

VS Plant



ML Generation



ML Transfer to MEE plant



ML Storage tank



MEE Plant Received tank

ML storage tank transfer to
MEE Plant

MEE Stage 1 Feed



MEE Stage 1 Condense

MEE Stage 2 Feed &
CondenseMEE condense water transfer
to plant

Spray Dryer



MEE Spray Dryer

Dyes Plant



Dyes 1 Generation



Dyes 2 Generation



Dyes 3 Generation



ETP Inlet



Treatment Feed – Stage 1



Stage 2



Stage 3A



Stage 3B



Stage 4 – Final



Final Discharge

Advant Plant



Dyes Plant to Advant Plant Transfer (1A)



Dyes Plant to Advant Plant Transfer (1B)



Advant Received



Advant Stage 1



Advant Stage 2A



Advant Stage 2B



Advant Stage 3A



Advant Stage 3B



Advant Stage 4A



Advant Stage 4B



Advant Reject



Advant Recovery

Ground Water Plant



601 A



601 A



602 A



602 A



602 B



602 B



603 A



603 A



603 B



603 B



604 A



604 A

Bodal Chemicals Limited (Unit – VII)



604 B



604 B



GW Inlet



Stage (1A)



Stage (2A)



Stage (2B)



Storage Tank



GW Reject

ETP MEE



ETP MEE Feed



ETP MEE Condense

Beta Plant



ML Generation



MEE plant receiver tank

Bodal Chemicals Limited (Unit – VII)

Annexure 2: Photographs of RTOM Room (after)





GUJARAT POLLUTION CONTROL BOARD

PARYAVARAN BHAVAN

Sector-10-A, Gandhinagar-382 010

Phone : (079) 23226295

Fax : (079) 23232156

Website : www.gpcb.gov.in

Show Cause Notice

WHEREAS you M/s. **Bodal Chemicals Ltd (Unit-VI)** is having an industrial plant at Plot No: 804, Vill: Dudhwada, Ta: Padra, Dist. Vadodara-394116.

AND WHEREAS Gujarat Pollution Control Board has granted Consolidated Consent and Authorization (CC&A) under Water Act-1974, Air Act-1981 and Hazardous And other Waste Rules-2016 for the operation of industry vide order No. AW11-88988 dated 26/07/2017 which is valid up to 30/06/2022 for operation of the industrial plant.

AND WHEREAS, Board has already re-implemented closure direction under section 33(A) of the Water Act-1974 with effect of 15 days on 08.04.2022.

AND WHEREAS, You have submitted undertaking regarding action plan for completion of non-compliance and Bank guarantee of worth Rs.25.00.000.

AND WHEREAS, Board has extended re-implemented closure direction under section 33(A) of the Water Act-1974 with effect of 15 days on 08.04.2022 vide letter dated.28.04.2022.

AND WHEREAS, Board has deferred re-implemented closure direction under section 33(A) of the Water Act-1974 with effect of 15 days on 08.04.2022 vide letter dated.02.06.2022.

AND WHEREAS, Hon'ble NGT has taken matter about the grievances raised in the application regarding chemical industries in Padra Gam, District Baroda, Gujarat are discharging highly polluted and dangerous chemicals mixed water/effluents in Padra Canal through pipeline without requisite treatment and thereby causing environmental degradation

AND WHEREAS, Vide order dated 28.04.2022, Hon'ble NGT has constituted a Joint Committee comprising of CPCB, CGWA, State PCB and Collector, Vadodara and directed to submit factual and action taken report within two months.

AND WHEREAS, The Joint Committee has monitored your industrial plant during May-2022 and June-2022.

AND WHEREAS, The joint committee has concluded about your industrial plant here as under:

- Unit is not operating the effluent management system properly and has been a consistent and intentional violator of environmental norms.
- Unit is located in Padra area and not operating the effluent management system satisfactory and violating the environmental norms despite directions of GPCB. It shows that the industries are not only violating the environmental norms but also not holistically complying with GPCB directions.

