubnagar District in the **Second Phase during December 10-12, 2019**. In this phase, the Joint Committee carried out the inspection of industries in SEZ Polepally and in Rangareddyguda Village which were left out during first phase of inspection and collected waste water and ground water samples. The Joint Committee also collected the soil samples in the agricultural fields outside these areas where allegedly reported soils are affected due to pollution and also ground and surface water samples in few areas. All these samples were handed over to the Central Laboratory of TSPCB, Hyderabad for further analysis. The industries inspected during this phase are listed below:

1. M/s. Suvarna Apparel & Fashion Exports Limited., Sy.Nos.103 to 109 & 148 to 152, Rangareddyguda (V), Balanagar (M), Mahabubnagar District.
2. M/s. Mylan Laboratory, (Formerly M/s.Glochem Industries Ltd.,) Sy.no.408, 410, Plot No.S-16 & S-17/A, TSIIC-SEZ, Polepally (V), Jadcharla (M), Mahabubnagar District.
3. M/s. Amneal Oncology Pvt. Ltd. (Formerly M/s. Epsilon Pharmaceuticals Private Limited), Plot No.A-3, S-4 & A-5A, Sy.No.411, 425 etc. Polepally (V), Jadcherla (M),Mahabubnagar District.
4. M/s. APL Health Care Ltd., Sy.No.410/P,411/P & 458/P, Plot No.S-1/B, TSIIC, SEZ, Polepally (V), Jadcherla (M), Mahabubnagar District.
5. M/s. Evertrogen Life Sciences (Formerly M/s. Optimus Generics Ltd.), Plot No.S-8, S-13/P & S-14/P, TSIIC, SEZ, Green Industrial Park, Polepally (V), Jadcherla (M), Mahabubnagar District
6. M/s. Shri Kartikeya Pharma (SEZ Unit), Sy.No.408-412, 418-435, 437-445, Polepally (V), Jadcherla (M), Mahaboobnagar District
7. M/s. AurobindoPharma Ltd. Unit – VII, Sy.No.408 to 412, 418 to 435 etc. TSIIC SEZ, Polepally (V), Jadcherla (M), Mahabubnagar District.
8. M/s. AurobindoPharma Ltd. Unit – XVI, Sy.No.408 to 412, 418 to 435 etc. SEZ-IP, Polepally (V), Jadcherla (M), Mahabubnagar District.

6. **DETAILS OF INDUSTRYWISE INSPECTION:**The industry wise inspection details are presented below:

A. **M/s Hetero Labs Ltd., Unit – I, Sy. Nos. 440-441, TSIIC, SEZ, Polepally (V), Jadcherla (M), Mahabubnagar District:**

- The industry has obtained CFO of the Board vide order dated 14.05.2013 for Tablets - 8100 Millions/annum, Capsules - 7800 Millions/annum, Liquid Vials - 30 Millions/annum, Inhalers - 3 Millions/annum, Ointments - 30 Millions/annum and Exhibit batch line - 120 Millions/annum with validity period upto 30.09.2016.
- Subsequently, the industry has obtained Auto-renewal of CFO vide order dated 18.08.2016 which is valid upto 30.09.2021.
- The industry has manufactured Tablets, Capsules and Exhibit batch line within the consented capacity for the period from **Dec, 2018 to Nov, 2019** i.e., Tablets – 3716.95 million Nos./annum against 8100 million Nos./annum, Capsules – 7.59 million Nos./annum against 7800 million Nos./annum and Exhibit batch line – 0.32 million Nos./annum against 120 million Nos./annum.
- The industry consumes water of about 313 KLD, for Process & Washings – 94 KLD, Cooling tower make up / boiler make up / utilities – 170 KLD and Domestic – 49 KLD.The industry has consumed an average of **258.513 KLD** against the permitted capacity **313 KLD** during the period from **Dec. 18 to Nov. 2019**.
- The industry generates about 139 KLD of wastewater from Process & Washings – 91 KLD, Cooling – 12.5 KLD and Domestic – 35.5 KLD.The industry has generated wastewater an average of 133.40 KLD against the permitted capacity 139 KLD during the period from Dec.2018 to Nov. 2019.
- The industry consented to treat Process & Washing effluents as "After treatment in common ETP (for Unit I & Unit II), shall be recycled / re-used in the plant and maintain Zero Discharge". For domestic wastewater it is consented as "To send to common STP. After treatment in STP, the treated domestic effluents shall be used for utilities and on-land application within the industry premises only."
- The Board has issued directions vide order dated 08.08.2017 ordering that "the industry shall dispose domestic wastewater and Low TDS effluents to CETP".
- The Zonal Office, Hyderabad has issued amendment to CFO vide order dated 06.02.2018 for disposal of wastewater as given below:
  a) The industry shall comply with all the CFO conditions and dispose the domestic wastewater & LTDS effluents to CETPs.
  b) The industry shall not use any treated wastewater within / outside the premises.
- The industry has D.G. Sets of capacity 2 x 500 KVA and 1 x 1450 KVA.
- The industry generates solid / hazardous waste ETP sludge - 0.1 TPM (To M/s HWM Project (TSDF), Dundigal (V), Rangareddy District), Rejected tablets, Capsules etc - 10.0 TPM (To M/s HWM Project (TSDF), Dundigal (V), Rangareddy District), Bio-medical Waste - 0.5 TPM (To Common Bio-Medical Waste treatment / disposal facility), Spent mixed solvents - 1500 LPM (Shall be sent to authorized recyclers / solvent recovery units or authorized cement plants for incineration), HDPE Drums / Carboys - 200 Drums/month (After complete detoxification, shall be sold to Authorized

agencies / parties), Glass ware - 1000 Kgs/month (After detoxification sold to Authorized recyclers), Waste Oil - 500 LPM (To authorized waste oil re-processors / recycling units), Used lead acid batteries - 10 Nos./Annum (Return to the manufacturer / dealer on buy back basis) and Packing material - 5 TPM (Sold to authorized recyclers). The industry is a member unit of TSDF.

- The industry has submitted the Hazardous / Solid wastes and Bio-Medical Waste disposal details to the Joint Committee for the period from Dec, 2018 to Nov, 2019.
- The Board has issued certain directions vide order dated 27.07.2019. The compliance on directions are as follows:

Sl. No.	Condition	Compliance
1.	The industry shall comply with all the CFO condition issued by the Board.	--
2.	The industry shall not discharge any effluent / wastewater within **or** outside the premises.	During inspection no discharge was observed.
3.	The industry shall send all the pre-treated effluents / waste water to CETP-PETL.	The industry has provided common ETP &STP to treat the domestic and industrial wastewater generated from all three units. The treated water from ETP and STP is further treated in 3 Stage RO, the RO permeate is reused back and only RO rejects are lifted to M/s. PETL, CETP for further treatment and disposal. Whereas, as per the Board's amendment order dated 08.01.2018, the industry shall lift the entire effluents from Unit – I, Unit – II & Unit – III to CETP i.e., to M/s. PETL.
4.	The industry shall not cause any air pollution / odour nuisance to the surrounding areas.	--

B. <u>M/s. Hetero Labs Ltd. Unit – II, TSIIC, SEZ, Sy.No.410 & 411, Polepally (V), Jodcherla (M), Mahabubnagar District:</u>

- M/s. Hetero Labs Ltd. Unit – II is engaged in Pharmaceutical Formulations.
- The industry has obtained CFO of the Board vide order dated 14.05.2013 for Tablets – 160 Millions/annum, Capsules - 150 Millions/annum, Liquid Vials - 25 Millions/annum and Lyophilised Vials - 6 millions/annum with validity period upto 30.09.2016.
- Subsequently, the industry has obtained Auto-renewal of CFO vide order dated 18.08.2016 which is valid upto 30.09.2021.
- As per the production details, the industry has manufactured Tablets – 56.78 million Nos./annum against 160 million Nos./annum, Liquid Vials - 23.84 million Nos./annum against 25 million Nos./annum and Capsules – 0.06 million Nos./annum against 150 million Nos./annum during the period from Nov. 2018 to Nov. 2019

- The industry consumes water of about 240 KLD, for Process & Washings – 62 KLD, Coolingtowermake up / boiler make up / utilities – 138 KLD and Domestic – 40 KLD.The industry has consumed an average of 25.132 KLD against the permitted capacity 240 KLD during the period from Dec. 18 to Nov. 2019.
- The industry generates about 107 KLD of wastewater from Process & Washings – 60.5 KLD, Cooling tower / Boiler blow down – 12.0 KLD and Domestic – 34.5 KLD. The industry has generated wastewater an average of 18.72 KLD against the permitted capacity 107 KLD during the period from Dec. 18 to Nov. 2019.
- The industry consented to treat Process & Washing effluents as "After treatment in common ETP (for Unit I & Unit II), shall be recycled / re-used in the plant and maintain Zero Discharge". For domestic wastewater it is consented to "Send to common STP. After treatment in STP, the treated domestic effluents shall be used for utilities and on-land application within the industry premises only."
- The Zonal Office has issued amendment to CFO vide order dated 06.02.2018 for disposal of wastewater as given below:
  a) The industry shall comply with all the CFO conditions and dispose the domestic wastewater & LTDS effluents to CETPs.
  b) The industry shall not use any treated wastewater within / outside the premises.
- The industries have provided tank in tank structure of capacity 25 KL for primary collection from there lifted to above ground level common ETP for further treatment.
- The industry has provided common ETP & STP for all the three units at Unit-III.
- The industry sending process, washings, cooling bleed off to common ETP and domestic effluents to common STP for treatment.
- The treated water from ETP and STP is further treated in 3 Stage RO, the RO permeate is reused back and only RO rejects are lifted to M/s. PETL, CETP for further treatment and disposal. Whereas, as per the Board's amendment order dated 08.01.2018, the industry shall lift the entire effluents from Unit – I, Unit – II & Unit – III to M/s PETLCETP.
- The Board has issued CFO for 5 TPH oil fired boiler. But industry has installed briquette fired boiler – 5 TPH. As per the Board directions, industry has obtained CFO Amendment for change fuel from Oil fired to Briquette fired vide order dated 21.11.2019. The industry has provided bag filters to briquette fired boiler of capacity 5 TPH to control boiler emissions.
- The industry has submitted the Hazardous / Solid wastedisposal details to the Joint Committee for the period from Dec, 2018 to Nov, 2019. The industry is member unit of TSDF and disposing its Hazardous waste there.
- The industry generates solid / hazardous waste ETP sludge - 0.2 TPM (To M/s HWM Project (TSDF), Dundigal (V), Rangareddy District), Rejected tablets, Capsules etc - 8.0 TPM (To M/s HWM Project (TSDF), Dundigal (V), Rangareddy District), Bio-medical Waste - 0.5 TPM (To Common Bio-Medical Waste treatment / disposal facility), Spent mixed solvents - 1500 LPM (Shall be sent to authorized recyclers / solvent recovery units or authorized cement plants for incineration), HDPE Drums / Carboys - 700 Drums/month (After complete detoxification, shall be sold to Authorized agencies /

(91)

recyclers), Waste Oil - 650 LPA (To authorized waste oil re-processors / recycling units), Used lead acid batteries - 10 Nos./Annum (Return to the manufacturer / dealer on buy back basis) and Packing material - 7 TPM (Sold to authorized recyclers).The industry has submitted the Hazardous / Solid wastes and Bio-Medical Waste disposal details to the Joint Committee for the period from Dec. 2018 to Nov. 2019.

- The Board has issued certain directions vide order dated 27.07.2019. The compliance on directions are as follows:

Sl. No,	Condition	Compliance
1.	The industry shall comply with all the CFO condition issued by the Board.	--
2.	The industry shall not discharge any effluent / wastewater within **or** outside the premises.	During inspection no discharge was observed.
3.	The industry shall send all the pre-treated effluents / waste water to CETP-PETL.	The industry has provided common ETP &STP to treat the domestic and industrial wastewater generated from all three units. The treated water from ETP and STP is further treated in 3 Stage RO, the RO permeate is reused back and only RO rejects are lifted to M/s. PETL, CETP for further treatment and disposal. Whereas, as per the Board's amendment order dated 08.01.2018, the industry shall lift the entire effluents from Unit – I, Unit – II & Unit – III to CETP i.e., to M/s. PETL.
4.	The industry shall not cause any air pollution / odour nuisance to the surrounding areas.	--

C. **<u>M/s. Hetero Biopharma Limited (Formerly Hetero Drugs Ltd., Unit – III) is located at TSIIC SEZ Polepally (V), Jedcherla (M), Mahabubnagar District:</u>**

- M/s. Hetero Biopharma Limited (Formerly Hetero Drugs Ltd. Unit – III) involved in Pharmaceutical Formulations.
- The industry has obtained CFO of the Board vide order dated 07.12.2015 for Darbepoetinalfa - 50000 Nos./month, Rituximab - 40000 Nos./month, Bevacizumab - 30000 Nos./month and Adalimumab - 30000 Nos./month with validity upto 30.09.2020.
- The industry has obtained CFO Expansion vide order dated 26.08.2019 for the following products
- The industry consumes water of about 184.5 KLD, for Process & Washings – 98.0 KLD, Boiler Feed &Cooling tower – 62.5 KLD and Domestic – 24.0 KLD.
- The industry generates about 132.28 KLD of wastewater from Process & Washings – 96.98 KLD, Boiler blow down &Cooling Bleed off – 14.3 KLD and Domestic – 21.0 KLD.

- The industry consented to treat Process & Washing effluents as that "After treatment in common ETP (for Unit I & Unit II), shall be recycled / re-used in the plant and maintain Zero Discharge". To treat domestic wastewater it is consented to "Send to common STP. After treatment in STP, the treated domestic effluents shall be used for utilities and on-land application within the industry premises only."
- The Board has issued directions vide order dated 08.08.2017 ordering that "*The industry shall dispose domestic wastewater and Low TDS effluents to CETP*".
- The Zonal Office has issued amendment to CFO vide order dated 06.02.2018 for disposal of wastewater as given below:
  a) The industry shall comply with all the CFO conditions and dispose the domestic wastewater & LTDS effluents to CETPs.
  b) The industry shall not use any treated wastewater within / outside the premises.
- The industry has permission for oil fired boiler of capacity 1 x 5 TPH, but, the industry has installed briquette fired boiler of 1 x 5 TPH. As per the Board directions, the industry has obtained CFO amendment vide order dated 21.11.2019 for change of fuel from oil to Briquette for this boiler. The industry has also installed an additional oil fired boiler of capacity 1 x 5 TPH without permission of the Board. Later, the industry has applied for CFE through TS-iPASS.TheTSPCB, Zonal Office, Hyderabad has rejected the CFE Expansion application vide letter dated 30.10.2019.
- The industry generates solid / hazardous waste ETP sludge – 900 kg/month, Reject/sweeping materials – 1000 kg/month (Shall be sent to M/s HWM Project (TSDF), Dundigal (V), Rangareddy District / authorized cement industries), Bio-medical waste - 3500 kgs/month (Shall be sent to authorised Bio-Medical Waste treatment & disposal facility), Glass ware - 950 kgs/month (After complete detoxification, shall be sent to authorized recyclers.) and Packing materials - 950 kgs/month (Shall be sold to authorized recyclers.), Spent mixed solvents – 500 LPM (Shall be disposed to authorized solvent recovery unit / cement industries), Used Oil - 50 LPM (Shall be disposed to authorized Recyclers / Re-processors), Lead Acid Batteries - 20 Nos./annum (Shall be return back to the manufacturers) and E-waste - 0.5 TPA (Shall be sent to authorized agencies).
- The Board has issued certain directions vide order dated 27.07.2019. The compliance on directions are as follows:

Sl. No.	Condition	Compliance
1.	The industry shall comply with all the CFO condition issued by the Board.	--
2.	The industry shall not discharge any effluent / wastewater within or outside the premises.	During inspection no discharge was observed.
3.	The industry shall send all the pre-treated effluents / waste water to CETP-PETL.	The industry has provided common ETP &STP to treat the domestic and industrial wastewater generated from all three units. The treated water from ETP and STP is further treated in 3 Stage RO, the RO permeate is reused back and only RO rejects are lifted to M/s PETL CETP for further

(93)

		treatment and disposal. Whereas, as per the Board's amendment order dated 08.01.2018, the industry shall lift the entire effluents from Unit – I, Unit – II & Unit – III to CETP i.e., to M/s. PETL.
4.	The industry shall all ways comply with stack emission monitoring standards	The Stack Monitoring results show that the particulate Matter emission (273 mg/Nm^3) monitored at the stack connected to the Briquette fired boiler of capacity - 5 TPD not meeting the Standard Prescribed (115mg/Nm^3) in the consent
5.	The industry shall obtain amendment to CFO order for operating briquette fired boiler of capacity 5 TPH	The industry has permission for oil fired boiler of capacity 1 x 5 TPH, but, the industry has installed briquette fired boiler of 1 x 5 TPH. As per the Board directions, the industry has obtained CFO amendment vide order dated 21.11.2019 for change of fuel from oil to Briquette for this boiler. The industry has also installed an additional oil fired boiler of capacity 1 x 5 TPH without permission of the Board. Later, the industry has applied for CFE through TS-iPASS. The TSPCB, Zonal Office, Hyderabad has rejected the CFE Expansion application vide letter dated 30.10.2019.

OBSERVATIONS OF THE COMMITTEE:

- The Committee inspected the industry on 30.10.2019 and found in operation.
- M/s. Hetero Labs Ltd., Unit – I, Unit – II and M/s. Hetero BioPharma Ltd. are located adjacent to each other with a commoncompound wall.
- The industry has provided Common ETP of capacity of 400 KLD to treat the Process, Washings, Cooling bleed off, Boiler blow down generated from the all the three units viz., Unit – I, Unit-II & Unit-III.
- The industry has provided common STP of capacity 220 KLD to treat the domestic wastewater generated from all three units. The treated water from ETP and STP is further treating in 3 Stage RO, the RO permeate is reused back and only RO rejects are lifted to M/s. PETL, CETP for further treatment and disposal. Whereas, as per the Board's amendment order dated 08.01.2018, the industry shall lift the entire effluents from Unit – I, Unit – II & Unit – III to CETP i.e., to M/s. PETL.
- During the inspection, the ETP and STP were in operation.
- Digital Flow meters provided at intake point for water consumption, at Inlet of STP, at ETP collection tank, at RO feed tank, RO rejects tank and at RO permeate tank,

- The industries have provided tank in tank structure of capacity 25 KL (Unit – II), 25 KL (Hetero Bio-pharma)and above ground tank of capacity 10 KL (for Unit – I)for primary collection from therelifted to above ground level common ETP for further treatment.
- The industries have lifted 37.47619 KLD of wastewater against the permitted quantity of 252.82 KLD. The representative of the industry informed that they are sending RO Rejects also to M/s. PETL and RO permeate is used for utilities.
- The industries have installed separate energy meters to ETP and STP and maintaining records.
- The industries have above ground level tanks with a total effluent storage capacity 600 KL for process, washings, etc. and above ground level storage tanks of total capacity 200 KL for domestic wastewater before sending to M/s. PETL.
- As per the CFO, all the three units generate wastewater of about 378 KLD. Whereas the industry has total effluent storage capacity of 800 KL, which is sufficient for storage of effluents for 2 days.
- The industry has permission for oil fired boiler of capacity 1 x 5 TPH, but, the industry has installed briquette fired boiler of 1 x 5 TPH. As per the Board directions, the industry has obtained CFO amendment vide order dated 21.11.2019 for change of fuel from oil to Briquette for this boiler. The industry has also installed an additional oil fired boiler of capacity 1 x 5 TPH without permission of the Board.Later, the industry has applied for CFE through TS-iPASS. The TSPCB, Zonal Office, Hyderabad has rejected the CFE Expansion application vide letter dated 30.10.2019.
- The industry has provided bag filters as APCE to the Briquette fired boiler. The industry has not installed separate energy meters to the APCE and not maintaining energy consumption records.
- The industry has provided separate shed for storage of Hazardous waste.
- Seepages were noticed from Unit-I to adjacent industry namely M/s. Shilpa Medicare Limited.
- The storm water drains of the industry (Unit-I, II & III) are connected to rain water collection tank of 55000 KL capacity.
- The samples collected from ETP Inlet & Outlet, STP Inlet & Outlet and RO permeate and reject. The analysis results are tabulated in **Table 1**below:

Table 1: Analysis Results of Inlet of ETP, Outlet of ETP (RO Inlet), RO Permeate, RO Rejects, Inlet of STP and Outlet of STP

Parameters	Unit	Results					
		ETP Inlet	ETP outlet	RO permeate	RO Rejects	STP Inlet	STP Outlet
p^H at 25^0C	-	6.5	7.2	7.1	7.4	7.6	7.9
Total Suspended Solids	mg/L	162	145	10	218	50	28
Total Dissolved Solids (TDS)	mg/L	1,792	1,615	22	2,930	1,486	1,393
Chemical Oxygen Demand	mg/L	5,630	672	84	896	364	120
BOD_3 at 27^0C	mg/L	719	58	8	87	49	17
Oil and Grease	mg/L	1.6	0.4	BDL	BDL	BDL	BDL

95

10

- The analysis results of ground water samples collected from Units – I & III are presented in **Table 2** below:

Table 2: Analysis results of Ground Water Samples collected from Unit-I & Unit - III

Parameters	Unit	Results		Drinking water standards as per IS 10500: 2012
		Unit-I	Unit-III	
pH	-	7.81	7.60	6.5-8.5
Electrical conductivity	µS/cm	4330	2011	-
Total Suspended Solids	mg/L	12	< 5	-
Total Dissolved Solids	mg/L	2770	1304	500* (2000**)
Chlorides as Cl^-	mg/L	1082	368	250* (1000**)
Sulphates as SO_4^{-2}	mg/L	56	48	200* (400**)
Total Alkalinity as CaCO3	mg/L	336	364	200* (600**)
Total Hardness as CaCO3	mg/L	1640	800	200* (600**)
Calcium as Ca^{2+}	mg/L	512	168	75* (200**)
Magnesium as Mg^{2+}	mg/L	87	92	30* (100**)
Nitrates	mg/L	46	32	45
Fluoride	mg/L	0.9	0.63	1.0* (1.5**)
Phosphates	mg/L	0.5	0.15	-
Sodium as Na	mg/L	146	87	-
Potassium as K	mg/L	6	2	-
% Sodium	%	16	19	
SAR	-	1.6	1.3	-
Residual Sodium Carbonate (RSC)	me/L	BDL	BDL	
Boron	mg/L	BDL	BDL	-
Chemical Oxygen Demand (COD)	mg/L	64	--	-

Note: * Acceptable limit, ** Permissible limit in the absence of alternate source and **BDL:** Below Detectable limit.

- Ambient Air Quality Monitoring (AAQM) & Source Emission Monitoring was carried out on 07.01.2020 & 08.01.2020 and the monitoring results are presented in Table 3 & 4as given below:

Table 3: AAQM results of M/s. Hetero Labs Ltd., Unit-I

Sampling Location	Date of Monitoring	Concentration in Micro Gram per Cubic Meter		
		PM_{10}	SO_2	NO_X
At the periphery of the industry, near ware house (Upwind)	07.01.2020 & 08.01.2020	61	5.2	9.9

At the periphery of the industry, near unit 5 A block reception (Downwind)	07.01.2020 & 08.01.2020	60	BDL	BDL
	NAAQ Standards	100	80	80

Table 4: Stack Monitoringresults of M/s. Hetero Labs Ltd., Unit-II

S.No	Stack attached to	Parameter	Method No. / Instrument	Result	Standard Prescribed
1	Briquette fired boiler of capacity - 5 TPD	PM, mg/Nm^3	IS:11255 (Part-1)-1985	273	115

The Stack Monitoring results show that the particulate Matter emission (**273 mg/Nm^3**) monitored at the stack connected to the Briquette fired boiler of capacity - 5 TPD not meeting the Standard Prescribed (**115mg/Nm^3**) in the consent.

D. **M/s.Shilpa Medicare Limited (Formerly Raichem Life Science Pvt. Ltd.), Plot No.S-20, S-21, S-22, S-23 & S-24,-A at TSIIC-SEZ, Peddpally (V), Jadcherla (M) , Mahabubnagar District:**

- M/s. Shilpa Medicare Limited (FormerlyRaichem Life Science Pvt. Ltd.) is a pharmaceutical formulations unit.
- The industry hasvalidCFOupto31.05.2022 for Liquid Vials (5ml,10 ml & 50 ml) - 8 millions / annum, Lyophilized (10ml & 50 ml) – 20 million / annum, Tablets – 50 million/annum and capsules – 7 millions/annum.
- During the period from Dec, 2018 to Nov, 2019, the industry has manufactured Liquid 852971 Nos. Vials (5ml,10 ml & 50 ml) - 2.404586millionsagainst8 millions and Tablets – 12604561.6 against permitted quantity of 50 millions.
- The industry consumes water of about 340.5 KLD, out of which for Process & Washings – 55.625 KLD, Boiler feed – 37.0 KLD, Industrial Cooling (make up) / Humidification / Water Spraying and DM Softener Plant – 123.875 KLD, Chiller make up – 11.5 KLD and Domestic & Gardening – 112.5 KLD.The industry has consumed an average of 108.9916 KLD against the permitted capacity 340.5 KLD during the period from Dec. 18 to Nov. 2019.
- The industry generates wastewater of about 137.125 KLD,out of which Process & Washings – 28.625 KLD, Boiler blow down – 7.0 KLD, Cooling tower blow down – 34.0 KLD and Domestic – 67.5 KLD.The industry has lifted total 6580 KL of effluents to M/s. PETL CETP i.e. an average of 18.27 KLD against permitted capacity of 137.125 KLD.
- As per the Consent order dated 29.06.2017, the industry shall treat the effluents as follows: "**Exisitng:** Shall be proposed to treat in ETP the treated effluents shall be further treated in RO System. The treated effluents shall be recycled back into the process. Thus, the industry shall achieve the zero discharge for trade effluents (existing), "**Expansion:** After treatment the treated effluents shall be sent to M/s. PETL, Patencheru.". "**Domestic Effluents:** After treatment in STP, the treated domestic effluents shall be used for utilities and on-land application within the industry premises only".
- As per the Temporary Revocation of Closure Order dated 26.09.2019, "industry shall not use the RO & ETP and shall send all the pre-treated process effluents to CETP for further

(97)

(12)

process & washings effluents to CETP and not lifting cooling bleed off & boiler blow down effluents.

