BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL PRINCIPAL BENCH, NEW DELHI

INDEX

IN

Original Application No. 75 of 2026

In

Deep Chandra Pande

Applicant

Vs.

Uttarakhand Pollution Control Board & Ors.

Respondent(s)

RESPONSE AFFIDAVIT ON BEHALF OF UTTARAKHAND POLLUTION CONTROL BOARD (RESPONDENT NO.1)

Date: 17.04.2026

Place: Dehradun

Mukesh Verma, Advocate
(Counsel for Respondent No. 1)
Chamber No. 50,
Supreme Court of India, New Delhi
9810108098
mvermadv@gmail.com

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RESPONSE AFFIDAVIT ON BEHALF OF UTTARAKHAND POLLUTION CONTROL BOARD (RESPONDENT NO.1)

AFFIDAVIT of Dr. Parag Madhukar Dhakate, aged about 52 years S/o Shri M.B Dhakate Presently posted as Member Secretary, Uttarakhand Pollution Control Board, Uttarakhand.

Deponent

I, the above-named deponent does hereby solemnly affirm and state on oath as under: -

1. That the deponent is presently posted as the Member Secretary, Uttarakhand Pollution Control Board and as such is fully conversant with the facts of the case and is competent to sign and swear the instant affidavit.

2. That the above-mentioned matter was listed for hearing on 30.01.2026 wherein the Hon'ble National Green Tribunal was pleased to issue the following directions: -

"……

2. Issue notice to the respondents for filing their response/reply by way of affidavit before the Tribunal at least one week before the next date of hearing through e-filing. If any respondent directly files the reply without routing it through his advocate, then the said respondent will remain virtually present to assist the Tribunal.

….."

3. It is respectfully submitted that earlier, the Regional Officer, Uttarakhand Pollution Control Board, Haldwani vide letter dated 18.12.2025 informed the Member Secretary, Uttarakhand Pollution Control Board that M/s Ujala Cygnus Central Hospital was inspected on 03.12.2025. During the inspection, it was found that the ETP and STP installed at the hospital premises were not functioning properly. A sample of the final effluent was collected from the combined effluent discharge point and analyzed, which did not conform to the standards prescribed by the Board. It was

NOTARY Km. Urmila Bhatt Advocate Reg.No.-09/[illegible]/02 Dehra Dun STATE OF UTTARAKHAND

further observed that the generated effluent was being disposed of through tankers into the combined sewer line installed by the Uttarakhand Peyjal Nigam. The inspection report furnishes that M/s Ujala Cygnus Central Hospital was not complying with the Bio-Medical Waste Management Rules, 2016 (as amended). The report further records that the hospital was storing biomedical waste in color-coded bins without proper segregation. In this connection a copy of the letter dated 18.12.2025 along with the inspection report are collectively being filed as **Annexure no.1** to this affidavit.

4. That Consequently, the Member Secretary, Uttarakhand Pollution Control Board, vide dated 05.02.2026 issued a Show Cause Notice to M/s Ujala Cygnus Central Hospital as to why environmental compensation (at the rate of Rs.7,500/- per day till compliance) and a closure order should not be imposed. In this connection a copy of the Show Cause Notice dated 05.02.2026 is being filed as **Annexure no.2** to this affidavit.

5. That M/s Ujala Cygnus Central Hospital vide dated 06.04.2026 has submitted their representation to the Member Secretary, Uttarakhand Pollution Control Board, Dehradun. In this connection, a copy of the representation dated 06.04.2026 is hereby being marked and filed as **Annexure no.3** to this affidavit.

6. It is respectfully submitted that the Uttarakhand Pollution Control Board is presently scrutinizing the said reply and appropriate action shall be taken strictly in accordance with law.

7. That the deponent is a responsible Government servant having the highest regard for the Hon'ble Tribunal and orders passed by them. The deponent has always made his sincerest efforts to carry out the orders passed by

NOTARY
Km. Urmila Bhatia
Advocate
Reg.No.-09/01/02
Dehra Dun.
STATE OF UTTARAKHAND

this Hon'ble Tribunal in its letter and spirit and shall continue to do so in the future.

Deponent

Verification: -

Verified at Dehradun on the 16. day of April 2026, that the contents of the response affidavit are true and correct to the best of my knowledge and belief based on the official record and nothing is false, and no material has been concealed therein.

Identified by: Priyanka Jina
Advocate
UK/1475/2022
16/04/26

Deponent

NOTARY
Km. Urmila Bhatia
Advocate
Reg.No.-03/01/02
Dehra Dun.
STATE OF UTTARAKHAND

affidavit is sworn before me by
.... Dr. Parag Madhukar Dhakat
is identified by Priyanka Jina Advt.
Dehradun on 16/4/26
KM. URMILA BHATIA
Advocate & NOTARY, Dehradun

Annexure-1

K-210

क्षेत्रीय कार्यालय
उत्तराखण्ड प्रदूषण नियंत्रण बोर्ड
आवास विकास कालोनी, हल्द्वानी (नैनीताल)

UKPCB--- Ph No.- 05946-225618, 221532 Web Site-www.ueppcb.uk.gov.in

Ref: UKPCB/ROH/ BMW/25/2455-1147 Dt- 18/12/25

Uttarakhand Pollution Control Board
Diary No. 8395
Date 22/12/25

सेवा में,

सदस्य सचिव महोदय,
उत्तराखण्ड़ प्रदूषण नियंत्रण बोर्ड,
देहरादून।

विषय– मै0 उजाला सिग्नस सेंट्रल हॉस्पिटल, गैस गोदाम तिराहा कुसुमखेडा,हल्द्वानी, जिला– नैनीताल को कारण बताओं नोटिस निर्गत करने के संबंध में।

महोदय,

कृपया उपरोक्त विषयक बोर्ड मुख्यालय से ई–मेल के माध्यम से प्राप्त श्री दीप चंद्र पाण्डे, हल्द्वानी, जिला–नैनीताल के शिकायत के अनुक्रम मै0 उजाला सिग्नस सेंट्रल हॉस्पिटल, गैस गोदाम तिराहा कुसुमखेडा हल्द्वानी,जिला–नैनीताल का निरीक्षण इस कार्यालय द्वारा दिनांक 03.12.2025 को किया गया है। आख्यानुसार चिकित्सालय द्वारा जैव चिकित्सालय अपशिष्ट को बिना पृथक्करण करे कलर कोडेड़ बिन में रखा जा रहा है। निरीक्षण के दौरान चिकित्सालय परिसर में स्थापित ई0टी0पी व एस0टी0पी को सुचारू रूप से संचालित नहीं किया जा रहा है। निरीक्षण के दौरान संयुक्त उत्प्रवाह निस्तारण बिन्दु से अन्तिम उत्प्रवाह का नमूना एकत्रित कर विश्लेषित किया गया। आख्या बोर्ड मानको के अनुरूप नहीं है तथा जनित उत्प्रवाह को टैकरो के माध्यम से उत्तराखण्ड़ पेय–जल निगम द्वारा स्थापित संयुक्त सीवर लाईन मे निस्तारित किया जाता है।

अतः मै0 उजाला सिग्नस सेंट्रल हॉस्पिटल द्वारा जैव अपशिष्ट प्रबंधन नियम–2016 यथासशेधित तथा राज्य बोर्ड द्वारा निर्गत प्राधिकार/सहमति शर्तो का अनुपालन नहीं किया जा रहा है। चिकित्सालय को कारण बताओं नोटिस निर्गत करने तथा पर्यावरणीय क्षतिपूर्ति अधिरोपित करने की संस्तुति सहित आख्या संलग्न कर अग्रिम आवश्यक कार्यवाही हेतु सादर प्रेषित है।

संलग्नक–यथोपरि।

भवदीय

(अनुराग नेगी) 18/12/2025
क्षेत्रीय अधिकारी

Sh. Yogesh Panwar

निरीक्षण आख्या

कृपया कार्यालय ई–मेल पर श्री दीप चंद्र पाण्डे, हल्द्वानी, जिला–नैनीताल के माध्यम से प्राप्त शिकायत के अनुक्रम मै0 उजाला सिग्नस सेंटल हॉस्पिटल,हल्द्वानी, जिला–नैनीताल का स्थलीय निरीक्षण दिनांक 03.12.2025 को डॉ नवनीत (चिकित्सालय प्रतिनिधि) की उपस्थिति में अधोहस्ताक्षरकर्ताओ द्वारा किया गया। निरीक्षण आख्या निम्नवत है:–

1. मै0 उजाला सिग्नस सेंटल हॉस्पिटल, गैस गोदाम तिराहा कुसुमखेडा,हल्द्वानी, जिला– नैनीताल में स्थित है। चिकित्सालय में 150 बैड स्थापित/संचालित है तथा चिकित्सालय में विभिन्न श्रेणीयों का जैव चिकित्सा अपशिष्ट जनित होता है। निरीक्षण के दौरान चिकित्सालय द्वारा जनित जैव चिकित्सा का निस्तारण संबंधित बार कोडिंग आदि पप्रत्र प्रस्तुत नहीं किये गये।
2. निरीक्षण के दौरान चिकित्सालय में जैव चिकित्सालय अपशिष्ट को बिना पृथक्करण करे कलर कोडेड़ बिन में रखा जा रहा था तथा जनित जैव चिकित्सा अपशिष्ट के निपटान हेतु ग्लोबल इन्वायरमेंट सोल्यूशन गदरपुर (ऊधम सिंह नगर) के साथ अनुबंध किया गया है। (फोटोगाफ संलग्नक–01)
3. चिकित्सालय में प्रयोगशाला तथा ओ0टी0 से जनित उत्प्रवाह के उपचार हेतु परिसर में 10 के0एल0डी क्षमता का ई0टी0पी तथा घरेलू उत्प्रवाह के उपचार हेतु 100 के0एल0डी क्षमता का एस0टी0पी स्थापित है। निरीक्षण के दौरान उपचार सयंत्र सुचारू रूप से संचालित नहीं किये जा रहे थे।
4. निरीक्षण के दौरान ई0टी0पी व एस0टी0पी के संयुक्त उत्प्रवाह निस्तारण बिन्दु से अन्तिम उत्प्रवाह का नमूना एकत्रित कर कार्यालय की प्रयोगशाला मे विश्लेषित किया गया। जिसकी विश्लेषण आख्या बोर्ड मानको के अनुरूप नहीं पायी गयी।(संलग्नक–02)
5. चिकित्सालय प्रतिनिधि द्वारा अवगत कराया गया कि चिकित्सालय द्वारा धरेलु उत्प्रवाह का अधिक मात्रा में जनित होने के कारण अन्तिम उत्प्रवाह को टैकरो के माध्यम से उत्तराखण्ड़ पेय–जल निगम द्वारा स्थापित संयुक्त सीवर लाईन में निस्तारित किया जाता है। जिस संबधं में चिकित्सालय द्वारा निरीक्षण के दौरान प्रपत्र प्रस्तुत नहीं किये गये।
6. चिकित्सालय को बोर्ड मुख्यालय के पत्रांक –यूकेपीसीबी/एचओ/बी0एम0डब्लू0–76/2023–840 द्वारा चिकित्सालय को सशर्त सहमति/प्राधिकार दिनांक– 31.03.2028 तक निर्गत कि गयी है।
7. चिकित्सालय परिसर में एकोस्टिक युक्त डी0जी0 सेट 320 के0वी0ए0X01 तथा 180 के0वी0ए0 X01 क्षमता का स्थापित है तथा संलग्न चिमनी मानको के अनुरूप है।

उपरोक्तानुसार चिकित्सालय द्वारा जैव चिकित्सा अपशिष्ट प्रबंधन नियम–2016 यथासशेधित तथा राज्य बोर्ड द्वारा निर्गत प्राधिकार/सहमति का सशर्त अनुपालन नहीं किया जा रहा है। चिकित्सालय पर पर्यावरणीय क्षतिपूर्ति अधिरोपित किये जाने के घटक निम्नवत है:–

S.No	Factor	Value
1	Health risk factor (HR)	**30**
2	Type of health care facility (T)	1.0
3	Size of health care facility (S)	**1.00**
4	No of days of violation (N)	Date of First -03.12.2025 (Date of inspection by PCB ROH) to (Date of Verification of compliance.)
5	Environmental compensation Factor (R)	**250**

अतः निम्न घटकों के अनुसार चिकित्सालय पर पर्यावरणीय क्षतिपूर्ति अधिरोपित किये जाने तथा कारण बताओं नोटिस निर्गत किये जाने की सस्तुति सहित आख्या अग्रिम आवश्यक कार्यवाही हेतु सादर प्रस्तुत है।

(आयुष नेगी)
वैज्ञा0 सहायक

(शुभम गुसाई)
अवर अभियन्ता

सहा0वैज्ञा0अधिकारी/क्षेत्रीय अधिकारी

संलग्नक-01


GPS Map Camera
Haldwani, Uttarakhand, India
6gf4+24f, Gas Godam Rd, Shiv Puram Phase -i, Choraha,
Kusumkhera, Haldwani, Uttarakhand 263139, India
Lat 29.222472° Long 79.505215°
03/12/2025 05:00 PM GMT +05:30


GPS Map Camera
Haldwani, Uttarakhand, India
6gc4+w4v, Kaladhungi Rd, Shiv Puram Phase -i, Kusumkhera,
Haldwani, Uttarakhand 263139, India
Lat 29.222422° Long 79.50526°
03/12/2025 05:08 PM GMT +05:30
Google

REGIONAL LABORATORY
UTTARAKHAND POLLUTION CONTROL BOARD
AWAS VIKAS COLONY HALDWANI, DISTRICT-NAINITAL
Phone: 05946-225618, Email id – ro.haldwani@gmail.com