AND WHEREAS, Analysis Report of Wastewater sample collected from VECL in Zone-II was found within norms, and Analysis Report after Zone-III at Vedaeh Pumping Station was found higher as per norms. You are situated in Zone-III; it is indicated that higher norms after Zone-III reflected due to your unit.

Clean Gujarat Green Gujarat

ISO - 9001 - 2008 & ISO - 14001 - 2004 Certified Organisation

Outward No. 05/2018/2022

AND WHEREAS, Hon'ble NGT has observed in order dated 21.07.2022 that your unit is not operating the effluent management system satisfactorily, are violating the environmental norms and not complying with directions of GPCB.

AND WHEREAS, Hon'ble NGT has directed to GPCB for take remedial action including issuance of orders for closure, prosecution and imposition of environmental compensation against your unit within two months.

AND WHEREAS, you have submitted undertaking regarding non-compliances and following non-compliances are still observed:

1. Unit has not provided flow meters on strategic locations from source to end points.
2. Unit has not increase capacity of Zero Liquid Discharge for treatment & disposal of concentrated streams.
3. Unit has not provided RTOM before and after premises.

In view of the above, you are therefore called upon to show cause under the Water Act 1974 & directed to submit reply within seven days on issuing of this notice, if you are not submitted any reply or submitted reply is not convincing acceptable, necessary action will be initiated against your industrial plant section 33(A) of the Water Act-1974.

For and on behalf of
Gujarat Pollution Control Board

D.P. Shah
(D.P. Shah)
Senior Environmental Engineer

NO: GPCB/CCA-VRD-905(10) 'ID:21752'

Date:

Issued to:

(1) Directors, M/s. Bodal Chemicals Ltd (Unit-VI)

Plot No: 804,
Vill: Dudhwada,
Ta: Padra, Dist. Vadodara-394116.

(2) M/s. Bodal Chemicals Ltd (Unit-VI)

Plot No: 804,
Vill: Dudhwada,
Ta: Padra, Dist. Vadodara-394116.

Enclosure: (1) Complain copy registered at Hon'ble NGT.
(2) Joint Committee Report filled in Hon'ble NGT.

Copy To:

1. Regional officer, Regional office, G.P.C.Board, Vadodara.....For Monitoring & verification of the compliance.

Outward No. 680405, 08/08/2022

Port

True Copy

**GUJARAT POLLUTION CONTROL BOARD**

IS/ISO 9001 : 2008 AND IS/ISO 14001 : 2004 CERTIFIED ORGANIZATION

GERI COMPOUND, RACECOURSE ROAD, VADODARA – 390 007 ☐ Phone : 2354850

WEB SITE: www.gpcb.gov.in ONLINE APPLICATION SITE : <http://gpcbxgn.gujarat.gov.in>

RPA D

Show Cause Notice**Sub:** Indicating surreptitious & unauthorized/illegal discharge into VECL from your industry.**Ref:** CCA No. AWII-97704, Dt. 04/06/2018.

Whereas the Board has issued you the above referred Consolidated Consent & Authorization (CCA) for operating your industry with the terms & conditions mentioned therein.

Whereas verification of the results of samples collected from auto samplers, in Zone-3 (Auto samplers are located before and after of your unit on VECL channel for monitoring the quality of effluent being conveyed), the following non-compliances & grave violations are observed:

- I. As per collected sample from auto sampler the samples results of two sequential Auto samplers No. 1 (Downstream of your unit)) & 2 (Upstream of your unit & downstream of Kiri Ind Unit-V) reviewed from 27/08/2022 to 06/09/2022, indicates huge pollution load contributed by your industry as below:

Month	Contribution of COD in mg/l by M/s, Bodal Chemical Ltd (Unit-VII)		
	Auto sampler 1 (A)	Auto sampler 2 (B)	(C) = A - B
	Located at Downstream of M/s. Bodal Chemical LRD Unit-VII (Average)	Located at Upstream of your unit & downstream of Kiri Ind Unit-V (Average)	Contribution of COD load in your stretch
27-08-2022	317.00	288.67	28.3
28-08-2022	330.33	314.00	16.3
29-08-2022	303.33	259.00	44.3
30-08-2022	266.67	290.33	-23.7
31-08-2022	265.33	259.00	6.3
01-09-2022	238.00	299.33	-61.3
02-09-2022	252.33	275.00	-22.7
03-09-2022	203.67	239.33	-35.7
04-09-2022	434.0	256.3	177.7
05-09-2022	243.3	251.0	-7.7
06-09-2022	196.3	241.0	-44.7

Since the RTOM on VECL is not having flow measuring system, this is the only concentration based difference worked out, however flow data if made available total contributed COD load, in this case could be worked out which might be higher than this.

Above all non-compliances indicate gross violation of consent conditions and direction issued by the Board, for which this notice is being issued to show cause, take immediate necessary action and report to the Board within 3 days. Failing to this, you will be liable for further legal action under the provisions of law.

FOR AND ON BEHALF OF
GUJARAT POLLUTION CONTROL
BOARD



(R.N. SHAIKH)
(I/C) REGIONAL OFFICER

NO: GPCB/VAD/TECH/ID-21752/ 8233 / 2022

Dt.: 19/09/2022

Issued to:

✓ M/s. Bodal Chemicals Ltd, Unit-VII
Sr. No. 804, Village-Dudhwada, -
Tal: Padra, Dist: Vadodara.

Copy for information to:
The Member Secretary
Gujarat Pollution Control Board,
Gandhinagar.



True Copy

o/c

Unit Head - Vadodara copy.



Bodal Chemicals Ltd.
COLOURS. INTEGRATION. INNOVATION.

PCB ID: 21752

Dated: 21/09/2022

To,
Regional Officer,
Gujarat Pollution Control Board,
E.R.I Compound, Race Course Road,
Vadodara, Gujarat

Dear Sir,

Subject:- Reply to show cause notice dated 19/09/2022**Reference:- Show cause notice dated 19/09/2022****Kind attention: Shri. R.B.Trivedi Sir & Ms. R.N.Shaikh Mam**

21/09/2022
Gujarat Pollution Control Board
Head Office
Sector No.-10-A,
Gandhinagar-382010

We refer to your show cause notice dated 19/09/2022 received by us by email on 19/09/2022 at 6:01 PM.

- We request you to provide us sampling methodology adapted by Board and provide us with counter samples in future. It will help us to take corrective actions on immediate basis when required.
- Also we would like to put followings into your kind consideration:-
 - a. Out of 11 sample results, 5 samples are showing COD results of downstream more than upstream, while 6 samples are showing COD results of downstream noticeably less than the upstream.
 - b. The average of eleven samples results of upstream is 270 ppm and downstream is 277 ppm, which shows only 7 ppm difference. The suggested increase hardly 2.5% increase. As per the standard analysis methods for water and waste water (APHA) , 6.5% deviation in COD results in absence of chlorides and 10.8% in presence of chloride is not considered to be deviation and is permissible. While in our case only 2.5% deviation is observed which is within limit of standard deviation.
 - c. Moreover, we have compared the analysis data of same duration of RTOM (Real Time Online Monitoring) system installed at our discharge by VECL wherein results are available at every 10 minutes. On an average results of RTOM for said dates are well within prescribed norms. Also VECL has done random sampling for same dates and their results are also within limits. Kindly refer following tabular data for further explanation:

HEAD OFFICE :
Plot No. 123-124, Phase-1,
G.I.D.C, Vatva, Ahmedabad-382 445.
Gujarat, India.

Tel : +91 - 99099 50855
+91 - 99099 50856
E-mail : info@bodal.com

PLANT OFFICE :
UNIT - VII
Plot No. 804, Village : Dudhwada,
Ta : Padra - 391450.