- As per the records submitted by the industry, the industry has disposed ETP sludge – 3566 kg, Process Waste – 3869 kg and Date expired drugs – 1680 kg to TSDF and Bio-Medical waste – 3073 kg to CBWMTF during the period from Dec, 2018 to Nov, 2019.
- The industry has CFO for oil fired boiler of capacity 1 x 2.5 TPH and D.G. Sets of capacity 2 x 1000 KVA & 1 x 1500 KVA.
- The industry has applied for CFE Expansion for enhancement of production capacity and also for Briquette fired boiler of capacity 3 TPH boiler on 18.07.2019 through TS-iPASSand report was forwarded to Zonal Office, Hyderabad. The Zonal Office has placed the issue before CFE Committee meeting held on 29.10.2019. The committee recommenced to issue CFE Expansion subject to submission of under on Rs.100/- stamp paper on following points:
  - The industry shall not operate the existing Briquette fired boiler of capacity 3 TPH without obtaining consent of the Board.
  - The industry shall dismantle all the below ground level tanks and also to provide tank in tank structure at process area before sending to M/s. PETL CETP.
  - The industry shall revalidate the Bank Guarantee of Rs.10 Lakhs for a period upto one year towards compliance of CFO conditions.
  - The industry shall comply with all the directions issued to the industry at time of temporary revocation of closure orders, vide order dated 26.09.2019.
- The approval of CFE Expansion for Briquette fired boiler is under process.
- The industry has CFO for oil fired boiler of capacity 1 x 2.5 TPH.
- The industry generates solid / hazardous waste viz., Packing materials – 6 Ton/month authorized to dispose to outside parties, ETP sludge – 1500 kg/month authorized to dispose to TSDF, Residue and wastes – 300 kg/month authorized to dispose to TSDF, Date expired, discarded and off-specification medicines – 4.0 Tons/month authorized to dispose to TSDF, waste oil / used oil – 400 LPM authorized to dispose authorized recyclers / re-processors, Detoxified containers and liners – 700 NPM authorized to dispose to outside parties after complete detoxification, Microbiology waste (category-3) generated from QC and R&D Lab and Waste sharps (Category-4) – 510 kg/month authorized to dispose to CBMWTF.
- The Board has issued Closure vide order dated 27.07.2019 for Non-compliance of Board directions & Consent conditions. Subsequently, the Board has issued restoration of power supply 900 KVA vide order dated 09.08.2019 to operate emergency services in the plant and maintain temperature of products stored in the ware house, stability chamber and cold room operations of air handling units to prevent degradation of the products.
- The Board has issued Temporary Revocation of Closure Order vide order dated 26.09.2019 with validity period upto 31.12.2019 stipulating certain conditions. Subsequently, industry has applied for permanent revocation of closure order on19.11.2019. The Regional office, Hyderabad forwarded the report to Board on 20.12.2019.

OBSERVATIONS OF THE COMMITTEE:

- The Committee inspected the industry on 30.10.2019 and found in operation.
- Earlier, the industry has 3 Nos. of below ground level collection tanks of capacity 10 KL each. All the three below ground level collection tanks were closed as per the Board's directions.
- Presently, the industry has constructed 3 Nos. of below ground level tank in tanks for initial collection of Process & Washing effluents near the production blocks with hypo dozing system for deactivation and pumped into 6 Nos. of above ground level FRP tanks of each having capacity of 10 KL. From there, further pumped into 2 Nos. of existing above ground level RCC tanks of capacity 70 KL each for final storage and from there lifted to M/s. PETL for further treatment and disposal.
- The industry has total effluent storage capacity of 200 KL. As per the CFO, the industry generates wastewater of about 137 KLD, which is sufficient for one day storage.
- The industry is collecting process & washing effluents in collection tanks, after deactivation lifting directly to M/s. PETL CETP for further treatment and disposal.
- The industry is treating cooling tower and boiler blow down effluents in ETP of capacity 100 KL comprising of Primary Collection tank, Bar screen, Oil trap, Collection tank, Primary settling tank, Flush Mixer, Clarifier, MGF & ACF followed by 2 stage RO system.
- The domestic effluents are being treated in STP of capacity 20 KL consisting of above ground level collection tanks (3 Nos.) and Primary settling tank. After primary settling, the domestic effluents are pumped to ETP for further treatment along with cooling bleed off and boiler blow down. After treatment, the treated water further send to 2 stage RO system. RO permeate is reused for Gardening / Cooling tower makeup and the RO rejects are lifted to M/s. PETL along with process effluents for further treatment and disposal. However, the industry is not having sufficient land to utilizethe treated water (RO permeate) within the premises.
- Mechanical flow meter installed at water intake point to measure water consumption. Digital flow meter installed at collection tank, RO feed, RO permeate and at RO rejects before sending to M/s. PETL.
- The industry has provided below ground level tank to collect storm water through underground pipeline near the security room and also collecting seepages coming from the neighbouring industry. The tank outlet is connected to outside TSIIC drains.
- The industry has installed online monitoring device to the inlet of storm water collection tank to monitor critical parameters (pH, COD, BOD, TSS) instead of storm water drain outlet.
- The industry has not connected the online monitoring device to the TSPCB server.
- The industry has FE system within the premises. The industry representative informed that they are not operating FE.
- The industry has Briquette fired boiler of capacity 3 TPH without Consent of the Board. The industry has installed Mechanical dust collector followed by bag filters as APCE to the Briquette fired boiler.The industry has applied for CFE Expansion for Briquette fired boiler of capacity 3 TPH boiler.The TSPCB, Zonal Office, Hyderabad has placed the

issue before CFE Committee meeting held on 29.10.2019. The committee recommenced to issue CFE Expansion subject to submission of undertaking on Rs.100/- stamp paper. The approval is under process.

- The Joint Committeeduring inspection collected Seepage water coming from M/s Hetero Labs Ltd., STP Inlet & Outlet, Collection Tank effluent before lifting to M/s PETL CETP and Bore Well water sample for analysis and the results are presented in **Table 5-9** as givenbelow:

Table 5: Analysis Results of Seepage water, STP Inlet & STP Outlet collected in the premises of M/s. Shilpa Medicare Limited

Parameters	Unit	Result		
		Seepage water	Inlet of STP	Outlet of STP
p^H at 25^0C	-	6.9	7.8	6.9
Total Suspended Solids	mg/L	25	101	<5
Total Dissolved Solids (TDS)	mg/L	606	1,151	218
Chemical Oxygen Demand	mg/L	44	192	32
BOD_3 at 27^0C	mg/L	7	15	7
Oil and Grease	mg/L	BDL	BDL	BDL

BDL: Below detectable limit. The above results show that the seepage water is a soft water and not contaminated. The results further show that STP is functioning well.

Table 6: Analysis Results of CETP Collection tank (collection tank for effluent before lifting to M/s. PETL)

Parameters	Unit	Result	CETP Inlet Standards
p^H	-	7.2	5.5-9.0
Total Suspended Solids	mg/L	139	-
Total Dissolved Solvents (Inorganic)	mg/L	1,194	5,000 mg/l
Chemical Oxygen Demand	mg/L	360	15,000 mg/l
Ammonical nitrogen as NH_3-N	mg/L	8	50 mg/l
Oil and Grease	mg/L	0.3	20 mg/l
Phenolic compounds	mg/L	BDL	5.0 mg/l
Boron	mg/L	ND	2.0 mg/l
Chromium Hexavalent (as Cr+6)	mg/L	ND	2.0 mg/l
Cyanide (as CN)	mg/L	ND	2.0 mg/l
Fluoride (as F)	mg/L	0.8	15 mg/l
Nickel (as Ni)	mg/L	<0.1	3.0 mg/l
Copper (as Cu)	mg/L	<0.1	3.0 mg/l
Zinc (as Zn)	mg/L	0.6	15 mg/l
Lead (as Pb)	mg/L	ND	1.0 mg/l
Arsenic (as As)	mg/L	ND	0.2 mg/l
Mercury (as Hg)	mg/L	ND	0.01 mg/l
Cadmium (as Cd)	mg/L	ND	1.0 mg/l
Total Chromium (as Cr)	mg/L	ND	2.0 mg/l

BDL: Below detectable limit & ND: Not detectable.

The analysis results of collection tank effluent to be sent to CETP show that it meets the CETP inlet standards.

Table 7: Analysis reports of Ground Water Samples collected from the Industry

Parameters	Unit	Results	Drinking water standards as per IS 10500: 2012
		Borewell water	
pH	-	7.63	6.5-8.5
Electrical conductivity	µS/cm	3020	-
Total Suspended Solids	mg/L	78	-
Total Dissolved Solids	mg/L	2063	500* (2000**)
Chlorides as Cl^-	mg/L	728	250* (1000**)
Sulphates as SO_4^{-2}	mg/L	26	200* (400**)
Total Alkalinity as CaCO3	mg/L	284	200* (600**)
Total Hardness as CaCO3	mg/L	1120	200* (600**)
Calcium as Ca^{2+}	mg/L	307	75* (200**)
Magnesium as Mg^{2+}	mg/L	86	30* (100**)
Nitrates	mg/L	13	45
Fluoride	mg/L	0.9	1.0* (1.5**)
Phosphates	mg/L	0.5	-
Sodium as Na	mg/L	170	-
Potassium as K	mg/L	4	-
% Sodium	%	25	-
SAR	-	2.2	-
Residual Sodium Carbonate (RSC)	me/L	BDL	-
Boron	mg/L	0.03	-
Chemical Oxygen Demand	mg/L	88	-

Note: * Acceptable limit, ** Permissible limit in the absence of alternate source and BDL: Below Detectable Limit

The ground water samples collected from the industry shows that it is hard water. This is further reflected in the results of TH, Alkalinity, Ca & Mg ions concentrations.

Table 8: AAQM results of M/s.Shilpa Medicare Limited.

Sampling Location	Date of Monitoring	Concentration in Micro Gram per Cubic Meter		
		PM_{10}	SO_2	NO_X
Near by security gate at the periphery of the industry (Upwind)	07.01.2020 & 08.01.2020	85	BDL	15.1
Near Injectable block No.1 adjacent to the boundary wall (Downwind)	07.01.2020 & 08.01.2020	59	4.8	9.0
NAAQ Standards		**100**	**80**	**80**

Table 9: Stack Monitoringresults of M/s.Shilpa Medicare Limited.

S.No	Stack attached to	Parameter	Method No. / Instrument	Result	Standard Prescribed
1	Briquette fired boiler of capacity – 3TPH	PM, mg/Nm^3	IS:11255 (Part-1)-1985	335	115

The Stack Monitoring results show that the particulate Matter emission (335 mg/Nm^3) monitored at the stack connected to the Briquette fired boiler of capacity –3 TPH not meeting the Standard Prescribed (115 mg/Nm^3) in the consent.

E. **M/s. Aurobindo Pharma Ltd. Unit – VII, Sy.No.408 to 412, 418 to 435 etc. TSIIC-SEZ, Polepally (V), Jadcherla (M), Mahabubnagar District.**

- M/s. Aurobindo Pharma Ltd. Unit – VII is involved in Pharmaceutical Formulations.
- The industry has CFO with a validity period upto 31.03.2023for production of Tablets – 15000 Millions/Annum, Capsules – 3000 Millions/Annum, Ointments - 25 Millions/Annum, Liquid Orals - 7.5 Millions/Annum, Dry powder for Oral Suspension Sachets - 25.0 Millions/Annum and Soft Gel Capsules - 100.0 Millions/Annum.
- As per the production details, the industry has manufactured Tablets and Capsules within the consented capacity for the period from Dec, 2018 to Nov, 2019 i.e., Tablets – 8059.197Million Nos./Annum against 15000 Millions/Annum and Capsules – 4525.464 Million Nos./Annum against 3000 Millions/Annum.
- The industry consumes water of about 595 KLD. out of which, Process & Washings – 170 KLD, QC and R&D – 20 KLD, Garment Washing – 30 KLD, Boiler, Hot water generation, Water purification, (Softener/DM/ROs Regeneration) & Cooling tower Make-up – 225 KLD, Domestic & Gardening – 130 KLD and Decontamination of containers, liners, glass bottles, etc. – 20 KLD. The industry has consumed an average of 376.0 KLD against the permitted capacity 595 KLD during the period from Dec, 18 to Nov, 2019.
- The industry generates wastewater of about 398 KLD,out of which, 313 KLD from Process, Washings, Garment Washings, Boiler, Hot water generation & water purification, CT Bleed Off, Decontamination of containers, liners, glass bottles, etc. and 85 KLD from Domestic sections.The industry has generated wastewater an average of 124.722 KLD against the permitted capacity 398 KLD during the period from Dec. 18 to Nov. 2019. The industry has submitted details of wastewater lifted to CETP (M/s. PETL) for the period from Dec. 2019 to Nov. 2019. During the period from December, 2018 to November, 2019, industry has lifted total 39100 KL of treated wastewater to M/s. PETL at an average of 108.61 KLD against the permitted quantity of398 KLD.
- The industry is consented for disposal of its effluent to CETP i.e., M/s. PETL, Patancherufor further treatment.
- The industry has CFO for oil fired boiler of capacity 10 TPH and 4 TPH (Standby).Now, the industry has obtained for CFE expansion vide order dated 14.09.2019 for coal fired boiler of capacity 6 TPH and oil fired boiler of capacity 5 TPH.
- The industry generates solid / hazardous waste viz., Off-Specification products/expired formulations - 15000 Kg/month, Off-specification raw material (incipient) - 2000 Kg/month, MEE salts - 1500 Kg/month, Spent laboratory Solvents - 5000 Liters /month,

Empty Capsules - 5 Millions No's/Annum. These wastes are consented to dispose to M/s. HWMP (TSDF), Dundigal, Rangareddy District / authorized cement industries for incineration.ETP Sludge – 3600 (Shall be sent to M/s. HWMP (TSDF), Dundigal, Rangareddy District), Empty HDPE Carboys - 6000 No's/month, Package materials/Liners - 3000 Kg/month and consented to dispose (After complete detoxification, to authorized agencies), Microbiological Waste - 500 Kgs/month shall be sent to common bio-medical waste treatment facility (CBMWTF)). Used Oil - 220 LPM (Sent to authorized Re-Processors / Re – Cyclers of waste oil), Lead Acid Batteries - 21 Nos./Annum (Returned to the manufacturers/ dealers on buy back basis.), Discarded /Used /Broken glass vials /glass bottles - 1400 Kg/month, Rejected Synthetic bottles used for product packing - 3000 Kg/month, Blister and Bilister package waste (3000 Kg/month) consented to (After complete detoxification, shall be sent to authorized scrap vendors) and Soft gel residue - 1000 Kg/month (Shall be sent to M/s. HWMP (TSDF), Dundigal, Rangareddy District).

- The Board has issued certain directions vide order dated 27.07.2019.

OBSERVATIONS OF THE COMMITTEE:

- The Committee has inspected the industry on 10.12.2019 and was found in operation.
- The industry has below ground level RCC collection tank of capacity 125 KL to collect effluents of process, washings, etc. and below ground level collection tank of capacity 84 KL for collection of domestic wastewater. The industry has common above ground level RCC storage tank of capacity 250 KL for storage of RO Rejects and treated domestic water before lifting to M/s. PETL.Industrial effluents treated in ETP and in RO system.The RO permeate is reused and RO rejects are sent to PETL CETP along with domestic waste water.
- During the period from December, 2018 to November, 2019, the industry has lifted a total 39100 KL of treated wastewater to M/s. PETL at an average of 108.61 KLD against the permitted quantity of398 KLD.The industry has RO System, but it is not operated for the past three months. The wastewater is lifted to CETP after pre-treatment.
- Mechanical Flow meter is provided at water intake point and Digital flow meter provided at the outlet of collection tank and final storage tank from where lifted to CETP, PETL.
- As per the CFO, the industry generates about 398 KLD, whereas the industry has total effluent storage capacity of 459 KL only.
- The industry has MEE(2stage) of capacity 60 KLD, butwas not in operation.
- The industry is operating coal fired boiler of capacity 6 TPH with Bag filter followed by mechanical dust collector as APCE.Additional 5 TPH oil fired boiler is under erection without the Consent of the Board. The industry has obtained CFE vide order dated 14.09.2019 for both boilers and yet to apply for CFO of the Board.
- The industry has provided separate shed for storage of Hazardous waste.
- The industry has constructed below ground level RCC tank of capacity 160 KL near boiler area, which is just adjacent to compound wall and connected all storm water drains. The tank outlet is connected to outside through compound wall. The industry has total area of 50 Acres.

- The industry has three numbers of outlets in the compound wall near the boiler area for discharge of rain water.
- Spillages of white amorphous solid materials were observed near finished goods shed.
- The industry has provided separate shed for storage of Hazardous waste, but not provided the leachate collection system.
- It was observed that the drums without detoxification are stored in the open areaalong with packing material and scrap items.
- The dedicated area is not provided to store the waste oil drums.
- The industry is storing spent mixed solvents in MS tanks (2 Nos.) of each having 20 KL capacities. These tanks are not provided with vent condensers to collect the solvents vapours.
- The dust collector along with chimney is not provided in the mill room where crushing of rejected / expired medicines are carried out to avoid dust spreading into the atmosphere.
- The Board has issued certain directions vide order dated 27.07.2019. The compliance on directions is as follows:

S. No.	Directions	Compliance
1.	The industry shall comply with all the CFO conditions issued by the Board.	--
2.	The industry shall not discharge any effluent / wastewater within **or** outside the premises.	During the inspection, no discharge of wastewater was observed outside the premises.
3.	The industry shall dismantle all the below ground level effluent storage tanks.	The industry has not dismantled below ground level collection tank. The industry has below ground level collection tank of capacity 125 KL for the effluents of process, washings, etc., and another tank of capacity 84 KL for domestic wastewater for initial collection. From there it is lifted tocommon above ground level RCC storage tank of capacity 250 KL for storage of RO rejects and treated domestic water before lifting to M/s. PETL.
4.	The industry shall obtain an amendment for operation of additional 5 TPH oil fired boiler.	The industry has obtained CFE Expansion vide order dated 14.09.2019 for oil boiler of capacity 5 TPH.The industry yet to apply for CFO Expansion.
5.	The industry shall send the pre-treated effluents to CETP (PETL) regularly.	The industry treats all its effluents, except RO rejects, in its treatment facility and reusing it. The industry shall lift the entire effluents to M/s PETL CETP, as per the Board's directions dated 27.07.2019 for further treatment and disposal.

- The Committee collected wastewater samples from ETP Inlet, ETP Collection tank, ETP outlet before sending to PETL (Mixed with domestic sewage) and a bore well water sample.The analysis results are presented in the **Tables 10-14** as given below:

(19) (104)

Table 10: Analysis results of ETP Inlet & ETP Collection tank

Parameters	Unit	Result	Result
		ETP Inlet	ETP Collection tank
p^H at 25^0C	-	6.12	6.18
Total Suspended Solids	mg/L	108	132
Total Dissolved Solids (TDS)	mg/L	1,270	6,603
Chemical Oxygen Demand	mg/L	886	1,882
BOD_3 at 27^0C	mg/L	155	332
Oil & Grease	mg/L	0.7	1.2

Table 11:Analysis results of ETP outlet before sending to PETL

Parameters	Unit	Result	CETP Inlet Standards
p^H	-	6.18	5.5-9.0
Total Suspended Solids	mg/L	340	-
Total Dissolved Solvents (Inorganic)	mg/L	3,010	5,000 mg/l
Chemical Oxygen Demand	mg/L	1,537	15,000 mg/l
Ammonical nitrogen as NH_3-N	mg/L	27	50 mg/l
Oil and Grease	mg/L	1.3	20 mg/l
Phenolic compounds	mg/L	BDL	5.0 mg/l
Boron	mg/L	0.6	2.0 mg/l
Chromium Hexavalent (as Cr+6)	mg/L	BDL	2.0 mg/l
Cyanide (as CN)	mg/L	ND	2.0 mg/l
Fluoride (as F)	mg/L	BDL	15 mg/l
Nickel (as Ni)	mg/L	ND	3.0 mg/l
Copper (as Cu)	mg/L	<0.1	3.0 mg/l
Zinc (as Zn)	mg/L	0.41	15 mg/l
Lead (as Pb)	mg/L	ND	1.0 mg/l
Arsenic (as As)	mg/L	<0.02	0.2 mg/l
Mercury (as Hg)	mg/L	<0.01	0.01 mg/l
Cadmium (as Cd)	mg/L	ND	1.0 mg/l
Total Chromium (as Cr)	mg/L	ND	2.0 mg/l

The analysis results of collection tank effluent to be sent to CETP show that it meets the CETP inlet standards

Table 12: Analysis results of Borewell sample collected near Boiler area

Parameters	Unit	Results	IS 10500 : 2012	
			Acceptable Limit	Permissible Limit
p^H at 25^0C	-	6.48	6.5-8.5	No Relaxation
Total Suspended Solids	mg/L	42	-	-
Total Dissolved Solids (TDS)	mg/L	2,256	500	2000
Chemical Oxygen Demand	mg/L	82	-	-
Chlorides as Cl^-	mg/L	826	250	1000
Sulphates as SO_4^{-2}	mg/L	106	200	400

105

20

Total Alkalinity as CaCO3	mg/L	468	200	600
Total Hardness as CaCO3	mg/L	1,200	200	600
Calcium as Ca^{+2}	mg/L	77	75	200
Magnesium as Mg^{+2}	mg/L	245	30	100
Fluoride	mg/L	1.3	1.0	1.5
Nitrates	mg/L	13	45	No relaxation
Phosphates	mg/L	3.9	-	-
Sodium as Na	mg/L	292	-	-
Potassium as K	mg/L	2.6	-	-
Boron as B	mg/L	BDL	0.5	1.0
Manganese as Mn	mg/L	7.0	0.1	0.3
Iron as Fe	mg/L	3.24	0.3	No relaxation
Copper as Cd	mg/L	<0.1	0.05	1.5
Zinc as Zn	mg/L	1.68	5	15
Cadmium as Cd	mg/L	ND	0.003	No relaxation
Lead as Pb	mg/L	ND	0.01	No relaxation
Nickel as Ni	mg/L	ND	0.02	No relaxation
Total Chromium as Cr	mg/L	ND	0.05	No relaxation
Mercury as Hg	mg/L	ND	0.001	No relaxation
Total Arsenic	mg/L	ND	0.01	0.05

The ground water samples collected from the industry shows that it is hard water. This is further reflected in the results of TH, Alkalinity, Ca & Mg ions concentrations.

Table 13: AAQM results of M/s. AurobindoPharma Ltd. Unit – VII

Sampling Location	Date of Monitoring	Concentration in Micro Gram per Cubic Meter		
		PM_{10}	SO_2	NO_X
Near the entrance gate (Upwind)	30.12.2019 & 31.12.2019	98	BDL	11.4
Near fire hydrant system (Downwind)	30.12.2019 & 31.12.2019	94	BDL	15.3
NAAQ Standards		100	80	80

Table 14: Stack Monitoringresults of M/s. AurobindoPharma Ltd. Unit – VII

S.No	Stack attached to	Parameter	Method No. / Instrument	Result	Standard Prescribed
1	Furnace oil boiler of capacity - 4 TPH	PM, mg/Nm^3	IS:11255 (Part-1)-1985	294	115

The Stack Monitoring results show that the particulate Matter emission (**294 mg/Nm^3**) monitored at the stack connected to the Furnace oil boiler of capacity - 4 TPHnot meeting the Standard Prescribed (**115 mg/Nm^3**) in the consent.

F. **M/s. AurobindoPharma Ltd. Unit – XVI, Sy.No.408 to 412, 418 to 435 etc.SEZ-IP, Polepally (V), Jadcherla (M), Mahabubnagar District:**

- M/s. AurobindoPharma Ltd., Unit – XVI is involved in Pharmaceutical formulations.