Analysis Report on Industrial Effluent

Test report no:	TE/HLD/25/2025-26
Name of HCF	M/s Ujala Cygnus Central Hospital. Near Gas Godam Tiraha Kusumkhera, Haldwani District-Nainital
Sample Source (STP/ETP/ any other specify):	E.T.P Cum S.T.P. (Outlet).
Sampling point:	ETP Cum STP Outlet
Type of sample: Grab/Composite/Integrated:	Grab
Sample collected by:	Shubham Gusain (JE) Ayush Negi (SA)
Quantity & Packing: (HDPE/LDPE/P/G/Any Other):	02 Ltr-HDPE
Date of sample collection:	03.12.2025
Date of sample receipt in the laboratory:	03.12.2025
Date of issue of report:	09.12.2025

S.No.	Parameters	Results	Standards	Test Method	Unit
1.	Colour	Turbid	-	APHA 2120 B: Visual Comparison Method	Hazen
2.	Odour	Unpleasant	-	-	-
3.	pH (@25°C)	6.36		APHA 4500 H^+ B: Electrometric Method	-
4.	Total Suspended Solids	124	<100	APHA 2540 D Total Suspended Solids Dried at 103-105°C	mg/l
5.	Total Dissolved Solids	1016	-	APHA 2540 C: Total Dissolved Solids Dried at 180°C	mg/l
6.	Biochemical Oxygen Demand	110	30	IS 3025 (Part44) Azide Modification.	mg/l
7.	Chemical Oxygen Demand	340	<250	IS 3025 (Part 58): 2023, Open Reflux Method.	mg/l

Analysed by:
Scientific Assistant

Checked by:
Asstt. Scientific Officer

Counter Sign:
Regional Officer

**********End of Test Report**********

Note:

1. **The results in the Test Report relate only to the items tested.**
2. **The Test Report pertains to the sample as received in lab.**
3. **Report shall not be reproduced without approval of laboratory.**
4. **Sample will be retained for only 10 days after issuing the report.**

Annexure-2

I/248826/2026

UTTARAKHAND
UKPCB

LiFE Lifestyle For Environment

HEAD OFFICE
Uttarakhand Pollution Control Board
"Gaura Devi Paryavaran Bhawan"
46B, IT Park, Sahastradhara Road, Dehra Dun
E-mail : msukpcb@yahoo.com, Phone No.-0135-2607092

UKPCB/HO/C&M/K-210/2026/

Dehradun, February, 2026

SPEED POST

To,

M/s Ujala Signus Central Hospital,
Gas Godam Tiraha,
Kusumkheda, Haldwani,
Distt- Nainital.

Non-compliance of the Bio-Medical Waste Management Rules, 2016.

WHEREAS, the Government of India has promulgated the **Bio-Medical Waste Management Rule 2016 (BMW Rules 2016)**, under the **Environment (Protection) Act 1986**; and it is mandatory requirement of every Health Care Facilities (HCFs) to comply with the provisions of the said **Rules**, and

WHEREAS, M/s Ujala Signus Central Hospital located at **Gas Godam Tiraha, Kusumkheda, Haldwani, Distt- Nainital** (herein after referred as "**Health Care Facility "HCF"**) is a health care facility; and

WHEREAS, Rules-4 of the **Bio-medical Waste Management Rules, 2016** defines duties of Occupier, amongst others; it shall be duty of every occupier to:

(a) Take all necessary steps to ensure that bio-medical waste is handled without any adverse effect to human health and the environment and in accordance with these rules;
(b) Make a provision within the premises for a safe, ventilated and secured location for storage of segregated biomedical waste in colored bags or containers in the manner as specified in Schedule-I of BMW Rules, 2016, to ensure that there shall be no secondary handling, pilferage of recyclables or inadvertent scattering or spillage by animals and the bio-medical waste from such place or premises shall be directly transported in the manner as prescribed in these rules to the common bio-medical waste treatment facility or for the appropriate treatment and disposal, as the case may be, in the manner as prescribed in Schedule-I;
(c) Pre-treat the laboratory waste, microbiological waste, blood samples and blood bags through disinfection or sterilisation on-site in the manner as prescribed by the World Health Organisation (WHO) or National AIDs Control Organisation (NACO) guidelines and then sent to the common bio-medical waste treatment facility for final disposal;
(d) Phase out use of chlorinated plastic bags, gloves and blood bags within two years from the date of notification of these rules;
(e) Dispose of solid waste other than bio-medical waste in accordance with the provisions of respective waste management rules made under the relevant laws and amended from time to time;
(f) Not to give treated bio-medical waste with municipal solid waste;
(g) Provide training to all its health care workers and others, involved in handling of bio medical waste at the time of induction and thereafter at least once every year and the details of training programmes conducted, number of personnel trained and number of personnel not undergone any training shall be provided in the Annual Report;
(h) Immunise all its health care workers and others, involved in handling of bio-medical waste for protection against diseases including Hepatitis B and Tetanus that are likely to be transmitted by handling of bio-medical waste, in the manner as prescribed in the National Immunisation Policy or the guidelines of the Ministry of Health and Family Welfare issued from time to time;
(i) Establish a Bar- Code System for bags or containers containing bio-medical waste to be sent out of the premises or place for any purpose within one year from the date of the notification of these rules;

(j) Ensure segregation of liquid chemical waste at source and ensure pre-treatment or neutralisation prior to mixing with other effluent generated from health care facilities;
(k) Ensure treatment and disposal of liquid waste in accordance with the Water Prevention and Control of Pollution) Act, 1974 (6 of 1974);
(l) Ensure occupational safety of all its health care workers and others involved in handling of bio-medical waste by providing appropriate and adequate personal protective equipments;
(m) Maintain and update on day to day basis the bio-medical waste management register and display the monthly record on its website according to the bio-medical waste generated in terms of category and colour coding as specified in Schedule-I;
(n) Report major accidents including accidents caused by fire hazards, blasts during handling of bio-medical waste and the remedial action taken and the records relevant thereto, (including nil report) in Form I to the prescribed authority and also along with the annual report;
(o) Make available the annual report on its web-site and all the health care facilities shall make own website within two years from the date of notification of these rules
(p) Inform the prescribed authority immediately in case the operator of a facility does not collect the bio-medical waste within the intended time or as per the agreed time;

WHEREAS, according to **Rule-7** of the **BMW Rules, 2016**, the Bio-medical waste shall be treated and disposed of in accordance with **schedule-I** and in compliance with the standards provided in **schedule-II** by the Health Care Facilities and Common Bio-medical Waste Treatment Facility; and

WHEREAS, Rule-8, of the **BMW Rules, 2016** describes segregation, packaging, transportation and storage of Bio-medical waste; and stipulated that no bio-medical waste shall be mixed with other waste; and

WHEREAS, according to the **Rule-10** of the **BMW Rules, 2016**, every occupier, or operator handling Bio Medical Waste, irrespective of the quantity shall make an application in **Form-II** to the **prescribed authority** i.e. State Pollution Control Board for grant of authorization; and

WHEREAS, according to the **Rule-13** of the **BMW Rules, 2016**- "Every occupier or operator of Common Bio-Medical Waste Treatment Facility shall submit an Annual Report to the prescribed authority in Form-IV, on or before the 30th June of every year; and

WHEREAS, according to the **Rule-18** of the **BMW Rules, 2016**, the occupier or an operator of the Common Bio Medical Waste Treatment Facility shall be liable for all the damages caused to the environment or the public due to improper handling of Bio-medical waste; and

WHEREAS, the **Hon'ble National Green Tribunal (NGT)** in its order dated 19.07.2016 in the matter of *M.C. Mehta Vs. Union of India and Ors; Anil Kumar Singhal Vs. Union of India and Ors; and Society for Protection of Environment & Biodiversity & Anr Vs. Union of India and Ors.* directed that:

"We hereby direct the State Government to impose an Environmental Compensation of Rs 50,000 on each hospital which is not having complete arrangement for disposal and regular dumping of Bio medical Waste in accordance with law with the Bio Medical Waste Rules 2006."

WHEREAS, according to the **Section-5** of the **Environment (Protection) Act, 1986:**

"Notwithstanding anything contained in any other law but subject to the provisions of this Act, the Central Government may, in the exercise of its powers and performance of its functions under this Act, issue directions in writing to any person, officer or any authority and such person, officer or authority shall be bound to comply with such directions".

WHEREAS, the Ministry of Environment, Forests and Climate Change, Govt. of India has delegated the power vested in it under **section-5** of the **Environment Protection Act, 1986** to the State Govt. of Uttar Pradesh vide notification no. 1(38)/86-pl dated April 14, 1988; and

WHEREAS, the Government of Uttarakhand vide its G.O. dated 26.07.2016 authorized the Uttarakhand Environment Protection and Pollution Control Board to impose and collect the Environmental Compensation on each hospital which are not having complete arrangement for disposal of Bio-Medical Waste; and

WHEREAS, in reference of the complaint received against the Hospital inspection of **M/s Ujala Signus Central Hospital** located at **Gas Godam Tiraha, Kusumkheda, Haldwani, Distt- Nainital** was visited by the official of the Regional Office, Nainital of this **Board** on **03.12.2025** in presence of Hospital's representative, Dr. Navneet and made following observations :-

1. चिकित्सालय में 150 बैड स्थापित/संचालित है तथा चिकित्सालय में विभिन्न श्रेणियों का जैव चिकित्सा अपशिष्ट जनित होता है। निरीक्षण के दौरान चिकित्सालय द्वारा जनित जैव चिकित्सा का निस्तारण संबंधित बार कोडिंग आदि प्रपत्र प्रस्तुत नहीं किये गये।
2. निरीक्षण के दौरान चिकित्सालय में जैव चिकित्सा अपशिष्ट को बिना पृथक्करण करे कलर कोडेड बिन में रखा जा रहा था तथा जनित जैव चिकित्सा अपशिष्ट के निपटान हेतु ग्लोबल इन्वायरमेंट सोल्यूशन गदरपुर (उधमसिंहनगर) के साथ अनुबंध किया गया है।
3. चिकित्सालय में प्रयोगशाला तथा ओ0टी0 से जनित उत्प्रवाह के उपचार हेतु परिसर में 10 के0एल0डी0 क्षमता का ई0टी0पी0 तथा घरेलू उत्प्रवाह के उपचार हेतु 100 के0एल0डी0 क्षमता का एस0टी0पी0 स्थापित है। निरीक्षण के दौरान उपचार संयंत्र सुचारू रूप से संचालित नहीं किये जा रहे थे।
4. निरीक्षण के दौरान ई0टी0पी0 व एस0टी0पी0 के संयुक्त उत्प्रवाह निस्तारण बिन्दु से अन्तिम उत्प्रवाह का नमूना एकत्रित कर कार्यालय की प्रयोगशाला में विश्लेषित किया गया। जिसकी विश्लेषण आख्या बोर्ड मानकों के अनुरूप नहीं पायी गयी।
5. चिकित्सालय प्रतिनिधि द्वारा अवगत कराया गया कि चिकित्सालय द्वारा घरेलू उत्प्रवाह का अधिक मात्रा में जनित होने के कारण अन्तिम उत्प्रवाह को टैंकरों के माध्यम से उत्तराखण्ड पेयजल निगम द्वारा स्थापित संयुक्त सीवर लाईन में निस्तारित किया जाता है। जिस सम्बन्ध में चिकित्सालय द्वारा निरीक्षण के दौरान प्रपत्र नहीं किये गये।

As such it is evident from above observation that the health Care Facility (HCF) has violated the provisions of the Biomedical Waste Management Rules, 2016 and the Environment (Protection) Act, 1986 and Rules made thereunder.

NOW THEREFORE, in exercise of the power conferred under **Section-5 of Environment (Protection) Act, 1986** as amended with approval of the competent authority of the Board, **M/s Ujala Signus Central Hospital** located at **Gas Godam Tiraha, Kusumkheda, Haldwani, Distt-Nainital** is hereby directed to Show Cause within 30 days of time from issue of this direction, as to why **environmental compensation (at the rate of ₹7500/day till compliance) in compliance of order of the Hon'ble NGT in the matter of OA no. 593/2017 and subsequent decision and procedure adopted by the State Board in its 23rd Board meeting, be not imposed against the hospital and closure order be issued under the provisions of the Environment (Protection) Act, 1986 as amended, and concerned authority(ies) be directed to discontinue the power/water supply of the hospital?**

In case of default in compliance with the above directions by the HCF, the UKPCB will be constrained to initiate appropriate actions against the occupier(s) of the HCF without giving any further notice, in accordance with provisions of the **Environment (Protection) Act, 1986**.

Digitally signed by
PARAG MADHUKAR DHAKATE
Date: 05-02-2026 16:42:16

(Dr. Parag Madhukar Dhakate)
Member Secretary

Letter No. :UKPCB/HO/C&M/K-210/2026/ **Dated: as above**

Copy to :-

1. Regional Officer, Uttarakhand Pollution Control Board, Haldwani for information and necessary compliance.
2. CMO, Nainital for information please.
3. Account section
4. Guard File.

Member Secretary

www.ujalacygnus.com

61-38
07/04/26
BMW

Annexure-3

DATE: 06.04.2026

Dr. Parag Madhukar Dhakate,
Member Secretary,
Uttarakhand Pollution Control Board,
Gaura Devi Paryavaran Bhawan,
46B, IT Park, Sahastradhara Road, Dehradun- 248013

SUBJECT: REPLY TO SHOW CAUSE NOTICE DATED 5th FEBRUARY 2026 VIDE UKPCB/HO/C&M/K-210/2026.

