

MAHARASHTRA POLLUTION CONTROL BOARD

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Kalpataru Point, 3rd & 4th floor, Sion- Matunga
Scheme Road No. 8, Opp. Cine Planet Cinema, Near
Sion Circle, Sion (E),

Mumbai - 400 022

Red/L.S.I

Date: 27/Apr/2012

Consent No: BO/PAMS/EIC NO. PN-12972-12/CAC-409

Consent to Operate under Section 26 of the Water (Prevention & Control of Pollution) Act, 1974 & under Section 21 of the Air (Prevention & Control of Pollution) Act, 1981 and Authorization / Renewal of Authorization under Rule 5 of the Hazardous Wastes (Management, Handling & Transboundry Movement) Rules 2008

[To be referred as Water Act, Air Act and HW (M&H) Rules respectively].

CONSENT is hereby granted to

M/s Alkyl Amines Chemicals Ltd
Plot NoD-6/1 and D-6/2, MIDC Kurkumbh,
Tal- Daund, Dist-Pune
Pune, Maharashtra

located in the area declared under the provisions of the Water Act, Air act and Authorization under the provisions of HW(M&H) Rules and amendments thereto subject to the provisions of the Act and the Rules and the Orders that may be made further and subject to the following terms and conditions:

1. The Consent to Operate is granted for a period up to:- 30.06.2014
2. The Consent is valid for the manufacture of :-

Sr. No.	Product Name	SHORT NAME	MAXIMUM CAPACITY
A TO E	ALIPHATIC AMINES, ALIPHATIC MIXED AMINES, AROMATIC AMINES, AROMATIC MIXED AMINES, OTHER MIXED AMINES		Total of Sr. Nos. (A - E) 25000 MT/YEAR
A	ALIPHATIC AMINES		
1	MONOMETHYLAMINE	MMA	
2	DIMETHYLAMINE	DMA	
3	TRIMETHYLAMINE	TMA	
4	MONOETHYLAMINE	MEA	
5	DIETHYLAMINE	DEA	
6	TRIETHYLAMINE	TEA	
7	MONOISOPROPYLAMINE	MIPA	
8	DIISOPROPYLAMINE	DIPA	

9	N - PROPYLAMINE	DNPA	
10	Di - N - PROPYLAMINE	DNPA	
11	TRI - N - PROPYLAMINE	TNPA	
12	MONO - N - BUTYLAMINE	MNBA	
13	DI - N - BUTYLAMINE	DNBA	
14	TRI - N - BUTYLAMINE	TNBA	
15	2 - ETHYLHEXYLAMINE	2 - EHA	
16	BIS - 2 - CYCLOHEXYLAMINE	BIS - 2 - EHA	
17	MONO - CYCLOHEXYLAMINE	MCHA	
18	DI - CYCLOHEXYLAMINE	DCHA	
B	ALIPHATIC MIXED AMINES		
1	DIISOPROPYLETHYLAMINE (HUNIG'S BASE)	DIPEA	
2	DIMETHYL ISOPROPYLAMINE	DMIPA	
3	ETHYLMETHY AMINE	EMA	
4	DIETHYLMETHYLAMINE	DEMA	
5	DIMETHYLCYCLOHEXYLAMINE	DMCHA	
6	N - ETHYLCYCLOHEXYLAMINE	NECHA	
7	N - METHYLISOPRPPYLAMINE	NMIPA	
8	DIISOPROPYLMETHYLAMINE	DIPMA	
9	DIMETHYLBUTYLAMINE	DMBA	
10	DIMETHYLETHYLAMINE	DMEA	
11	ETHYLPROPYLAMINE	EPA	
12	N , N' - DIMETHYLPROPYLAMINE	DMPA	
C	AROMATIC AMINES		
1	N , N - DIMETHYLBENZYLAMINE	BDMA	
2	1 - METHYL - 3 PHENYLPROPYLAMINE	MPPA	
3	FURFURLAMINE	FFA	
4	BENZYLAMINE	MBA	
5	DIBENZYLAMINE	DBA	
6	N - ETHYLBENZYLAMINE	NEBA	
7	4 - METHYL - N , N - DIMEHTYLBENZYLAMINE	4 MBDMA	
8	β - PHENYLETHYLAMINE	PHEA	
9	ALPHA - PHENYLETHYLAMINE	APEA	
10	N - ISOPROPYLBENZYLAMINE	NIPBA	
11	1 - (1 - NAPHTHYL) ETHYLAMINE	ANEA	
12	3 , 5 - DICHLOROANILINE	3 , 5 DCA	
13	PARA CUMIDINE	PCD	