- The industry has valid CFO of the Board upto31.03.2022for Dry & Liquid Injectables – 30 Million units/annum.
- As per the production details, the industry has 7manufactured Dry Liquid Injectables within the consented capacity i.e. 22.51 million units/annum against 30 Million units/annum.
- The industry consumes water of about 161 KLD for Process & Washings (Hand Wash) – 37.0 KLD, Boiler Feed – 30.0 KLD, QC & R&D – 4.0 KLD, Softener / DM / RO Regeneration – 15.0 KLD, Cooling tower make up – 45.0 KLD, Domestic – 25.0 KLD & Gardening – 5.0 KLD.The industry has consumed an average of 5.16 KLD against the permitted capacity 161 KLD during the period from Dec, 18 to Nov, 2019.
- The industry generates wastewater of about 71 KLD comprising of Process & Washings – 17 KLD, Boiler blow down – 5 KLD, QC & R&D – 4 KLD, Cooling tower bleed off – 5.0 KLD, Softener / DM / RO regeneration – 15.0 KLD and Domestic – 25.0 KLD. The industry consented to send to M/s. PETL, Patancheru for further treatment and disposal."The industry has lifted total 746KL of wastewater to M/s. PETL on an average of 2.072KLD during the period from December, 2018 to November, 2019.
- The industry is consented to dispose wastewater generated from Process & Washings, QC & R&D, Boiler blow down, Softener / DM / ROs regeneration & Cooling tower and Domestic effluents as "After pre-treatment, the treated wastewater shall be sent to M/s. PETL, Patancheru for further treatment and disposal"
- The industry has CFO for oil fired boiler of capacity 1 x 6 TPH,butinstalledand operatingOil fired Boiler of capacity 2 x 5 TPH for which the industry has obtained CFE Expansion vide order dated 18.09.2019 and yet to obtain CFO Expansion.
- The industry generates solid / hazardous waste viz., Off-Specification products/expired formulations (TSDF), Off-specification raw material (incipient) (TSDF), Mixed solvents from QC & R&D Laboratory (TSDF), ETP Sludge (wastewater storage) (TSDF), Microbiological waste (TSDF)/(CBMWTF), Discarded / Used / Broken Glass vials / Glass Bottles – 1800 kg/month (After complete detoxification shall be disposed to outside agencies / parties), Empty HDPE Carboys (5000 Nos./month) (Shall be sold to authorized recyclers), Package material / Liners – 3200 kg/month (Shall be sold to authorized recyclers), waste oil – 200 LPM (Shall be sent to authorized re-processors / Re-Cyclers of waste oil) and Lead Acid Batteries (14 Nos./annum) (shall be returned to the dealer / manufacturer on buy back basis (or) to authorized recyclers). The industry has not lifted any Hazardous Waste to Cement Industries / TSDF from Feb, 2018 to July, 2018.
- The Board has issued certain directions vide order dated 27.07.2019.

OBSERVATIONS OF THE COMMITTEE:

- The Committee has inspected the industry on 10.12.2019 and industry was found in operation.
- The industry has 2 Nos. of below ground level process effluent collection tanks of capacity 10 KL each for primary collection, which is adjoining to the storm water drain. The industry has 2 Nos. of below ground level domestic effluent collection tanks of capacity 10 KL each for primary collection. From there pumped to above ground level

107

022

- During the period from December, 2018 to November, 2019 has lifted total 746 KL of wastewater to M/s. PETL an average of 2.072 KLD.
- Mechanical flow meter installed at water intake point to measure the water consumption and Digital flow meter installed at final storage tank from where lifted to CETP, PETL.
- As per the CFO, the industry generates total wastewater of 71 KLD, whereas the industry has total effluent storage capacity of 180 KL, which is sufficient for 2.5 days.
- The industry has installed and operating 2 No. of 5 TPH Oil fired boilers for which the industry has obtained CFE Expansion vide order dated 18.09.2019 and yet to obtain CFO Expansion.
- The industry has provided separate shed for storage of Hazardous waste, but not provided leachate collection pit.
- The industry not provided rain water collection tank and observed that, all the storm water drains are connected to outside TSIIC drains.
- The Board has issued certain directions vide order dated 27.07.2019.
- The compliance on directions are as follows:

S. No.	Condition	Compliance
1.	The industry shall comply with all the CFO condition issued by the Board.	--
2.	The industry shall not discharge any effluent / wastewater within **or** outside the premises.	During the inspection, no discharge of wastewater was observed outside the premises.
3.	The industry shall dismantle all the below ground level effluent tanks.	The industry has not dismantled below ground level effluent collection tank.
4.	The industry shall obtain an amendment for operation of additional 5 TPH oil fired boiler.	The industry has obtained CFE Expansion for 5 TPH oil fired boiler vide order 18.09.2019 and yet to obtain CFO Expansion.
5.	The industry shall send the pre-treated effluents to CETP (PETL) regularly.	The industry is lifting only RO rejects pre-treated process, washings and domestic effluents to CETP, Patancheru for further treatment and disposal.

- The committee collected Wastewater samples collected from 1) effluent collection tank 2) storage tank before sending to PETL 3) Inlet of STP, 4) outlet of STP and 5) bore well water sample. The Analysis results these samples are provided in **Tables 15 to 19** as given below:

Table 15: Analysis results of Sample collected from Effluent Collection tank, STP Inlet & STP outlet

Parameters	Unit	Result		
		Effluent Collection tank	STP Inlet	STP out
p^H at 25^0C	-	6.45	6.29	6.83
Total Suspended Solids	mg/L	56	89	23
Total Dissolved Solids (TDS)	mg/L	291	901	309
Chemical Oxygen	mg/L	1,179	420	240

Demand				
BOD_3 at 27^0C	mg/L	145	92	20
Oil & Grease	mg/L	<0.2	BDL	BDL

Table 16: Analysis results of Storage tank effluent before sending to PETL (Mixed with treated sewage):

Parameters	Unit	Result	CETP Inlet Standards
p^H	-	6.70	5.5-9.0
Total Suspended Solids	mg/L	16	-
Total Dissolved Solvents (Inorganic)	mg/L	180	5,000 mg/l
Chemical Oxygen Demand	mg/L	556	15,000 mg/l
Ammonical nitrogen as NH_3-N	mg/L	19	50 mg/l
Oil and Grease	mg/L	BDL	20 mg/l
Phenolic compounds	mg/L	BDL	5.0 mg/l
Boron	mg/L	BDL	2.0 mg/l
Chromium Hexavalent (as Cr+6)	mg/L	BDL	2.0 mg/l
Cyanide (as CN)	mg/L	ND	2.0 mg/l
Fluoride (as F)	mg/L	1.4	15 mg/l
Nickel (as Ni)	mg/L	ND	3.0 mg/l
Copper (as Cu)	mg/L	ND	3.0 mg/l
Zinc (as Zn)	mg/L	<0.1	15 mg/l
Lead (as Pb)	mg/L	ND	1.0 mg/l
Arsenic (as As)	mg/L	<0.02	0.2 mg/l
Mercury (as Hg)	mg/L	<0.01	0.01 mg/l
Cadmium (as Cd)	mg/L	ND	1.0 mg/l
Total Chromium (as Cr)	mg/L	ND	2.0 mg/l

Table 17: Analysis results of Borewell sample collected from industry:

Parameters	Unit	Results	IS 10500 : 2012	
			Acceptable Limit	Permissible Limit
p^H at 25^0C	-	6.93	6.5-8.5	No Relaxation
Total Suspended Solids	mg/L	21	-	-
Total Dissolved Solids (TDS)	mg/L	1,286	500	2000
Chemical Oxygen Demand	mg/L	42	-	-
Chlorides as Cl^-	mg/L	498	250	1000
Sulphates as SO_4^{-2}	mg/L	53	200	400
Total Alkalinity as CaCO3	mg/L	344	200	600
Total Hardness as CaCO3	mg/L	916	200	600
Calcium as Ca^{+2}	mg/L	206	75	200
Magnesium as Mg^{+2}	mg/L	97	30	100
Fluoride	mg/L	BDL	1.0	1.5
Nitrates	mg/L	17	45	No relaxation
Phosphates	mg/L	1.2	-	-
Sodium as Na	mg/L	98	-	-
Potassium as K	mg/L	2.5	-	-
Boron as B	mg/L	BDL	0.5	1.0
Manganese as Mn	mg/L	<0.1	0.1	0.3

Iron as Fe	mg/L	0.18	0.3	No relaxation
Copper as Cd	mg/L	ND	0.05	1.5
Zinc as Zn	mg/L	<0.1	5	15
Cadmium as Cd	mg/L	ND	0.003	No relaxation
Lead as Pb	mg/L	ND	0.01	No relaxation
Nickel as Ni	mg/L	ND	0.02	No relaxation
Total Chromium as Cr	mg/L	ND	0.05	No relaxation
Mercury as Hg	mg/L	ND	0.001	No relaxation
Total Arsenic	mg/L	ND	0.01	0.05

Table 18: AAQM results of M/s.AurobindoPharma Ltd. Unit – XVI

Sampling Location	Date of Monitoring	Concentration in Micro Gram per Cubic Meter		
		PM_{10}	SO_2	NO_X
Near the main gate adjacent to admin block (Upwind)	30.12.2019 & 31.12.2019	95	BDL	10.5
At the periphery of industry road (Downwind)	30.12.2019 & 31.12.2019	93	BDL	13.1
NAAQ Standards		100	80	80

Table 19: Stack Monitoringresults of M/s. AurobindoPharma Ltd. Unit – XVI

S.No	Stack attached to	Parameter	Method No. / Instrument	Result	Standard Prescribed
1	Furnace oil boiler of capacity - 5 TPH	PM, mg/Nm^3	IS:11255 (Part-1)-1985	92	115

The Stack Monitoring results show that the particulate Matter emission (92 mg/Nm^3) monitored at the stack connected to the Furnace oil boiler of capacity - 5 TPH meeting the Standard Prescribed (115 mg/Nm^3) in the consent.

G. M/s. APL Health Care Ltd., Sy.No.410/P,411/P & 458/P, Plot No.S-1/B, TSIIC, SEZ, Polepally (V), Jadcherla (M), Mahabubnagar District:

- M/s APL Health Care Ltdis engaged in Pharmaceuticals Formulations.
- The industry has obtained CFO of the Board vide order dated 26.04.2016 for Tablets - 383.33 MTPM, Capsules - 33.33 MTPM and Ointments - 1.1 MTPM which is valid upto 28.02.2021.
- As per the production details, the industry has manufactured Tablets within the consented capacity i.e. 22.10083 MTPM against 383.33 MTPM an average and 0.124 MTPM against 33.33 MTPM an average.
- The industry consumes water of about 252 KLD for Process – 2.0 KLD, Washings – 20.0 KLD, Drinking water – 10.0 KLD, Boiler Make up – 50.0 KLD, Softener / DM / ROs Regeneration – 15.0 KLD, Cooling Tower Make up – 85.0 KLD, Garment Washings – 10.0 KLD, Quality Control and R & D – 5.0 KLD, Wastewater management (Decontamination of drums, containers / container liners, etc.) – 10.0

KLD, Domestic – 20.0 KLD and Gardening – 25.0 KLD. The industry has consumed an average of 27.11598 KLD against the permitted capacity 252 KLD during the period from Dec, 18 to Nov, 2019.

- The industry generates wastewater of about 92.5 KLD from Process, Washings – 20 KLD, Quality Control & R & D – 5.0 KLD, Boiler Bleed – 5.0 KLD, Softener/DM/ROs Regeneration – 15.0 KLD, Cooling Tower(s) Bleed / Blow down – 7.5 KLD, Garment Washing - 10.0 KLD, Decontamination of drums, containers / container liners, etc. – 10.0 KLD and Domestic – 20.0 KLD. The industry has lifted total 6800 KL of wastewater to M/s. PETL atan average of 2.8 KLD against the permittedquantity of92.5 KLD during the period from Dec, 2018 to Nov, 2019.
- The industry directed to lift all effluents toCETP i.e., M/s. PETL, Patancheru for further treatment and disposal.
- The industry has CFO for 1 x 2 TPH oil fired boiler. But industry has installed oil fired boilers 2x5 TPH and operating, for which the industry has obtained CFE expansion vide order dated 18.09.2019 and yet to apply for CFO.
- The industry has obtained CFO for D.G. Set capacity 2000 KVA and 125 KVA. The industry has also installed additional D.G. Sets 3 x 1500 KVA, 1 x 1000 KVA and 1 x 2000 KVA for which the industry has obtained CFE Expansion vide order dated 18.09.2019 and yet to apply for CFO .
- The industry generates solid / hazardous waste viz., Empty HDPE Carboys - 875 Nos./month (After complete detoxification, shall be disposed to authorized parties / agencies.), Package materials / Liners - 1250 kgs/month (Shall be sold to authorized agencies / dealers.), Off – Specification products/expired formulations - 4000 Kg/month, Off-specification raw material (incipient) - 3500 Kg/month (Shall be lifted to M/s. HWMP (TSDF), Dundigal, Rangareddy District / authorized cement industries for incineration), Waste Oils & Oil Emulsions - 10 Kgs/month (Shall be sent to authorized Re-Processors / Re-Cyclers of waste oil units), ETP Sludge - 500 Kgs/Month (Shall be lifted to M/s.HWMP (TSDF), Dundigal, Rangareddy District), Spent laboratory Solvents - 2000 Liters /month (Shall be lifted to M/s.HWMP (TSDF), Dundigal, Rangareddy District / authorized cement industries for incineration), Microbiological Waste - 500 Kg/month (Shall be lifted to Common Bio-Medical Waste Treatment Facility), Used Oil – 500 LPM (Shall be sent to authorized Re-Processors / Re-Cyclers of waste oil units) and Lead Acid Batteries - 10-15 Nos/Annum(Shall be sent to dealers / suppliers on buy back basis).

OBSERVATIONS OF THE COMMITTEE:

- The Committee has inspected the industry on 10.12.2019 and found in operation.
- The industry has provided below ground level process effluents collection tank of capacity 20 KL and pumped to above ground level collection tank of capacity -120 KL from where it is lifted to M/s. PETL.
- The industry lifted an average of 2.8 KLD of wastewater against the permitted quantity of92.5 KLD during the period from Dec, 2018 to Nov, 2019.
- Mechanical flow meter installed at water intake point to measure water consumption and Digital flow meter installed at final waste water storage tank from where lifted to

- The industry has provided below ground level STP tanks. The treated water is being pumped to above ground level final storage tank before lifting to M/s. PETL.
- As per the CFO, the industry generates total wastewater of about 92.5 KLD,whereas the industry has total effluent storage capacity of 140 KL, which is sufficient to store the effluents nearly for 1.5 days. As per the CFO, the industry shall provide minimum storage capacity sufficient for 7 days.
- The industry installed and operating oil fired boilers of capacity2 x 5 TPH and D.G. Sets 3 x 1500 KVA, 1 x 1000 KVA and 1 x 2000 KVA without obtaining CFO from the Board.
- The industry has constructed rain water collection tank of capacity 120 KL and outlet of the tank is routed to ETP. The industry has connected all the storm water drainsto this collection tank to collect the first run off rain water. The industry has total area of13 acres.
- The industry has provided separate shed for storage of Hazardous waste, but not provided leachate collection system.
- It was observed that the drums have not detoxified and stored openly without providing shed. Empty raw material packing material and scrap stored openly.
- The dust collector along with chimney not provided to mill room to avoid dust spreading into the atmosphere.
- The dedicated area is not provided to store the waste oil drums.
- The housekeeping was observed poor at Hazardous waste storage area.
- The Board has issued certain directions vide order dated 27.07.2019. The compliance on directions are as follows:

S. No.	Condition	Compliance
1.	The industry shall comply with all the CFO condition issued by the Board.	--
2.	The industry shall not discharge any effluent / wastewater within or outside the premises.	During the inspection, no discharge of wastewater was observed outside the premises.
3.	The industry shall dismantle all the below ground level effluent tanks.	The industry has not dismantled below ground level effluent collection tank.
4.	The industry shall obtain an amendment for operation of additional 5 TPH oil fired boiler.	The industry has obtained CFE Expansion for 5 TPH oil fired boiler vide order dated 18.09.2019. But, not obtained CFO.
5.	The industry shall send the pre-treated effluents to CETP (PETL) regularly.	The industry is lifting pre-treated process, washings and domestic effluents to PETL CETP for further treatment and disposal.

- The committee collected waste water samples from 1) effluent collection tank, 2) effluent storage tank before lifting to PETL (mixed with domestic effluents), 3) Inlet and outlet of STP and 4) Bore well water sample. The results are presented in tables No20 to 24 as given below:

Table 20: Analysis results: Effluent collection tank:

Parameters	Unit	Result
p^H at 25°C	-	6.61
Total Suspended Solids	mg/L	57
Total Dissolved Solids (TDS)	mg/L	2,146
Chemical Oxygen Demand	mg/L	1,175
Phenolic compounds	mg/L	BDL
Boron	mg/L	BDL
Chromium Hexavalent (as Cr^{+6})	mg/L	BDL
Cyanide (as CN)	mg/L	ND
Fluoride (as F)	mg/L	0.98

BDL:Below detectable limit&ND: Not detected

Table 21: Analysis results of storage tank effluent mixed with treated sewage water before sending to PETL.

Parameters	Unit	Result	CETP Inlet Standards
p^H	-	6.67	5.5-9.0
Total Suspended Solids	mg/L	56	-
Total Dissolved Solvents (Inorganic)	mg/L	1,230	5,000 mg/l
Chemical Oxygen Demand	mg/L	897	15,000 mg/l
Ammonical nitrogen as NH_3-N	mg/L	12	50 mg/l
Oil and Grease	mg/L	0.2	20 mg/l
Phenolic compounds	mg/L	BDL	5.0 mg/l
Boron	mg/L	BDL	2.0 mg/l
Chromium Hexavalent (as Cr+6)	mg/L	BDL	2.0 mg/l
Cyanide (as CN)	mg/L	ND	2.0 mg/l
Fluoride (as F)	mg/L	0.41	15 mg/l
Nickel (as Ni)	mg/L	ND	3.0 mg/l
Copper (as Cu)	mg/L	ND	3.0 mg/l
Zinc (as Zn)	mg/L	0.26	15 mg/l
Lead (as Pb)	mg/L	ND	1.0 mg/l
Arsenic (as As)	mg/L	<0.02	0.2 mg/l
Mercury (as Hg)	mg/L	<0.01	0.01 mg/l
Cadmium (as Cd)	mg/L	ND	1.0 mg/l
Total Chromium (as Cr)	mg/L	ND	2.0 mg/l

Table 22:Analysis results of Borewell water sample collected near scrap yard located within industry:

Parameters	Unit	Results	IS 10500 : 2012	
			Acceptable Limit	Permissible Limit
p^H at 25°C	-	6.66	6.5-8.5	No Relaxation
Total Suspended Solids	mg/L	38	-	-
Total Dissolved Solids (TDS)	mg/L	2,410	500	2000
Chemical Oxygen Demand	mg/L	32	-	-

Chlorides as Cl^-	mg/L	984	250	1000
Sulphates as SO_4^{-2}	mg/L	75	200	400
Total Alkalinity as CaCO3	mg/L	396	200	600
Total Hardness as CaCO3	mg/L	732	200	600
Calcium as Ca^{+2}	mg/L	179	75	200
Magnesium as Mg^{+2}	mg/L	69	30	100
Fluoride	mg/L	1.6	1.0	1.5
Nitrates	mg/L	38	45	No relaxation
Phosphates	mg/L	3.7	-	-
Sodium as Na	mg/L	392	-	-
Potassium as K	mg/L	2.3	-	-
Boron as B	mg/L	BDL	0.5	1.0
Manganese as Mn	mg/L	<0.1	0.1	0.3
Iron as Fe	mg/L	ND	0.3	No relaxation
Copper as Cd	mg/L	ND	0.05	1.5
Zinc as Zn	mg/L	<0.1	5	15
Cadmium as Cd	mg/L	ND	0.003	No relaxation
Lead as Pb	mg/L	ND	0.01	No relaxation
Nickel as Ni	mg/L	ND	0.02	No relaxation
Total Chromium as Cr	mg/L	ND	0.05	No relaxation
Mercury as Hg	mg/L	ND	0.001	No relaxation
Total Arsenic	mg/L	ND	0.01	0.05

Table 23:Analysis results of STP Inlet and STP Outlet:

Parameters	Unit	Results	
		STP Inlet	STP out
p^H at 25^0C	-	7.68	7.45
Total Suspended Solids	mg/L	676	113
Total Dissolved Solids (TDS)	mg/L	5,688	3,713
Chemical Oxygen Demand	mg/L	356	124
BOD_3 at 27^0C	mg/L	78	19
Oil and Grease	mg/L	BDL	BDL

Table 24: AAQM results of M/s. APL Health Care Ltd.,

Sampling Location	Date of Monitoring	Concentration in Micro Gram per Cubic Meter		
		PM_{10}	SO_2	NO_X
Near the main gate (Upwind)	30.12.2019 & 31.12.2019	**158**	5.8	13.8
At the top of the control panel room (Downwind)	30.12.2019 & 31.12.2019	**141**	BDL	BDL
NAAQ Standards		**100**	**80**	**80**

The PM10 concentration (158 & 141 µg/m3) monitored at upwind & downwind direction inside the industry premises exceed NAAQ Standard (24hrs avg) of 100 $\mu g/m^3$.

Table 24: Stack Monitoringresults of M/s. APL Health Care Ltd.,

S.No	Stack attached to	Parameter	Method No. / Instrument	Result	Standard Prescribed
1	Briquette fired boiler - 5 TPH	PM, mg/Nm^3	IS:11255 (Part-1)-1985	80	115

The Stack Monitoring results show that the particulate Matter emission (92 mg/Nm^3) monitored at the stack connected to the Briquette fired boiler - 5 TPHmeeting the Standard Prescribed (115 mg/Nm^3) in the consent.

H. M/s. Mylan Laboratory, (Formerly M/s.Glochem Industries Ltd.,) Sy.no.408, 410, Plot No.S-16 & S-17/A, TSIIC-SEZ, Polepally (V), Jadcharla (M), Mahabubnagar District:

- The industry is engaged in Pharmaceutical formulations unit.
- The industry has obtained CFO of the Board vide order dated 29.04.2015 for production of Tablets Coated - 0.967 Billions/annum, Tablets Uncoated - 2.033 Billions/annum, Capsules - 0.5 Billions/annum with validity upto 31.03.2016. Subsequently, the industry has obtained Auto renewal of CFO vide order dated 26.02.2016 with validity upto 31.03.2021.
- During the period from Dec, 2018 to Nov, 2019, the industry has manufactured Tablet 641.95 millions/annum against the consented capacity 3000 millions Nov./annum (3 Billions Nos.).
- The industry consumes water of about 350 KLD for Process & Washings – 95 KLD, Laboratory (QC and R&D) – 5 KLD, Boiler make up – 85.0 KLD, Cooling tower make up – 110.0 KLD, DM/RO plant regeneration – 2.0 KLD, Detoxification facility – 2.0 KLD, Scrubbers – 1.0 KLD and Domestic – 20.0 KLD.The industry has consumed an average of 46.52 KLD against the permitted capacity 252 KLD during the period from Dec, 18 to Nov, 2019.
- The industry generates wastewater of about 150 KLD from Process, Washings - 95.0 KLD, Laboratory (QC and Domestic - 5.0 KLD, Boiler blow down – 5.0 KLD, Cooling bleed off – 10.0 KLD, DM/RO plant regeneration – 2.0 KLD, Detoxification facility – 2.0 KLD, Scrubbers – 1.0 KLD and Domestic 30 KLD. The industry has lifted wastewater an average of 32.11 KLD against the permitted capacity 150 KLD during the period from Dec, 18 to Nov, 2019.
- The industry directed to lift all effluents to CETP i.e., M/s. PETL,Patancheru for further treatment and disposal.
- The industry is having oil fired boiler of capacity 4 x 0.2 TPH, 1 X 2.0 TPH & 1 X 0.4 TPH.
- The industry generates solid / hazardous waste viz., ETP Sludge - 1500 Kgs / month (Shall be sent to M/s. HWMP (TSDF), Dundigal, Rangareddy District), Spent mixed solvents - 2000 Kgs/month, Insulation Waste - 1000 Kgs / month (Shall be sent to M/s. HWMP (TSDF), Dundigal, Rangareddy District / Cement Industries), Date expired /discharged off specification drugs (rejected tablets & capsules) – 15030 Kgs /month (Shall be sent to M/s. HWMP (TSDF), Dundigal, Rangareddy District / Cement Industries), Discarded injection vials - 100 Kgs / month (Shall be sent to M/s. HWMP (TSDF), Dundigal, Rangareddy

Dundigal, Rangareddy District), Discarded personal protective equipment - 1000 Kgs / month (Shall be sent to M/s. HWMP (TSDF), Dundigal, Rangareddy District), Discarded thermocol - 1000 Kgs / month (Shall be sent to M/s. HWMP (TSDF), Dundigal, Rangareddy District), HEPA filters / Oil filters - 50 nos / annum (Shall be sent to M/s. HWMP (TSDF), Dundigal, Rangareddy District), Discarded UF/RO - 30 nos / annum (Shall be sent to M/s. HWMP (TSDF), Dundigal, Rangareddy District), Used Oil - 350 LPM (Shall be sent to authorized Re-processors / Re – Cyclers), Discarded Container - 1200 nos/day (After complete detoxification, shall be sold to outside agencies / dealers), Container Liners - 3.0 TPM (After complete detoxification, shall be sold to outside agencies / dealers), Lead acid batteries - 78.0 nos/year (Shall be returned to the manufactures / dealers on buy back basis), E-waste - 3.0 TPA (Authorized collection center / recyclers/ dismantler/ disposal facility), Boiler FO soot - 1.0 TPM, Plywood boxes, tins - 2.0 TPM, PV/PVDC/Alum.Foil - --, Glass Scrap - 1.0 TPM, G.I. Scrap - 5.0 TPM, Aluminium scrap - 2.0 TPM, M.S. Scrap - 5.0 TPM, Waste paper, wood, packing materials, cartons, plastics etc. - 5.0 TPM and Packing materials - 5.0 TPM (Shall be sold to outside agencies / recyclers).The industry is member unit of TSDF.