Sir,

This is in response to the show cause notice dated 5th February, 2026, received on 07th March 2026, issued by your office alleging certain non – compliances under the Bio-medical waste Management Rules, 2016 and Water (Prevention & Control of Pollution) Act, 1974. We wish to state the following:

1. That Ujala Cygnus Central Hospital, Kaladhungi Road, Tiraha, near Gas Godam, Kusumkhera, Haldwani, Uttarakhand-263139 here in referred to as the "Hospital" is a multi-speciality 150 bedded hospital providing essential healthcare services to the public at large and has always been committed to complying with all applicable environmental laws and regulations.
2. That the Hospital is duly authorized and operating strictly in accordance with statutory permissions granted by the Uttarakhand Pollution Control Board. The Board has issued Authorization under Rule 10 of Bio-Medical Waste Management Rules, 2016 and Consent to Operate under Section 25 of the Water (Prevention and Control of Pollution) Act, 1974, Section 21 of the Air (Prevention and Control of Pollution) Act, 1981 dated 23.09.2023 which is valid till 31.03.2028.
3. That the point wise reply of the observations made by the Board in the Show Cause Notice are as follows:

Point 01:
All BMW records have already been fully compiled and updated. A structured documentation

system is followed across all departments, incorporating records of the waste generated and the waste is handed over to the CBWTF through barcode-based tracking system. Responsibility for maintaining these records has been clearly assigned to designated staff. Copies of records (Barcode scanning report from 15th December, 2025 to 27th March, 2026) have been Annexed as **ANNEXURE - A**.

It is regretted that on the day of the visit the records could not be shown as the concerned person was immediately not available.

Point No. 2:

It is stated that we are diligently segregating the Bio-Medical waste through Color-coding as prescribed under the BMW Rules, 2016 and the nursing, housekeeping, laboratory and other staff are being trained for proper segregation. The segregated biomedical waste is handed over to the Global Environment Solutions, Gadarpur (Udham Singh Nagar), which is an authorized CBWTF, for further treatment and disposal.

Point 03:

The ETP and STP are being operated regularly, however remapping and upgradation of the plant is under progress and shall be completed on 30th June 2026.

Independent technical feasibility report prepared by S.M. Environmental Equipments, New Delhi, in respect of the 10 KLD Effluent Treatment Plant (ETP) installed at the Hospital, concludes that the ETP system is technically adequate and efficient. The discharge from the ETP is further treated in the STP of 100 KLD capacity installed in the Hospital. The copy of the report is annexed herewith as **ANNEXURE - B.**

In addition, the technical feasibility report in respect of the 100 KLD Sewage Treatment Plant (STP) installed at the Hospital premises, prepared by S.M. Environmental Equipments, New Delhi, concludes that the STP is technically adequate and efficient to treat 100 KLD sewage water (approximately 20 hours operation per day), and fully capable of meeting the regulatory

Hospital Address : Gas Godam Tiraha, Kusumkhera, Kaladhungi Road, Haldwani (Nainital), U.K. | Tell No. : 05946-260287 | E-mail : info@ujalahealthcare.com
Corp. Office : "Ujala Cygnus Healthcare Services" ECE House, 3rd Floor, 28A, KG Marg, Connaught Place, New Delhi-110001 | Website : ujalacygnus.com | E-Mail : info@ujalacygnus.com
Ujala Cygnus Hospitals : Haryana : Sonipat | Panipat | Karnal | Kurukshetra | Kaithal | Bahadurgarh | Rewari | Delhi : Nangloi | Rama Vihar | Uttar Pradesh : Varanasi | Kanpur | Agra | Moradabad | Uttarakhand : Kashipur | Haldwani | Jammu & Kashmir : Srinagar
CIN : U85190DL2011PTC391657

requirements prescribed by the Central Pollution Control Board and State Pollution Control Board, The copy of the report is annexed herewith as **ANNEXURE - C.**

Point 04:

Necessary corrections in chemical dosing have been implemented to ensure the proper functioning of the treatment process. The overall process has been optimized to achieve improved treatment results. Copy of the latest effluent testing report dated 16.02.2026 from an authorized laboratory is Annexed as **ANNEXURE - D** which shows the parameters in the treated effluent to be within the prescribed limits.

Point 05:

The ETP and STP installed (with capacity 10 KLD and 100 KLD respectively) in the Hospital is as per the prescribed conditions under Consent to Operate & Authorization issued on 23.09.2023. However, over the years it is observed that the actual discharge of effluent is higher than the estimated quantity assumed while installing ETP and STP. Therefore, upgradation of STP and ETP is currently in progress. The process shall be completed by 30th June, 2026.

Keeping above in mind, even prior to the issuance of the present show cause notice, the Hospital had already initiated proactive compliance measures and duly informed the Board that:

- Re-mapping and upgradation of ETP/STP systems was under process
- Work would be completed within 4–5 months
- Treated water would meet prescribed discharge standards and shall be reused

Copy of the letter dated 14.01.2026 addressed to UKPCB is Annexed as **ANNEXURE – E.**

4. In view of the above facts, it is respectfully requested that no action be taken against the Hospital, as it has duly submitted its reply to the said show cause notice within the stipulated timeline and Hospital is in the process of upgrading its STP and ETP facilities as well. It is further submitted that the hospital is complying with all the conditions, which are mentioned in Bio-Medical Waste Management Rules, 2016 and the Environment (Protection) Act, 1986 and Rules made thereunder.

In view of the above statements, it is requested to withdraw the proposed action for Closure and Imposition of Environmental Compensation and grant time up to 30th June, 2026 for upgradation of ETP and STP installed in the Hospital.

Regards,

Name: Abhishek Dubey

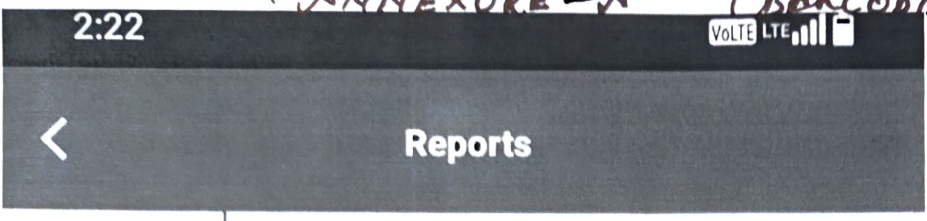
Designation: Unit Head

Date: 06/04/2026

CYGNUS CENTRAL HALDWANI 263139

Copy to:

1. **Regional Office (RO), Haldwani**
2. **Uttarakhand Pollution Control Board (UKPCB), Haldwani**



CBWTF	0	0	0	0

TOTAL(P)

4

UJALA CYGNUS CENTRAL HOSPITAL

Hospital Code:	UJALA263139UTBH6607
HCF Weight:	042.042
CBWTF Weight:	000.000
Difference Weight:	**042.042**
HCF Address:	101, Best Hospital in, Central hospital, near
CBWTF Address:	--- --- ---
Date:	2025-12-26

HCF	1	1	1	1
CBWTF	0	0	0	0

TOTAL(P)

11

UJALA CYGNUS CENTRAL HOSPITAL

Hospital Code:	UJALA263139UTBH6607
HCF Weight:	046.481
CBWTF Weight:	000.000
Difference Weight:	**046.481**
HCF Address:	101, Best Hospital in, Central hospital, near
CBWTF Address:	--- --- ---
Date:	2025-12-15

HCF	3	3	3	2

TOTAL(P)

4

UJALA CYGNUS CENTRAL HOSPITAL

Hospital Code:	UJALA263139UTBH660
HCF Weight:	7
CBWTF Weight:	070.070
Difference Weight:	000.000
HCF Address:	**070.070**
CBWTF Address:	487, Kaladhungi Rd, Shiv Puram Phase -I, --- --- ---
Date:	2026-01-05

HCF	1	1	1	1
CBWTF	0	0	0	0

TOTAL(P)

4

UJALA CYGNUS CENTRAL HOSPITAL

Hospital Code:	UJALA263139UTBH660
HCF Weight:	7
CBWTF Weight:	080.080
Difference Weight:	000.000
HCF Address:	**080.080**
CBWTF Address:	487, Kaladhungi Rd, Shiv Puram Phase -I, --- --- ---
Date:	2026-01-03

HCF	1	1	1	1
CBWTF	-	-	-	-

2:23

Reports

TOTAL(P)

4

UJALA CYGNUS CENTRAL HOSPITAL

Hospital Code: UJALA263139UTBH6607
HCF Weight: 062.062
CBWTF Weight: 000.000
Difference Weight: **062.062**
HCF Address: 6GC4+X6Q, Kaladhungi Rd, Shiv Puram Phase -I, --- --- ---
CBWTF Address:
Date: 2026-01-07

HCF	1	1	1	1
CBWTF	0	0	0	0

TOTAL(P)

4

UJALA CYGNUS CENTRAL HOSPITAL

Hospital Code: UJALA263139UTBH6607
HCF Weight: 062.062
CBWTF Weight: 000.000
Difference Weight: **062.062**
HCF Address: Dhar bithoria no 1, near Hari ata chakkki, --- --- ---
CBWTF Address:
Date: 2026-01-06

HCF	1	1	1	1
CBWTF	0	0	0	0

TOTAL(P)

4

UJALA CYGNUS CENTRAL HOSPITAL

Hospital Code:	UJALA263139UTBH6607
HCF Weight:	067.067
CBWTF Weight:	000.000
Difference Weight:	**067.067**
HCF Address:	6GC4+X6Q, Kaladhungi Rd, Shiv Puram Phase -I,
CBWTF Address:	--- --- ---
Date:	2026-01-21

HCF	1	1	1	1
CBWTF	0	0	0	0

TOTAL(P)

4

UJALA CYGNUS CENTRAL HOSPITAL

Hospital Code:	UJALA263139UTBH6607
HCF Weight:	066.066
CBWTF Weight:	000.000
Difference Weight:	**066.066**
HCF Address:	6GC4+X6Q, Kaladhungi Rd, Shiv Puram Phase -I,
CBWTF Address:	--- --- ---
Date:	2026-01-12

HCF	1	1	1	1
CBWTF	0			

TOTAL(P)

4

UJALA CYGNUS CENTRAL HOSPITAL

Hospital Code:	UJALA263139UTBH660
HCF Weight:	7
CBWTF Weight:	059.059
Difference Weight:	000.000
HCF Address:	**059.059**
CBWTF Address:	101, Best Hospital in, Central hospital, near --- --- ---
Date:	2026-02-12

HCF	[redacted] 1	[redacted] 1	[redacted] 1	[redacted] 1
CBWTF	[redacted] 0	[redacted] 0	[redacted] 0	[redacted] 0

TOTAL(P)

6

UJALA CYGNUS CENTRAL HOSPITAL

Hospital Code:	UJALA263139UTBH660
HCF Weight:	7
CBWTF Weight:	096.096
Difference Weight:	000.000
HCF Address:	**096.096**
CBWTF Address:	6GC4+X6Q, Kaladhungi Rd, Shiv Puram Phase -I, --- --- ---
Date:	2026-01-27

HCF	[redacted] 1	[redacted] 3	[redacted] 1	[redacted] 1
CBWTF	[redacted] 0 21	[redacted] 0	[redacted] 0	[redacted] 0

79

2:23

Reports

TOTAL(P)

4

UJALA CYGNUS CENTRAL HOSPITAL

Hospital Code: UJALA263139UTBH6607
HCF Weight: 069.069
CBWTF Weight: 000.000
Difference Weight: **069.069**
HCF Address: 6GC4+X6Q, Kaladhungi Rd, Shiv Puram Phase -I, --- --- ---
CBWTF Address:
Date: 2026-02-26

HCF	1	1	1	1
CBWTF	0	0	0	0

TOTAL(P)

4

UJALA CYGNUS CENTRAL HOSPITAL

Hospital Code: UJALA263139UTBH6607
HCF Weight: 067.067
CBWTF Weight: 000.000
Difference Weight: **067.067**
HCF Address: 101, Best Hospital in, Central hospital, near --- --- ---
CBWTF Address:
Date: 2026-02-20

HCF	1	1	1	1
CBWTF	0	0	0	0

2:23

Reports

TOTAL(P)

4

UJALA CYGNUS CENTRAL HOSPITAL

Hospital Code: UJALA263139UTBH660
HCF Weight: 7
CBWTF Weight: 068.068
Difference Weight: 000.000
HCF Address: **068.068**
CBWTF Address: 6GC4+X6Q, Kaladhungi Rd, Shiv Puram Phase -I, --- --- ---
Date: 2026-03-18

HCF	1	1	1	1
CBWTF	0	0	0	0

TOTAL(P)

4

UJALA CYGNUS CENTRAL HOSPITAL

Hospital Code: UJALA263139UTBH660
HCF Weight: 7
CBWTF Weight: 063.063
Difference Weight: 000.000
HCF Address: **063.063**
CBWTF Address: 101, Best Hospital in, Central hospital, near --- --- ---
Date: 2026-03-11

HCF	1	1	1	1
CBWTF	0	0	0	0

TOTAL(P)

4

UJALA CYGNUS CENTRAL HOSPITAL

Hospital Code:	UJALA263139UTBH6607
HCF Weight:	066.066
CBWTF Weight:	000.000
Difference Weight:	**066.066**
HCF Address:	6GC4+X6Q, Kaladhungi Rd, Shiv Puram Phase -I,
CBWTF Address:	--- --- ---
Date:	2026-03-23

HCF	1	1	1	1
CBWTF	0	0	0	0

TOTAL(P)