Tel : +91 - 99099 50852
+91 - 99099 50853
E-mail : info@bodal.com

Date	Bodal Chemicals Ltd. Unit-VII		Bodal Contribution of COD load	RTOM data for average COD results generated every 10 minutes	VECL sample results
	Auto sampler Downstream COD (Avg)	Auto sampler Upstream COD (Avg)	C=A-B		COD
27/08/2022	317.00	288.67	28.33	70.25	98
28/08/2022	330.33	314.00	16.33	80.14	195 & 193
29/08/2022	303.33	259.00	44.33	81.64	165
30/08/2022	266.67	290.33	-23.66	103.28	165
31/08/2022	265.33	259.00	6.33	129.72	Sample not taken
01/09/2022	238.00	299.33	-61.33	119.37	154 & 202
02/09/2022	252.33	275.00	-22.67	147.47	147
03/09/2022	203.67	239.33	-35.66	138.29	122 & 92
04/09/2022	434.00	256.30	177.70	80.95	96
05/09/2022	243.30	251.00	-7.70	62.52	98 & 125
06/09/2022	196.30	241.00	-44.70	90.16	153

* COD in mg/l

- However, having regard to the report, we are also independently inquiring into the same and our R&D team is working to guide us in the matter. So that more improvements can be made in near future.

- As you are aware, our company is committed to ensuring complete compliance with all norms and has always implemented all direction issued by the Board from time to time. We assure that our operations are in compliance with the CCA order in all aspects.

In view of the above, we humbly request your good self to be humble to us and not to initiate any further action on the basis of the subject show cause notice. If there is any further explanation that is required from our end, we shall be duty bound to provide the same.

Yours truly,
For: Bodal Chemicals Limited

F007
D.P. Masur
Director/Authorized Signatory

CC: Unit Head – Vadodara, GPCB, “Paryavaran Bhawan”, Sector 10-A, Gandhinagar

HEAD OFFICE :
Plot No. 123-124, Phase-I,
G.I.D.C, Vatva, Ahmedabad-382 443
Gujarat, India.
Tel : +91 - 99099 50855
+91 - 99099 50856
E-mail : info@bodal.com

PLANT OFFICE :
UNIT - VII
Plot No. 804, Village : Dudhwada,
Ta. : Padra - 391450.
Tel : +91 - 99099 50852
+91 - 99099 50853
E-mail : info@bodal.com



672

Provisional Consent Order (CCA)**ANNEXURE R4-44**Gujarat Pollution Control Board
Paryavaran Bhavan, Sector-10/A,
Gandhinagar - 382010
Tele : 23222756

Consent No. AWH-122014 Valid upto: 31/03/2027

Application : CtO:CCA-Renewal, No. 259920 Dt. 15/08/2022, Granted On: 14/10/2022

PCB Id:21752

Besides streamlining and simplifying of regulatory regime, Gujarat Pollution Control Board has taken initiative in from of introduction of Consolidated Consent and Authorization (CC&A) which provides for a one shot application and clearance of the consents under Water Act, Air Act and Authorization under Hazardous Wastes Rules for a period of 5 years.

Board issues consolidated consent and Authorization to an industrial unit for operation of plant/carrying out industrial activity specifying following conditions.

Consolidated Consent and Authorisation

In exercise of the power conferred under section-25 of the Water (Prevention and Control of Pollution) Act-1974, under section-21 of the Air (Prevention and Control of Pollution) Act-1981

and Authorization under rule 3(c)& 5(5) of the Hazardous Waste (Management, Handling and Transboundary Movement) Rules'2008 framed under the E(P) Act-1986.

And whereas Board has received consolidated Application No.(CtO:CCA-Renewal) 259920 and Dated 15/08/2022 for the consolidated consent and authorization(CC&A) of this Board under the provisions / rules of the aforesaid Acts Consent & Authorization is hereby granted as under.

CONSENT AND AUTHORISATION : (under the provisions / rules of the aforesaid environmental acts)

To,

M/s. Bodal Chemicals Ltd (Unit-Vii).