OBSERVATIONS OF THE COMMITTEE:

- The Committee has inspected theindustry on 12.12.2019 and found in operation.
- The industry has below ground level RCC tank of 60 KL for process & washings and 10 KL below ground level RCC tank for domestic wastewater from there pumped toabove ground level RCC effluent storage tank of capacity 300 KL before sending to M/s. PETL.
- The industry is collecting effluents generated from process, washings, cooling tower bleed off / boiler blow down in the above ground level storage cum aeration tank. After pre-treatment, the effluents are lifted to CETP i.e. M/s. PETL for further treatment and disposal.
- The industry has provided STP for treatment of domestic wastewater. After pre-treatment, the domestic effluents are sentto above ground level storage tank and mixing with other pre-treated process, washings effluents before lifting to M/s. PETL.
- The industry lifted an average of 32.11 KLD of wastewater against the permitted quantity of 150 KLD during the period from Dec, 2018 to Nov, 2019.
- As per the CFO, the industry generates wastewater of about 300 KLD. Whereas the industry has storage capacity of 300 KL, which is sufficient for only one day.
- Mechanical flow meter installed at water intake point for measurement of water consumption. Digital Flow meters arenot installed at inlet & outlet of ETP, STPto quantify the wastewater generation and disposal.
- The industry has provided separate shed for storage of Hazardous waste.
- The industry has one Bore well within the premises, but it is not in working condition.
- The industry has not provided rain water collection tank for collection of first run-off water.The industry has total area of 5 acres.
- All the storm water drains of the industry should be connected to first run off rain water collection tank before connected to outside TSIIC drains.

- The Board has issued certain directions vide order dated 27.07.2019. The compliance on directions are as follows:

S. No.	Condition	Compliance
1.	The industry shall comply with all the CFO conditions issued by the Board	--
2.	The industry shall not discharge any effluent / waste water within or outside their premises	During the inspection, no discharge of wastewater was observed outside the premises.
3.	The industry shall send all the pre-treated effluents / waste water to CETP-PETL.	The industry is lifting pre-treated process, washings and domestic effluents to PETL CETP for further treatment and disposal.
4.	The industry shall have minimum of 2 days storage capacity of effluents on above ground level, within the premises.	The industry has above ground level storage capacity of 300 KL capacity which is sufficient for only one day

- During inspection, the Joint Committee collected Process Effluent and Domestic Effluent before lifting to M/s. PETL, CETP. The analysis results of these samples are presented in the **Tables 25& 26**as given below:

Table25: Analysis results of Waste Water samples

Parameter	Method (*) No.	Unit	Results		CETP Inlet Standards
			Process Effluent	Domestic Effluent	
pH	4500-B	-	7.54	7.94	5.5 - 9.0
Total Suspended Solids	2540-D	mg/l	288	22	-
Total Dissolved Solids (Inorganic)	2540-E	mg/l	3,435	812	5,000mg/l
Chemical Oxygen Demand	5220-B	mg/l	822	8	15,000 mg/l
Ammonical nitrogen as NH_3-N	4500-NH_3 C	mg/l	2	BDL	50 mg/l
Oil and Grease	5520 – B	mg/l	0.3	BDL	20 mg/l
Phenolic compounds	5530 C	mg/l	BDL	BDL	5.0 mg/l
Boron	4500- B,C	mg/l	BDL	BDL	2.0 mg/l
Chromium Hexavalent (as Cr+6)	3500 - Cr B	mg/l	ND	ND	2.0 mg/l
Cyanide (as CN)	4500 - CN -E	mg/l	ND	ND	2.0 mg/l
Fluoride (as F)	4500 –F, D	mg/l	0.4	BDL	15 mg/l
Nickel (as Ni)	3111 B	mg/l	ND	ND	3.0 mg/l
Copper (as Cu)	3111 B	mg/l	0.2	ND	3.0 mg/l
Zinc (as Zn)	3111 B	mg/l	0.4	0.2	15 mg/l

(117)

Lead (as Pb)	3111 B	mg/l	ND	ND	1.0 mg/l
Arsenic (as As)	3114 C	mg/l	< 0.02	< 0.02	0.2 mg/l
Mercury (as Hg)	3112 B	mg/l	< 0.01	< 0.01	0.01 mg/l
Cadmium (as Cd)	3111 B	mg/l	ND	ND	1.0 mg/l
Total Chromium (as Cr)	3111 D	mg/l	ND	ND	2.0 mg/l

BDL: Below detectable limit and **ND:** Not detected

The above results, show that the pre-treated effluents sent to PETP CETP meet the inlet standards of CETP

Table 26: AAQM results of M/s. Mylan Laboratory,

Sampling Location	Date of Monitoring	Concentration in Micro Gram per Cubic Meter		
		PM_{10}	SO_2	NO_X
Opp. OHC block (Upwind)	07.01.2020 & 08.01.2020	100	16	11.2
EHS block entrance (Downwind)	07.01.2020 & 08.01.2020	65	14.5	17.2
NAAQ Standards		**100**	**80**	**80**

All the parametersconcentration monitored at upwind & downwind direction inside the industry premises meetingNAAQ Standard (24hrs avg) of 100 $\mu g/m^3$.

I. **M/s. Evertrogen Life Sciences (Formerly M/s. Optimus Generics Ltd.), Plot No.S-8, S-13/P & S-14/P, TSIIC, SEZ, Green Industrial Park, Polepally (V), Jadcherla (M), Mahabubnagar District:**

- M/s. Evertrogen Life Sciences (Formerly M/s. Optimus Generics Ltd.) is a Pharmaceutical Formulation Unit.
- The industry has valid CFO upto 30.11.2020for production of Tablets –0.108 Billion Nos./Month, Capsules – 0.016 Billion Nos./Month and Sachets – 0.008 Billion Nos./Month.
- During Dec, 2018 to Nov, 2019, the industry has manufactured Tablets - 0.0113 billions/month against permitted capacity 0.108 Billion Nos./Month, Capsules - 0.0002 billions/month against permitted capacity 0.016 Billion Nos./Month and Sachets - 0.00017 billions/month against permitted 0.008 Billion Nos./Month.
- The industry consumes water of about 143.0 KLD for Process & Washings – 19.0 KLD, Cooling Tower – 37.0 KLD, Hot & Cold water system – 52.0 KLD, Domestic – 16.0 KLD and Gardening – 15.0 KLD. The industry has installed flow meters. During the period from Dec, 2018 to Nov, 2019the industry has consumed an average of 85.94 KLD against permitted capacity 143 KLD and.
- The industry generates wastewater of about 55.0 KLD, out of which, Process & Washings – 18.0 KLD, Cooling Tower bleed off – 9.0 KLD, Purified water system – 13.0 KLD and Domestic – 15.0 KLD.The industry has generated wastewater of about 37.505 KLD against permittedcapacity 55 KLD during the period from Dec, 2018 to Nov, 2019.The industry has lifted total 12502 KL of wastewater to M/s. PETL at an average of 37.505 KLD against the permitted quantity of 55 KLD.
- The industry has Hot Water Generator of capacity 2 x 2.0 lakh k.cal/hr&8 x 1.50 k.cal/hr.

- The industry generates solid waste, Date expired, Discarded and off specification medicines – 1 TPM, ETP sludge – 0.1 TPM, Residue & Waste – 2.0 TPM consented to lift to TSDF, Packing materials – 2.0 TPM consentedto dispose to authorized agencies after complete detoxification, Container and Container liners – 200 NPM consented to dispose toauthorized agencies after complete detoxification , used lead acid batteries – 2 NPA consented to return back to the manufacturer / dealer on buy back basis and STP sludge consented to use as manure for greenbelt development within the premises.The industry has submitted details of Hazardous / solid waste and Bio-Medical Waste generation and its disposal details for the period from Dec, 2018 to Nov, 2019.
- The Board has issued Extension of Temporary Revocation of Closure Orders vide order dated 27.07.2019 with validity period upto 31.12.2019 stipulating certain conditions. Subsequently, industry has submitted representation for permanent revocation of closure orders on 13.11.2019. The Regional office Hyderabad forwarded report to the Board office on 20.12.2019.

OBSERVATION OF THE COMMITTEE:

- The industry was inspected on 12.12.2019 and industry was found in operation.
- The industry has 2 Nos. of below ground level tank in tank structure of capacity 3 KL each for primary collection of the Process and Domestic effluents. The industry has 4 Nos. of above ground level collection tanks of capacity 96 KL, 36 KL & 2 x 18 KL respectively before disposing to CETP.
- The industry has total effluent storage capacity about 174 KL which is sufficient to store 3 days generation.

S. No.	Condition	Compliance
1.	The industry shall comply with all the CFO conditions issued by the Board.	--
2.	The industry shall not produce any un-consented products.	The industry is manufacturing consented products.
3.	The industry shall not discharge any effluent / waste water within or outside the factory premises.	No discharge of wastewater was observed outside the industry premises during the inspection.
4.	The industry shall dismantle all the below ground level effluent storage tanks.	The industry has 2 Nos. of below ground level tank in tank structure for primary collection of process & domestic effluents, from there lifted to above ground level storage tanks before sending to CETP.
5.	The industry shall ensure that there are no seepages / overflow from the effluent storage tank.	No seepages and overflow from the storage tanks were observed during the inspection.
6.	The industry shall send all the pre-treated effluents along with Domestic effluent to M/s. PETL, Patancheru for further treatment & disposal after meeting the CETP	The industry is sending pre-treated effluents along with domestic wastewater to M/s. PETL, Patancheru for further treatment &

(119)

	inlet standards.	disposal.
7.	The industry shall submit the month details of production, effluent generated & disposal to E.E., RO-Hyderabad.	Submitted.
8.	The industry shall store ETP / STP sludge under roofed shed till its disposal.	The industry has separate roofed shed for storage of Hazardous waste.
9.	The industry shall revalidate the BG of Rs.8 lakhs till further orders from the Board.	The industry has revalidated the Bank Guarantee of Rs.8 Lakh upto 18.04.2020.

- The industry is consented to dispose the wastewater generated from Process & Washings, Cooling Tower bleed off and Purified water system after treatment in ETP, the treated effluents shall further treated in RO System. The RO permeate shall reused for cooling tower make up and the RO rejects shall disposed by Forced Evaporation. Subsequently, the Board has issued directions to the industry vide order dated 04.01.2018 and directed to dispose process, washings and domestic effluents to CETP.
- The industry treating the process & washings in the ETP. After treatment in ETP, the treated water is being lifted CETP i.e. M/s. PETL for further treatment and disposal. The industry has provided STP for treatment of domestic effluents, after treatment the treated domestic wastewater is lifted to M/s. PETL along with other treated wastewater.
- The industry has provided RO plant and FE system. Presently, the industry is not operating RO and FE system.
- The industry has consumed an average of 85.94 KLD against permitted capacity 143 KLD during the period from Dec, 2018 to Nov, 2019.
- The industry has submitted details of wastewater lifted to CETP, M/s. PETL from Dec, 2018 to Nov, 2019. As per the records, the industry has lifted total effluents of 13502 KL i.e. an average of 37.505 KLD against the permitted capacity 55 KLD.
- During the last one year period i.e. from Dec, 2018 to Nov, 2019, the industry has lifted total 1950 kg of Hazardous waste to TSDF in the month of February, 2019 vide manifest no.13207.
- The industry has lifted Bio-Medical waste total quantity 1787.95 kg to M/s. Sventhans& Co. during the period from Dec, 2018 to 2019.
- The compliance on Extension of Temporary Revocation of Closure Orders conditions are as follows:
- During inspection, the Joint Committee collected effluent samples from ETP Collection Tank,Pretreated water before lifting to M/s. PETL, CETP and Inlet & Outlet of STP. The analysis results of these samples are presented in **Tables27-29** as givenbelow:

Table 27: Analysis results of ETP Collection Tank and Inlet & Outlet of STP

Parameters	Method (*) No.	Unit	Result		
			ETP Collection Tank	STP Inlet	STP Outlet
pH at 25°C	4500-B	-	7.68	7.54	7.59

Total Suspended Solids	2540-B	mg/L	224	< 5	< 5
Total Dissolved Solids (TDS)	2540-C	mg/L	6,422	758	629
Chemical Oxygen Demand	5220-B	mg/L	905	36	16
Oil and Grease	5520 – B	mg/L	0.8	BDL	BDL

Table 28: Analysis results of Pretreatedeffluent before lifting to M/s. PETL, CETP

Parameter	Method (*) No.	Unit	Result 12277	CETP Inlet Standards
pH	4500-B	-	7.08	5.5 - 9.0
Total Suspended Solids	2540-D	mg/l	< 5	-
Total Dissolved Solids (Inorganic)	2540-E	mg/l	794	5,000
Chemical Oxygen Demand	5220-B	mg/l	226	15,000
Ammonical nitrogen as NH_3-N	4500-NH_3 C	mg/l	6.0	50
Oil and Grease	5520 – B	mg/l	BDL	20
Phenolic compounds	5530 C	mg/l	BDL	5.0
Boron	4500- B,C	mg/l	BDL	2.0
Chromium Hexavalent (as Cr+6)	3500 - Cr B	mg/l	BDL	2.0
Cyanide (as CN)	4500 - CN -E	mg/l	ND	2.0
Fluoride (as F)	4500 –F, D	mg/l	0.3	15
Nickel (as Ni)	3111 B	mg/l	ND	3.0
Copper (as Cu)	3111 B	mg/l	ND	3.0
Zinc (as Zn)	3111 B	mg/l	0.2	15
Lead (as Pb)	3111 B	mg/l	ND	1.0
Arsenic (as As)	3114 C	mg/l	< 0.02	0.2
Mercury (as Hg)	3112 B	mg/l	< 0.01	0.01
Cadmium (as Cd)	3111 B	mg/l	ND	1.0
Total Chromium (as Cr)	3111 D	mg/l	ND	2.0

BDL: Below detectable limit and **ND:** Not detected

The above results show that Pretreated effluent sent to CETP for further treatment meets the CETP Inlet Standards.

(121)

Table 29: AAQM results of M/s. Evertrogen Life Sciences

Sampling Location	Date of Monitoring	Concentration in Micro Gram per Cubic Meter		
		PM_{10}	SO_2	NO_X
Near security gate (Upwind)	09.01.2020 & 10.01.2020	95	4.7	BDL
Near water pre- treatment block (Downwind)	09.01.2020 & 10.01.2020	91	BDL	1.1
NAAQ Standards		**100**	**80**	**80**

J. M/s. Shri Kartikeya Pharma (SEZ Unit), Sy.No.408-412, 418-435, 437-445, Polepally (V), Jadcherla (M), Mahaboobnagar District:

- M/s. Shri Kartikeya Pharma is engaged in Ashwagandha Extraction.
- The industry has obtained CFO of the Board vide order dated 17.08.2017 for production of Ashwagandha Extract – 1000 kg/day with validity period upto 31.03.2022.
- As per the production records, the industry has manufactured Ashwagandha Extract – 307.522 kg/day (Avg./day) against the consented capacity of 1000 kg/day.
- The industry consumes water of about 22.7 KLD out of which, 18.0 KLD for Process, 2.0 KLD for washings, 2.0 KLD for Boiler feed, 0.5 KLD for cooling and 0.2 KLD for domestic purpose.
- The industry generates wastewater of about 20.4 KLD, out of which 18.0 KLD from Process, 2.0 KLD from Washings, 0.1 KLD from Boiler blow down, 0.1 KLD from Cooling tower bleed off and 0.2 KLD from Domestic section.The industry has lifted 1.11 KLD (Average/day) of effluents to M/s. PETL against consented capacity of 20.4 KLD during the period from December, 2018 to November, 2019.
- The industry is consented to send all pre-treated effluents / waste water to CETP.
- The industry has provided ETP for treatment of waste water before sending to M/s. PETL.
- The industry has HSD fired boiler of capacity 1.5 TPH with chimney height 30 mtrs.
- The Board has issued certain direction vide order dated 27.07.2019.

OBSERVATION OF THE COMMITTEE:

- The Committee has inspected the industry on 12.12.2019 and found in operation.
- The industry has below ground level collection tank in tank near tray washing i.e. Syntex tank placed in RCC tanks.
- The industry has provided above ground level 4 Nos. x 5 KL tanks (Syntex tanks) for storage before lifting to CETP i.e. PETL.
- The industry has lifted effluents to M/s. PETL 1.11 KLD (Average/day) against consented capacity of 20.4 KLDfor the period from December, 2018 to November, 2019.
- The industry has installed mechanical flow meters at water intake point for measurement of water consumption and at ETP Inlet. The industry has not provided Digital flow meter to the final storage before lifting to CETP.
- The industry has installed Forced Evaporation System, but not in operation during inspection.
- The industry has storm water drains and connected to outside TSIIC drains.

122

- The Board has issued certain direction vide order dated 27.07.2019.

The compliance on directions are as follows:

S. No.	Condition	Compliance
1.	The industry shall comply with all the CFO condition issued by the Board.	--
2.	The industry shall not discharge any effluent / wastewater within **or** outside the premises.	During the inspection, no discharge of wastewater was observed outside the premises.
3.	The industry shall dismantle all the below ground effluent storage tanks.	The industry has below ground level collection tank in tank near tray washing i.e. Syntex tank placed in RCC tanks.
4.	The industry shall send all the pre-treated effluents / waste water to CETP.	The industry is lifting pre-treated process, washings and domestic effluents to CETP, Patancheru for further treatment and disposal.
5.	The industry shall take all the measures to ensure that there is no smell nuisance due to operations of the industry.	The industry is carrying within the closed building.
6.	The industry shall provide / maintain water meters to quantify the actual water consumption & wastewater generation.	The industry has installed mechanical flow meters at water intake point for measurement of water consumption and at ETP Inlet.
7.	The industry shall provide separate rain water drains.	The industry has provided separate rain water drains.
8.	The industry shall dispose ETP Sludge generated to TSDF regularly.	Not submitted.
9.	The industry shall revalidate the BG of Rs.1 lakh till further order from the Board.	The industry has revalidated Bank Guarantee of Rs.1 Lakhs for period upto06.09.2020.

- During inspection, the Joint Committee collected effluent samples from Inlet & Outlet of ETP and Borewell water sample. The analysis results of these samples are presented in the **Tables30-33** as given below:

Table30: Analysis results of Inlet & Outlet of ETP

Parameters	Method (*) No.	Unit	Results		CETP Inlet Standards
			ETP Inlet	ETP Outlet	
pH at 25°C	4500-B	-	6.65	7.70	5.5 - 9.0

Total Suspended Solids	2540-B	mg/L	90	45	-
Total Dissolved Solids (TDS)	2540-C	mg/L	2,919	2,284	5,000
Chemical Oxygen Demand	5220-B	mg/L	254	163	15,000
BOD 3 at 27°C	IS 3025, 1993	mg/L	51	20	--
Oil and Grease	5520 – B	mg/L	0.1	BDL	20 mg/L

Table 31: Analysis results of Borewell Water Sample

Parameters	Unit	Results	Drinking water standards as per IS 10500: 2012
		Borewell Water	
pH	-	7.38	6.5-8.5
Electrical conductivity	µS/cm	2637	-
Total Solids	mg/L	1824	-
Total Suspended Solids	mg/L	<5	-
Total Dissolved Solids	mg/L	1824	500* (2000**)
Chlorides as Cl^-	mg/L	585	250* (1000**)
Sulphates as SO_4^{-2}	mg/L	64	200* (400**)
Total Alkalinity as CaCO3	mg/L	348	200* (600**)
Total Hardness as CaCO3	mg/L	896	200* (600**)
Calcium as Ca+2	mg/L	210	75* (200**)
Magnesium as Mg+2	mg/L	90	30* (100**)
Nitrates	mg/L	58	45
Fluoride	mg/L	BDL	1.0* (1.5**)
Turbidity	mg/L	19.8	-
Phosphates	mg/L	<0.1	-
Sodium as Na	mg/L	108	-
Potassium as K	mg/L	2	-
% Sodium	%	21	
SAR	-	2.0	-
Boron	mg/L	1.7	-
Residual sodium Carbonate(RSC)	mg/L	BDL	-
Copper	mg/L	<0.1	0.05*(1.5**)

Nickel	mg/L	ND	0.02
Zinc	mg/L	<0.1	5*(15**)
Cadmium	mg/L	ND	0.003
Lead	mg/L	ND	0.01

Note: * Acceptable limit, ** Permissible limit in the absence of alternate source, **BDL:** Below Detectable limit and **ND:** Not Detectable.

The above results show that Pretreated effluent sent to CETP further treatment meets the CETP Inlet Standards.

Table 32: AAQM results of M/s. ShriKartikeyaPharma (SEZ Unit),

Sampling Location	Date of Monitoring	Concentration in Micro Gram per Cubic Meter		
		PM_{10}	SO_2	NO_X
Near Electrical Panel room (Downwind)	09.01.2020 & 10.01.2020	94	6.9	12.2
Near Main gate (Downwind)	09.01.2020 & 10.01.2020	80	6.4	12.8
NAAQ Standards		**100**	**80**	**80**

Table 33: Stack Monitoring results of M/s. Shri Kartikeya Pharma (SEZ Unit),

S.No	Stack attached to	Parameter	Method No. / Instrument	Result	Standard Prescribed
1	HSD boiler - 1.5 TPH	PM, mg/Nm^3	IS:11255 (Part-1)-1985	17	115

The Stack Monitoring results show that the particulate Matter emission (17 mg/Nm^3) monitored at the stack connected to the HSD boiler - 1.5 TPHmeeting the Standard Prescribed (115 mg/Nm^3) in the consent.

K. **M/s. Amneal Oncology Pvt. Ltd. (Formerly M/s. Epsilon Pharmaceuticals Private Limited), Plot No.A-3, S-4 & A-5A, Sy.No.411, 425 etc. Polepally (V), Jadcherla (M), Mahabubnagar District:**

- M/s. Amneal Oncology Pvt. Ltd is a Pharmaceutical Formulations Unit.
- The industry has CFO with validity period upto 31.05.2020 for the following products. i. e., Cyclophosphamide for Injection – 1g/2g, Cyclophosphamide for Injection – 500 mg, Docetaxel of Injection – 20mg, Docetaxel Injection Concentrate – 80 mg, Gemcitabine HCL for Injection – 1g / 2g, Gemcitabine for Injection – 200 mg, Oxaliplatin for Injection – 50 mg / 100 mg / 200 mg, Paclitaxel for Injection – 10 mg / 30 mg / 100 mg, Paclitaxel for Injection – 150 mg / 300 mg & Paclitaxel Protein Bound – 100 mg - 16,80,000 vials per annum.
- The industry has obtained CFO Expansion Order with a validity period upto 31.05.2028 for the various injectable formulations – 10,00,000 Vilas/annum ***with a condition that, the industry shall pay the consent fees annually from the financial year 2019-2020 till validity of the Consent Order.***
- The industry consumes total water of about 152.0 KLD for Process & Washings – 26.0 KLD, Cooling – 19.0 KLD, Boiler feed – 33.0 KLD, Domestic – 18.0 KLD, Regeneration (Process and Utility) – 22.0 KLD, Gardening – 25.0 KLD and Canteen Use – 9.0 KLD.

(125)

- The industry generates wastewater of about 89.0 KLD from Process & Washings - 21.7 KLD, Cooling – 9.5 KLD, Boiler blow down – 13.3 KLD, Regeneration (Process and Utility) – 18.5 KLD Domestic – 17.5 KLD and Canteen – 8.5 KLD.
- The industry has oil fired boiler of capacity 1.5TPH and 2.8TPH and provided individual chimneys of height 30 mtrs for proper dispersion of the flue gases.
- The industry has D.G. sets capacities 1 X 750 KVA & 1 X 1010 KVA and provided with acoustic enclosures
- The industry generates hazardous/solid waste such as ETP Sludge – 18 TPA consented to lift to the TSDF, Waste oil – 4100 LPA consented to sold to authorized recycler / re-processors, HDPE drums /Carboys – 4000 Drums/Annum consented to sold tooutside authorized agencies after complete detoxification, Packing material / Liners – 4.2 TPM consented to soldtooutside authorized agencies after complete detoxification and Used Lead Acid Batteries – 6 NPA consented to return back to the manufacturer / dealer on buy back basis, Glass ware - 110 kg/day consented to dispose to recycling units after detoxification, Off-specification products / expired formulation – 15 TPA – To TSDF, Off-Specification Raw materials – 12 TPA – To TSDF, Mixed Solvents from the QC – 2 TPA – To TSDF, Microbiological waste – 12 TPA – To CBMWTF.
- The Board has issued Closure vide order dated 27.07.2019 for Non-compliance of Board directions& Consent conditions.Subsequently, the Board has issued restoration of power supply vide order dated 09.08.2019 to restore power supply of 900 KVA to operate emergency services in the plant and maintain temperature of products stored in the ware house, stability chamber and cold room operations of air handling units to prevent degradation of the products.
- Subsequently, the Board has issued Temporary Revocation of Closure Orders vide order dated 06.09.2019 for a period upto 31.12.2019 stipulating certain conditions. Subsequently, industry submitted representation for permanent revocation of closure order on 11.12.2019 . The Regional office, Hyderabad forwarded report to the Board office on 20.12.2019.