4

UJALA CYGNUS CENTRAL HOSPITAL

Hospital Code:	UJALA263139UTBH6607
HCF Weight:	067.067
CBWTF Weight:	000.000
Difference Weight:	**067.067**
HCF Address:	6GP4+56H, Shiv Puri, Haldwani, Uttarakhand
CBWTF Address:	--- --- ---
Date:	2026-03-19

HCF	1	1	1	1
CBWTF	0	0	0	0

2:27

Reports

TOTAL(P)

4

UJALA CYGNUS CENTRAL HOSPITAL

Hospital Code:	UJALA263139UTBH6607
HCF Weight:	062.062
CBWTF Weight:	000.000
Difference Weight:	062.062
HCF Address:	6GC4+X6Q, Kaladhungi Rd, Shiv Puram Phase -I,
CBWTF Address:	--- --- ---
Date:	2026-03-27

HCF	1	1	1	1
CBWTF	0	0	0	0

TOTAL(P)

4

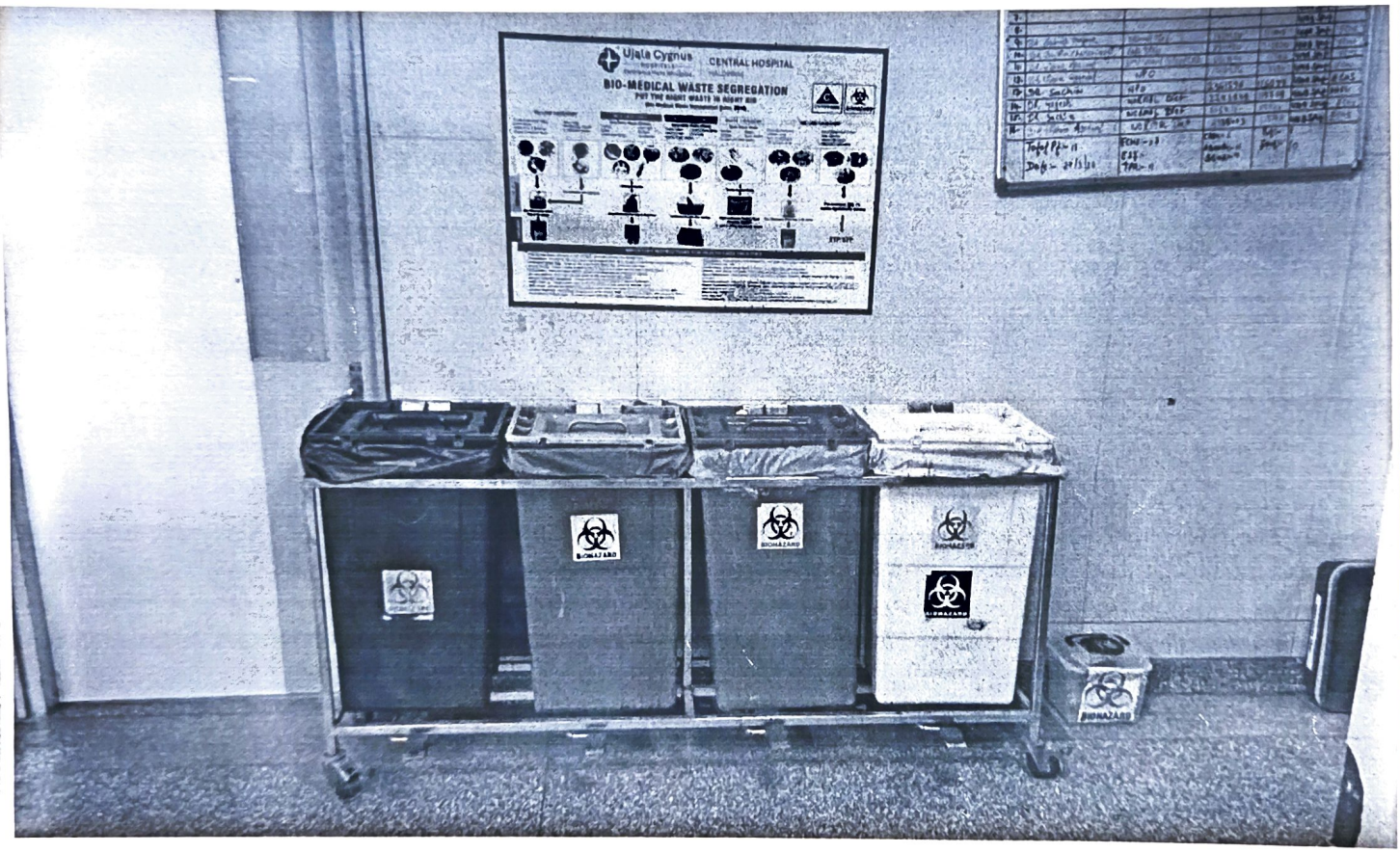
UJALA CYGNUS CENTRAL HOSPITAL

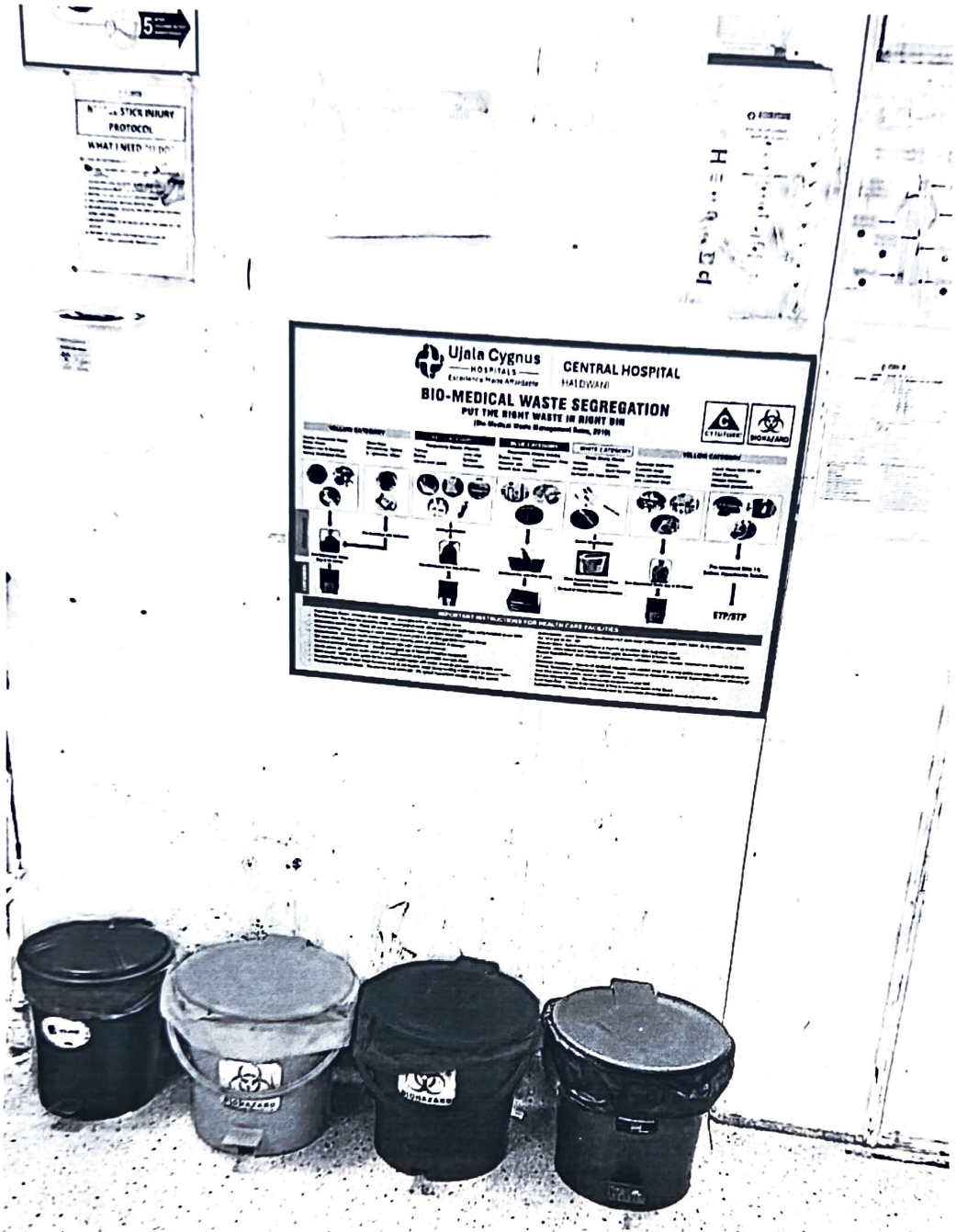
Hospital Code:	UJALA263139UTBH6607
HCF Weight:	066.066
CBWTF Weight:	000.000
Difference Weight:	066.066
HCF Address:	6GC4+X6Q, Kaladhungi Rd, Shiv Puram Phase -I,
CBWTF Address:	--- --- ---
Date:	2026-03-23

