GUJARAT POLLUTION CONTROL BOARD
PARYAVARAN BHAVAN
Sector 10-A, Gandhinagar 382010
Phone : (079) 23226295
Fax : (079) 23232156
website : www.gpcb.gov.in

6.3 The waste generator shall be totally responsible for (I.E. Collection, storage, transportation and ultimate disposal) of the wastes generated.

6.4 Records of waste generation, its management and annual return shall be submitted to Gujarat Pollution Control Board in Form – 4 by 31st January of every year.

6.5 In case of any accident, details of the same shall be submitted in Form – 5 to Gujarat Pollution Control Board.

6.6 As per "Public liability Insurance Act – 91" company shall get Insurance policy, if applicable.

6.7 Empty drums and containers of toxic and hazards material shall be treated as per guideline published for "management & handling of discarded containers". Records of the same shall be maintained and forwarded to Gujarat Pollution Control Board regularly.

6.8 In no case any kind of hazardous waste shall be imported without prior approval of appropriate authority.

6.9 In case of transport of hazardous waste to a facility for (I.E. Treatment, Storage and disposal) existing in a state other than the state where hazardous waste are generated, the occupier shall obtain "No Objection certificate" from the state pollution Control Board, the Committee of the concerned state or Union territory Administration where the facility exists.

6.10 Unit shall take all concrete measures to show tangible results in waste generation reduction, voidance, reuse and recycle. Action taken in this regards shall be submitted within 03 months and also along with Form 4.

6.11 Industry shall have to display the relevant information with regard to hazardous waste as indicated in the Hon Supreme Court's order in W.P. No.657 of 1995 dated 14th October 2003.

6.12 Industry shall have to display on-line data outside the main factory gate with regard to quantity and nature of hazardous chemicals being handled in the plant, including wastewater and air emissions and solid hazardous waste generated within the factory premises.

For and on behalf of
GUJARAT POLLUTION CONTROL BOARD

(M.V.PATEL)
ENVIRONMENTAL ENGINEER

NO: PC/CCA-VRD-905(2)/GPCB ID 21752/ 134073 **Date:** 03/01/2013

ISSUE TO:
BODAL CHEMICALS LTD. UNIT-VII (21752),
PLOT NO:/S.NO. 804,
VILLAGE: DUDHWADA, TAL: PADRA,
DIST : VADODARA .

True copy

ANNEXURE R4-11

GUJARAT POLLUTION CONTROL BOARD
PARYAVARAN BHAVAN
Sector 10-A, Gandhinagar 382010
Phone : (079) 23226295
Fax : (079) 23232156
website : www.gpcb.gov.in

GPCB

CONSENT TO ESTABLISH

CTE – AMENDMENT-50943

By RPAD

NO: PC/CCA-VRD-905(2)/GPCB ID 21752/ 134533 **Date:** 09/01/2013

To,

M/S BODAL CHEMICALS LTD. UNIT-VII (21752),
PLOT NO: S.NO.804, VILLAGE: DUDHWADA, TAL: PADRA,
DUDHWADA,
TAL: PADRA , DIST: VADODARA.

Sub: - Amendment in Consent to Establish (NOC) of this Board.

Ref: - 1. NOC/CTE Order No.GPCB/CCA-VRD-905(2)/ NOC-VRD-2969/33676 dtd 29-12-2008.

2. Your application for CTE Expand vides Inward No: 54944 dtd 16-06-2012.

- The validity period of the CTE – amendment (NOC) order is up to **15/06/2017**.
- The above referred NOC/CTE Order is amended for manufacture following products in existing plant as order no. GPCB /CCA-VRD-905(2)/ NOC-VRD-2969/33676 dtd 29-12-2008 read as under:
- The proposed products to be manufacture is as below:

Sr. no.	Name of Products	Capacity [MT/month]		
		Existing	Proposed	Ultimate
1.	H-Acid	150	--	150
2.	Beta Napthol	500	--	500
3.	Acetanilide	150	500	650
4.	Acetanilide Chloro Sulphonated mass	200	800	700 – Captive 300
5.	Vinyl Sulphone [ASC based]	200	500	700
6.	Reactive Black Dyes [Ramazol dyes]	500	750	1250
7.	Reactive Red, Yellow & Others	250	250	500
8.	Direct Acid Dyes	250	1000	1250
10.	Cogeneration Power Plant	--	5.0 MW	5.0 MW
	Name of By-Products			
11.	Hydrochloric Acid [HCl]	220 - 390	1500	1720-1890
12	Spent H2SO4 [25-30%]	1400 - 1600	2275	3670-3870
13	Glauber Salt [From VS plant]	90	210	300
14.	Glauber Salt [From H acid plant]	150	--	150
15.	Acetic Acid	35	85	120
16.	Gypsum sludge	850	--	850

1 **SPECIFIC CONDITIONS:**

1.1 You shall not carry out any activities that may attract the provisions of the EIA Notification – 2006.

1.2 The project proponent shall not start any construction /project enabling activities unless and until all requisite prior permissions/ Clearance are obtained.