The condition wise compliance of Temporary Revocation of Closure order dated 06.09.2019 are as follows:

S. No.	Condition	Compliance
1.	The industry shall comply with all the CFO conditions issued by the Board.	The condition wise compliance of Schedule – B Conditions of CFO Order dated 20.11.2018 is reported below.
2.	The industry shall not produce any un-consented products.	The industry manufactured consented products within the consented capacity. During the period from Dec, 2018 to Nov, 2019, the industry has manufactured Injectable- 46,384 Nos. Vials against permitted capacity 16,40,000/- vials.
3.	The industry shall provide additional above ground effluent collection tank to store the effluents to ensure two days holding capacity within a month.	The industry has converted ETP & STP tanks into effluent storage tanks viz., ETP Equalization tank – 35 KL, Aeration tank - 80 KL, RO Feed tank – 35 KL, STP Equalization tank – 15 KL and STP treated water storage tank – 15 KL. From these

126

		tanks finally pumped to 2 Nos. of HDPE tanks of 10 KL capacity each before sending to M/s. MANA CETP. The industry has total effluent storage capacity 200 KL which is sufficient for 2 days.
4.	The industry shall ensure that there are no seepages / overflow from the effluent storage tanks.	During inspection, no overflow was observed from effluent storage tanks.
5.	The industry shall send all he effluents along with Domestic effluents to M/s. PETL, Patancheru for further treatment & disposal after meeting the CETP inlet standards.	The industry lifted process, washings, cooling bleed off along with domestic effluents to M/s. MANA CETP for further treatment and disposal. During the period from December, 2018 to November, 2019 has lifted total 7390 KL of wastewater to M/s. MANA CETP at an average of 20.52 KLD of wastewater against the permitted quantity of 89 KLD
6.	The industry shall not discharge any treated / untreated effluents within / outside the industry premises.	During inspection, no discharge of wastewater was observed outside the industry premises.
7.	The industry shall provide sufficient capacity of first run off rain water collection tank (@24 KL/acre) at appropriate location within a month. The contaminated rain water collected shall be disposed to CETP duly following manifest system.	The industry has provided rain water collection tank of capacity 120 KL & 5 KL and routed to collection tank to collect the first run off water and proposed lift to CETP along with other effluents. During the inspection, the industry constructing storm water drains and the line connectivity to tank is under progress. The industry shall connect all the storm water lines to the rain water collection tank and first run off shall be lifted to CETP along with other effluents and maintain records.
8.	The industry shall submit monthly details of production, effluent generated & disposal to E.E., RO, Hyderabad.	Submitting.
9.	The industry shall revalidate he BG of Rs.4 Lakhs before its expiry till further orders from the Board.	The industry has revalidated BG of Rs.4 Lakhs with validity period upto 1st November, 2020.

OBSERVATION OF THE COMMITTEE

- The Committee has inspected the industry on 12.12.2019 and found in operation.
- Earlier, the industry has above ground level ETP & STP consisting of Collection tank, Aeration tank, settling tank, ACF, PSF and Sludge Drying Beds.
- The industry has stopped STP & ETP operations. During the inspection, it was observed that, the industry has disconnected the pipeline connections, electricity connections to the STP & ETP. The industry converted ETP & STP tanks into effluent storage tanks.
- The industry has below ground level tank in tank structure i.e. 5 KL syntax tanks placed in the RCC tank for initial collection of effluents from the production block. From there lifted

to above ground level collection tanks (ETP & STP tanks) viz., ETP Equalization tank – 35 KL, Aeration tank - 80 KL, RO Feed tank – 35 KL , STP Equalization tank – 15 KL and STP treated water storage tank – 15 KL. From there pumped to 2 Nos. of HDPE tanks of 10 KL capacity, and finally lifted process, washings, cooling bleed off along with domestic effluents to M/s. MANA CETP for further treatment and disposal. During the period from December, 2018 to November, 2019 has lifted total 7390 KL of wastewater to M/s. MANA CETP at an average of 20.52 KLD of wastewater against the permitted quantity of 89 KLD.

- The industry has total effluent storage capacity 200 KL which is sufficient for 2 days.
- Mechanical flow meter provided at Effluent collection tank, Domestic waste water collection tank and Digital flow meter provided at final treated waste water storage tank. The industry shall install Digital flow meter with totalizer facility instead of Mechanical flow meters.
- The industry has provided rain water collection tank of capacity 120 KL & 5 KL and routed to collection tank to collect the first run off water and proposed lift to CETP along with other effluents. During the inspection, the industry was constructing storm water drains and line connectivity is under progress. The industry representative informed that, excess rain water is letting out to TSIIC drain.
- The industry shall connect all the storm water lines to the rain water collection tank and first run off shall be lifted to CETP along with other effluents and maintain records.
- The industry has lifted 12655 kg of Hazardous waste to TSDF during the period from Dec, 2018 to Nov, 2019.
- The industry has lifted 8073.63 kg of Bio-Medical waste to CBMWTF during the period from Dec, 2018 to Nov, 2019.
- The industry is not maintaining records pertaining to waste oil disposal.
- The industry has provided separate shed for storage of Hazardous waste.
- The industry has MEE. The representative informed that, they are not operating MEE and lifting the entire effluents to CETP for further treatment and disposal.
- On the day of inspection, the Borewell was not in operation. Hence, sample water sample not collected.
- During inspection, the Joint Committee collected an effluent sample before lifting to MANA CETP. The analysis results are presented in the **Tables34 & 35** as given below:

Table 34: Analysis results of waste water sample

Parameter	Method (*) No.	Unit	Result 12280	CETP Inlet Standards
pH	4500-B	-	7.55	5.5 - 9.0
Total Suspended Solids	2540-D	mg/l	< 5	-
Total Dissolved Solids (Inorganic)	2540-E	mg/l	1,494	5,000
Chemical Oxygen Demand	5220-B	mg/l	99	15,000
Ammonical nitrogen as NH_3-N	4500-NH_3 C	mg/l	12	50
Oil and Grease	5520 – B	mg/l	BDL	20
Phenolic compounds	5530 C	mg/l	BDL	5.0

Boron	4500- B,C	mg/l	BDL	2.0
Chromium Hexavalent (as Cr+6)	3500 - Cr B	mg/l	BDL	2.0
Cyanide (as CN)	4500 - CN -E	mg/l	ND	2.0
Fluoride (as F)	4500 –F, D	mg/l	0.2	15
Nickel (as Ni)	3111 B	mg/l	ND	3.0
Copper (as Cu)	3111 B	mg/l	ND	3.0
Zinc (as Zn)	3111 B	mg/l	0.3	15
Lead (as Pb)	3111 B	mg/l	ND	1.0
Arsenic (as As)	3114 C	mg/l	< 0.02	0.2
Mercury (as Hg)	3112 B	mg/l	< 0.01	0.01
Cadmium (as Cd)	3111 B	mg/l	ND	1.0
Total Chromium (as Cr)	3111 D	mg/l	ND	2.0

BDL: Below detectable limit and **ND:** Not detected.

The above results show that Pretreated effluent sent to CETP further treatment meets the CETP Inlet Standards.

Table 35: AAQM results of M/s. Amneal Oncology Pvt. Ltd.

Sampling Location	Date of Monitoring	Concentration in Micro Gram per Cubic Meter		
		PM_{10}	SO_2	NO_X
At the periphery of the industry beside oil storage tank (Upwind)	30.12.2019 & 31.12.2019	**149**	BDL	11.0
At the periphery of the industry near second gate of the unit (Downwind)	30.12.2019 & 31.12.2019	96	4.0	10.2
NAAQ Standards		**100**	**80**	**80**

The PM10 concentration (149 µg/m3) monitored at upwind & downwind direction inside the industry premises exceed NAAQ Standard (24hrs avg) of 100 µg/m^3.

7. Monitoring of Ground water, Surface water and Soil samples from surroundings of TSIIC SEZ Polepally:

A. Ground Water& Surface water:

The joint committee inspected in and around TSIIC SEZ Polepally and collected Ground water & Surface watersamples to know about the impact of pollution due to the industries located in SEZ Polepally. The analysis results of Ground water & Surface watersamples are presented in the**Table 36** as given below:

Table 36: Analysis results of Ground Water Samples collected from surroundings of SEZ

Parameters	Unit	Sampling locations										
		11005	11007	11008	11009	11010	11011	11012	11013	11014	11016	11018
pH	-	7.43	6.90	7.14	7.23	7.21	7.19	7.36	7.18	7.11	7.68	7.68
Electrical	uS/cm	789	1090	1745	3540	4150	5040	4050	2032	4280	1360	1551

(129)

Total Suspended Solids	mg/L	< 5	< 5	< 5	< 5	21	< 5	< 5	< 5	< 5	< 5	< 5
Total Dissolved Solids	mg/L	446	712	996	2336	2685	3384	2429	1084	2817	758	960
Chlorides as Cl^-	mg/L	55	104	238	779	1016	1303	874	325	1063	126	232
Sulphates as SO_4^{-2}	mg/L	11	30	36	170	61	58	221	49	53	25	28
Total Alkalinity as CaCO3	mg/L	364	264	420	336	388	400	428	384	328	480	360
Total Hardness as CaCO3	mg/L	272	350	590	1430	1710	2090	1350	750	1510	450	470
Calcium as Ca+2	mg/L	62	92	108	280	308	264	180	144	284	96	84
Magnesium as Mg+2	mg/L	28	29	78	177	228	348	219	95	194	51	63
Nitrates	mg/L	5	44	43	42	15	16	31	45	40	22	24
Fluoride	mg/L	0.80	0.59	0.51	0.70	0.35	0.61	0.34	0.63	0.47	0.50	0.60
Phosphates	mg/L	0.52	BDL	BDL	BDL	BDL	BDL	0.35	0.61	BDL	0.43	0.83
Sodium as Na	mg/L	60	41	104	116	108	120	309	87	193	101	116
Potassium as K	mg/L	2	2	3	2	1	2	4	2	3	2	3
% Sodium	%	32	20	27	15	12	11	33	20	22	33	35
SAR	-	1.6	1.0	1.9	1.3	1.1	1.1	3.6	1.4	2.2	2.1	2.3
Residual Sodium Carbonate(RSC)	me/L	0.6	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Boron	mg/L	BDL	BDL	BDL	0.01	BDL	BDL	0.02	BDL	BDL	BDL	BDL

BDL: Below Detectable limit

Sample code	:	**Sample details / collection point**
11005	-	Borewell sample collected from agricultural fields of E.AshanaGoud, Mudireddipalli
11007	-	Borewell sample collected in front of M/s. Raju Hair cutting saloon, Mudireddipalli
11008	-	Borewell sample from grampanchyatborewell near the house of Sri. SrikanthGoud, # 3-69 Rayapally (V)
11009	-	Borewell sample collected from agricultural fields of Sr. Chennaiah, Rayapally (V), Jadcherla(M)
11010	-	Borewell sample collected from agricultural fields of Sri. Ganesh Goud, Sy.No.412/7/E, Rayapally (V), Jadcherla (M).
11011	-	Borewell sample collected from agricultural fields of Sri.VenkateshGoud, Rayapally(V), Jadcherla (M)
11012	-	Borewell sample collected from agricultural fields of Sri.GopalGoud, Polepally (V)
11013	-	Borewell sample collected near the house of Sri.Ramaswamy, Polepally (V)
11014	-	Borewell sample collected from borewell no.2 of agricultural fields of Sri.Raghunandhan Chari, GundlagaddaThandaJadcherla (M)
11016	-	Borewell sample collected within the premises of M/s.L&T Construction (Skills Taining Institute) Polepally (V) Jadcherla(M), Mahabubnagar District

11018 - Borewell sample collected within the premises of M/s. Supreme Industries, Polepally (V), Jadcherla (M).

The analysis results of ground water samples collected from bore wells of agricultural fields from surroundings of SEZ used for irrigation meet the IS:11624-1986 (Reaffirmed 2009), Guidelines for the Quality of Irrigation Water w.r.t. Total Salt Concentration, Sodium Adsorption Ratio (SAR), Residual Sodium Carbonate (RSC) and Boron Content. As per the above standard, the water quality rating based on the total salt concentration is provided in the **Table 37** as given below:

Table 37: water quality rating based on the total salt concentration

Sl. No.	Class	Range of EC, µmhos/cm
1	Low	Below 1500
2	Medium	1500-3000
3	High	3000-6000
4	Very High	Above 6000

As per the above rating based on the total salt concentration, the water samples Code Nos. 11009 to11012 & 11014 falls under high class as EC reported for these samples in the range of 3000-6000, water samples Code Nos. 11013 & 11018 fall under Medium Class and the remaining samples fall under Low Class.

As per the standard IS:11624-1986 (Reaffirmed 2009) , the water quality rating based on SAR is provided in the **Table 38** as given below:

Table 38: water quality rating based on the SAR

Sl. No.	Class	SAR Range
1	Low	Below 10
2	Medium	10-18
3	High	18-26
4	Very High	Above 26

As per the above rating based on SAR, all the water samples fall under Low Class (SAR < 10).

As per the standard IS:11624-1986 (Reaffirmed 2009) , the water quality rating based on RSC is provided in the **Table 39** as given below:

Table 39: water quality rating based on the RSC

Sl. No.	Class	RSC Range, me/L
1	Low	Below 1.5
2	Medium	1.5-3.0
3	High	3.0-6.0
4	Very High	Above 6

As per the above rating based on RSC, all the water samples fall under Low Class (RSC < 1.5).

As per the standard IS:11624-1986 (Reaffirmed 2009) , the water quality rating based on Boron Content is provided in the **Table 40**as given below:

Table 40: water quality rating based on Boron Content

Sl. No.	Class	Boron, ppm
1	Low	Below 1.0
2	Medium	1.0-2.0
3	High	2.0-4.0
4	Very High	Above 4

131

As per the above rating based onBoron Content, all the water samples fall under Low Class (Boron< 1.0).

Table 41: Analysis results of Surface Water Samples collected from surroundings of SEZ

Parameters	Unit	Results			
		11006	11015	11017	11019
pH	-	7.16	7.84	7.59	7.69
Electrical conductivity	µS/cm	257	1664	1668	2359
Chemical Oxygen Demand	mg/L	40	192	200	64
BOD 3 days 27°C	mg/L	14	33	26	36
Total Suspended Solids	mg/L	< 5	7	27	5
Total Dissolved Solids	mg/L	168	1024	965	1523
Total Alkalinity as CaCO3	mg/L	100	176	312	172
Total Hardness as CaCO3	mg/L	104	470	500	1310
Calcium as Ca+2	mg/L	24	112	140	156
Magnesium as Mg+2	mg/L	11	46	37	224
Nitrates	mg/L	4	7	19	6
Sodium as Na	mg/L	17	193	161	261
Potassium as K	mg/L	8	13	17	16
Boron	mg/L	0.16	0.69	0.67	BDL
Free Ammonia	mg/L	BDL	BDL	0.53	BDL
% Sodium	%	24	46	40	30
SAR	-	0.7	3.9	3.1	3.1
Oil & Grease	mg/L	-	-	BDL	-
Residual Sodium Carbonate (RSC)	me/L	BDL	BDL	BDL	BDL
Total coliform	MPN/100ml	240	33	350	280
Fecal coliform	MPN/100ml	49	5	79	79

BDL: Below Detectable Limit. Except the presence of Total & Faecal Coliforms, no major variations observed in the Physico-Chemical characteristics of the above surface water samples.

Sample code : Sample details / collection point

11006 - Water sample collected from MudireddipalliCheruvu

11015 - Stagnated water collected from pit in GandlagaddaThanda (V), Jadcherla(M)

11017 - Waste water sample collected from nallahinfront of M/s. Thermo cables Unit 2, Polepally (V), Jadcherla (M)

11019 - Stagnated water collected from a pond located infront of M/s. Shilpa Medicare, Polepally (V), Jadcherla (M).

B. Soil Samples:

The joint committee inspected in and around SEZ TSIIC Polepally and collected Soil samples to know about the impact of pollution due to the industries located in SEZ Polepally. The analysis results of Soil samples are presented in **Table 42** as given below:

Table 42: Analysis results of Soil Samples collected from Northern side of SEZ

Parameter	Results	
	(12269)	(12275)
Colour	Light grey	Light brown
State	Solid	SOLID
pH @ 25 ^{0}C (1:5)	7.91	8.02
Electrical Conductivity (1:5) us/cm	44.9	636
Organic Carbon (%)	1.67	0.9
Calcium as Ca (mg/kg)	1600	800
Magnesium as Mg (mg/kg)	3400	3880
Boron	3.5	1.76
Nitrogen as N %		
Phosphorus as P (mg/kg)	2.48	485
Potassium as K (mg/kg)	900	664
Copper (mg/l)	ND	ND
Zinc (mg/l)	<0.1	<0.1
Cadmium (mg/l)	ND	ND
Nickel (mg/l)	ND	ND
Lead (mg/l)	<0.2	<0.2
Chromium (mg/l)	<0.2	<0.2

12269 - Soil sample collected from agricultural field of Sri A. Ganesh Goud, Sy.no.412/7/E, Rayapally village, Jadcherla (M), Mahaboobnagar District.

12275 – Soil samples collected from agricultural field of Sri K. Kishan, Chakali GaddaThanda.

The analysis results of above soil samples collected from the agricultural fields from northern side of SEZ, where complainants fields are located, reveals that the pH of the soil is slightly alkaline as pH is reported as 7.91 & 8.02 against the standard of 6.5-7.5, salinity effect is negligible as EC is reported less than 1dSm-1, Micro nutrients like Zinc & Copper are less than critical levels of 0.7 ppm and 0.3 ppm respectively and Heavy Metals like Cadmium, Nickel, Lead and Chromium are less than permissible limits of 0.5 ppm, 2 ppm, 5 ppm and 2 ppm respectively.

L. M/s. Suvarna Apparel & Fashion Exports Limited., Sy.Nos.103 to 109 & 148 to 152, Rangareddyguda (V), Balanagar (M), Mahabubnagar District:

- M/s. Suvarna Apparel & Fashion Exports Limited is a textile unit involved in the manufacturing of the Grey Yarn Knitting and Knitted Fabrics Processing.
- The industry has CFO with a validity period upto28.02.2022for the manufacturing of the Grey Yarn Knitting and Knitted Fabrics Processing - 125 Tons/month.
- During the period from Dec, 2018 to Nov, 2019, the industry has manufactured Grey Yarn Knitting and Knitted Fabrics Processing – 60.28083 Tons/month (Avg.) against permitted capacity 125 Tons/month.
- The industry consumes water of about 276.5 KLD for Process & Washings – 266.0 KLD, Boiler Feed & Cooling Tower make up – 8.0 KLD and Domestic – 2.5 KLD.
- The industry generates wastewater of about 260.5 KLD from Process & Washings – 230.0 KLD, Dyeing effluents – 30.0 KLD and Domestic – 0.5 KLD.

(133)

- The industry has husk fired boiler of capacity 6 TPH and Thermic Fluid Heater of capacity 1.5 Lakh K.cal/hr. The industry has provided Multi cyclone followed by common water trough system followed by bag filter to control the boiler emissions.
- The industry has D.G. Sets of capacity 320 KVA, 225 KVA and 62.5 KVA.
- The Board has issued Closure Order to the industry for Non-Compliance of Board directions& Consent conditions vide order dated 27.07.2019.
- Subsequently, the Board has issued Restoration of single phase power supply vide order dated 08.11.2019 as per the request of the industry for rectification works by duly not permitting the industry production activity till the industry obtains Revocation of Closure Orders.

OBSERVATION OF THE COMMITTEE:

- The Committee has inspected on 11.12.2019 and the industry was not in operation due to closure order issued by the Board.
- The industry has separate pipeline for collection of HTDS & LTDS effluents.
- The industry has ETP, followed by RO (2stage) system. The RO rejects along with HTDS effluents is sent to MEE followed by centrifuge.
- Mechanical flow meter installed at raw water intake point to measure the water consumption. Digital flow meter installed at RO feed, RO permeate and at MEE feed tank.
- The industry has provided closed shed for storage of husk& husk ash, but the openings were observed.
- The industry has provided concreted platform for filter press. The leachate is routed to Aeration tank-II for treatment.
- The industry has not provided proper shed for storage of hazardous waste.The industry has not provided hazardous waste storage area with elevated concreted platform by providing leachate collection pit.
- The industry has husk fired boiler of capacity 6 TPH and Thermic Fluid Heater of capacity 1.5 Lakh K.cal/hr. The industry has provided Multi cyclone followed by common water through system followed by bag filter to control the boiler emissions.
- The D.G. Sets stack shall be extended above the roof of the building with sufficient height as per the CPCB guidelines of Emission Regulations Part-IV.
- The borewell sample was not collected due to power disconnection.
- The condition wise compliance of Closure Order conditions are as follows:

S. No.	Closure Order dated 27.07.2019 condition	Compliance status
1.	The industry is not segregating the high TDS & low TDS effluents as per the CFO order.	The industry has separate pipeline for collection HTDS &LTDS effluents.
2.	The industry is not lifting the total high TDS & low TDS effluents generated after pre-treating the effluents in ETP.	
3.	The industry has not constructed closed shed / silo for storage of boiler ash and	The industry has provided closed room for storage of

134

	storing ash openly.	boiler ash.
4.	The industry has not upgraded the ETP and not lifted the ETP sludge & MEE salts stored in the premises.	The RO rejects along with HTDS effluents are sent to MEE followed by pusher filter. The industry has
5.	MEE system was in dilapidated / not in working condition indicating that the industry is discharging HTDS effluents without proper treatment.	The industry has MEE plant for evaporation of HTDS effluents
6.	The industry is arresting overflow of plant effluents and discharging the same on land near the production block.	The industry is not in operation due to closure order
7.	The industry is not operating the Force Evaporation System regularly viz., Multi Effect Evaporator (MEE) followed by pusher centrifuge to evaporate the R.O. Rejects and dyeing effluents.	
8.	The industry is not upgraded the air pollution control equipment (APCE) attached to 6 TPH Boiler.	The industry has provided Multi cyclone followed by common water trough system followed by bag filter to control the boiler emissions.
9.	As per the stack monitoring report carried out at Husk fired boiler of capacity – 6 TPH, the SPM – 570 mg/Nm^3 against the standards (115 mg/Nm^3)	The industry is not in operation due to closure order
10.	The Board Officials have collected Bore Well samples from Mango garden of Sri Rajender Reddy, adjacent to the industry i.e., about 20 mtrs. distance on Southern side of the industry. The analysis results indicate that the parameters i.e., TDS, Chlorides, Total Alkalinity, Total hardness, Calcium as Ca^{+2}, Magnesium as Mg^{+2}& COD are exceeding the permissible limits of the drinking water standards. Date of sampling please.	Borwell sample collected from Mango garden on 11.12.2019. The results are awaited.
11.	Housekeeping within premises is poor.	The industry has improved house keeping

- It was alleged by Sri Satyanarayana, Supervisor of Mango Garden located adjacent to this industry on the southern side alleged that the industry was earlier discharging its effluent inside the factory premises without any treatment as a result the bore well water in Mango Garden was contaminated. Hence, it was decided by the Joint Committee to collect soil samples at different locations inside the premises of M/s. Suvarna Apparel & Fashion Exports Limited. The ground water sample could not be collected as the bore

(135)

well pump was out of order. The analysis results soil samples are presented in the **Table 43** as given below:

Table 43: Analysis results of soil samples

S. No	Parameter	Results			
		Eastern side	Western side	Northern side	North- East side
1.	Colour	Brown	Light grey	Grey	Grey
2.	State	Solid	Solid	Solid	Solid
3.	pH @ 25 °C (1:5)	9.02	9.74	5.6	9.76
4.	Electrical Conductivity (1:5) us/cm	489	121.1	25.07	930
5.	Organic Carbon (%)	1.4	2.21	0.4	1.36
6.	Calcium as Ca (mg/kg)	800	800	2400	3200
7.	Magnesium as Mg (mg/kg)	486	ND	4370	3400
8.	Boron (mg/kg)	3.8	1.44	4.38	3.7
9.	Nitrogen as N %	0.1	0.1	0.1	0.04
10.	Phosphorus as P (mg/kg)	25.0	ND	49.0	52.34
11.	Potassium as K (mg/kg)	1213	ND	1088	743
12.	Copper (mg/l)	ND	ND	ND	ND
13.	Zinc (mg/l)	<0.1	0.1	<0.1	<0.1
14.	Cadmium (mg/l)	ND	ND	ND	ND
15.	Nickel (mg/l)	ND	ND	ND	ND
16.	Lead (mg/l)	<0.2	0.2	<0.2	<0.2
17.	Chromium (mg/l)	<0.2	<0.2	<0.2	<0.2

ND: Not Detected.