HCF	1	1	1	1
CBWTF	0	0	0	0

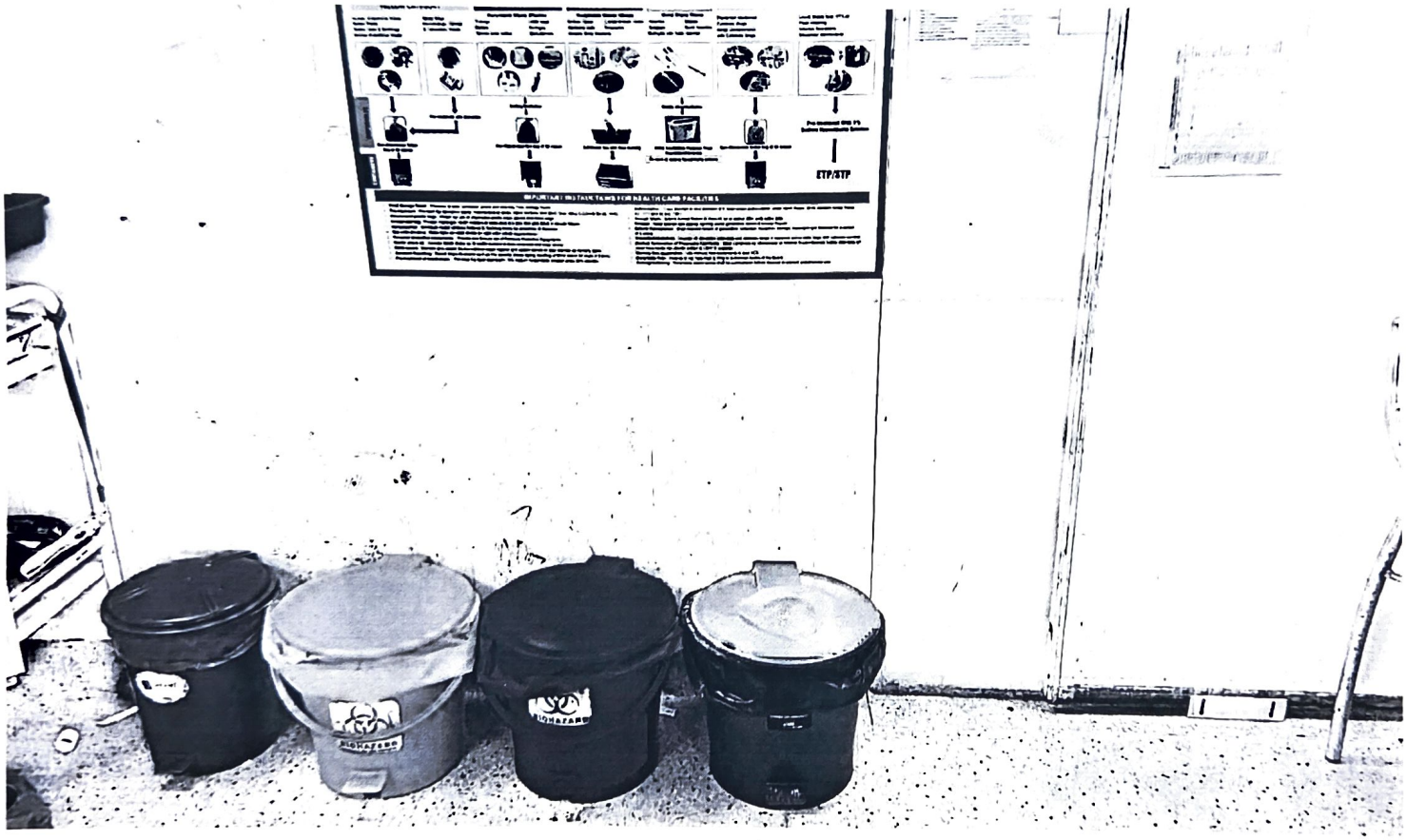
25

ANNEXURE - A


Ujala Cygnus
CENTRAL HOSPITAL
BIO-MEDICAL WASTE SEGREGATION
BIOHAZARD

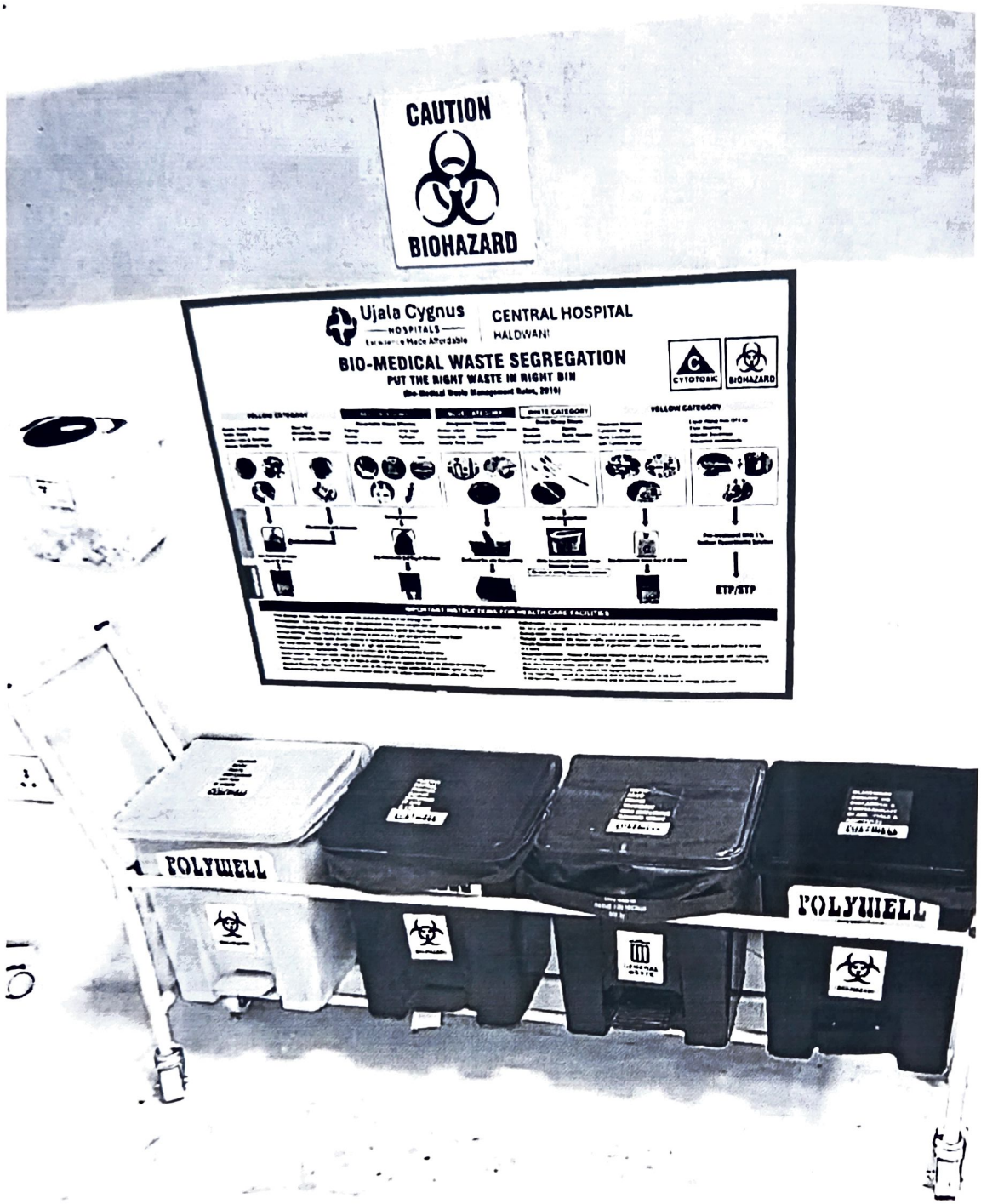

Ujala Cygnus
HOSPITALS
CENTRAL HOSPITAL
HALDWANI
BIO-MEDICAL WASTE SEGREGATION
PUT THE RIGHT WASTE IN RIGHT BIN
ETP/STP

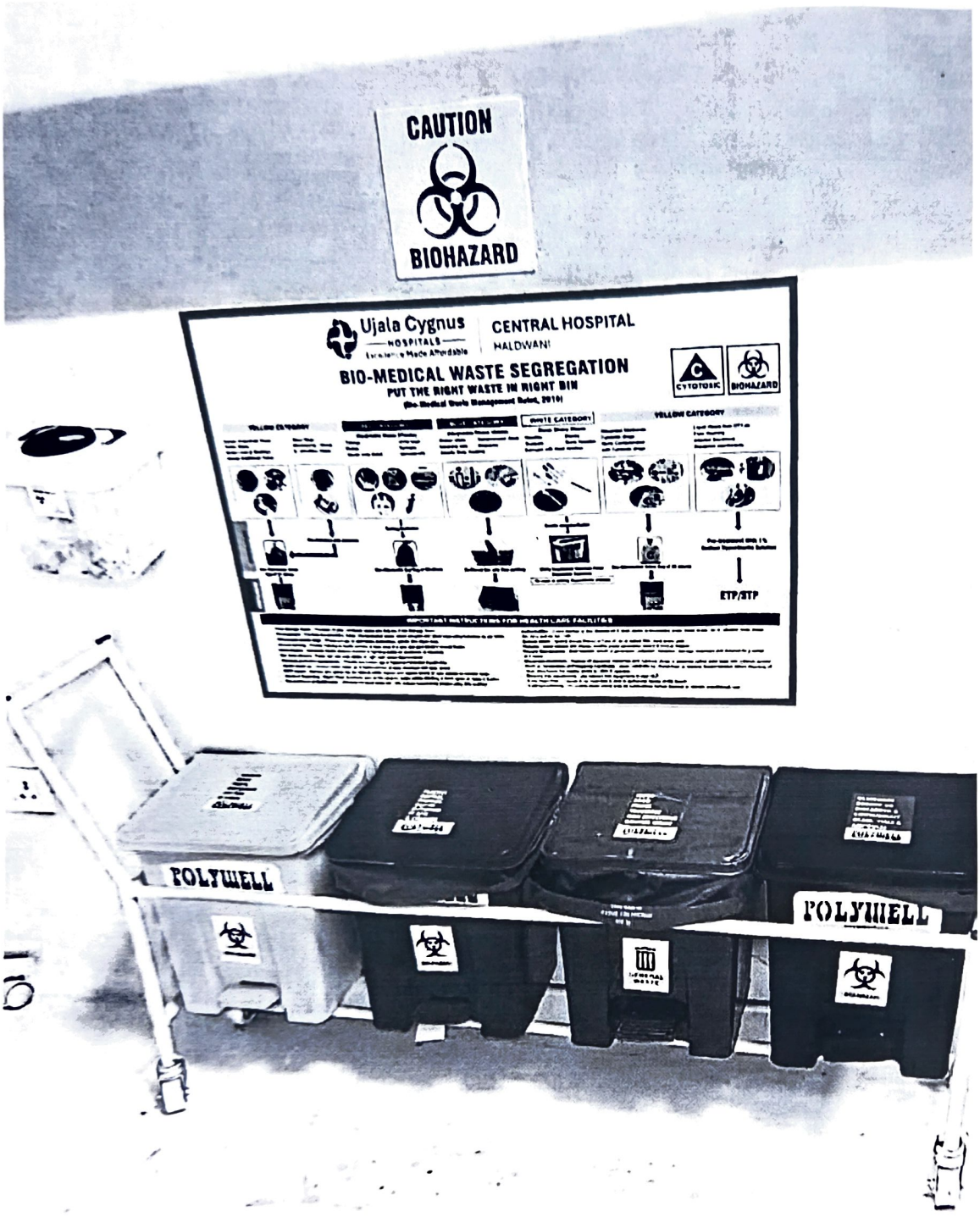
85




5
PROTOCOL
Ujala Cygnus
HOSPITALS
CENTRAL HOSPITAL
HALDWANI
BIO-MEDICAL WASTE SEGREGATION
PUT THE RIGHT WASTE IN RIGHT BIN
CYTOTOXIC
BIOHAZARD
ETP/STP

87


CAUTION
BIOHAZARD
Ujala Cygnus
HOSPITALS
CENTRAL HOSPITAL
HALDWANI
BIO-MEDICAL WASTE SEGREGATION
PUT THE RIGHT WASTE IN RIGHT BIN
CYTOTOXIC
BIOHAZARD
YELLOW CATEGORY
ETP/STP
POLYWELL
POLYWELL


CAUTION
BIOHAZARD
Ujala Cygnus
HOSPITALS
CENTRAL HOSPITAL
HALDWANI
BIO-MEDICAL WASTE SEGREGATION
PUT THE RIGHT WASTE IN RIGHT BIN
CYTOTOXIC
BIOHAZARD
WHITE CATEGORY
YELLOW CATEGORY
ETP/STP
POLYWELL
POLYWELL

ANNEXURE - B

Technical Report of 10 KLD Effluent Treatment Plant

Submitted To:

M/s, Ujala Cygnus Central Hospital
Kaladhungi Road, near Gas Godam,
Tiraha, Kusumkhera,
Haldwani, Uttarakhand 263139

Prepared By

S M ENVIRONMENTAL EQUIPMENTS
C-430, Sector-19, Rohini,
New Delhi – 110 085.
Tel: +91 -9811061590, 011-41101442
Email: smenvo@gmail.com

1. INTRODUCTION

UJALA CYGNUS CENTRAL HOSPITAL Kaladhungi Road, near Gas Godam, Tiraha, Kusumkhera, Haldwani, Uttarakhand 263139 is going to installed a Effluent Treatment Plant of capacity 10 KLD at their hospital for the treatment of effluent generates from various section of the hospital. Based on the observation and assessment a technical assessment report is prepared.

This report describes various aspects related to technical adequacy of the Effluent cum Effluent Treatment Plant of capacity 10 KLD. The technical assessment includes the quantification of wastewater, preparation of ETP layout and dimensioning of different components of S.T.P.

2. SOURCES OF WASTEWATER

UJALA CYGNUS CENTRAL HOSPITAL Kaladhungi Road, near Gas Godam, Tiraha, Kusumkhera, Haldwani, Uttarakhand 263139 has installed a Effluent Treatment Plant of capacity 10 KLD at to treat the sewage/wastewater generated from different sections of the Hospital before finally discharging it into the sewage or reuse.

The various sources from where wastewater is being generated is identified as: Operation Theater, Path. Lab, Kitchen, Toilets and bathrooms.

Total sewage generation from the premises is around 10 KLD. Therefore, the present S.T.P has been designed for the treatment of total 10 KLD capacity. The treated water is used in horticulture, flushing, cooling towers etc. and partially discharged into sewer line

The main parameters identified in the wastewater as pollutant load are BOD and suspended solids.

3. DESIGN BASIS OF EFFULENT TREATMENT PLANT

The characteristics of sewage considered for designing is given below in table:

S.NO.	Parameter	Unit	Raw effluent	Treated Water
1	Design Flow	M3/day	10	9
2	Average Flow	M3/hr	0.5	0.45

Characteristics of Sewage

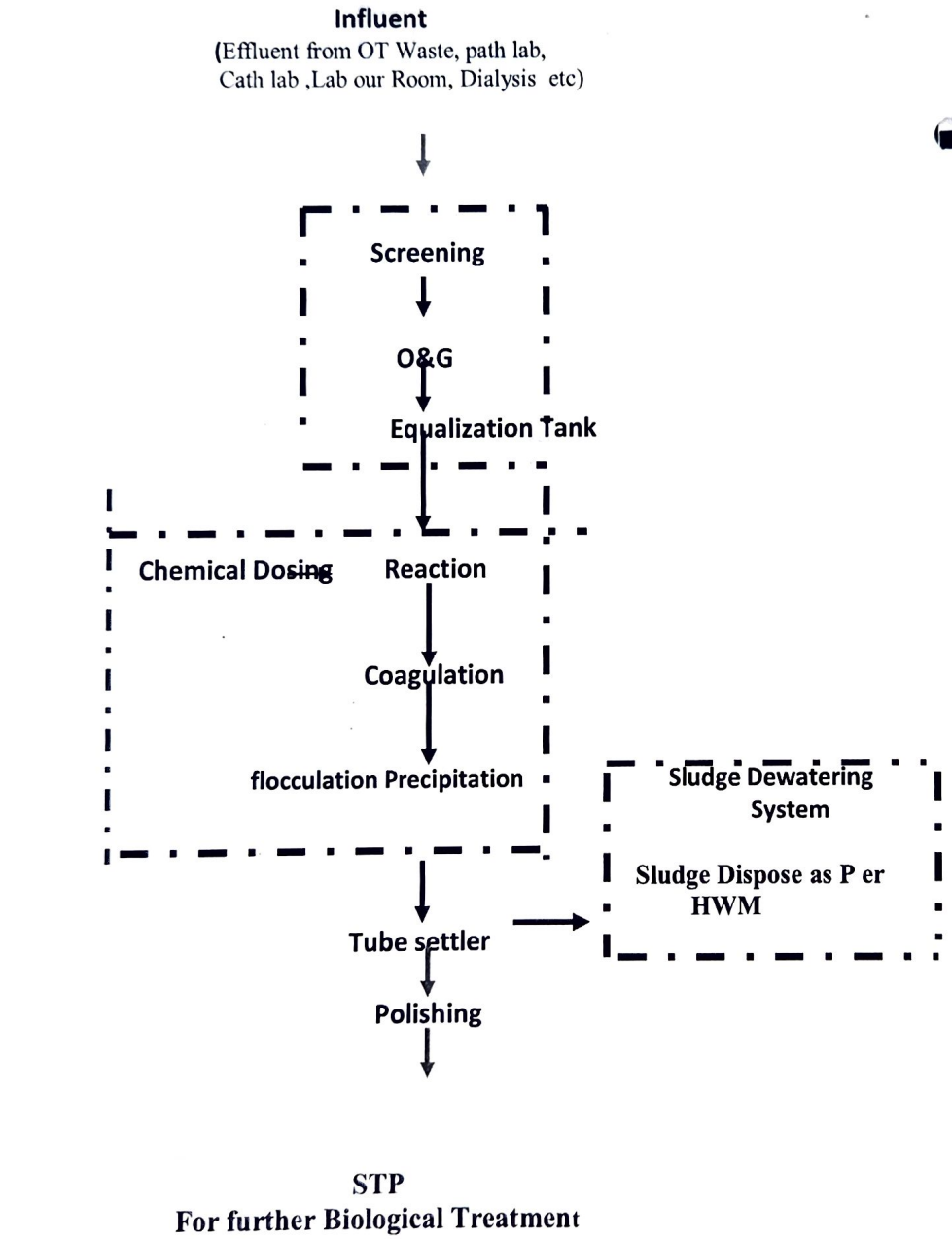
S.NO.	Parameter	Unit	Raw effluent	Treated Effluent after Filtration	UF Water Treatment
1	P^H		6-8	5.5-9	7-8
2	COD	mg/l	400-800	Less than 100	Less than 20
3	TSS	mg/l	150-350	Less than 50	Less than 10
4	OIL&GEASE	mg/l	20-30	Less than 10	Less than 1
5	BOD5	mg/l	250-350	Less than 30	Less than 5