1.3 No ground water shall be used for the project coming under Dark zone without permission of competent authority.

1.4 After expansion, total Industrial discharge quantity is less than existing (474m3/day) discharge quantity in to ECP channel i.e. after proposed expansion, total Industrial discharge quantity in to ECP is 452 m3/day.

2 **CONDITIONS UNDER WATER ACT 1974**

2.1 In addition to Condition No: 1 of above refereed order, there shall be waste water generation not exceed 452 KL/Day after Expansion. (Generated industrial waste water shall be reused in the process through evaporation & condensation system).

2.2 In addition to Condition No: 2 of above refereed order, the quantity of sewage from the factory shall Nil after Expansion.

3 **CONDITIONS UNDER AIR ACT 1981**

3.1 In addition to Condition No: 12 of above refereed order, the following quantity of fuel shall be used as a fuel as per Condition 3.2.

3.2 In addition to Condition No: 14 of above referred order there shall be flue gases and permissible pollutants from the flue gas stack are as under Read as:

Sr. no.	Stack attached to	Type of fuel	Fuel consumption	Stack height	APCM	Parameter-Permissible limit
1	Captive Power Plant	Coal	6.126 T/hr.	70 m	2 nos. of ESP	P M – 150 mg/Nm^3 SO_2 – 100 ppm NO_x - 50 ppm
2	Waste steam generated by one unit of the company	--	Steam generated – 12 MT/hr.	–		
3	Hot Air Generator - 2 nos. [35 Lackcal/hr.]	Coal	20 MT/D [each]	20 m	Multicyclone/Bag filter	
4	Incinerator - 3 . [4000 L/hr]	F.O.	0.4 KL/hr	30 m	Quenching followed by ventury scrubber followed by Spray Tower	

3.3 In addition to Condition No: 15 of above referred order the process emission through various stacks/ vents of reactors, process vessel shall be confirmed to the following standards.

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Sr. no.	Stack attached to	Stack height	Pollution Control Measures	Parameter	Permissible limit
1	Chlorosulphonator & Decomposition	15 m	packed column followed by two venturi scrubbers followed by alkali scrubber	HCl SO2	20 mg/Nm3 40 mg/Nm3
2	Spray Dryer # 1A Spray Dryer # 2A Spray Dryer # 3A Spray Dryer # 4A Spray Dryer # 5A	30 m [each]	Two stage cyclone separator followed by wet scrubber	PM	150 mg/Nm3

4 **CONDITIONS UNDER HAZARDOUS WASTE:**

4.1 Applicant shall have to comply with provisions of Hazardous Waste (Management, Handling & Transboundary Movement) Rules, 2008 as amended from time to time.

4.2 The applicant shall obtain membership of common TSDF site for disposal of Hazardous Waste as categorized in Hazardous Waste (Management, Handling & Transboundary Movement) Rules, 2008 as amended from time to time.

4.3 The applicant shall obtain membership of common Hazardous Waste incinerator for disposal of incinerable waste.

4.4 The applicant shall provide temporary storage facilities for each type of Hazardous Waste as per Hazardous Waste (Management, Handling & Transboundary Movement) Rules, 2008 as amended from time to time.

4.5 The applicant shall obtain authorization for recovery/ reuses of any hazardous waste material.

5 The rest of the conditions of the above referred order No. GPCB/CCA-VRD-905(2)/ NOC-VRD-2969/33676 dtd 29-12-2008 shall remain unchanged.

6 You are directed to comply these conditions judiciously.

For and on behalf of
GUJARAT POLLUTION CONTROL BOARD

(M.V.PATEL)
Environmental Engineer

True copy

ANNEXURE R4-12

GUJARAT POLLUTION CONTROL BOARD
PARYAVARAN BHAVAN
Sector-10-A, Gandhinagar-382 021.
Website : www.gpcb.gov.in

GPCB

BY R.P.A.D.