804, VILL-DUDHWADA,

City : Padra,

Dist : Vadodara, Tal : Padra, SIDC : Not In Gide

Phone : 9512021578

1. Consent Order No: **AWH-122014** Valid Upto: **31/03/2027**

2. All Conditions under the AIR ACT-1981 WATER ACT-1974 HAZARDOUS ACT-2008 shall be Applicable to you as mentioned in the detailed Consent Order ***

Consented CETP: Not Linked to any CETP

Consented TSDF: ANKLESHWAR WASTE MANAGEMENT LIMITED

3. GENERAL CONDITIONS :-

a) This order is provisional order and detailed order is considered as final.

b) All the conditions & provisions under the Water Act 1974, the Air Act 1981 and the Environment (Protection) Act – 1986 and the rules made there under shall be complied with *.

c) All the conditions & provisions under the Hazardous Waste (Management, Handling and Trans boundary Movement) Rules 2008 as amended shall be complied
d) The applicant shall provide portholes, ladder, platform etc at chimney(s) for monitoring the air emissions and the same shall be open for inspection to/and for use of Board's staff. The chimney(s) vents attached to various sources of emission shall be designed by numbers such as S-1, S-2, etc. and these shall be painted/ displayed to facilitate identification.

e) The industry shall take adequate measures for control of noise levels from its own sources within the premises so as to maintain ambient air quality standards in respect of noise to less than 75dB(A) during day time and 70dB(A) during night time. Daytime is reckoned in between 6 a.m. and 10 p.m. and nighttime is reckoned between 10 p.m. and 6 a.m.

f) In case of change of ownership/management the name and address of the new owners/ partners/ directors/ proprietor or equipment or working conditions as mentioned in the consents form / order should immediately be intimated to the Board.

g) Industry shall have to display data outside the main factory gate with regard to quantity and nature of hazardous chemicals being handled in the plant, including waste water and air emissions and solid hazardous wastes generated within the factory premises.

h) The CCA shall be produced for inspection at the request of an officer authorized by the Gujarat Pollution Control Board.

i) Any unauthorized change in personnel, equipment or working conditions as mentioned in the CCA order by CCA holder shall constitute a breach of this CCA.

j) Adequate plantation shall be carried out all along the periphery of the industrial premises in such a way that the density of plantation is atleast 1000 trees per acre of land and a green belt of 5 meters width is developed.

K) The applicant shall have to submit the returns in prescribed form regarding water consumption and shall have to make payment of water cess to the Board under the Water Cess Act- 1977.

***** Note : ACT-Specific, Industry-specific, Area-specific Conditions alongwith Product, Waste water effluent details shall be precisely mentioned in the DETAILED Consent Order.**

***** Note :This is only provisional communication. The final Consent/Authorization in hard copy with duly signed by competent authority shall the final and valid Consent/Authorization.**

For and on behalf of
Gujarat Pollution Control Board

D. M. Thaker.

(Member Secretary)

True Copy

**GUJARAT POLLUTION CONTROL BOARD**

PARYAVARAN BHAVAN, SECTOR 10-A,
GANDHINAGAR - 382010,

(T) 079-23232152

BY RPAD

REVOCAION OF CLOSURE ORDER ISSUED UNDER SECTION 33-A OF THE WATER (PREVENTION AND CONTROL OF POLLUTION) ACT-1974.

WHEREAS you M/s. **Bodal Chemicals Ltd. (Unit-VII)** are carrying out industrial activity at- Plot No:804, Village-Dudhwada, Ta-Padra, Dist-Vadodara-391450.

AND WHEREAS, the Board has granted you Consolidated Consent & Authorization (CCA) under the provisions of Water Act-1974, Air Act-1981 and Hazardous and Other Waste Rule-2016 by its order no. **AWH-122014** dated **14/10/2022** which is valid up to **31/03/2027** for operation of the industrial plant.

AND WHEREAS closure order was issued under section 33(A) of the Water (Prevention and Control of Pollution) Act-1974 vide letter No. GPCB/CCA-VRD-905(9)/ID-21752/658506 dated 08/04/2022 with 15 days effect.

AND WHEREAS Extend closure order was issued under section 33(A) of the Water (Prevention and Control of Pollution) Act-1974 vide letter No. GPCB/CCA-VRD-905(10)/ID-21752/660661 dated 28/04/2022 with 15 days effect.