4. SELECTION OF TREATMENT TECHNOLOGY:

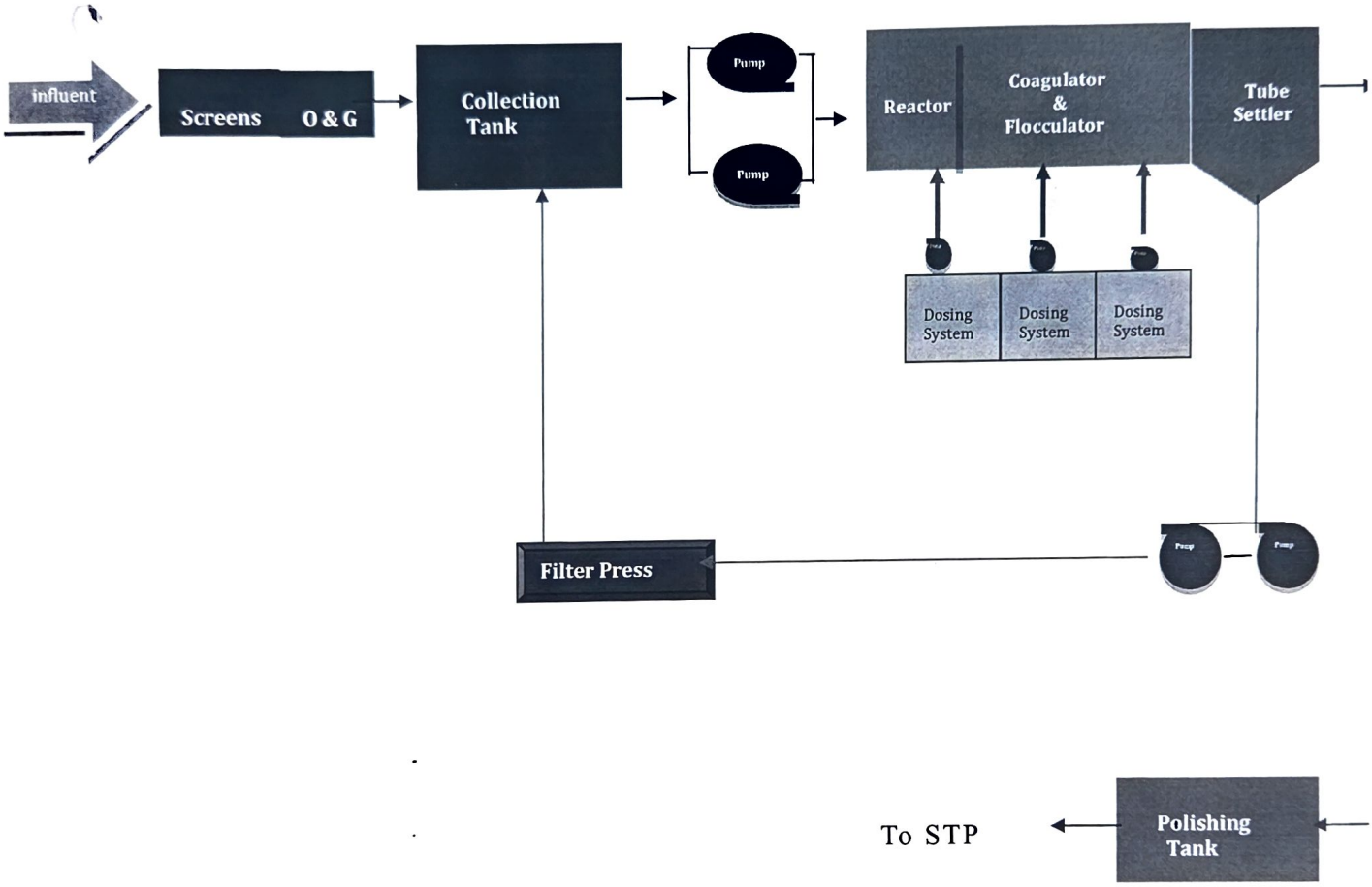
The Hospital has a Effluent Treatment Plant for the total effluent streams mentioned above. A detailed analysis of the control system has been made in order to determine the effectiveness of the control system. The treatment unit virtually works on a 24-hour basis although the Effluent discharges follow cycles with high peaks and low troughs depending on the time of the day due to the fact of being mostly originating from domestic activities.

The Effluent cum Effluent Treatment Plant has been designed and installed based on combined treatment Physio Chemical process involving primary settling, Reaction Coagulation Flocculation Settling, polishing & filtration, Chemically Treated effluent goes to STP for further Biological Treatment

Schematic diagram for Physico Chemical Treatment Plant & Filtration unit



Influent Treatment Plant P & I Diagram (Capacity:10KLD)



5. TREATMENT PLANT PROCESS UNITS

The Effluent treatment plant has been designed based on continuous flow operation for the treatment of the Yellow Effluent from (OT Waste, path lab,Cath lab ,Lab our Room, Dialysis etc) generated during different process of Hospital. The Effluent Treatment Plant consists of the following units:

I. Process Units

Screen Chamber
Oil & Grease Trap
Collection cum Equalization Tank
Reactor
Coagulation/Precipitation
Flocculation
Hopper Bottom Clarifier
Polishing

II. Mechanical Ancillary Units:

Raw Sewage Transfer Pump
Plant Room Drainage Pump
Air Blower
Sludge Recirculation Pumps
Filter Feed Pumps
Pressure Sand Filter
Activated Carbon Filter
Sludge Filter Unit

III. Electrical & Electronics Ancillary Units:

Electrical Control Panel

PH Meter,

Flow Meter

4. Effluent Treatment Plant Working Principle

- **Bar Screen:** Raw Effluent from the source is received into the bar screen chamber by gravity. Screen provided will remove all floating and big size matter such as plastics, polythene bags, glasses, stones etc; which may otherwise choke the pipeline and pumps.

- **O& G Trap :** An Oil and Grease Trap also known as Grease Trap, **Grease Interceptor** is a device used to trap oil, grease, food solids etc from the wastewater before they enter into a sewer system. The Oil and Grease Trap prevents the clogging of sewer by preventing the Oil, grease fats and solids from entering the sewer.

- **Collection-cum-Equalization Tank**: Usually, generation is more during morning hours and evening hours. Visually no sewage is generated during night hours. Any biological system needs constant feed for bacteria to work efficiently. Hence, it is important to put an equalization tank to collect the excess flow during peak hours and feed sewage in lean hours. Provision of air grid is made for thoroughly mixing of sewage to make it of homogenous quality and to keep the suspended matter in suspension and to avoid septic condition.

- **Transfer of Effluent :** The sewage transfer pump of suitable discharge rate 1 is provided. The operation of the pump is controlled through level controller. The influent is transferred to neutralization tank.

- **Neutralization:- neutralization** or **neutralization** is a chemical reaction in which acid and a base react with an equivalent quantity of each other. In a reaction in water, neutralization results in there being no excess of hydrogen or hydroxide ions present in the solution. The pH of the neutralized solution depends on the acid strength of the reactants.

- **Coagulation: -**

Coagulation water treatment is the first step in chemical wastewater treatment. Instead of passing over particles that would otherwise slip through the filter and fall too slowly to be trapped as sediment, coagulation clumps them together so they are more easily removed.
In coagulation treatment, a harmless chemical such as alum causes all of the particles to give off a positive charge and thus clump together, making them easier to filter. Coagulation is especially useful in removing the chemical phosphorus from water. Yet coagulation water treatment is far from

- Flocculation

  Flocculation goes hand in hand with coagulation in wastewater treatment. Once the waste particles have clumped together using coagulation, flocculating agents in wastewater treatment are used to remove the clumps. Flocculants are lightweight, medium weight and heavy polymers that cause The destabilized clumps of particles to agglomerate and drop out of the solution, removing them from the filtered water. The weight used depends on the type of particle.

  Flocculants are like a high-tech rope that ties all of the coagulated clumps together. Flocculants come in various charges, charge densities, molecular weights and forms, and they have also been around for centuries. Natural polymers, such as crushed nuts, have been used as flocculants since prehistoric times by some central African tribes.

- **Tube settlers: -**
  which are also known as plate settlers or lamella clarifiers are used in drinking- and wastewater treatment plants to settle out suspended solids. Depending on the application the TSS (total suspended solids) loading can vary between 50 to 500mg/l or more. When the solid settling force is higher as all drag forces, solids will settle down on the channel surface of the tube settler, accumulate with other solids and slide down as sludge.

- **Sludge Removal** : The sludge from the bottom of the clarifier is transferred to techno bag in which fabric cloth filters are attached. The filtrate from here is again sent back to the collection tank for its further treatment. The semi dried sludge is then kept for solar drying. After solar drying sludge is collected and stored separately for its further disposal/use as per applicable guidelines.

- **Polishing Tank:** In polishing tank, Required Chemical will be use to adjust the PH value

- **MGF &ACF**: The treated water of Polishing Tank. Passes through Sand filter and ACF is used as per requirement

6. SPECIFICATIONS OF EQUIPMENTS

A-Electro-Mechanical Equipment

S.no	Equipment	MOC	Specification	Make	Quantity
1	Bar Screen	SS-304	Perforated	SMEE	1 No
2	Raw Sewage Transfer Pump	CI	1 M^3/hr@2 . Kg operate on 2900 RPM Self Priming Non-Clog	Willo / Kirlosker /Equivalent	2(1w+1s)
3	Coagulation				
4	Flocculation				
5	Tube deck Media	PVC	Hexagonal shape height 750 mm	SDM/SMEE/Equiv	lot
6	Air Piping	GI /UPVC	B Class epoxy coated / schedule 25	Zindal / Astral	lot
7	Sludge Recirculation Pump	CI	1 M^3/hr@1.5kg operated on 2900 rpm Self Priming Non-Clog	Willo / Kirlosker	1(1w)
8	Plant Piping & Valve	UPVC/GI Zindal	Dia-25 mm, Schedule 40/ B Class with epoxy coating	Astral	lot
9	Chemical Dosing System	PVC tank	One No 1 to 6 & Two no 1 to 10 LPH	SMEE Pump Asia LMI/Pentair /E Dose / Minimex	3
10	Electrical Panel (MCC)		Details attached	Ess Tee Power	1
11	Cable	Copper PVC	3 core 1.5 to 2mm thick Armored copper wire	Poly cab	lot
12	UV System		1M^3/hr	Alfa	1

B. MS FRP/ Civil Structure.

S. No.	Tank	Quantity	Capacity	Size in Meter	MOC	Scope
1	Bar Screen, Oil and Grease Chamber	1				Existing
2	Collection Equalization tank. Existing Septic tank	1				Existing
3	Coagulation		1 M^3			SMEE
4	Flocculation		1 M^3			SMEE
5	Tube Setling		2 M^3			SMEE
6	Polishing Tanks	1	2 M^3			SMEE
7	Sludge Drying Bed	1			Bricks masonry	Existing
8	Piping from ETP Tank to STP	1			PVC	Existing
9	Platforms Foundation,	1	6X5 M^2		CC	Existing

7. OTHER ELECTRICAL COMPONENTS

These are used of standard company make of adequate capacity as per the requirement. As the E.T.P is designed for its 20 hrs. continuous operation, each electrical component is used with additional stand by unit to operate on alternate basis.

8. SLUDGE HANDLING

Sludge collected from the Filter Press should be sun dried and collected in the bags sealed and disposed of as per applicable Bio medical waste rule guidelines.

9. SUMMARY OF TREATMENT PROCESS UNITS AND THEIR TECHNICAL ADEQUACY

The treatment process units are described above are summarized and presented in table above. The table shows the status of the equipment and process units in terms of their adequacy for the treatment of the sewage.

The table also indicates that the process units are technically adequate for the operation of the Effluent- Treatment Plant giving a consistent operational result.

10. CONCLUSION

It is obvious from the detail described above, the ETP seems adequate as well as efficient to treat 10 KLD sewage water (for 20 hours operation/ day) To meet the regulatory requirements of Central & State Pollution Control Board. The different sub-units of the E.T.P. are of adequate capacity to treat the 10 KL sewage effluent generated per day. The unit is advised to manage the sludge as per applicable rules. In addition, the unit is advised to maintain daily logbook for quantifying the actual daily discharge.

ANNEXURE – C (100 KLD STP) 100

Technical Report of 100 KLD (MBBR Based) Sewage Treatment Plant

Submitted To:

M/s, Ujala Cygnus Central Hospital
Kaladhungi Road, near Gas Godam,
Tiraha, Kusumkhera,
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1. INTRODUCTION

UJALA CYGNUS CENTRAL HOSPITAL Kaladhungi Road, near Gas Godam, Tiraha, Kusumkhera, Haldwani, Uttarakhand 263139 is going to installed a Sewage treatment Plant of capacity 100 KLD at their hospital for the treatment of effluent generates from various section of the hospital. Based on the observation and assessment a technical assessment report is prepared.