"Consent to Establish"
CTE Amendment No: 68993

NO: GPCB/CCA-VRD-905(3)/ID-21752/ 313602 Date: 08/05/2015

To,

M/s. Bodal Chemicals Ltd. (Unit-Vii)
Plot No.804, Vill:Dudhwada,
Padra-394116, Tal.Padra,
Dist:Vadodara.

Sub: Consent to Establish (NOC) under Section 25 of Water Act 1974 and Section 21 of Air Act 1981.
Ref: 1. Your online CTE Amendment application No:85530, dated:25/11/2014.
2. CCA order no.AWH-50942, Date of issue.03/12/2012.

Sir,

Without prejudice to the powers of this Board under the Water (Prevention and Control of Pollution) Act-1974, the Air Act-1981 and the Environment (Protection) Act-1986 and without reducing your responsibilities under the said Acts in any way, this is to inform you that this Board grants Consent to Establish (NOC) for addition/inclusion of existing industrial plant/activities at- Plot No.804, Vill:Dudhwada, Padra-394116, Tal.Padra, Dist:Vadodara for the manufacturing of the following item with following terms & conditions. The Validity period of the order will be up to 16/03/2020.

1. The CTE-Amendment is granted for.

1.1 Installation of multiple effect evaporator for Zero liquid discharge system (ZLD).
1.2 Installation of thermic fluid heaters No. 2 & 3 for fusion process and distillation process in manufacturing of beta Napthol.
1.3 IBR steam boiler (6TPH) for multiple Effect Evaporator.

2. CONDITION UNDER THE WATER ACT:

2.1 The additional quantity of the industrial effluent to be generated from the manufacturing process and other ancillary industrial operations shall be nil from proposed installations.
2.2 The additional quantity the domestic wastewater (sewage) shall be nil from proposed installations.

3 CONDITIONS UNDER AIR ACT 1981:

3.1 The following additional fuel shall be used in TFH 2& 3 & boiler respectively.

Sr. No.	Fuel	Quantity
1	Coal (TFH)	08MT/day
2	Coal(TFH)	3.5MT/day
2	Coal (boiler)	1MT/day

3.2 The applicant shall install & operate air pollution control system in order to achieve norms prescribed herewith.

3.3 The flue gas emission through additional stack attached to TFHs & boiler shall conform to the following standards:

Stack no.	Stack attached to	Stack height in meter	Air Pollution Control System	Parameter	Permissible Limit
1.	Thermic fluid heater-2 (for fusion process of betta napthol) (15 lacks K cal/Hrs)	Common Stack of 30 meter (This stack is existing, it is already attached to existing boiler-3)	Multy Dust Collector	Particulate matter SO_2 NO_x	150 mg/NM^3 100 ppm 50 ppm
2	Thermic fluid heater-3 (for distillation process of beeta-napthol) (06 lacks K cal/hrs)				
3	IBR steam boiler proposed MEE. Dyes (06 MTH)	30 Meter	Multi Cyclone	Particulate matter SO_2 NO_x	150 mg/NM^3 100 ppm 50 ppm

3.4 There shall be no generation of additional Process emission from the manufacturing activities and other ancillary industrial operation due to expansion.

3.5 Stack monitoring facilities like port hole, platform/ladder etc., shall be provided with stacks/vents Chimney in order to facilitate sampling of gases being emitted into the atmosphere.

3.6 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.

GUJARAT POLLUTION CONTROL BOARD
PARYAVARAN BHAVAN
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3.7 There shall no any fugitive emission and/or odour pollution due to manufacturing activities and ancillary operations. Adequate measures shall be taken thereof.

3.8 The concentration of the following parameters in the ambient air within the premises of the industry and a distance of 10meters from the source (other than the stack/vent) shall not exceed the following levels.

Parameter	Permissible Limit Annual	Permissible Limit 24 Hrs. Average
Particulate matter-$_{10}$[PM10]	60Microgram /NM^3	100Microgram /NM^3
Particulate matter-$_{2.5}$[PM2.5]	40Microgram /NM^3	60Microgram /NM^3
Oxides of Sulphur	50Microgram /NM^3	80Microgram /NM^3
Oxides of Nitrogen	40Microgram /NM^3	80Microgram /NM^3

3.9 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 75 dB(a) during day time and 70 dB (A) during night time. Daytime is reckoned in between 6a.m. and10 p.m. and nighttime is reckoned between 10 p.m. and 6 a.m.