- The above soil analysis results show that the pH of the soil inside the premises at northern side is acidic (pH5.6) and in East, West and North-East side it is highly alkaline (pH in the range of 9.02 to 9.76).
- The soil is not contaminated with heavy metals. The electrical conductivity of the soli analysis results shows that the salinity effect is negligible.
- The micro nutrients and Heavy Metal levels in the soil are less than critical and permissible levels respectively.
- During inspection of M/s. Suvarna Apparel & Fashion Exports Limited, the Joint Committee decided to collect soil and ground water samples outside the industry premises to know the impact of pollution on soil and ground water due to this industry.

8. Monitoring of Ground water and Soil samples from the surroundings of M/s. Suvarna Apparel & Fashion Exports Limited:

A. Ground Water:

The joint committee inspected in and around M/s. Suvarna Apparel & Fashion Exports Limited.,and collected ground water samples from complainants agricultural fields bore well at **Gundlapotlapally**Village (Sample Code Nos. 12258 & 12259) located at about 2-3 KMs away towards eastern side of the industry and from Mango garden of Sri. Rajender Reddy (Sample Code No. 12198) which is located just adjacent to the industry towards Southern side in order to

know about the impact of pollution due to this industry. The analysis results of these Ground water samples are presented in **Table 44** as given below:

Table 44: Analysis results of ground water samples of complainants of M/s Suvarna Apparel & Fashion Exports Limited

Parameters	Unit	Results			Drinking water standards as per IS 10500: 2012
		12258	12259	12198	
pH	--	7.27	7.06	6.39	6.5-8.5
Electrical conductivity	µS/cm	2562	2715	--	--
Total Suspended Solids	mg/L	< 5	< 5	38.0	--
Total Dissolved Solids	mg/L	1848	1540	4627	500* (2000**)
Chlorides as Cl^-	mg/L	585	735	2479	250* (1000**)
Sulphates as SO_4^{-2}	mg/L	41	57	131	200* (400**)
Total Alkalinity as CaCO3	mg/L	296	300	424	200* (600**)
Total Hardness as CaCO3	mg/L	1136	1276	3720	200* (600**)
Calcium as Ca^{2+}	mg/L	240	195	936	75* (200**)
Magnesium as Mg^{2+}	mg/L	130	191	335	30* (100**)
Nitrates	mg/L	9	62	19	45
Fluoride	mg/L	BDL	BDL	1.4	1.0* (1.5**)
Phosphates	mg/L	<0.1	<0.1	1.7	--
Sodium as Na	mg/L	70	88	252	--
Potassium as K	mg/L	1	1	2.6	--
% Sodium	%	12	13	12.85	--
SAR	--	0.9	1.1	1.80	--
Boron	mg/L	1.8	1.6	0.2	--
Residual Sodium Carbonate (RSC)	me/L	-17.8	-20.5	-70	--
Copper	mg/L	< 0.1	< 0.1	ND	0.05*(1.5**)
Nickel	mg/L	ND	ND	ND	0.02
Zinc	mg/L	< 0.1	0.125	0.8	5*(15**)
Cadmium	mg/L	ND	ND	ND	0.003
Lead	mg/L	ND	ND	ND	0.01
Manganese as Mn	mg/L	--	--	0.15	--
Iron as Fe	mg/L	--	--	< 0.1	--
Mercury as Hg	mg/L	--	--	ND	--
Total Arsenic	mg/L	--	--	ND	--

137

52

12258 - Borewell water sample collected from agriculture field of Sri. Shankaraiah, Gundlapotlapally

12259 - Borewell water sample collected from agriculture field of Sri. Gopal, Gundlapotlapally

12198 - Borewell water sample collected in Mango field of Rangareddygudem

- The above analysis results show that the parameters like TDS, Chlorides, Total Alkalinity, Total Hardness, Calcium and Magnesium exceed the permissible limit of drinking water standards in all the three ground water samples. The sample collected in Mango garden which is located just adjacent to the industry has got concentrations significantly higher than other two ground water samples w.r.t. the above parameters.
- The above bore well waters are used only for irrigation purposes. As per IS:11624 – 1986 (RA 2009) the Guidelines for the Quality of Irrigation Water, the Sodium Absorption Ratio (SAR), Residual Sodium Carbonate (RSC) and Boron meet the water quality criteria for irrigation.

B. Soil:

The Joint Committee collected soil samples in the Mango garden located just adjacent to M/s. Suvarna Apparel & Fashion Exports Limitedon the southern side where ground water sample was also collected as the supervisor of the Mango garden Sri Satyanarayanahad alleged that yield of Mango from Mango plants reduced considerably due to the discharge of untreated effluents inside the industry premises that contaminated the ground water of Mango garden which in turn contaminated the soil of the Mango garden as the same ground water is used for Mango plants. The total area of the Mango garden is about 10 acres and before collecting soil samples the entire area was divided into four grids (Grid 1 – 4). The samples collected in each grid at various places below one metre depth were mixed together thoroughly and a portion from each grid was taken to the laboratory for the analysis. Sri Satyanarayana, Supervisor of Mango Garden also alleged that Sri Dilip Reddy`s land located on the northern side of M/s. Suvarna Apparel & Fashion Exports Limited is also got affected due to the discharge of untreated industrial effluent of this industry. The Committee decided to collect a sample here too. The soil samples collected below one metre depth at various locations in Dilip Reddy`s land was combined together thoroughly and a portion was taken to the laboratory for the analysis. No agricultural activity is going on in Dilip Reddy`s land at present as it appears barren land and one Hollow Block Brick Unit is functioning in this land.The analysis results of soil samples collected from Mango garden and Sri Dillip Reddy`s land are presented in the **Table 45** as given below:

Table 45: Analysis results of soil samples collected adjacent to M/s. Suvarna Apparel & Fashion Exports Limited

Parameter	Results				
	Sri Dilip Reddy`s Land	Mango Garden Grid 1	Mango Garden Grid 2	Mango Garden Grid 3	Mango Garden Grid 4
Colour	Light brown	Dark brown	Brown	Dark brown	Brown
State	SOLID	Solid	solid	Solid	Solid
pH @ 25 ^{0}C (1:5)	9.22	6.61	6.04	6.53	6.55

138

Electrical Conductivity (1:5) us/cm	35.4	49.5	70.3	31.0	37.5
Organic Carbon (%)	1.04	11.22	3.3	2.4	1.95
Calcium as Ca (mg/kg)	800	800	800	800	1600
Magnesium as Mg (mg/kg)	3880	1458	486	486	-
Boron	1.96	2.2	5.4	3.2	3.0
Nitrogen as N %	---	0.1	0.1	0.1	0.1
Phosphorus as P (mg/kg)	ND	ND	50.23	115.26	25.79
Potassium as K (mg/kg)	ND	879	945	967	934
Copper (mg/l)	<0.1	ND	ND	ND	ND
Zinc (mg/l)	<0.1	<0.1	<0.1	<0.1	<0.1
Cadmium (mg/l)	ND	ND	ND	ND	ND
Nickel (mg/l)	ND	ND	ND	ND	ND
Lead (mg/l)	<0.2	---	---	<0.2	<0.2
Chromium (mg/l)	<0.2	<0.2	<0.2	<0.2	<0.2

- The analysis results of above soil samples reveals that the pH of the Mango Garden soil is almost neutral except at Grid 2 which is slightly acidic and Sri Dilip Reddy`s soil is highly alkaline. The Electrical Conductivity values of the soil reveal that the salinity effect on the soil is negligible. The micro nutrients and Heavy Metal levels in the soil are less than critical and permissible levels respectively.

RECOMMENDATION OF THE JOINT COMMITTEE (INDUSTRY WISE):

1. **M/s Hetero Labs Ltd., Unit – I, Unit – II & Unit – III, TSIIC, SEZ, Polepally (V), Jadcherla (M), Mahabubnagar District:**
   - The industry should stop the operation of oil fired boiler of capacity 1 X 5 TPH immediately as it is operated without permission of the SPCB.
   - The industry should install separate energy meters to the APCE connected with Briquette fired boiler of capacity 1 x 5 TPH.
   - The industry treats all its effluents, except RO rejects, in its treatment facility and reuse it against SPCB order dated 08.01.2018 which says that the industry shall lift the entire effluents from Unit – I, Unit – II & Unit – III to M/s PETL CETP. The industry should strictly comply the Board's order dated 08.01.2018.
   - The industry shall take adequate control measures to prevent seepages to the adjacent industry namely M/s Shilpa Medicare Ltd., during rainy season.
   - The industry should take control measures to meet the particulate matter emission from the stack attached to the Briquette fired boiler of capacity - 5 TPD.

2. **M/s. Shilpa Medicare Limited (Formerly Raichem Life Science Pvt. Ltd.), Plot No.S-20, S-21, S-22, S-23 & S-24,-A at TSIIC-SEZ, Peddpally (V), Jadcherla (M) , Mahabubnagar District:**
   - The industry should provide first run off rain water collection tank of appropriate capacity based on the area of the industryand first run off collected shall be lifted to CETP along with other effluents and maintain records.
   - The industry should provide adequate storage capacity to store the effluents for minimum of seven days capacity as prescribed in CFO.
   - The industry should take control measures to meet the particulate matter emission from the stack attached to the Briquette fired boiler of capacity-3TPH.

139

3. **M/s. Aurobindo Pharma Ltd. Unit – VII, Sy.No.408 to 412, 418 to 435 etc.TSIIC-SEZ, Polepally (V), Jadcherla (M), Mahabubnagar District:**

- The industry should dismantle the below ground level effluent storage tanks being used to store industrial effluents as well as domestic waste water as per the Board's directions dt. 27.07.2019.
- The industry should go for first run off rain water collection tank of appropriate capacity considering the total area of the industry (50 Acres) as the existing tank capacity of 160 KL is highly insufficient and first run off collected shall be lifted to CETP along with other effluents and maintain records.
- The industry should provide the leachate collection system in the Hazardous waste storage shed.
- The empty raw material storage drums should be detoxified properly and stored in the closed shed before disposal.
- The dedicated storage area should be provided to store the waste oil drums before its disposal.
- The dust collector along with chimney should be provided in the mill room where crushing of rejected / expired medicines are carried out.
- The industry should obtain necessary permission from the Board for the operation of coal fired boiler of capacity 6 TPH with Bag filter followed by mechanical dust collector as APCE as it is operated without CFO of the Board.
- The industry should provide vent condensers in the storage tanks (2 Nos.) of capacity of 20 KL each where mixed spent solvents are stored.
- The industry treats all its effluents, except RO rejects, in its treatment facility and reusing it. The industry shall lift the entire effluents to M/s PETL CETP, asper the Board's directions dated27.07.2019 for further treatment and disposal.
- The industry should take control measures to meet the particulate matter emission from the stack attached to the Furnace oil boiler of capacity - 4 TPH.

4. **M/s. Aurobindo Pharma Ltd. Unit – XVI, Sy.No.408 to 412, 418 to 435 etc. SEZ-IP, Polepally (V), Jadcherla (M), Mahabubnagar District:**

- The industry should dismantle all the below ground tanks being used for storage of waste water.
- The industry should stop the operationsof 2 No. of 5 TPH Oil fired boilers and operate after obtaining the CFO of the Board.
- The industry should provide leachate collection pit in the hazardous waste storage facility. The industry should provide first run off rain water collection tank of appropriate capacity based on the area of the industryand first run off collected shall be lifted to CETP along with other effluents and maintain records.

5. **M/s. APL Health Care Ltd., Sy.No.410/P,411/P & 458/P, Plot No.S-1/B, TSIIC, SEZ, Polepally (V), Jadcherla (M), Mahabubnagar District:**

- The industry should dismantle all the below ground level tanks being used for storage of waste water.

- The industry should stop the operations of 2 No. of 5 TPH Oil fired boilers immediately as it is operated without CFO of the Board. The industry should not operate D.G. Sets 3 x 1500 KVA, 1 x 1000 KVA and 1 x 2000 KVA without obtaining CFO from the Board.
- The industry should provide leachate collection pit in the hazardous waste storage facility.
- The industry should provide first run off rain water collection tank of appropriate capacity based on the area of the industryand first run off collected shall be lifted to CETP along with other effluents and maintain records.
- The empty raw material storage drums should be detoxified properly and stored in the closed shed before disposal.
- The dedicated storage area should be provided to store the waste oil drums before its disposal.
- The dust collector along with chimney should be provided in the mill room where crushing of rejected / expired medicines are carried out.
- The industry should improve the house keeping in the hazardous waste storage area.

6. **M/s. Mylan Laboratory, (Formerly M/s.Glochem Industries Ltd.,) Sy.no.408, 410, Plot No.S-16 & S-17/A, TSIIC-SEZ, Polepally (V), Jadcharla (M), Mahabubnagar District:**
   - The industry should dismantle all the below ground level tanks being used for storage of waste water.
   - The industry should provide adequate storage capacity to store the effluents for minimum of seven days capacity as prescribed in CFO.
   - The industry should provide first run off rain water collection tank of appropriate capacity based on the area of the industryand first run off collected shall be lifted to CETP along with other effluents and maintain records.
   - The industry should provide Digital Flow meters at inlet & outlet of ETP and STPto quantify the wastewater generated and disposed to PETL CETP.

7. **M/s. Evertrogen Life Sciences (Formerly M/s. Optimus Generics Ltd.), Plot No.S-8, S-13/P & S-14/P, TSIIC, SEZ, Green Industrial Park, Polepally (V), Jadcherla (M), Mahabubnagar District:**
   - The industry should provide adequate storage capacity to store the effluents for minimum of seven days capacity as prescribed in CFO.
   - The industry should provide first run off rain water collection tank of appropriate capacity based on the area of the industryand first run off collected shall be lifted to CETP along with other effluents and maintain records.

8. **M/s. ShriKartikeyaPharma (SEZ Unit), Sy.No.408-412, 418-435, 437-445, Polepally (V), Jadcherla (M), Mahaboobnagar District:**
   - The industry should provide adequate storage capacity to store the effluents for minimum of seven days capacity as prescribed in CFO.
   - The industry should not operate FE system without obtaining permission from Board.
   - The industry should install digital flow meter to the final storage tank to quantify the waste water disposed to CETP.

(141)

9. **M/s. Amneal Oncology Pvt. Ltd. (Formerly M/s. Epsilon Pharmaceuticals Private Limited), Plot No.A-3, S-4 & A-5A, Sy.No.411, 425 etc. Polepally (V), Jadcherla (M), Mahabubnagar District:**
   - The industry should provide adequate storage capacity to store the effluents for minimum of seven days capacity as prescribed in CFO.
   - The industry should provide first run off rain water collection tank of appropriate capacity based on the area of the industryand first run off collected shall be lifted to CETP along with other effluents and maintain records.
   - The industry shall install Digital flow meter with totalizer facility instead of Mechanical flow meters.

10. **M/s. Suvarna Apparel & Fashion Exports Limited., Sy.Nos.103 to 109 & 148 to 152, Rangareddyguda (V), Balanagar (M), Mahabubnagar District:**
   - The industry should provide proper shed for storage of hazardous waste and the storage area has to be provided with elevated concreted platform with dyke wall and leachate collection pit.
   - The industry should extent the D.G. Sets stack above the roof of the building where it is installed with sufficient height as per the CPCB guidelines of Emission Regulations Part-IV.
   - The industry should provide closed sheds for storage husk and husk ash to avoid the fugitive emissions.
   - The soil analysis results show that the pH of the soil inside the premises is in the range of 5.6 to 9.76 which indicates the soil is either acidic or alkaline in nature. This may be due to discharge of untreated effluents inside the premises earlier.
   - The industry is right now under closure order. The industry should not be allowed to resume its operations until unless it upgrades ETP, MEE system with crystallizer and APCE attached with 6 TPH Boiler in all respects.
   - It was learnt that the industry is going to close its operations permanently and in this regard the industry has reportedly submitted a letter to Member secretary, Telangana SPCB, Hyderabad.

CONCLUSIONS:

1. All the industries located in TSIIC SEZ Polepally, Jadcherla Mandal, Mahabubnagar District, Telangana are Pharmaceutical Formulations Units only except M/s Shri Kartikeya Pharma which is engaged in Ashwagandha extraction. All these industries are falling under Orange Category only and not Red Category as informed by the Petitioner to the Hon'ble NGT. It may also be informed here that Pharmaceutical Formulation industries are not coming under the purview of Environmental Clearance.
2. The industries located in TSIIC SEZ Polepally may be directed to comply with the recommendations of the Joint Committee for non-compliances as given above and submit the Action Taken Report (ATR) with time bound action plan to Telangana SPCB. Also as directed by the Hon'ble NGT in its Order dated September 20, 2019, Telangana SPCB may be directed to initiate action against violating industries by imposing environmental compensation for the violation period observed based on 'polluter pays' principle as per the guidelines prepared by CPCB.

3. The analysis results of ground water samples collected from bore wells of agricultural fields from surroundings of SEZ used for irrigation meet the IS:11624-1986 (Reaffirmed 2009), Guidelines for the Quality of Irrigation Water w.r.t. Sodium Adsorption Ratio (SAR), Residual Sodium Carbonate (RSC) and Boron Content. As regards to Total Salt Concentration, nearly 50 % of the bore well samples used for agricultural purposes fall under High Class as Electrical Conductivity is reported in the range of 3540 to 5040 µmhos/cm. As the historical data of ground water quality of this area is not available, the reason for high salt content in these samples could not be explained clearly. The extensive use of ground water for agricultural purpose may be one of the reasons as there are no other water sources in this area other than ground water.
4. The analysis results of soil samples collected from the agricultural fields from northern side of SEZ, where complainants fields are located, reveals that the pHof the soil is slightly alkaline as pHis reported as 7.91 & 8.02 against the standard of 6.5-7.5, salinity effect is negligible as EC is reported less than 1dSm^{-1}, Micro nutrients like Zinc & Copper are less than critical levels of 0.7 ppm and 0.3 ppm respectively and Heavy Metals like Cadmium, Nickel, Lead and Chromium are less than permissible limits of 0.5 ppm, 2 ppm, 5 ppm and 2 ppm respectively. This above results show that soil is not polluted. However, it is suggested that the farmers may take the advice of district agricultural officer and take corrective measures accordingly as the Joint Committee do not have expertise in this field.
5. The discharge of either treated or untreated effluents from any of the industries located in TSIIC SEZ Polepally from its premises was not noticed by the Joint Committee during inspection and monitoring of these industries.
6. The Joint Committee noticed that TSIIC SEZ Polepally is lacking the drainage facility for collection and diversion of storm water. TSIIC may be directed to provide this facility immediately.
7. It is suggested that TSIIC may install piezometric wells in all the four directions of SEZ to monitor the quality of ground water from time to time and develop green belt in the SEZ area.
8. M/s. Suvarna Apparel & Fashion Exports Limited is located at Sy.Nos.103 to 109 & 148 to 152, Rangareddyguda (V), Balanagar (M), Mahabubnagar District and not in TSIIC SEZ Polepally. The distance between the former and later is more than 7 KM. M/s. Suvarna Apparel & Fashion Exports Limited was not in operation during inspection of the Joint Committee due to closure order issued by Telangana SPCB.

S. JEYAPAUL)
Scientist `D`

(G. HANUMANTHA REDDY)
Joint Chief Environment Engineer (FAC)

Item No.04 (143) Court No. 1

BEFORE THE NATIONAL GREEN TRIBUNAL
PRINCIPAL BENCH, NEW DELHI

Original Application No. 189/2019

(With Report dated 30.07.2019)

Sarvan Kumar, Advocate — Applicant(s)

Versus

State of Telanganas — Respondent(s)

Date of hearing: 20.09.2019

CORAM: **HON'BLE MR. JUSTICE ADARSH KUMAR GOEL, CHAIRPERSON**
HON'BLE MR. JUSTICE S.P WANGDI, JUDICIAL MEMBER
HON'BLE MR. JUSTICE K. RAMAKRISHNAN, JUDICIAL MEMBER
HON'BLE DR. NAGIN NANDA, EXPERT MEMBER

For Applicant(s): Mr.Sarvan Kumar, in person

For Respondent(s): Mr. Dhananjay Baijal, Advocate for TSPCB

ORDER

1. The question for consideration is the remedial action against pollution caused by Pharma companies at TSIIC SEZ in Jadcharla, Mahaboob Nagar, Telangana.

2. Vide order dated 15.04.2019, a factual and action taken report was sought from the Telangana Pollution Control Board (TPCB).

3. Accordingly, report dated 30.07.2019 has been filed to the effect that two industries have been closed and nine industries have been required to comply with the norms. Closure order in respect of the said two industries was later revoked. Again on 27.07.2019, closure order has been passed in respect of three industries and directions have been issued in respect of nine other industries requiring them to send pre-treated effluents for treatment. The report does not show

steps taken between 2017 and 2019 though one of the annexures shows that even in the year 2018 closure order was passed.

4. In view of the fact that the industrial area in question is a polluted area and the industries in question are 'red category' industries, strict vigilance is required to be maintained for upholding the environmental norms. We also consider it appropriate to require a joint report from the Central Pollution Control Board (CPCB) and the TSPCB after three months. TSPCB will be the nodal agency for compliance. The TSPCB may enforce the principle of 'Polluter Pays' in respect of the units which have been found to be violating the environmental norms or which may be hereafter be found to be doing so. Compliance in this regard may also be included in the next report.

A copy of this order be sent to the CPCB and the TSPCB by e-mail for compliance.

List for further consideration on 24.01.2020.

Adarsh Kumar Goel, CP

S.P Wangdi, JM

K. Ramakrishnan, JM

Dr. Nagin Nanda, EM

September 20, 2019
Original Application No. 189/2019
DV

(145) Annexure-XI

Item No. 08 Court No. 1

BEFORE THE NATIONAL GREEN TRIBUNAL
PRINCIPAL BENCH, NEW DELHI

Original Application No.189/2019

(With report dated 20.01.2020)

Sarvan Kumar, Advocate Applicant(s)

Versus

State of Telanganas Respondent(s)

Date of hearing: 24.01.2020

CORAM: **HON'BLE MR. JUSTICE ADARSH KUMAR GOEL, CHAIRPERSON**
HON'BLE MR. JUSTICE S.P WANGDI, JUDICIAL MEMBER
HON'BLE DR. NAGIN NANDA, EXPERT MEMBER
HON'BLE MR. SIDDHANTA DAS, EXPERT MEMBER

For Respondent(s): Mr. Dhananjay Baijag, Advocate for TSPCB

ORDER

1. Question for consideration is the remedial action against pollution caused by Pharma companies at TSIIC SEZ in Jadcharla, Mahaboob Nagar, Telangana.

2. The matter was considered on 20.09.2019 in light of report dated 30.07.2019 furnished by the Telangana State PCB. The Tribunal observed:

> *"4. In view of the fact that the industrial area in question is a polluted area and the industries in question are 'red category' industries, strict vigilance is required to be maintained for upholding the environmental norms. We also consider it appropriate to require a joint report from the Central Pollution Control Board (CPCB) and the TSPCB after three months. TSPCB will be the nodal agency for compliance. The TSPCB may enforce the principle of 'Polluter Pays' in respect of the units which have been found to be violating the environmental norms or which may*

(146)

be hereafter be found to be doing so. Compliance in this regard may also be included in the next report."