This report describes various aspects related to technical adequacy of the Effluent cum Sewage treatment Plant of capacity 100 KLD. The technical assessment includes the quantification of wastewater, preparation of STP layout and dimensioning of different components of S.T.P.

2. SOURCES OF WASTEWATER

UJALA CYGNUS CENTRAL HOSPITAL Kaladhungi Road, near Gas Godam, Tiraha, Kusumkhera, Haldwani, Uttarakhand 263139 has installed a Sewage treatment Plant of capacity 100 KLD at to treat the sewage/wastewater generated from different sections of the Hospital before finally discharging it into the sewage or reuse.

The various sources from where wastewater is being generated is identified as: Operation Theater, Path. Lab, Kitchen, Toilets and bathrooms.

Total sewage generation from the premises is around 100 KLD. Therefore, the present S.T.P has been designed for the treatment of total 100 KLD capacity. The treated water is used in horticulture, flushing, cooling towers etc. and partially discharged into sewer line

The main parameters identified in the wastewater as pollutant load are BOD and suspended solids.

3. DESIGN BASIS OF SEWAGE TREATMENT PLANT

The characteristics of sewage considered for designing is given below in table:

S.NO.	Parameter	Unit	Raw effluent	Treated Water
1	Design Flow	M3/day	100	90
2	Average Flow	M3/hr	5	4.5

Characteristics of Sewage

S.NO.	Parameter	Unit	Raw effluent	Treated Effluent after Filtration	UF Water Treatment
1	P^H		6-8	5.5-9	7-8
2	COD	mg/l	100-600	Less than 100	Less than 20
3	TSS	mg/l	150-250	Less than 50	Less than 10
4	OIL&GEASE	mg/l	20-30	Less than 10	Less than 1
5	BOD5	mg/l	150-250	Less than 30	Less than 5

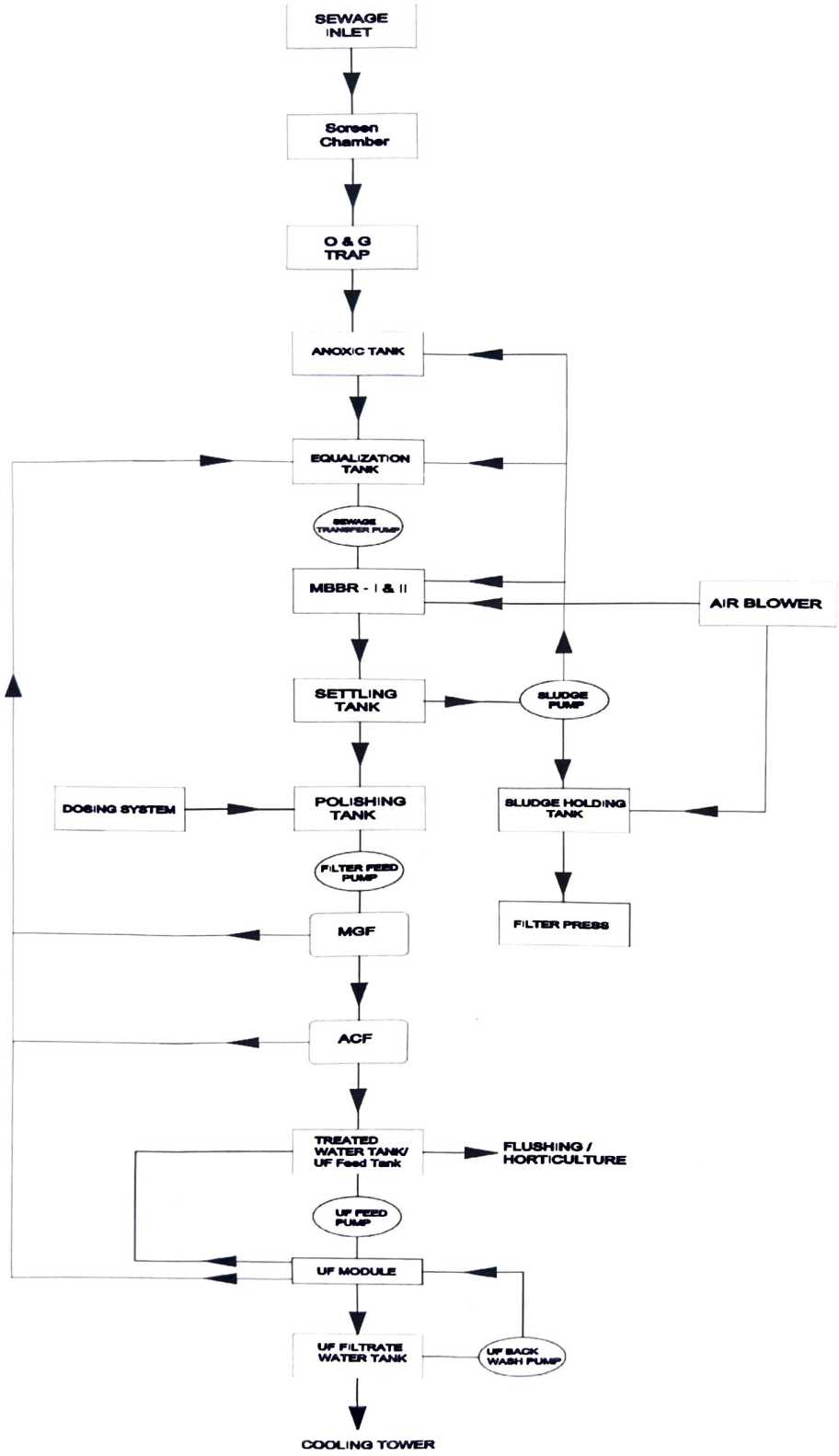
4. SELECTION OF TREATMENT TECHNOLOGY:

The Hospital has a Sewage Treatment Plant for the total effluent/sewage streams mentioned above. A detailed analysis of the control system has been made in order to determine the effectiveness of the control system. The treatment unit virtually works on a 24-hour basis although the sewage discharges follow cycles with high peaks and low troughs depending on the time of the day due to the fact of being mostly originating from domestic activities.

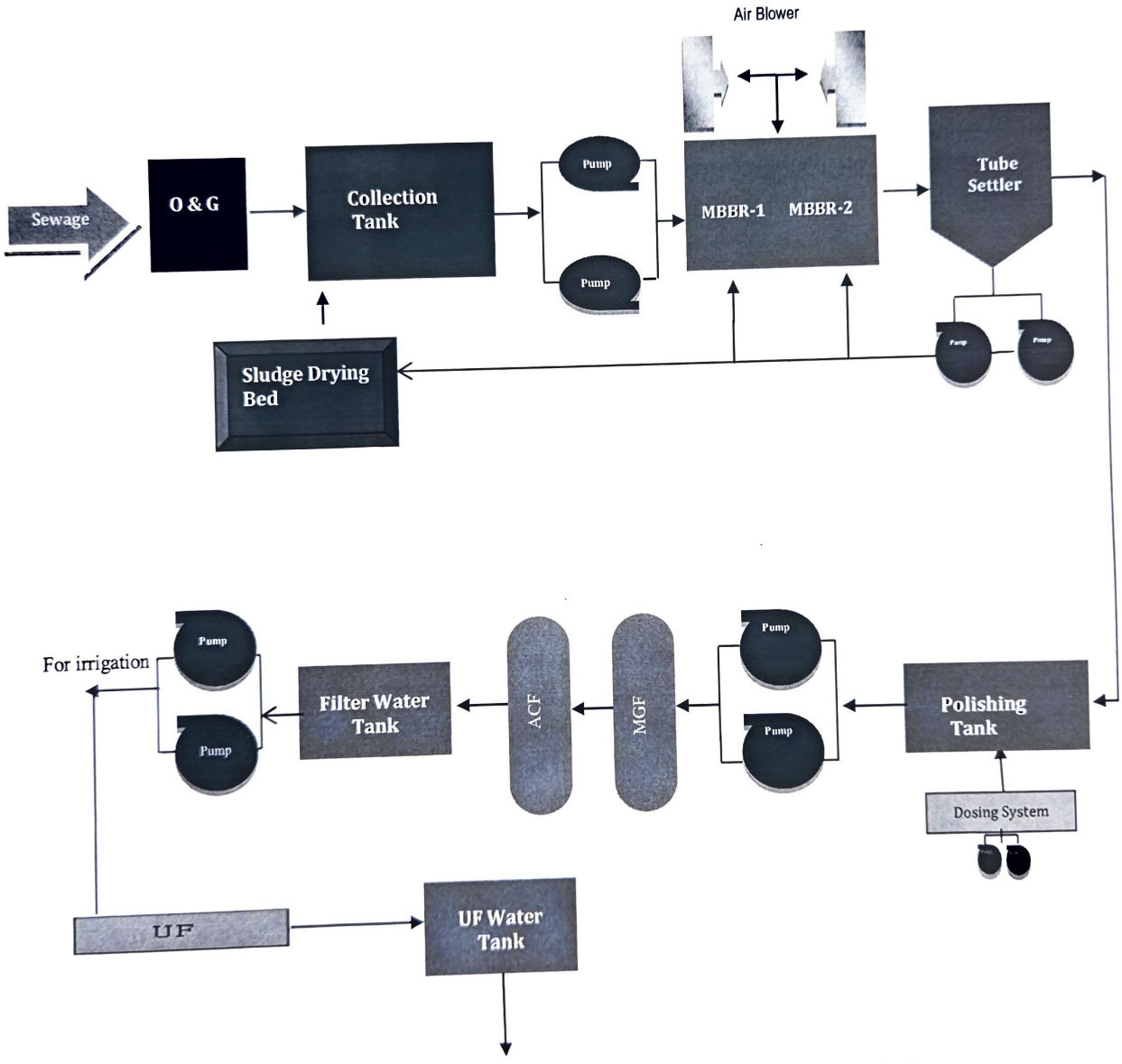
The Effluent cum Sewage Treatment Plant has been designed and installed based on combined treatment process involving primary, secondary and tertiary treatment. The secondary and tertiary treatment section has been designed based on biological treatment of organic matters operated on a continuous mode.
Sewage treatment plant at above mentioned address is based on MBBR (Moving Bed) Bioreactor Technology, which offers promise of several advantages as follows:

1. Can be designed to any size to deal with larger flow and loads.
2. Fine bubble diffused aeration used generally reduces the energy requirements as compared to surface aerators.
3. Modular design allows easy installation.
4. The tank does not need to be drained for access to the diffusers or media.
5. MBBR system takes higher shock loads without reducing the plant performance because of large quantity of Biomass available in the reactor.
6. MBBR supports low sludge generation, low Odor and low visual impact.
7. Solids Retention Time (SRT) of can vary based on influent flow without negative process impact.
8. Less susceptible to upsets due to flow variations.
9. Reliable and consistent nitrification both in summer and winter operations.
10. Low power consumption (nearly 40 – 50% less than conventional system).
11. Very low skilled operations, control and maintenance requirement.
12. Trouble free operations even under difficult conditions.
13. Low sludge production and hence reduced odor and foul.
14. Lower concentration of residual suspended solids in treated water.
15. Improved corrugated PVC fills media is designed to have significantly reduced BOD load.

Treatment Scheme of Sewage Treatment Plant



Sewage Treatment Plant Process Flow Scheme (Capacity:100KLD)



5. TREATMENT PLANT PROCESS UNITS

The Sewage treatment plant has been designed based on continuous flow operation for the treatment of the sewage water. The sewage treatment plant consists of the following units:

I. Process Units
Screen Chamber
Oil & Grease Trap
Collection cum Equalization Tank
MBBR Reactor
Hopper Bottom Clarifier
Chlorine Contact Tank
Pressure Sand Filter
Activated Carbon Filter
Sludge Filter Unit

II. Mechanical Ancillary Units:
Raw Sewage Transfer Pump
Plant Room Drainage Pump
Air Blower
Aeration Grid
Fine Bubble Diffusers system
Bio Deck Media
Sludge Recirculation Pumps
Filter Feed Pumps
Irrigation Pump
Ultrafiltration

III. Electrical & Electronics Ancillary Units:

Electrical Control Panel

PH Meter,

Flow Meter

4. TREATMENT SCHEME

- **Bar Screen:** Raw sewage from the source is received into the bar screen chamber by gravity. Screen provided will remove all floating and big size

matter such as plastics, polythene bags, glasses, stones etc; which may otherwise choke the pipeline and pumps.

- **O& G Trap :** An Oil and Grease Trap also known as Grease Trap, **Grease Interceptor** is a device used to trap oil, grease, food solids etc from the wastewater before they enter into a sewer system. The Oil and Grease Trap prevents the clogging of sewer by preventing the Oil, grease fats and solids from entering the sewer.

- **Collection-cum-Equalization Tank**: Usually, sewage generation is more during morning hours and evening hours. Visually no sewage is generated during night hours. Any biological system needs constant feed for bacteria to work efficiently. Hence, it is important to put an equalization tank to collect the excess flow during peak hours and feed sewage in lean hours. Provision of air grid is made for thoroughly mixing of sewage to make it of homogenous quality and to keep the suspended matter in suspension and to avoid septic condition.

- **Transfer of Sewage:** The sewage transfer pump of discharge rate 1.5 KL/hr is provided. The operation of the pump is controlled through level controller. The sewage is transferred to MBBR tank.