4 CONDITIONS UNDER HAZARDOUS WASTE:

4.1 The applicant shall provide temporary storage facilities for each type of Haz Waste as per Hazardous Waste (Management, Handling & Transboundary Movement) Rules, 2008 as amended from time to time.

4.2 The applicant shall be obtained membership of common TSDF site for disposal Hazardous Waste as categorized in Hazardous Waste (Management, Handling & Transboundary Movement) Rules, 2008 as amended from time to time.

4.3 The applicant shall explore possibilities of Co-processing of hazardous waste at authorized Cement kiln and make arrangement therof. OR The applicant shall obtained membership of common Hazardous Waste incinerator for disposal of incinerable waste.

4.4 Hazardous Waste generated shall be disposed off in accordance with the Hazardous Waste (Management, Handling & Transboundary Movement) Rules, 2008 and unit shall have to obtain authorization of the Board for all applicable categories of Hazardous wastes.

4.5 The applicant shall explore possibility and apply for authorization for recovery / reuses of any Hazardous Wastes.

5 GENERAL CONDITIONS:

5.1 The applicant also comply with the General conditions as per Annexure - I attached herewith (No.1 to 38) (whichever applicable).

5.2 The unit shall install meters for measuring category wise consumption of water (category as given in Water – Cess Act 1977, Schedule – II).

5.3 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.

5.4 Adequate plantation shall be carried out all along the periphery of the industrial premises in such a way that the density of plantation is at least 1000 trees per acre of land and a green belt of 10 meters width is developed.

5.5 In case of change of ownership/management the name and address of the new owners/partners/directors/proprietor should immediately be intimated to the Board.

5.6 The applicant shall however, not without the prior consent to operate of the Board bring into use any new or altered outlet for the discharge of effluent or gaseous emission or sewage waste from the proposed industrial plant. The applicant is required to make applications to this Board for this purpose in the prescribed forms under the provisions of the Water Act-1974, the Air Act-1981 and the Environment (Protection) Act-1986.

5.7 The concentration of Noise in ambient air within the premises of industrial unit shall not exceed following levels:

Between 6 A.M. and 10 P.M.: 75 dB (A)
Between 10 P.M. and 6 A.M.: 70 dB (A)

5.8 Applicant is required to comply with the Manufacturing, Storage and Import of Hazardous Chemicals Rules-1989 framed under the Environment (Protection) Act-1986.

5.9 If it is established by any competent authority that the damage is caused due to their industrial activities to any person or his property in that case they are obliged to pay the compensation as determined by the competent authority.

For and on behalf of
Gujarat Pollution Control Board

(Dipali Tank)
Unit Head

GUJARAT POLLUTION CONTROL BOARD

GENERAL CONDITIONS (CTE/NOC - 1 TO 38) Annexure-I

01 In case of any change either in products, its capacity or manufacturing process, the applicant shall have to obtain prior permission of this Board. The applicant shall not commence the production until consent under Water (Prevention and Control of Pollution) Act-1974, Air (Prevention and Control of Pollution) Act-1981 and Authorization under the Hazardous Waste (Management, Handling & T.M.) Rules-2008 is obtained.

02 If the products, process falls in SCHEDULE-I or II of the Environmental Audit Scheme , as specified in the order dated 13/03/97 of Hon. High Court in MCA No.326/97 in SCA No.770/95, the applicant shall also abide by the said scheme.

03 The applicant shall have to register the unit under the provisions of the Factories Act-1948 and shall obtain the necessary factory license.

04 The Environmental Management unit/Cell shall be set up to ensure implementation and monitoring of environmental safeguards and other conditions stipulated by statutory authorities. The Environmental Cell / unit shall directly report to the Chief Executive of the organization and shall work as a focal point for internalizing environmental issues. These cells / units shall also co-ordinate the exercise of environmental audit and preparation of environmental Statements.

05 The applicant shall have to obtain P.L.I. Policy as per P.L.I. Act-1991 and submit the copy of the same to the G.PC.B.

06 The concentration of Noise on ambient air within the factory premises shall not exceed the following limit :

Between 6 AM to 10 PM: 75 dB (A)

Between 10 PM to 6 AM: 70 dB (A)

07 The unit shall, on establishing this plant.

a). Put up at the entrance and prominent places boards prominently displaying the name of the unit, particulars of the products / process and the names of the Proprietor / Partners/Directors of the unit, the electricity consumer number and the name of the electricity consumer as on the record of the GEB.

b). Make adequate lighting arrangements all around the Effluent Treatment Plants Pollution Control Measures and also above the boards mentioned in the above clause.