3. Accordingly, report dated 20.01.2020 has been filed by the State PCB on behalf of the joint Committee based on inspection of the concerned industries. The recommendations of the joint Committee are:

"RECOMMENDATION OF THE JOINT COMMITTEE (INDUSTRY WISE):

I. M/s Hetero Labs Ltd., Unit - I, Unit - II & Unit - III, TSIIC, SEZ, Polepally (V), Jadcherla

(M), Mahabubnagar District:

- *The industry should stop the operation of oil fired boiler of capacity 1 X 5 TPH immediately as it is operated without permission of the SPCB.*
- *The industry should install separate energy meters to the APCE connected with Briquette fired boiler of capacity 1 x 5 TPH.*
- *The industry treats all its effluents, except RO rejects, in its treatment facility and reuse it against SPCB order dated 08.01.2018 which says that the industry shall lift the entire effluents from Unit - I, Unit - II & Unit - III to M/s PETL CETP. The industry should strictly comply the Board's order dated 08.01.2018.*
- *The industry shall take adequate control measures to prevent seepages to the adjacent industry namely M/s Shilpa Medicare Ltd., during rainy season.*
- *The industry should take control measures to meet the particulate matter emission from the stack attached to the Briquette fired boiler of capacity - 5 TPD.*

2. M/s. Shilpa Medicare Limited (Formerly Raichem Life Science Pvt. Ltd.), Plot No.S-20, 521, S-22, S-23 & S-24,-A at TSIIC-SEZ, Peddpally (V), Jadcherla (M) Mahabubnagar District:

- *The industry should provide first run off rain water collection tank of appropriate capacity based on the area of the industry and first run off collected shall be lifted to CETP along with other effluents and maintain records.*
- *The industry should provide adequate storage capacity to store the effluents for minimum of seven days capacity as prescribed in CFO.*
- *The industry should take control measures to meet the particulate matter emission from the stack attached to the Briquette fired boiler of capacity-3TPH.*

147

3. ***M/s.AurobindoPharma Ltd. Unit — VII, Sy.No.408 to 412, 418 to 435 etc.TSIIC-SEZ, Polepally (V), Jadcherla (M), Mahabubnagar District:***

- *The industry should dismantle the below ground level effluent storage tanks being used to store industrial effluents as well as domestic waste water as per the Board's directions dt. 27.07.2019.*
- *The industry should go for first run off rain water collection tank of appropriate capacity considering the total area of the industry (50 Acres) as the existing tank capacity of 160 KL is highly insufficient and first run off collected shall be lifted to CETP along with other effluents and maintain records.*
- *The industry should provide the leachate collection system in the Hazardous waste storage shed.*
- *The empty raw material storage drums should be detoxified properly and stored in the closed shed before disposal.*
- *The dedicated storage area should be provided to store the waste oil drums before its disposal.*
- *The dust collector along with chimney should be provided in the mill room where crushing of rejected / expired medicines are carried out.*
- *The industry should obtain necessary permission from the Board for the operation of coal fired boiler of capacity 6 TPH with Bag filter followed by mechanical dust collector as APCE as it is operated without CFO of the Board.*
- *The industry should provide vent condensers in the storage tanks (2 Nos.) of capacity of 20 KL each where mixed spent solvents are stored.*
- *The industry treats all its effluents, except RO rejects, in its treatment facility and reusing it. The industry shall lift the entire effluents to M/s PETL CETP, as per the Board's directions dated27.07.2019 for further treatment and disposal.*
- *The industry should take control measures to meet the particulate matter emission from the stack attached to the Furnace oil boiler of capacity - 4 TPH.*

4. ***M/s. Aurobindo Pharma Ltd. Unit — XVI, Sy.No.408 to 412, 418 to 435 etc. SEZ-IP, Polepally (V), Jadcherla (M), Mahabubnagar District:***

- *The industry should dismantle all the below ground tanks being used for storage of waste water.*
- *The industry should stop the operations of 2 No. of 5 TPH Oil fired boilers and operate after obtaining the CFO of the Board.*
- *The industry should provide leachate collection pit in the hazardous waste storage facility. The industry should provide first run off rain water collection tank of appropriate capacity based on the area of the industry and first run off collected shall be lifted to CETP along with other effluents and maintain records.*

148

5. ***M/s. APL Health Care Ltd., Sy.No.410/P,411/P & 458/P, Plot No.S-1/B, TSIIC, SEZ. Polepally (V), Jadcherla (M), Mahabubnagar District:***

- *The industry should dismantle all the below ground level tanks being used for storage of waste water.*
- *The industry should stop the operations of 2 No. of 5 TPH Oil fired boilers immediately as it is operated without CFO of the Board. The industry should not operate D.G. Sets 3 x 1500 KVA, 1 x 1000 KVA and 1 x 2000 KVA without obtaining CFO from the Board.*
- *The industry should provide leachate collection pit in the hazardous waste storage facility.*
- *The industry should provide first run off rain water collection tank of appropriate capacity based on the area of the industry and first run off collected shall be lifted to CETP along with other effluents and maintain records.*
- *The empty raw material storage drums should be detoxified properly and stored in the closed shed before disposal.*
- *The dedicated storage area should be provided to store the waste oil drums before its disposal.*
- *The dust collector along with chimney should be provided in the mill room where crushing of rejected / expired medicines are carried out.*
- *The industry should improve the house keeping in the hazardous waste storage area.*

6. ***M/s. Mylan Laboratory, (Formerly M/s. Glochem Industries Ltd.,) Sy.no.408, 410, Plot No.S-16 & S-17/A, TSIIC-SEZ, Polepally (V), Jadcharla (M), Mahabubnagar District:***

- *The industry should dismantle all the below ground level tanks being used for storage of waste water.*
- *The industry should provide adequate storage capacity to store the effluents for minimum of seven days capacity as prescribed in CFO.*
- *The industry should provide first run off rain water collection tank of appropriate capacity based on the area of the industry and first run off collected shall be lifted to CETP along with other effluents and maintain records.*
- *The industry should provide Digital Flow meters at inlet & outlet of ETP and STP to quantify the wastewater generated and disposed to PETL CE*

7. ***M/s. Evertrogen Life Sciences (Formerly M/s. Optimus Generics Ltd.), Plot No.S-8, S-13/P & 5-14/P,, TSIIC, SEZ, Green Industrial Park, Polepally (V), Jadcherla (M), Mahabubnagar District:***

(149)

- *The industry should provide adequate storage capacity to store the effluents for minimum of seven days capacity as prescribed in CFO.*
- *The industry should provide first run off rain water collection tank of appropriate capacity based on the area of the industry and first run off collected shall be lifted to CETP along with other effluents and maintain records.*

8. M/s. Shri Kartikeva Pharma (SEZ Unit), Sy.No.408-412, 418-435, 437-445, Polepally (V), Jadcherla (M), Mahaboobnagar District:

- *The industry should provide adequate storage capacity to store the effluents for minimum of seven days capacity as prescribed in CFO.*
- *The industry should not operate FE system without obtaining permission from Board.*
- *The industry should install digital flow meter to the final storage tank to quantify the waste water disposed to CETP.*

9. M/s. Amneal Oncology Pvt. Ltd. (Formerly M/s. Epsilon Pharmaceuticals Private Limited), Plot No.A-3, S-4 & A-5A, Sy.No.411, 425 etc. Polepally (V), Jadcherla (M), Mahabubnagar District:

- *The industry should provide. adequate storage capacity to store the effluents for minimum of seven days capacity as prescribed in CFO.*
- *The industry should provide first run off rain water collection tank of appropriate capacity based on the area of the industry and first run off collected shall be lifted to CETP along with other effluents and maintain records.*
- *The industry shall install Digital flow meter with totalizer facility instead of Mechanical flow meters.*

10. M/s. Suvarna Apparel & Fashion Exports Limited., Sy.Nos.103 to 109 & 148 to 152, Rangareddyguda (V), Balanagar (M), Mahabubnagar District:

- *The industry should provide proper shed for storage of hazardous waste and the storage area has to be provided with elevated concreted platform with dyke wall and leachate collection pit.*
- *The industry should extent the D.G. Sets stack above the roof of the building where it is installed with sufficient height as per the CPCB guidelines of Emission Regulations Part-TV.*
- *The industry should provide closed sheds for storage husk and husk ash to avoid the fugitive emissions.*
- *The soil analysis results show that the pH of the soil inside the premises is in the range of 5.6 to 9.76 which indicates the soil is either acidic or alkaline in nature. This may be due to discharge of untreated effluents inside the premises earlier.*

(150)

- *The industry is right now under closure order. The industry should not be allowed to resume its operations until unless it upgrades ETP, MEE system with crystallizer and APCE attached with 6 TPH Boiler in all respects.*
- *It was learnt that the industry is going to close its operations permanently and in this regard the industry has reportedly submitted a letter to Member secretary, Telangana SPCB, Hyderabad.*

CONCLUSIONS:

1. *All the industries located in TSIIC SEZ Polepally, Jadcherla Mandal, Mahabubnagar District, Telangana are Pharmaceutical Formulations Units only except M/s Shri Kartikeya Pharma which is engaged in Ashwagandha extraction. All these industries are falling under Orange Category only and not Red Category as informed by the Petitioner to the Hon'ble NGT. It may also be informed here that Pharmaceutical Formulation industries are not coming under the purview of Environmental Clearance.*

2. *The industries located in TSIIC SEZ Polepally may be directed to comply with the recommendations of the Joint Committee for non-compliances as given above and submit the Action Taken Report (ATR) with time bound action plan to Telangana SPCB. Also as directed by the Hon'ble NGT in its Order dated September 20, 2019, Telangana SPCB may be directed to initiate action against violating industries by imposing environmental compensation for the violation period observed based on 'polluter pays' principle as per the guidelines prepared by CPCB.*

3. *The analysis results of ground water samples collected from bore wells of agricultural fields from surroundings of SEZ used for irrigation meet the IS:11624-1986 (Reaffirmed 2009), Guidelines for the Quality of Irrigation Water w.r.t. Sodium Adsorption Ratio (SAR), Residual Sodium Carbonate (RSC) and Boron Content. As regards to Total Salt Concentration, nearly 50 % of the bore well samples used for agricultural purposes fall under High Class as Electrical Conductivity is reported in the range of 3540 to 5040 µmhos/cm. As the historical data of ground water quality of this area is not available, the reason for high salt content in these samples could not be explained clearly. The extensive use of ground water for agricultural purpose may be one of the reasons as there are no other water sources in this area other than ground water.*

4. *The analysis results of soil samples collected from the agricultural fields from northern side of SEZ, where complainants fields are located, reveals that the pH of the soil is slightly alkaline as pH is reported as 7.91 & 8.02 against the standard of 6.5-7.5, salinity effect is negligible as EC is reported less than 1 dSni^{1} , Micro nutrients like Zinc & Copper are less than critical levels of 0.7 ppm and 0.3 ppm respectively and*

(151)

Heavy Metals like Cadmium, Nickel, Lead and Chromium are less than permissible limits of 0.5 ppm, 2 ppm, 5 ppm and 2 ppm respectively. This above results show that soil is not polluted. However, it is suggested that the farmers may take the advice of district agricultural officer and take corrective measures accordingly as the Joint Committee do not have expertise in this field.

5. *The discharge of either treated or untreated effluents from any of the industries located in TSIIC SEZ Polepally from its premises was not noticed by the Joint Committee during inspection and monitoring of these industries.*

6. *The Joint Committee noticed that TSIIC SEZ Polepally is lacking the drainage facility for collection and diversion of storm water. TSIIC may be directed to provide this facility immediately.*

7. *It is suggested that TSIIC may install piezometric wells in all the four directions of SEZ to monitor the quality of ground water from time to time and develop green belt in the SEZ area.*

8. *M/s. Suvarna Apparel & Fashion Exports Limited is located at Sy.Nos.103 to 109 & 148 to 152, Rangareddyguda (V), Balanagar (M), Mahabubnagar District and not in TSIIC SEZ Polepally. The distance between the former and later is more than 7 KM. M/s. Suvarna Apparel & Fashion Exports Limited was not in operation during inspection of the Joint Committee due to closure order issued by Telangana SPCB."*

4. In view of the above, further action may be taken by the Telangana State PCB in terms of above recommendations and also compensation may be assessed and recovered on 'Polluter Pays' principle after following due procedure of hearing the concerned polluters. A further action taken report may be filed before the next date by email at judicial-ngt@gov.in.

List for further consideration on 24.04.2020.

Adarsh Kumar Goel, CP

S.P Wangdi, JM

(152)

Dr. Nagin Nanda, EM

Siddhanta Das, EM

January 24, 2020
Original Application No.189/2019
AK

(153) Annexure XII

TELANGANA STATE POLLUTION CONTROL BOARD
ZONAL OFFICE: HYDERABAD

H.No.6-3-1219, Sy.No.TS No.1 Part, Block - C, Ward No.91, Near Country Club, Uma Nagar, Begumpet, Hyderabad. Phone: 040-23402495
Email: jcee-zhyd-tspcb@telangana.gov.in.

BY REGD. POST WITH ACK. DUE

Order No. 15-MBNR/TSPCB/ZO-HYD/TF/2021- 1610 **Date: 05.01.2021**

Sub : TSPCB, ZOH - **M/s. Shri Kartikeya Pharma (SEZ Unit), Sy.No.408-412, 418-435, 437-445, Polepally (V), Jadcherla (M), Mahaboobnagar District** – Water (Prevention and Control of Pollution) Amendment Act, 1988 - Air (Prevention and control of Pollution) Amendment Act, 1987 – **Levy of Environmental compensation - DIRECTIONS – ISSUED – Reg.**

Ref :
1. Industry's Consent Order No: 679-MHB/TSPCB/ZOH/CFO/2017, dated: 17.08.2017 valid up to 31.03.2022.
2. Hon'ble NGT order dated: 15.04.2019 in OA No.189 of 2019.
3. B.O order dated 17.05.2019.
4. Board issued directions vide dated: 27.07.2019.
5. Hon'ble NGT order dated: 20.09.2019.
6. The Joint committee report dated: 20.01.2020.
7. Hon'ble NGT Order dated 24.01.2020 in O.A. No. 189/2019.
8. The EE, RO, Hyderabad report dated: 18.07.2020.
9. The Task Force Committee meeting held on 31.10.2020 at TSPCB, Zonal Office, Hyderabad.
10. T.O letter dated: 09.11.2020.
11. Industry's reply dated: 25.11.2020.
12. The Task Force Committee meeting held on 29.12.2020 at TSPCB, Zonal Office, Hyderabad.
13. T.O mail dated: 30.12.2020.
14. TSPCB, EE, RO, Hyderabad mail dated: 30.12.2020.
15. The Task Force Committee meeting held on 02.01.2021 at TSPCB, Zonal Office, Hyderabad.

***

1. **WHEREAS,** you are operating the industry located at **Sy.No.408-412, 418-435, 437-445, Polepally (V), Jadcherla (M), Mahaboobnagar District**. The unit falls under Orange Category (Medium) and involved in engaged in Ashwagandha Extraction.

2. **WHEREAS,** vide reference 1st cited, the Board issued CFO to the unit vide order dated 17.08.2017 valid up to 31.03.2022.

3. **WHEREAS,** vide reference 2nd cited, the Board has received Hon'ble NGT, New Delhi order dated 15.04.2019 in OA No.189 of 2019 based on a letter given by Sri. Sravan Kumar, Advocate to the Hon'ble NGT alleging that the pollution is being caused by Pharma Companies at TSIIC SEZ in Jadcherla, Mahabubnagar District. The Hon'ble NGT passed on order vide order dated 15.04.2019 stating that:

   "Let TSPCB look into the matter, take appropriate action in accordance with law and furnish a factual and action taken report in the matter within 2 months".

4. **WHEREAS,** vide reference 3rd cited, the Board has constituted a team vide order dated 17.05.2019 for inspection of industries located in TSIIC SEZ, Jadcherla, Mahabubnagar District and its surrounding area.

5. **WHEREAS,** vide reference 4th cited, Board issued certain directions to the industry on 27.07.2019 for non-compliances.

6. **WHEREAS,** vide reference 5th cited, as per the Hon'ble NGT order dated 20.09.2019 a Joint Committee constituted comprising of representatives from CPCB and SPCB in OA No. 189 of 2019 filed by Shravan Kumar, Advocate with regard to pollution being caused by Pharma Companies at TSIIC, SEZ Jadcherla of Mahaboobnagar, Telangana and directed to submit the factual report.

7. **WHEREAS,** vide reference 6th cited, the joint committee submitted a report to the Hon'ble NGT order on 20.01.2020 with certain recommendations.

8. **WHEREAS,** vide reference 7th cited, the above case came from hearing on 24.01.2020. The Hon'ble National Green Tribunal, Principal Bench, New Delhi, dated 24.01.2020 in O.A No. 189/2019 issued following order:

   "Further action may be taken by the TSPCB in terms of Joint committee recommendation and also compensation may be assessed and recovered on "polluter pay principle after following due process of hearing the concerned polluters. A further action taken may be filed before the next date.

9. **WHEREAS,** vide reference 8th cited, the Environmental Engineer, Regional Office, Hyderabad has submitted the report to Zonal Office, Hyderabad regarding the Environmental Compensation which may be assessed and imposed on the industry for the period during which the industry was not complying, as per the guidelines issued by CPCB.

10. **WHEREAS,** vide reference 9th cited, issue was placed before the Task Force Committee meeting held at TSPCB, Zonal Office on 31.10.2020. The Committee noted that request made by the industry representatives to grant time for submitting their representation along with explanation pertaining to the non compliances of the industry. After detailed discussions, the committee considered the request of the industry and recommended to grant 15 days time for submitting their reply on the non compliances. The committee further recommended to intimate the industries regarding the non compliance of the directions issued to the industries and the number of days of violation.

11. **WHEREAS,** vide reference 10th cited, a letter was addressed to the industry and directed to submit their reply for carrying out assessment of Environmental Compensation (EC) as per CPCB guidelines and the TSPCB orders dated: 03.01.2020.

12. **WHEREAS,** vide reference 11th cited, the industry has submitted a reply on 25.11.2020 to the letter issued by the Board with regard to Environmental Compensation (EC).

13. **WHEREAS,** vide reference 12th cited, you were again given an opportunity for hearing before the Task Force Committee meeting held on 29.12.2020 for assessment and finalization of Environmental Compensation (EC) based on the report furnished by the Regional Officer, Hyderabad. You have represented that, you are manufacturing Ayurvedic Ashwagandha extraction, not discharged any waste water outside the premises. The committee, after detailed discussions, recommended the EE, RO, Hyderabad to submit the CFO details of the industry i.e., date of issue of CFO order and validity period. Accordingly this office has directed to EE, RO, Hyderabad to submit the same, vide reference 13th cited.

14. **WHEREAS,** vide reference 14th cited, the EE, RO, Hyderabad has furnish the information pertaining to CFO status of the industry vide mail dated: 30.12.2020.

15. **WHEREAS, ,** vide reference 15th cited, the committee was again reviewed the issue in the meeting held on 02.01.2021 noted the following:

- The industry is a Ayurvedic Ashwagandha Extraction industry only which falls under Orange category.
- As per Joint Action committee report constituted by NGT there were no direct discharge of treated or untreated effluents outside the premises. Further, ground water samples collected from bore wells of agricultural fields from surroundings of SEZ used for irrigation meet the IS:11624-1986 (Reaffirmed 2009).
- The soil sample collected from agricultural fields from northern side of the sludge where complainants fields are located, reveals that the pH of the soil is slightly alkaline, salinity effect is negligible as Electrical conductivity is reported less than 1dSm-1, Micro nutrients like Zinc & Copper are less than critical levels and Heavy Metals like Cadmium, Nickel, Lead and Chromium are less than permissible limits.
- The Joint Action Committee has observed the industry has partially not complied with CFO conditions and Board directions.

16. **WHEREAS,** the committee has reviewed the RO report dated: 18.07.2020 & 30.12.2020, the Joint committee report dated: 20.01.2020 constituted by the NGT, along with the reply submitted by the industry in detail. The committee noted that the No. of days of violation is 950 days as per the RO report. After detailed discussions, the committee based on the above has recommended to impose Environmental Compensation on the industry for a period of 180 days (6 months) instead of 950 days as the industry is an Ayurvedic Aashwagandha extraction unit where the pollution load is less. The committee also recommended that the industry shall comply with Joint committee recommendations, Consent for Operation conditions and directions issued by the Board.

17. **WHEREAS,** the Board after detailed examination of the industry's request letter dated: 25.11.2020 and the recommendations of the Task Force committee and also as per the guidelines of the CPCB, the detailed assessment for the Environmental Compensation (EC) is collected from the industry for a period of six months i.e., 180 days @ Rs. 100/- per day. The detailed assessment of Environmental Compensation (EC) as per CPCB guidelines and TSPCB orders dated: 03.01.2020 is as follows:

Environmental Compensation (EC Calculation)

The following equation is used for estimating environmental compensation:

$$EC = PI \times N \times R \times S \times LF$$

Where,
EC = Environmental Compensation in INR
PI = Pollution Index of industrial sector
N = Number of days of violation took place
R = A factor in Rupees for EC
S = Factor for scale of operation
LF = Location factor

i. Pollution Index of industrial sector (PI): The Board has categorized industry under Orange category. For Orange category of industries, average pollution index is 50.

(156)

ii. Number of days of violation (N):

The number of days for which violation took place is considered as the period between the day of violation observed/due date of direction's compliance and the day of compliance verified by the Board as mentioned below:

iii. Scale of operation (S):

The industry is considered as Large scale as per consent issued by Board. The scale of operation (L) for EC estimation is considered as 1.

iv. Location factor (LF):

The industry is located at TSIIC-SEZ, Polepally (V), Jadcharla (M), Mahabubnagar District and the total population which is located about 5 km distance from the Jacherla municipal boundary of the city is 37,529 population and above. Thus location factor (LF) is considered as 1 for EC estimation.

v. Factor in Rupees (R) (Rs):

As per the environmental compensation estimation guidelines, factor of rupees a maximum of Rs.100/- may be considered.

After detailed discussion and careful consideration of the material facts of the case and based on CPCB guidelines and as per Board Office order dt: 03.01.2020 issued on modalities /methodology of assessing, imposing and utilization of environmental compensation from the polluting units in the State of Telangana has arrived at the following and recommended to impose environmental compensation to the industry.

Total nos. of days of violation **(N)** as **180 days** , Pollution Index of industrial sector **(PI)** as 50, Scale of operation **(S)** as 1, Location Factor **(LF)** as 1 and Factor of Rupees **(R)** as Rs. 100/-.

In view of the above, the environmental compensation is finalized as:

EC = 50 X 180 X 100 X 1 X 1 = Rs. 9,00,000/- (Rupees Nine Lakhs only).

18. After careful consideration of material facts of the case, the Board hereby issues following directions to your industry:

    i. **The industry shall deposit Rs. 9,00,000/- (Rupees Nine Lakhs only) towards Environmental Compensation within 15 days.**
    ii. The industry shall comply with the Joint Committee recommendations as mentioned in the Hon'ble NGT order dated: 24.01.2020 in OA No.189 of 2019.
    iii. The industry shall comply with all the CFO condition issued by the Board.
    iv. The industry shall not cause any air pollution / odour nuisance to the surrounding areas.
    v. The industry shall comply with the conditions of direction dated: 27.07.2019.
    vi. The industry shall not discharge any treated or untreated effluents within or outside the premises.

19. These directions are issued under Sec.33 (A) of Water (Prevention and Control of Pollution) Amendment Act, 1988 and under Sec. 31 (A) of Air (Prevention and Control of Pollution) Amendment Act, 1987.

(157)

20. The above mentioned directives shall be implemented by the industry, failing which legal action will be initiated against your industry under Sec.33 (A) of Water (Prevention and Control of Pollution) Amendment Act, 1988 and under Sec. 31 (A) of Air (Prevention and Control of Pollution) Amendment Act, 1987 directing closure of the industry in the interest of Public Health and Environment, without further notice/hearing.

JOINT CHIEF ENVIRONMENTAL ENGINEER

To
M/s. Shri Kartikeya Pharma (SEZ Unit),
Sy.No.408-412, 418-435, 437-445,
Polepally (V), Jadcherla (M),
Mahaboobnagar District – 509301.

Copy Submitted to:

1. The Member Secretary, TSPCB, Board Office, Hyderabad for kind information and necessary action.
2. The Chief Environmental Engineer, TSPCB, Board Office for information and necessary action.
3. The Senior Environmental Engineer (Unit-II, Legal), TSPCB, Board Office for information and necessary action
4. The Senior Environmental Engineer (FAC) (Unit-II, Task Force), TSPCB, Board Office for information and necessary action.
5. The Environmental Engineer, TSPCB, Regional Office, Hyderabad for information and necessary action.

(158)

Annexure-XIII

Item No. 04 Court No. 1

BEFORE THE NATIONAL GREEN TRIBUNAL
PRINCIPAL BENCH, NEW DELHI

Original Application No. 189/2019

(With report dated 12.01.2021)

Sarvan Kumar, Advocate — Applicant

Versus

State of Telangana — Respondent

Date of hearing: 15.01.2021

CORAM: HON'BLE MR. JUSTICE ADARSH KUMAR GOEL, CHAIRPERSON
HON'BLE MR. JUSTICE SHEO KUMAR SINGH, JUDICIAL MEMBER
HON'BLE DR. NAGIN NANDA, EXPERT MEMBER

Applicant: Mr. Sarvan Kumar, in person
Respondent: Mr. Dhananjay Baijal, Advocate for TSPCB

ORDER

1. Question for consideration is the remedial action against pollution caused by Pharma companies at TSIIC SEZ in Jadcharla, Mahaboob Nagar, Telangana.