- **Moving Bed Bio Reactor Tank:** The Bio Reactor is based on the Fluidized Random Aerobic Reactor which combines the advantage of an Activated Sludge Plant with the Random distribution systems such as Biofilters. With capacities that could be as low as 1/10th of ASP and fractional power consumption, such a reactor is ideal for the efficient removal of BOD and organics from the wastewater.

  The tanks are packed with RIGID PP-UV-sterilized Gas Fluted Media with liquid random distribution wherein air diffusers are placed to uniformly release air across the tanks.

Bacteria grow rapidly in the Bio-Pac unit under properly engineered conditions. They consume organic chemical for their growth and remove them from the wastewater. The bacteria convert chemical into biological cells, which under proper growth conditions, form slims. The slims adhere to available surfaces and accumulate into what we call random biological film or fixed film. The high surface area-to-volume ratio of the units allows for accumulation of substantial

concentration of bacteria in the relatively small reactor units. Further, the accumulated bacteria which provides high rates of removal or organic chemicals are fixed in the system and do not need to be recycled back to the basin.

In the Bio Reactor system, the water is constantly flowing through rigid PVC matrix to which the biological film attached. As the water flows past the biological film, bacteria in the film absorb organic chemicals as well as oxygen, nitrogen, phosphorus, and other trace nutrients required for their growth.

As the bacteria grow on the matrix and as more chemicals are added to the unit, the stationary biological film will continue to build in thickness. As the film becomes thicker the depth of penetration by diffusion of the absorbed material such as oxygen or other nutrients is not enough to reach the entire distance through the slime of the plastic media. At some point, the film will become sufficiently thick and portion of the film closest to the plastic media will not receive any food or nutrient, particularly oxygen. The inner layer of the film becomes anaerobic and the organisms lose their ability to adhere to the media surface. The shear forces of the water and / or air bubbles flowing through the matrix will ultimately become great enough to tear this portion of the biological film loose from the media. This process is called sloughing. The solids which slough from the media will flow out of the system with the effluents and are to be removed from the water through clarification in a settling module. The exposed portion of media surface will repeat the process of slime accumulation and sloughing.

In actual operation of the Bio Reactor units, biological film will be in a state of dynamic, continuous growth and sloughing. At any given time, portion of the media are always at some point between forming a new film sloughing. the biological film loose from the media. This process is called sloughing. The solids which slough from the media will flow out of the system with the effluents and are to be removed from the water through clarification in a settling module. The exposed portion of media surface will repeat the process of slime accumulation and sloughing. In actual operation of the Bio Reactor units, biological film will be in a state of dynamic, continuous growth and sloughing. At any given time, portion of the media are always at some point between forming a new film sloughing.

❖ Working principal

The MBBR works on the same principle as the submerged fixed film process with only one exception - the media is not fixed and floats around in the aeration tank. The main advantage of this system over the submerged fixed film process is that it prevents choking of the media. This also avoids sludge recirculation. Compared to conventional technologies the MBBR is compact, energy efficient and user friendly. It also allows flexibility in design of the reactor tank.

- **Clarifier Tank:** This unit is provided to remove the settleable solids formed in MBBR tank. The unit is provided with a hopper bottom type clarifier in which the mixed liquor from the SAFF tank overflows. The sludge settles down and is continuously removed through sludge lifting pump. The clear water overflows into the chlorine contact tank.

- **Sludge Tank:** The sludge from the bottom of the clarifier is transferred to techno bag in which fabric cloth filters are attached. The filtrate from here is again sent back to the collection tank for its further treatment. The semi dried sludge is then kept for solar drying. After solar drying sludge is collected and stored separately for its further disposal/use as per applicable guidelines.

- **Polishing Tank:** In polishing tank, chlorination is done by dosing Sodium Hypochlorite solution 6-10% concentration for the dis-infection of biologically treated sewage. The dis-infected treated sewage is then lifted and fed to filtration unit. Filtration unit consists of pressure sand filter followed by activated carbon filter for removal of residual suspended particles.

- **MGF &ACF**: The treated water of Polishing Tank. Passes through Sand filter and ACF is used as per requirement

- **ULTRA FILTRATION**
  Ultrafiltration (UF) is a variety of membrane filtration in which forces such as pressure or concentration gradients lead to a separation through a semipermeable membrane. Suspended solids and solutes of high molecular weight are retained in the so-called retentate, while water and low molecular weight solutes pass through the membrane in the permeate (filtrate). This separation process is used in industry and

research for purifying and concentrating macromolecular (10^3–10^6 Da) solutions, especially protein solutions.

6. SPECIFICATIONS OF EQUIPMENTS

A-Electro-Mechanical Equipment

S.no	Equipment	MOC	Specification	Make	Quantity
1	Bar Screen	SS-304	Perforated screens of 10 mm & 8 mm in suitable ss Frame with lifting arrangement	SMEE	1 SET
2	SITC Raw Sewage, Transfer Pump,	CI	$5M^3$/hr @1 Kg Flow Rate having CI casing & shaft, CI impeller complete with all accessories,	Willo/Kirlosker	2(1w+1s)
3	SITC Air Blower	CI	$130M^3$/hr @5mmwg operated on 1200 rpm	Rootech/ Akash /EVEREST driven by 1440 Rpm ABB Motors	2(1w+1s)
4	SITC Air Piping	GI /UPVC	B Class/ schedule 40	Zindal / Astral	lot
5	SITC Diffusers	EPDM	length 1000 mm Dia 63 mm grooved, wall thickness 2mm & Air flow 8-9 M^3	JAGER , Italy	lot
6	SITC MBBR Media	PVC	$350M^2$@M^3(minimum 60,000 pieces) with density	SDM /SASS /Equiv	$13M^3$
7	SITC Tube deck Media	PVC	Hexagonal shSMEE height 750 mm	SDM/SASS	5 M^3
8	SITC Sludge Recirculation Pump	CI	5 M^3/hr@1.kg Self Priming Non Clog	Willo/Kirlosker	2(1w+1s)
9	SITC Filter Feed Pump	CI	10 M^3/hr@2.5Kg Mono Block at 1400 Rpm	Willo/Kirlosker	2(1w+1s)
10	SITC Activated Carbon Filter	FRP	5 M3/hr@ 12m3per M^2 FRP Model	Pentair/TATA/Equivalent	1

11	Multi grade Sand Filter	FRP	5 M3/hr@ 12m3per M^2	Pentair/TATA/Equivalent	1
14	Plant Piping & Fittings	UPV C/GI	Schedule 40	Astral	lot
16	Chlorine Dosing System	PP	0-6 LPH	SMEE with E Dose Pump	1
17	Electrical Panel		Details attached	Ess Tee Power	1
18	Cable and Cable Tray	Copper PVC	3 core 2mm thick Armored copper wire	Poly cab	lot
19	Filter Press		18x18x18	SMEE/HIGHTEK	
20	Screw Pump	CI-SS	$1M^3$/Hr @ 30 meter driven By 1 hp motors	Roto /Equivalent's	1
21	Electromagnetic Flow Meter	MS	1-10 M3/Hr	E&E/ Ester/Energiser	1
22	Outlet Digital Flow Meter	PVC	1-10 M3/Hr	E&E/ Ester/Energiser	1
23	PH meter		0-14 PH		
24	Pressure Gause, Floty Valve To Make System Automatic				
25	Erecting & Commissioning				
26	Transportation				

B Ultra Filtration System

S.No	Equipment	Specifications	Make	MOC	Quantity
1	Strainer	100 Micron	SMEE	PVC	1
2	UF Feed Pump	6 m3/hr@30m head	Wilo	SS 304	2
3	Bag Filter	100 Micron	SMEE	uPVC	1
4	UF Module	77 m2	DuPont/ Equivalent	PVDF	2
5	Dosing Pump	0-6 LPH @ 35m Head	E Dose	PP	3
6	Dosing Tank	CV Chemical Tank 100 L	Sintex	HDPE	3

7	UF Backwash Pump	20 m3/hr@ 25m Head	Wilo	SS 304	2
8	Backwash MCF	05 Micron	SMEE	uPVC	1
9	CIP Pump	10 m3/hr@ 25m Head	Wilo	SS	1
10	CIP MCF	05 Micron	SMEE	UPVC	1
11	Interconnecting Pipeline	25mm NB	Astral	UPVC	1
12	Air Blower	20 m3/hr @ 06 m Head	Everest /Aksh	CI	1
13	UF CIP Tank	500L	Sintex	PVC	1
14	UF Skid	MSEP	SMEE	MSEP	1
15	UF Control Panel	Select	SMEE		1
16	UF Electrical cabling	mm cable	Poly Cabe	Copper	1
17	Rota meter	0-6 m3/hr	Aster		3
18	Pressure Guage	0-5 KG/cm2	Aster		3
19	Solenoid Valves		UFlow		6
20	Differential Pressure Switch	0-4 Kg/cm2	Danfoss, Equivalent		1

C. Skid Mounted MS FRP Tank

S.No.	Tank	Quantity	Capacity	MOC & Specification
1	MBBR Reaction Tank	2	2x 17 M3=34 M^3	6 mm thick MS sheet mounted on base channel of 125 x 65 , with 3 No. stiffener size 100 x 50 middle and top(Coated with 2 mm FRP inner coat & epoxy outer side and
2	Tube Settler	1	10 M3	"
3	Polishing /Chlorination Tank	1	8 M3	"
4	Filter water tank/UF Feed Tank	1	10 M3	"
5	U F water storage tank	1	10 M3	"
6	Ladder with handrail walkway Plat Form	Lot		

D. Existing MSFRP/ Civil Work

S. No.	Tank	Quantity	Capacity	Size in Meter	MOC
1	Bar Screen, Oil & G Chamber	1	$2M^3$		Existing
2	Collection, Equalization tank	1	$20M^3$		Existing

	Sumps				
3	Sludge Holding Tank	1	$5M^3$		Existing
4	CC Plat form	1			CC Existing

7. OTHER ELECTRICAL COMPONENTS

These are used of standard company make of adequate capacity as per the requirement. As the S.T.P is designed for its 20 hrs. continuous operation, each electrical component is used with additional stand by unit to operate on alternate basis.

8. SLUDGE HANDLING

Sludge collected from the Filter Press should be sun dried and collected in the bags sealed and disposed of as per applicable guidelines.

9. SUMMARY OF TREATMENT PROCESS UNITS AND THEIR TECHNICAL ADEQUACY

The treatment process units are described above are summarized and presented in table above. The table shows the status of the equipment and process units in terms of their adequacy for the treatment of the sewage. The table also indicates that the process units are technically adequate for the operation of the Effluent-Sewage treatment plant giving a consistent operational result.

10. CONCLUSION

It is obvious from the detail described above, the STP seems adequate as well as efficient to treat 100 KLD sewage water (for 20 hours operation/ day)

To meet the regulatory requirements of Central & State Pollution Control Board. The different sub-units of the S.T.P. are of adequate capacity to treat the 100 KL sewage effluent generated per day. The unit is advised to manage the sludge as per applicable rules. In addition, the unit is advised to maintain daily logbook for quantifying the actual daily discharge.

ANNEXURE -D

NOIDA TESTING LABORATORIES LLP

(A Government of India Approved Testing Laboratory)

(An ISO : 9001 : 2015, ISO 45001 : 2018 (OH&S) Certified & NABL Accredited Laboratory)

MoEF, CC (Ministry of Environment, Forest & Climate Change) and UPPCB Recognized Laboratory

Analyzing for an Assured Future

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TEST CERTIFICATE

Issued To: M/s Ujala Cygnus Central Hospital **Address:** Kaladhungi Road, Near Gas Godam, Tiraha, Kusumkhera, Haldwani Uttarakhand 263139	**Report Code** : WW-110226-016 **Test Report of** : Waste Water **Discipline** : Pollution & Environment **Service Request No** : NTL/SRF/02/26-05 **Service Request Date** : 09/02/2026 **Report Issue Date** : 16/02/2026

SAMPLING & ANALYSIS DATA

Sample Drawn On	:	10/02/2026
Sample Received On	:	10/02/2026
Sample Drawn By	:	NTL Representative
Sample Description	:	**STP Outlet**
Sample Quantity/Packing detail	:	1 lt. Plastic Cane/Glass Bottle
Weather Conditions	:	Normal
Analysis Duration	:	11/02/2026 to 16/02/2026
Sampling Procedure	:	NTL/LAB/W-WATER/SOP-002

TEST RESULTS

S. No.	Parameter	Test Method	Results	Units	Limits as per CPCB norms
1.	pH @ 25^{0}C	IS:3025(Part-11)	7.52	-	5.5-9.0
2.	Total Suspended Solids at 105°C	IS:3025(Part-17)	16.0	mg/l	100.0
3.	Chemical Oxygen Demand (as O_2)	IS:3025(Part-58)	85.0	mg/l	250.0
4.	Biological Oxygen Demand (for 3 days at 27±1°C)	IS:3025(Part-44)	18.0	mg/l	30.0
5.	Oil & grease	IS:3025(Part-39)	BDL (<4.0)	mg/l	10.0

Remarks: Test parameters coming in under limit, prescribe limits are given by MoEF/Central Pollution Control Board.

***Remarks:** BDL- Below Detection Limit.

Notes:

1. The results given above are related to the tested sample, as received & mentioned parameters. The customer asked for the above tests only.
2. Responsibility of the Laboratory is limited to the invoiced amount only.
3. This test report will not be generated again, either wholly or in part, without prior written permission of the laboratory.
4. The test samples will be disposed off after two weeks from the date of issue of test report, unless until specified by the customer.

CHECKED BY

AUTHORIZED SIGNATORY

NOIDA TESTING LABORATORIES LLP NTL