08. The Environmental Audit shall be carried out yearly and the environmental statements pertaining to previous year shall be submitted to this Board latest by 30th September every year.

09 The unit shall have and use only one outlet for the discharge of its effluent and no effluent shall be discharged without requisite treatment and without meeting with the GPCB norms. Such outlet shall be near the front gate/ entrance of the unit. The unit shall not keep any bypass line or system or loose or flexible pipe for discharging effluent outside or even for transporting treated or untreated effluent within the factory premises, within effluent treatment plants or in the compound of the unit.

10 Magnetic Flow Meters" should be installed at inlet and outlet of Effluent Treatment Plant (ETP thereafter)

11. All the chemicals and nutrients which are required to be added / dosed any where in the ETP should be so added by using "Metering Pumps" only.

12. The pipeline connecting various equipments or sumps of tanks of ETP should be minimum in number. Loose connections of hose pipes or temporary connections will not be permitted.

13. In case of incinerators the unit shall provide the flow measuring devices for mother liquor . light diesel oil, air used for combustion and temperature measuring devices within incinerators at different points scrubber , outside the incinerator should be provided . The temperatures as well as flow should be recorded , every day.
14. In case of plants involving Bio-mass Treatment. For each addition of bio-mass time and quantity , should be recorded . The uptake rate of oxygen of the bio-mass in the aeration basis and other parameters of biological system should be recorded every day.
15. The printed log books shall be maintained and get it certified for :

    a. Energy / fuel consumption / Raw material Consumption and quantity of products manufactured.
    b. Waste water / gaseous flow at inlet & outlet of ETP and Air Pollution Control Measures.
    c. Quantity of sludge generated.
    d. Laboratory analysis / reports for each of the specified parameters of liquid effluents, gaseous discharge and soil sludge samples.

16. The unit shall operate full and efficiently all its effluent treatment plant/s and shall close down all its manufacturing processing activities whenever the effluent treatment plant/s or any part thereof are fully on partly non-operational for any reason whatsoever (Whether maintenance/ repairs/electricity failure or otherwise) and shall not restart such activities unless and until all the effluent treatment plants of the unit are fully operational.
17. The unit shall have and operate all the requisite equipments/ facilities for prevention and control of air pollution and shall operate the same. The unit shall also have stack monitoring facilities. Whenever the equipments/facilities for prevention and control of air pollution are fully or partly nonfunctional , the unit shall close down all its manufacturing / processing activities and shall not restart its manufacturing/ processing activities unless and until all its air pollution protection and control equipments and facilities including stack monitoring facilities are fully operational.
18. The unit shall submit, before commencing the production to the GPCB any committee appointed by the court, the site plan of the unit indicating the location of manufacturing / processing plant as also the effluent treatment plants and also separate plan indicating the channel through which water / effluent passes from different stages of manufacturing / processing and the effluent treatment process right upto the stage of its final outlet. Such plans shall also be displayed by the unit on a Board of adequate size within its compound and near its effluent treatment plant/s.
19. The unit shall supply to the GPCB the figures of production and consumption of electricity and water for each day during the period of production, though such figures shall be supplied on weekly basis. The unit shall supply separate figures for consumption of electricity for running the effluent treatment plants by having a separate meter / sub meter for such effluent treatment plants. The number of units consumed by operating the diesel generating sets, if any, shall also be supplied to the GPCB on weekly basis.
20. The unit shall also supply to the GPCB , within 1 week from the date of the starting production , the documents regarding monthly production and consumption of electricity.
21. The unit shall permit the officers/employees of the GPCB/ Government Members of the committee of the court, Members of the Monitoring Committee of the Association of the Industries to enter the factory premises and to inspect and take samples from the unit at any

time without any prior intimation. Any delay in giving any of the above persons entry into the factory premises or any plant thereof on effluent treatment plants shall entail closure of the unit. All the watchmen / security personnel of the unit shall be immediately appraised of the above.