2. The matter was considered on 20.09.2019 in light of report dated 30.07.2019 furnished by the Telangana State PCB (TSPCB). The Tribunal observed:

> *"4. In view of the fact that the* ***industrial area in question is a polluted area and the industries in question are 'red category' industries, strict vigilance is required to be maintained for upholding the environmental norms. We also consider it appropriate to require a joint report from the Central Pollution Control Board (CPCB) and the TSPCB after three months. TSPCB will be the nodal agency for compliance. The TSPCB may enforce the principle of 'Polluter Pays' in respect of the units which have been found to be violating the environmental norms or which may be hereafter be found to be doing so. Compliance in this regard may also be included in the next report."***

(159)

3. The matter was last considered on 24.01.2020 in the light of report filed by the State PCB on 20.01.2020 on behalf of the joint Committee after inspection of the concerned industries as follows:

> *"3. Accordingly, report dated 20.01.2020 has been filed by the State PCB on behalf of the joint Committee based on inspection of the concerned industries. The recommendations of the joint Committee are:*
>
> ***"RECOMMENDATION OF THE JOINT COMMITTEE (INDUSTRY WISE):***
>
> ***I. M/s Hetero Labs Ltd., Unit - I, Unit - II & Unit - III, TSIIC, SEZ, Polepally (V), Jadcherla (M), Mahabubnagar District:***
>
> - *The industry should stop the operation of oil fired boiler of capacity 1 X 5 TPH immediately as it is operated without permission of the SPCB.*
> - *The industry should install separate energy meters to the APCE connected with Briquette fired boiler of capacity 1 x 5 TPH.*
> - *The industry treats all its effluents, except RO rejects, in its treatment facility and reuse it against SPCB order dated 08.01.2018 which says that the industry shall lift the entire effluents from Unit - I, Unit - II & Unit - III to M/s PETL CETP. The industry should strictly comply the Board's order dated 08.01.2018.*
> - *The industry shall take adequate control measures to prevent seepages to the adjacent industry namely M/s Shilpa Medicare Ltd., during rainy season.*
> - *The industry should take control measures to meet the particulate matter emission from the stack attached to the Briquette fired boiler of capacity - 5 TPD.*
>
> ***2. M/s. Shilpa Medicare Limited (Formerly Raichem Life Science Pvt. Ltd.), Plot No.S-20, 521, S-22, S-23 & S-24,-A at TSIIC-SEZ, Peddpally (V), Jadcherla (M) Mahabubnagar District:***
>
> - *The industry should provide first run off rain water collection tank of appropriate capacity based on the area of the industry and first run off collected shall be lifted to CETP along with other effluents and maintain records.*
> - *The industry should provide adequate storage capacity to store the effluents for minimum of seven days capacity as prescribed in CFO.*
> - *The industry should take control measures to meet the particulate matter emission from the stack attached to the Briquette fired boiler of capacity-3TPH.*

3. ***M/s.AurobindoPharma Ltd. Unit — VII, Sy.No.408 to 412, 418 to 435 etc.TSIIC-SEZ, Polepally (V), Jadcherla (M), Mahabubnagar District:***

- *The industry should dismantle the below ground level effluent storage tanks being used to store industrial effluents as well as domestic waste water as per the Board's directions dt. 27.07.2019.*
- *The industry should go for first run off rain water collection tank of appropriate capacity considering the total area of the industry (50 Acres) as the existing tank capacity of 160 KL is highly insufficient and first run off collected shall be lifted to CETP along with other effluents and maintain records.*
- *The industry should provide the leachate collection system in the Hazardous waste storage shed.*
- *The empty raw material storage drums should be detoxified properly and stored in the closed shed before disposal.*
- *The dedicated storage area should be provided to store the waste oil drums before its disposal.*
- *The dust collector along with chimney should be provided in the mill room where crushing of rejected / expired medicines are carried out.*
- *The industry should obtain necessary permission from the Board for the operation of coal fired boiler of capacity 6 TPH with Bag filter followed by mechanical dust collector as APCE as it is operated without CFO of the Board.*
- *The industry should provide vent condensers in the storage tanks (2 Nos.) of capacity of 20 KL each where mixed spent solvents are stored.*
- *The industry treats all its effluents, except RO rejects, in its treatment facility and reusing it. The industry shall lift the entire effluents to M/s PETL CETP, as per the Board's directions dated27.07.2019 for further treatment and disposal.*
- *The industry should take control measures to meet the particulate matter emission from the stack attached to the Furnace oil boiler of capacity - 4 TPH.*

4. ***M/s. Aurobindo Pharma Ltd. Unit — XVI, Sy.No.408 to 412, 418 to 435 etc. SEZ-IP, Polepally (V), Jadcherla (M), Mahabubnagar District:***

- *The industry should dismantle all the below ground tanks being used for storage of waste water.*
- *The industry should stop the operations of 2 No. of 5 TPH Oil fired boilers and operate after obtaining the CFO of the Board.*
- *The industry should provide leachate collection pit in the hazardous waste storage facility. The industry should provide first run off rain water collection tank of appropriate capacity based on the area of the industry and first run off collected shall be lifted to CETP along with other effluents and maintain records.*

(161)

5. ***M/s. APL Health Care Ltd., Sy.No.410/P,411/P & 458/P, Plot No.S-1/B, TSIIC, SEZ. Polepally (V), Jadcherla (M), Mahabubnagar District:***

- *The industry should dismantle all the below ground level tanks being used for storage of waste water.*
- *The industry should stop the operations of 2 No. of 5 TPH Oil fired boilers immediately as it is operated without CFO of the Board. The industry should not operate D.G. Sets 3 x 1500 KVA, 1 x 1000 KVA and 1 x 2000 KVA without obtaining CFO from the Board.*
- *The industry should provide leachate collection pit in the hazardous waste storage facility.*
- *The industry should provide first run off rain water collection tank of appropriate capacity based on the area of the industry and first run off collected shall be lifted to CETP along with other effluents and maintain records.*
- *The empty raw material storage drums should be detoxified properly and stored in the closed shed before disposal.*
- *The dedicated storage area should be provided to store the waste oil drums before its disposal.*
- *The dust collector along with chimney should be provided in the mill room where crushing of rejected / expired medicines are carried out.*
- *The industry should improve the house keeping in the hazardous waste storage area.*

6. ***M/s. Mylan Laboratory, (Formerly M/s. Glochem Industries Ltd.,) Sy.no.408, 410, Plot No.S-16 & S-17/A, TSIIC-SEZ, Polepally (V), Jadcharla (M), Mahabubnagar District:***

- *The industry should dismantle all the below ground level tanks being used for storage of waste water.*
- *The industry should provide adequate storage capacity to store the effluents for minimum of seven days capacity as prescribed in CFO.*
- *The industry should provide first run off rain water collection tank of appropriate capacity based on the area of the industry and first run off collected shall be lifted to CETP along with other effluents and maintain records.*
- *The industry should provide Digital Flow meters at inlet & outlet of ETP and STP to quantify the wastewater generated and disposed to PETL CE*

7. ***M/s. Evertrogen Life Sciences (Formerly M/s. Optimus Generics Ltd.), Plot No.S-8, S-13/P & 5-14/P,, TSIIC, SEZ, Green Industrial Park, Polepally (V), Jadcherla (M), Mahabubnagar District:***

- *The industry should provide adequate storage capacity to store the effluents for minimum of seven days capacity as prescribed in CFO.*

- *The industry should provide first run off rain water collection tank of appropriate capacity based on the area of the industry and first run off collected shall be lifted to CETP along with other effluents and maintain records.*

8. ***M/s. Shri Kartikeva Pharma (SEZ Unit), Sy.No.408-412, 418-435, 437-445, Polepally (V), Jadcherla (M), Mahaboobnagar District:***

- *The industry should provide adequate storage capacity to store the effluents for minimum of seven days capacity as prescribed in CFO.*
- *The industry should not operate FE system without obtaining permission from Board.*
- *The industry should install digital flow meter to the final storage tank to quantify the waste water disposed to CETP.*

9. ***M/s. Amneal Oncology Pvt. Ltd. (Formerly M/s. Epsilon Pharmaceuticals Private Limited), Plot No.A-3, S-4 & A-5A, Sy.No.411, 425 etc. Polepally (V), Jadcherla (M), Mahabubnagar District:***

- *The industry should provide. adequate storage capacity to store the effluents for minimum of seven days capacity as prescribed in CFO.*
- *The industry should provide first run off rain water collection tank of appropriate capacity based on the area of the industry and first run off collected shall be lifted to CETP along with other effluents and maintain records.*
- *The industry shall install Digital flow meter with totalizer facility instead of Mechanical flow meters.*

10. ***M/s. Suvarna Apparel & Fashion Exports Limited., Sy.Nos.103 to 109 & 148 to 152, Rangareddyguda (V), Balanagar (M), Mahabubnagar District:***

- *The industry should provide proper shed for storage of hazardous waste and the storage area has to be provided with elevated concreted platform with dyke wall and leachate collection pit.*
- *The industry should extent the D.G. Sets stack above the roof of the building where it is installed with sufficient height as per the CPCB guidelines of Emission Regulations Part-TV.*
- *The industry should provide closed sheds for storage husk and husk ash to avoid the fugitive emissions.*
- *The soil analysis results show that the pH of the soil inside the premises is in the range of 5.6 to 9.76 which indicates the soil is either acidic or alkaline in nature. This may be due to discharge of untreated effluents inside the premises earlier.*
- *The industry is right now under closure order. The industry should not be allowed to resume its operations until unless it upgrades ETP, MEE system with*

crystallizer and APCE attached with 6 TPH Boiler in all respects.

- *It was learnt that the industry is going to close its operations permanently and in this regard the industry has reportedly submitted a letter to Member secretary, Telangana SPCB, Hyderabad.*

CONCLUSIONS:

1. *All the industries located in TSIIC SEZ Polepally, Jadcherla Mandal, Mahabubnagar District, Telangana are Pharmaceutical Formulations Units only except M/s Shri Kartikeya Pharma which is engaged in Ashwagandha extraction. All these industries are falling under Orange Category only and not Red Category as informed by the Petitioner to the Hon'ble NGT. It may also be informed here that Pharmaceutical Formulation industries are not coming under the purview of Environmental Clearance.*

2. ***The industries located in TSIIC SEZ Polepally may be directed to comply with the recommendations of the Joint Committee for non-compliances as given above and submit the Action Taken Report (ATR) with time bound action plan to Telangana SPCB. Also as directed by the Hon'ble NGT in its Order dated September 20, 2019, Telangana SPCB may be directed to initiate action against violating industries by imposing environmental compensation for the violation period observed based on 'polluter pays' principle as per the guidelines prepared by CPCB.***

3. *The analysis results of ground water samples collected from bore wells of agricultural fields from surroundings of SEZ used for irrigation meet the IS:11624-1986 (Reaffirmed 2009), Guidelines for the Quality of Irrigation Water w.r.t. Sodium Adsorption Ratio (SAR), Residual Sodium Carbonate (RSC) and Boron Content. As regards to Total Salt Concentration, nearly 50 % of the bore well samples used for agricultural purposes fall under High Class as Electrical Conductivity is reported in the range of 3540 to 5040 µmhos/cm. As the historical data of ground water quality of this area is not available, the reason for high salt content in these samples could not be explained clearly. The extensive use of ground water for agricultural purpose may be one of the reasons as there are no other water sources in this area other than ground water.*

4. *The analysis results of soil samples collected from the agricultural fields from northern side of SEZ, where complainants fields are located, reveals that the pH of the soil is slightly alkaline as pH is reported as 7.91 & 8.02 against the standard of 6.5-7.5, salinity effect is negligible as EC is reported less than 1 dSni[1] , Micro*

nutrients like Zinc & Copper are less than critical levels of 0.7 ppm and 0.3 ppm respectively and Heavy Metals like Cadmium, Nickel, Lead and Chromium are less than permissible limits of 0.5 ppm, 2 ppm, 5 ppm and 2 ppm respectively. The above results show that soil is not polluted. However, it is suggested that the farmers may take the advice of district agricultural officer and take corrective measures accordingly as the Joint Committee do not have expertise in this field.

5. *The discharge of either treated or untreated effluents from any of the industries located in TSIIC SEZ Polepally from its premises was not noticed by the Joint Committee during inspection and monitoring of these industries.*

6. *The Joint Committee noticed that TSIIC SEZ Polepally is lacking the drainage facility for collection and diversion of storm water. TSIIC may be directed to provide this facility immediately.*

7. *It is suggested that TSIIC may install piezometric wells in all the four directions of SEZ to monitor the quality of ground water from time to time and develop green belt in the SEZ area.*

8. *M/s. Suvarna Apparel & Fashion Exports Limited is located at Sy.Nos.103 to 109 & 148 to 152, Rangareddyguda (V), Balanagar (M), Mahabubnagar District and not in TSIIC SEZ Polepally. The distance between the former and later is more than 7 KM. M/s. Suvarna Apparel & Fashion Exports Limited was not in operation during inspection of the Joint Committee due to closure order issued by Telangana SPCB."*

4. In view of the above, further action may be taken by the Telangana State PCB in terms of above recommendations and also compensation may be assessed and recovered on 'Polluter Pays' principle after following due procedure of hearing the concerned polluters. A further action taken report may be filed before the next date by email at judicial-ngt@gov.in."

4. Accordingly, the State PCB has filed its report dated 12.01.2021. It is mentioned that the issue of levy of compensation was discussed in various meetings alongwith the reply of the concerned industries and the compliance status. Extracts from the report are:

"The issue of levy of compensation was again discussed in the Task Force Committee meetings held on 29.12.2020 & 02.01.2021 at TSPCB, Zonal office, Hyderabad. The Committee has reviewed the Joint Committee report dated 20.01.2020 and

(165)

other reports, along with the reply submitted by the industries. The Committee noted the following:

- *The industries are Pharmaceutical Formulation industries, which are categorized under Orange category.*
- *As per Joint Action Committee report constituted by the Hon'ble NGT, there were no direct discharge of treated or untreated effluents outside the premises. Further, ground water samples collected from bore wells of agricultural fields from surroundings of SEZ used for irrigation conform to the IS:11624-1986 standards (Reaffirmed 2009).*
- *The soil sample collected from agricultural fields from northern side of the SEZ where complainant's fields are located, reveals that the pH of the soil is slightly alkaline, salinity effect is negligible as Electrical conductivity is reported less, Micro nutrients like Zinc & Copper are less than critical levels and Heavy Metals like Cadmium, Nickel, Lead and Chromium are less than permissible limits.*
- ***The Joint Action Committee has observed the industries have partially not complied with CFO conditions and Board directions.***

The Committee recommended to impose Environmental Compensation for a period of one year i.e., 365 days for all Pharmaceutical Formulation industries and 6 months i.e., 180 days to M/s. Shri Kartikeya Pharma which is engaged in Ayurvedic Ashwagandha extraction as the pollution load is less.

Further, M/s. Suvarna Apparel & Fashion Exports Limited, is not in operation for more than one year and the same was observed during the inspection of the Joint Committee in January 2020.

The compliance status of Joint committee report of induvial industries located in TSIIC, SEZ Polepally Village are as follows:

Sl. No.	Name of the industry & location		Present compliance status
1	M/s. Hetero Labs Ltd., Unit — I, Sy. Nos. 440-441, TSIIC, SEZ, Polepally (V), Jadcherla (M), Mahabubnagar District	•	The industry has provided flow meters at inlet and outlet of ETP for accessing the quantity of effluents generated and treated.
	M/s. Hetero Labs Ltd., Unit-II, Sy. No.410 & 411, TSIIC, SEZ, Polepally (V), Jadcherla (M), Mahabubnagar District	•	The industry has installed briquette fired boiler instead of furnace oil fired boiler and also obtained CFO of the Board.
		•	The industry is also installed bag filter as air pollution control equipment and also provided energy meters for the same.
	M/s. Hetero Biopharm Limited (Formerly Hetero Drugs Ltd., Unit — III) TSIIC, SEZ, Polepally (V), Jadcherla (M), Mahabubnagar District	•	The industry has installed briquette fired boiler instead of furnace oil fired boiler and also obtained CFO of the Board.
		•	The industry is also installed bag filter as air pollution control equipment and also provided energy meters for the same.

2	M/s. Shilpa Medicare Limited (SEZ Formulation unit) (Formerly M/s. Raichem Life Sciences Private Limited), Plot No.S-20, S-21, S-22, S-23, & S-24- A at GIP, Jadcherla, Polepally (V), Mahaboobnagar District	•	The industry has provided 640 KL below ground level tank for collection of first run off rain water before sent to CETP.
		•	The industry has provided 2x250 KL storage tanks in addition to the existing 400 KL tanks to maintain minimum storage of 7 days capacity.
		•	The industry obtained CFO of the Board for briquette fired boiler and also installed bag filter as air pollution control equipment.
3	M/s. Aurobindo Pharma Ltd, Unit-VII, Sy. No. 411, 425, 434, 435, 458, SEZ-IP, TSIIC, Polepalli (V), Jadcherla (M), Mahaboobnagar District	•	The industry has provided leachate Collection system in the Hazardous waste storage shed.
		•	The industry is detoxifing the raw material storage drums and is storing in the closed shed before disposal.
		•	The industry has obtained CFO of the Board for operation of 6 TPH coal fired boiler and also provided bag filter followed by mechanical dust collection as air pollution control equipment.
		•	The industry has provided vent condensers for 2x20 KL storage tanks were mix solvents are stored.
4	M/s. Aurobindo Pharma Ltd, Unit-XVI, Sy.No.408 to 412, 418 to 435 etc., SEZ-LP, Polepalli (V)., Jedcherla (M), Mahaboobnagar District	•	The industry has dismantled the below ground level tanks used for storage of effluents.
		•	The industry has obtained CFO of the Board for oil fired boilers.
		•	The industry has provided leachate collection system in the Hazardous waste storage facility.
		•	The industry has provided 50 KL below ground level tank for collection of first run off rain water before sent to CETP.
5	M/s. APL Health Care Ltd., Sy.No.410/P,411/P & 458/P, Plot No. S- 1/B, AP1IC, SEZ, Jedcherla (M), Mahaboobnagar District	•	The industry has dismantled the below ground level tanks used for storage of effluents.
		•	The industry has obtained CFO of the Board for 2 TPH and 5 TPH oil fired boilers.
		•	The industry has provided leachate collection system in the Hazardous waste storage facility.
		•	The industry has provided 160 KL below ground level tank for collection of first run off rain water before sent to CETP.
		•	The industry is detoxifing the raw material storage drums and is storing in the closed shed before disposal.
6	M/s. Mylan Laboratory,	•	The industry has dismantled the

(167)

	(Formerly Glochem Industries Ltd.,), Sy.No.408, 410 GIP, Plot No. S-16 & 5-17/A, SEZ Jadcherla, Polepally (V), Jadcherla (M), Mahaboobnagar District	•	below ground level tanks used for storage of effluents. The industry has provided 180 KL below ground level tanks for collection of first run off rain water before sent to CETP. The industry has installed digital flow meters at inlet and outlet of ETP & STP to quantify the waste water generated and disposed to CETP.
7	M/s. Evertogen Life Sciences Pvt. Ltd., (Formerly M/s. Optimus Generics Ltd.,) Plot No. S-8, S-13/P & S-14/P, APIIC, SEZ, Green Industrial Park, Polepally (V), Jedcherla (M), Mahabubnagar District	•	The industry has provided 200 KL storage tanks in addition to the exiting 170 KL tanks for maintaining a minimum of 7 days storage capacity. The industry has provided 150 KL below ground level tank for collection of first run off rain water before sent to CETP.
8	M/s. Shri Kartikeya Pharma (SEZ Unit), Sy.No.408-412, 418-435, 437-445, Polepally (V), Jadcherla Mahaboobnagar District	•	The industry has installed 4x5 KL capacity tanks for storage of effluents.
9	M/s. Amneal Oncology Pvt. Ltd. (Formerly M/s. Epsilon Pharmaceuticals Private Limited), Plot No.A-3, S-4 & A-5A, Sy.No.411, 425 etc. TSIIC-SEZ, Polepally (V), Jadcherla (M), Mahabubnagar District	•	The industry has installed above ground level storage tanks of capacity 500 KL replacing of earlier 200 KL capacity for storage of effluent for a minimum of 7 days capacity as prescribed in CFO. The industry is collecting the first run off rain water in 120 KL capacity a below ground level tank before lifted to CETP. The industry has installed digital flow meters with totalizer facility.
10	M/s. Suvarna Apparel & Fashion Exports Limited., Sy.Nos.103 to 109 & 148 to 152, Rangareddyguda (V), Balanagar (M), Mahabubnagar District	•	The industry is not in operation for more than one year and the same was observed during the inspection of the Joint Committee in **January 2020.**

In view of the above, the details of Environmental Compensation (EC) levied by the TSPCB on the individual industries are as follows:

Sl. No.	**Name of the industry & location**	**Date of issue order for levy of EC**	**No. of days for levy of EC.**	**Amount of EC assessed**
1	M/s. Hetero Labs Ltd., Unit — I, Sy. Nos. 440-441, TSIIC, SEZ, Polepally (V), Jadcherla (M), Mahabubnagar District	05.01.2021	365 (combinedly for three units)	Rs. 18,25,000/- (combinedly for three units) Rs.
	M/s. Hetero Labs Ltd., Unit —II, Sy.No.410 & 411,	05.01.2021		

(168)

	TSIIC, SEZ, Polepally (V), Jadcherla (M), Mahabubnagar District			
	M/s. Hetero Biopharma Limited (Formerly Hetero Drugs Ltd., Unit — III) TSIIC, SEZ, Polepally(V), Jadcherla (M), Mahabubnagar District	05.01.2021		
2	M/s. Shilpa Medicare Limited (SEZ Formulation unit) (Formerly M/s. Raichem Life Sciences Private Limited), Plot No.S-20, S-21, S-22, S-23, & S-24-A at GIP, Jadcherla, Polepally (V), Mahaboobnagar District	05.01.2021	365	Rs. 18,25,000/-
3	M/s. Aurobindo Pharma Ltd, Unit-VII, Sy, No. 411, 425, 434, 435, 458, SEZ-IP, TSIIC, Polepalli (V), Jadcherla (M), Mahaboobnagar District	05.01.2021	365	Rs. 18,25,000/-
4	M/s. Aurobindo Pharma Ltd, Unit-XVI, Sy.No.408 to 412, 418 to 435 etc., SEZ-T, Polepalli (V)., Jedcherla (M), Mahaboobnagar District	05.01.2021	365	Rs. 18,25,000/-
5	M/s. APL Health Care Ltd., Sy.No.410/P,411/P & 458/P, Plot No.S-1/B, APIIC, SEZ, Polepally (V), Jedcherla (M), Mahaboobnagar District	05.01.2021	365	Rs. 18,25,000/-
6	M/s. Mylan Laboratory, (Formerly Glochem Industries Ltd.,), Sy.No.408, 410 GIP, Plot No. S-16 & S-17/A, SEZ Jadcherla, Polepally (V), Jadcherla (M), Mahaboobnagar District	05.01.2021	365	Rs. 18,25,000/-
7	M/s. Evertogen Life Sciences Pvt. Ltd., (Formerly M/s. Optimus Generics Ltd.) Plot No. S-8, S-13/P & S-14/P, APIIC, SEZ, Green Industrial Park, Polepally (V) Jedcherla (M), Mahabubnagar District	05.01.2021	365	Rs. 18,25,000/-
8	M/s. Shri Kartikeya Pharma (SEZ Unit), Sy.No.408-412, 418-435, 437-445, Polepally (V), Jadcherla (M), Mahaboobnagar District	05.01.2021	180	Rs. 9,00,000/-
9	M/s. Amneal Oncology Pvt. Ltd. (Formerly M/s. Epsilon Pharmaceuticals Private Limited), Plot No.A-3, S-4 & A-5A, Sy. No. 411, 425 etc. TSIIC-SEZ, Polepally (V), Jadcherla (M), Mahabubnagar District	05.01.2021	365	Rs. 18,25,000/-

169

10	*M/s. Suvarna Apparel & Fashion Exports Limited., Sy.Nos.103 to 109 & 148 to 152, Rangareddyguda (V), Balanagar (M), Mahabubnagar District*	*The industry is not in operation for more than one year and the same was observed during the inspection of the Joint Committee in January 2020.*

The Board issued directions for levy of Environmental Compensation and directions for compliance vide Orders dated 05.01.2021 ***(Annexure-I).***"

5. We have heard the applicant in person and learned Counsel for the State PCB.

6. The applicant in person submitted that even after finding non-compliance for longer period, the State PCB has taken a liberal view and has not duly applied the "Polluter Pays" principle for the entire period for which pollution was caused. This submission has been substantiated by referring to the individual orders as well as the composite report. We do find merit in the submissions.

7. In view of above, the State PCB may recover the assessed compensation, taking coercive measures for default in payment, including closure till compliance and also consider revision so as to cover the entire period of default, following due process of law.

The application is disposed of.

Adarsh Kumar Goel, CP

S.K. Singh, JM

Dr. Nagin Nanda, EM

January 15, 2021
Original Application No. 189/2019
A

(170)

Annexure XIV

Item No.20 Court No. 1

BEFORE THE NATIONAL GREEN TRIBUNAL
PRINCIPAL BENCH, NEW DELHI

Review Application No.35/2023
In
Original Application No.189/2019

M/s. Shri Kartikeya Pharma Units-II Applicant

Versus

State of Telangana Respondent

Date of hearing: 22.05.2024

CORAM: HON'BLE MR. JUSTICE PRAKASH SHRIVASTAVA, CHAIRPERSON
HON'BLE MR. JUSTICE SUDHIR AGARWAL, JUDICIAL MEMBER
HON'BLE DR. A. SENTHIL VEL, EXPERT MEMBER

Applicant: Ms. Ritika Bansal, Adv. for the Review Applicant (Through VC)

Respondent: Mr. Dhananjay Baijal, Adv. for Telangana SPCB

ORDER

1. Learned proxy Counsel appearing for the applicant submits that arguing Counsel is indisposed on account of some health issue and seeks adjournment.

2. Earlier also on 04.03.2024 on account of personal difficulty of the arguing Counsel the matter was adjourned.

3. Hence, it is made clear that no unnecessarily adjournment will be granted in the matter.

4. List on 10.09.2024.

Prakash Shrivastava, CP

(171)

Sudhir Agarwal, JM

Dr. A. Senthil Vel, EM

May 22, 2024
Review Application No.35/2023
JG.