AND WHEREAS Defer closure order was issued under section 33(A) of the Water (Prevention and Control of Pollution) Act-1974 vide letter No. GPCB/CCA-VRD-905(10)/ID-21752/674003 dated 02/06/2022 for three months.

AND WHEREAS, Show Cause Notice issue to the unit on 08/08/2022.

AND WHEREAS, in compliance to closure order you have submitted revocation application with undertaking on stamp paper of Rs.300/- stating that you will comply the environmental laws and submitted required documents. And submitted bank guarantee of **Rs. 25,00,000** (Twenty Five Lac Rupees only) valid up to 17/04/2023.

AND WHEREAS, you have paid interim Environment Damage Compensation of **Rs.25,00,000/-** (Twenty Five Lac Rupees only) to the Board.

AND WHEREAS, your industrial plant was visited on **30/09/2022** by the authorized officers of the Board, it was observed that:

- Unit has provided total 25 new flow meter for effluent management within premises.
- Unit has provided flow meter at feed line of spray dryer, intermediate storage tank provided at MEE plant and B-naphthol plant as required.
- Unit has provided return line of 3-way valve to collection tank after secondary clarifier before re-dosing treatment units.
- OCMS installed on final discharge of unit to VECL channel near its discharge points and outside the premises of unit.
- Provided closed room for the whole system of OCMS & its sensor, auto sampler, 3-way valve etc. and VECL has control over this closed room.
- Unit has provided OCMS facility on VECL channel before and after the premises of unit.

- Unit has provided 6 nos of steam meter.

AND WHEREAS, Analysis Result of wastewater passing in VECL at Vedach Pumping Station shows improvement & analysis report of the wastewater sample collected from auto sampler before & after the unit shows improvement.

AND WHEREAS, industrial plant was visited on **30/09/2022** and wastewater sample collected from treated wastewater outlet to VECL channel at outside the premises and analysis result shows within norms.

Under the circumstances, I **D.P. Shah, Senior Environmental Engineer,** Gujarat Pollution Control board is directed to trial revocation for **three months** for the closure order issued on 08/04/2022 with following conditions.

1. Unit shall comply all the condition mentioned in undertaking dated 04/05/2022.
2. Unit shall carry out all the proposed improvements/upgradations in time bound manner as per their submissions.
3. Unit shall install Non-contact type open channel flow meter (2 nos).
4. Unit shall discharge their treated effluent into VECL channel at day-time only (i.e. 6 AM to 6 PM)
5. Unit shall provide additional storage facility for generated concentrated industrial effluent in case of break down or maintenance of ZLD system.
6. Unit shall liable to strictly follow direction of Hon'ble NGT in the matter of OA no. 276/2022.

For and on behalf of
Gujarat Pollution Control Board,

D.P. Shah
(D.P. Shah)

Senior Environmental Engineer

Date:

NO: GPCB/CCA-VRD-905(11)/ID-21752/

Issued to: -

M/s. Bodal Chemicals Ltd. (Unit-VII)
Plot No:804, Village-Dudhwada,
Ta-Padra, Dist-Vadodara-391450.

By: R.P.A.D.

Copy to: -

1. The Deputy Engineer
Madhya Gujarat Vij Company Ltd.,
Race Course, Vadodara

2. The Dy. Engineer (O &M)
Madhya Gujarat Vij Company Ltd.,
Sub Division office, Padra,
Tal: Padra, Dist: Vadodara

With a request to Re-connect the supply of electricity for period of **three month** of **M/s. Bodal Chemicals Ltd. (Unit-VII)** are carrying out industrial activity at Plot No:804, Village-Dudhwada, Ta-Padra, Dist-Vadodara-391450, and intimate to us accordingly.

For and on behalf of
Gujarat Pollution Control Board,

(D.P. Shah)
(D.P. Shah)

Senior Environmental Engineer

Copy To: The Regional Officer, GPCB, Vadodara.....For monitoring & verification of the compliance.