22. It shall be open to the GPCB through general instruction of circulars and to the GPCB officers inspecting the unit to give all the support instructions regarding location of the outlet and / or any other appropriate directions regarding effluent treatment plants, their operation and processes and disposal channel and disposal system. The unit shall comply with all such instructions whether general or special.
23. When electricity supply or water supply is disconnected in future on account of non - compliance with the GPCB norms or on account of the closure order, which may be passed by the court or by the Govt. / GPCB under any statutory provisions relating to environmental protection and prevention and control of pollution.
    a. The unit shall not use any diesel generating set or any other alternative source of energy or water tankers from outside.
    b. The unit shall pay wages to its workers regularly every month or at such shorter intervals as per the Central/Practice followed so far.
24. Adequate number of influent and effluent quality monitoring stations should be set up in consultation with the Gujarat Pollution Control Board . Regular Effluent Quality monitoring should be carried out for relevant parameters and the monitored data alongwith the statistical analysis and interpretation should be submitted to the Gujarat Pollution Control Board on monthly basis.
25. Guards ponds of sufficient holding capacity should be provided to cope with the effluent discharge during the process disturbances. In the event of failure or non functioning of the ETP , the respective units should be immediately put out of operation and should not be restarted until the control measures are rectified to achieve the desired efficiency. Guard pond should be provided with impervious lining and stability of the ponds with respect to leakages/cracks and other factors should be ensured.
26. The ground water quality around the guard ponds and landfill site should be monitored on a regular basis. The monitored data should be submitted to this Board once in six months.
27. The gaseous emission from the various process units should adhere to the air emission standards specified in this order. At no time the emission should go beyond the prescribed standards. In the event of failure of any pollution control system adopted by the unit, the respective unit should be immediately put out of operation and should not be restarted until the control measures are rectified to achieve the desired efficiency.
28. a). Ambient air quality monitoring station should be set up in the downwind direction as well as at locations where maximum ground level concentrations are anticipated . These locations should be fixed in consultation with the GPCB. The number of air quality monitoring stations and frequency of monitoring should be selected on the basis of mathematical modeling to represent short term ground level concentrations, human settlements, sensitive targets etc...
    b). Stack emissions from the boiler and heater should be monitored for SO2 NOx , Hydro Carbon and SPM and record maintained . On line continuous stack monitoring equipments should be provided for measurement of SO2 and NOx .
    c). Data on ambient air quality and stack emission from boiler and heater should be submitted to this Board once in a month along with the statistical analysis and interpretation.

d). Fugitive emissions should be controlled, regularly monitored and data recorded. The monitored data should be submitted to this Board once in a month.

29 Low NOx burners should be provided to avoid excessive formulation of NOx 'Only LSH will be used a fuel during the critical month to ensure that SO levels in the ambient air is within the norm specified.

30 The unit shall make all the requisite arrangements for the safe storage and handling of solid waste including impervious flooring and leachate collection and the unit shall store and handle solid waste in accordance with the provisions of the relevant rules in their behalf.

31 A secured double lined landfill should be developed within the plant premises for disposal of solid waste by providing impervious liner and leachate collection system. The leachate shall be taken to the treatment plant for further treatment. In case of specified items or Naphthalene based product and in the case of Pesticides waste, the leachate shall be totally incinerated after neutralization and / or after detoxification treatment. The design of the landfill site should be submitted before commencing the production to this Board and Government.

32 Handling manufacturing, storage and transport of hazardous chemicals should be in accordance with the Manufacture, Storage and Import of Hazardous Chemicals Rules-1989.

33 The hazardous wastes should be handled as per the Hazardous Waste (Management and Handling) Rules of the Environment (Protection) Act-1986.

34 On-site and off-site Emergency Plan as required under the Rules 13 and 14 of the Handling, Manufacture, Storage and Import of the Hazardous Chemicals Rules-1989 should be prepared and approval from the Board should be obtained.

35 A community welfare scheme for improving the socio-economic environment should be worked out and report submitted to the Board and Government for review.

36 Periodical medical check up of the workers should be done and records maintained as a measures to provide occupational health service to the workers.

37 The project authorities should set up laboratory facilities for collection, analysis of samples under the supervision of competent technical personnel who will report to the Chief Executive.

38 The funds earmarked for the Environmental Protection Measures should not be diverted for any other purpose and year wise expenditure should be reported to this Board and to the Government.

True Copy

ANNEXURE R4-13

F. No. J-11011/540/2010- IA II (I)
Government of India
Ministry of Environment, Forest & Climate Change
(I.A. Division)

Indira Paryavaran Bhawan
Aliganj, Jorbagh Road,
New Delhi -110003

E-mail: lk.bokolia@nic.in
Telefax: 011-24695313
Dated 25th April, 2016

To,

Shri Bavin Patel, Director
M/s Bodal Chemicals Ltd.
Plot No. 123,124, Phase -1, GIDC, Vatva,
Ahmedabad-382445, Gujarat

E-mail: bodal@bodal.com rameshpatel@bodal.com **; Fax No. : 091796052**

Subject: Expansion of Dyes and Dyes Intermediates Manufacturing Unit (2,200 MTPM to 6,000 MTPM) and Co-generation Power Plant (5 MW) at Sy. No. 804, 805, 807 to 822, 824 to 839 & 849, Village Dudhwada, Tehsil Padra, District Vadodara, Gujarat by M/s Bodal Chemicals Ltd.– Environmental Clearance reg.

Ref.: Your letter dated 6th April, 2012.

Sir,

This has reference to your letter dated 6th April, 2012 alongwith project documents including Form I, Terms of References, Pre-feasibility Report, EIA/EMP Report and public hearing report regarding above mentioned project and subsequent submission of addl. information vide letters dated 13.06.2013, 7.7.2014 and 3.10.2015.

2.0 The Ministry of Environment, Forest and Climate Change has examined the application. It is noted that proposal is for expansion of Dyes and Dyes Intermediates Manufacturing Unit (2,200 MTPM to 6,000 MTPM) and Co-generation Power Plant (5 MW) at Sy. No. 804, 805, 807 to 822, 824 to 839 & 849, Village Dudhwada, Tehsil Padra, District Vadodara, Gujarat. Expansion will be done in the existing premises having an area 1,42,000 m^2. Project cost of expansion is Rs. 85.00 crores. Rs. 85 Crores and Rs. 625.00 Lakhs are earmarked towards capital cost and recurring cost per annum for pollution control measures. PAs confirmed that unit is located within 10 Km of critically/severely polluted area. No national park/wildlife sanctuary/reserve forest are located within 10 km. Following existing and proposed products will be manufactured:

S.N	Product	Capacity (MTPM)		
		Existing	Proposed	Ultimate
1	H-Acid	150	--	150
2	Beta Napthol	500	--	500
3	Acetanilide	150	500	650
4	Acetanilide Chloro Sulphonated mass	200	800	700 – Captive 300
5	Venyl Sulphone (ASC)	200	500	700
6	Reactive black Dyes (Ramzole dyes)	500	750	1250
7	Reactive Red, Yellow & Ohers	250	250	500
8	Direct Acid Dyes	250	1000	1250
9	Cogeneration Power Plant	--	5.0 MW	5.0 MW
	Total	**2200**	**3800**	**6000**
By-products :				
1	Hydrochloric Acid (HCl)	220-390	1500	1720-1890
2	Spent H2SO4	1400-1600	2275	3670-3870

M/s Bodal Chemicals Ltd

Received on 06/05/16.

3	Glauber Salt (from VS plant)	90	210	300
4	Glauber Salt (from H Acid plant)	150	0	150
5	Acetic Acid	35	85	120
6	Gypsum Sludge	850	--	850

3.0 Packed column followed by two venture scrubbers followed by alkali scrubber will be provided to Chlorosulphonator & Decomposition to control HCl within 20 mg/Nm^3 and SO_2 within 40 mg/Nm^3. Two stage cyclone separator followed by wet scrubber will be provided to Spray Dryer 1A and 2A to control particulate matter within 50 mg/Nm^3. Total ground water requirement will be increased from 1400 m^3/day to 2205 m^3/day after expansion. Industrial effluent generation will be 1115 m3/day. Concentrated effluent stream (293 m3/day) will be incinerated to achieve zero discharge. Diluted effluent stream (452 m3/day) will be treated in existing effluent treatment plant and Effluent (370 m3/day) will be reused in the process. 'Zero' effluent discharge will be adopted and no effluent will be discharged outside the premises. ETP sludge, process residue, incinerated ash and MEE salt will be sent to TSDF for landfill. Used oil, discarded container and Spent catalyst or spent oil will be sent to the authorized recycler/re-processors. Spent sulphuric acid and HCl will be consumed for captive H acid manufacturing or sold to authorized potential users. Bottom ash and fly ash will be sold to brick manufacturing unit.

4.0 Public Consultation/ hearing meeting was held on 23.02.2012.

5.0 All the Synthetic Organic Chemical located outside notified industrial area are listed at S.N. 5(f) under Category 'A' and appraised at the Central level..

6.0 The proposal was considered by the Expert Appraisal Committee (Industry) in its meetings held during 3rd – 4th March, 2011, 29th -31st July, 2013, 20th -21st August, 2015 and 11th-12th February, 2016 respectively. Project Proponent and the EIA Consultant namely M/s Ramans Enviro Services Pvt. Ltd, have presented EIA / EMP report as per the TOR. EAC has found the EIA / EMP Report and additional information to be satisfactory and in full consonance with the presented TORs. The Committee recommended the proposal for environmental clearance.

7.0 Based on the information submitted by the project proponent, the Ministry of Environment and Forests hereby accords environmental clearance to above project under the provisions of EIA Notification dated 14th September 2006, subject to the compliance of the following Specific and General Conditions:

A. SPECIFIC CONDITIONS:

i) National Emission Standards for Organic Chemicals Manufacturing Industry issued by the Ministry vide G.S.R. 608(E) dated 21st July, 2010 and amended time to time shall be followed by the unit.

ii) ESP shall be provided to the coal fired boiler to control particulate emissions within permissible limit. The gaseous emissions shall be dispersed through stack of adequate height as per CPCB/GPCB guidelines.

iii) Packed column followed by two venturi scrubbers followed by alkali scrubber shall be provided to Chlorosulphonator & Decomposition section to control process emissions. Two stage cyclone separator followed by wet scrubber will be provided to spray dryer.

iv) In plant control measures for checking fugitive emissions from all the vulnerable sources shall be provided. Fugitive emissions shall be controlled by providing closed storage, closed handling & conveyance of chemicals/materials, multi cyclone separator and water sprinkling system. Dust suppression system including water sprinkling system shall be provided at loading and unloading areas to control dust emissions. Fugitive emissions in the work zone environment, product, raw materials storage area etc. shall be regularly monitored.

v) Solvent management shall be carried out as follows :

i. Chilled brine circulation system shall be provided to condensate solvent vapors and reduce solvent losses. It shall be ensured that solvent recovery should not be less than 95%.

ii. Reactor and solvent handling pump shall have mechanical seals to prevent leakages.

iii. The condensers shall be provided with sufficient HTA and residence time so as to achieve more than 95% recovery

iv. Solvents shall be stored in a separate space specified with all safety measures.

v. Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done.

vi. Entire plant shall be flame proof. The solvent storage tanks should be provided with breather valve to prevent losses.

vi) The gaseous emissions from DG set shall be dispersed through adequate stack height as per CPCB standards. Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution.

vii) The company shall upload the status of compliance of the stipulated environmental clearance conditions, including results of monitored data on its website and shall update the same periodically. It shall simultaneously be sent to the Regional office of MOEF, the respective Zonal office of CPCB and the GPCB. The levels of PM_{10}, PM2.5, SO_2, NO_x, VOC and CO in ambient air and emissions from the stacks shall be monitored and displayed at a convenient location near the main gate of the company and at important public places.

viii) Total fresh water requirement from ground water source shall not exceed 2205 m3/day and prior permission shall be obtained from the CGWA/SGWA.

ix) Industrial effluent shall not exceed 1115 m3/day. Concentrated effluent stream (293 m3/day) shall be incinerated to achieve zero discharge. Diluted effluent stream (452 m3/day) shall be treated in existing effluent treatment plant to meet with prescribed norms for the disposal to ECP channel and Effluent (370 m3/day) will be reused in the process. 'Zero' effluent discharge should be adopted and no effluent will be discharged outside the premises.

x) Automatic /online monitoring system (24 x 7 monitoring devices) for flow measurement and relevant pollutants in the treatment system to be installed. The data to be made available to the respective SPCB and in the Company's website.

xi) Process effluent/any wastewater shall not be allowed to mix with storm water. Storm water drain shall be passed through guard pond.

xii) Hazardous chemicals shall be stored in tanks in tank farms, drums, carboys etc. Flame arresters shall be provided on tank farm. Solvent transfer shall be by pumps.

xiii) As proposed, process organic residue and spent carbon shall be sent to cement industries. ETP sludge, incinerator ash, process inorganic & evaporation salt should be disposed off to the TSDF. The ash from boiler should be sold to brick manufacturers/cement industry.

xiv) The company shall obtain Authorization for collection, storage and disposal of hazardous waste under the Hazardous Waste (Management, Handling and Trans-Boundary Movement) Rules, 2008 and amended as on date for management of Hazardous wastes and prior permission from GPCB shall be obtained for disposal of solid / hazardous waste in the TSDF. Measures shall be taken for fire fighting facilities in case of emergency. Membership of TSDF for hazardous waste disposal shall be obtained.

xv) Incinerator comprising primary and secondary chamber shall be designed as per CPCB guidelines. SO_2, NOx, HCl and CO emissions shall be monitored in the stack regularly.