D	AROMATIC MIXED AMINES		
1	THIOPHENE - 2 - ETHYLAMINE	THEA	
2	2 - CYCLOHEXENYLETHYLAMINE	CHEA	
3	PIPERIDINE	PIP	
4	TRANS - 4 - METHYLCYCLOHEXYLAMINE	4 MCHA	
5	N- METHYLBENZYL AMINE	NMBA	
6	N- BENZYLETHANOLAMINE	NBEA	
E	OTHER MIXED AMINES		
1	METHOXYPROPYLAMINE	MOPA	
2	DIMETHYLAMINOPROPYLAMINE	DMAPA	
3	METHYLAMINOPROPYLAMINE	MAPA	
4	N - METHYL IMINO BIS PROPYL AMINE	MIBPA	
5	TETRAMETHYL ETHYLENEDIAMINE	TMEDA	
6	TETRAMETHYL AMINO BIS PROPYL AMINE	TMBPA	
7	ETHOXY PROPYLAMINE	ETOPA	
8	ETOXY ETHYLAMINE	EEA	
9	DIETHYL AMINOPROPYLAMINE	DEAPA	
10	ETHYL AMINO ETHYLAMINE	EAEA	
11	DIMETHYLAMINO ETHYLAMINE	DMAEA	
12	1, 3 PROPYLENE DIAMINE	1, 3 - DAP	
13	3 - AMINOPROPANOL	3 - AP	
14	HYDROXY NOVALDIAMINE, N,N-BIS(2-HYDROXYETHYL)-P-PHENYLENEDIAMINE SULPHATE, PHENYLENEDIAMINE SULPHATE	HND/HEP D SULPHAT E	
15	N, N - BIS (2 AMINOPROPYL) ETHYLENEDIAMINE	N - 4 AMINE	
16	3 - METHYL AMINO - 1 - PHENYL - 1 - PROPANOL	MAPP	
17	DIETHYL HYDROXYL AMINE	DEHA	
18	DIBENZYLAMINE HYDROXYL AMINE	DBHA	
19	ISOPROPYL HYDOXYLAMINE	IPHA	
20	N - ETHYL - 1, 2 - DIMETHYL PROPYL AMINE	EDMPA	
21	1, 2 DIMETHYL PROPYLAMINE	1,2 DMPA	
22	TRIS - 2 - (ETHYL HEXYL) AMINE	TRIS - 2 - EHA	
23	3 - (2 ETHYLHEXOXY) PRCPYLAMINE	EHOPA	
24	IMINOBISPROPYLAMINE	IBPA	
F	BETANES		1250 MT/YEAR

G ALIPHATIC AMINE HYDROCHLORIDE			
1	DIMETHYLAMINE HYDROCHLORIDE	DMA.HCL	5000 MT/YEAR
2	DIMETHYLAMINOPROPYLCHLORIDE HYDROCHLORIDE	DMAPC.H CL	
3	DIETHYLAMINE HYDROCHLORIDE	DEA.HCL	
4	MONOMETHYLAMINE HYDROCHLORIDE	MMA.HCL	
5	2 - CHLOROETHYLAMINE HYDROCHLORIDE	CEA.HCL	
6	TRIETHYLAMINE HYDROCHLORIDE	TEA.HCL	
7	TRIMETHYLAMINE HYDROCHLORIDE	TMA.HCL	
H AMIDES			
1	DIETHYL POLYAMIDE		500 MT/YEAR
2	DIETHYL PHENYL ACETAMIDE		
I PERALISING AGENT			500 MT/YEAR
J HYDROGEN			600 MT/YEAR
K RETESTING, REPACKING, RELABELING OF PRODUCTS PYRIMIDINE DERIVATIVES & TRICHOROMETHOXY BENZENE (CONTRACT MANUFACTURING)			100 MT/YEAR
L SPECIALITY INTERMEDIATES			
1	4 - METHYL CYCLOHEXANONE	4 MCHN	7400 MT/YEAR
2	3 - METHOXY PROPANOL	3 MOPL	
3	DIMETHYL PROPYLENE UREA	DMPU	
4	1, 8 - DIAZABICYCLO [5 . 4 . 0] UNDEC - 7 - ENE	DBU	
5	ETHYL PIPERAZINEDIONE	EPD	
6	β - DIMETHYLAMINOPROPIONITRILE	DMAPN	
7	ACETONITRILE	ALKAN	
8	N, N' - DIMETHYL IMIDAZOLIDONE	DMI	
9	1, 5, - DIAZOBICYCLO [4.3.0] UNDECT - 5 - ENE	DBN	
10	2 - METHYL TETRAHYDROFURAN	2 - MTHF	
11	PHENYL ETHYL ALCOHOL	PHEA	
12	2 - METHYL RESORCINOL	3 MR	
M BY PRODUCTS			
1	SPENT CAUSTIC (20 %)		4000 MT/YEAR

2	SPENT CATALYST		15 MT/YEAR
3	DEET AQUEOUS LAYER		90 MT/YEAR
4	SPENT AMINE SOLUTION		40 MT/YEAR
5	SPENT AMMONIA SOLUTION		620 MT/YEAR
6	SPENT SOLVENTS (PURIFIED)		1 MT/YEAR
N	CAPTIVE CO-GENERATION POWER		1.5 MW
O	STEAM		18 MT/HR

3. CONDITIONS UNDER WATER ACT:

- (i) The daily quantity of trade effluent from the factory shall not exceed 417.00M³.
(ii) The daily quantity of sewage effluent from the factory shall not exceed 38.5 M³.

(iii) **Trade Effluent :**

Treatment: The applicant shall provide comprehensive treatment system consisting of primary / secondary and/or tertiary treatment as is warranted with reference to influent quality and operate and maintain the same continuously so as to achieve the quality of the treated effluent to the following standards:

01	pH	Between	5.5 to 9.0	
02	Suspended Solids	Not to exceed	200	mg/l
03	BOD 3 days 27° C	Not to exceed	100	mg/l
04	COD	Not to exceed	250	mg/l
05	Oil & Grease	Not to exceed	10	mg/l
06	TDS	Not to exceed	2100	mg/l
07	Chlorides	Not to exceed	600	mg/l
08	Sulphates	Not to exceed	1000	mg/l
09	TAN	Not to exceed	50	mg/l
10	Phenolic Compound	Not to exceed	1.0	mg/l

- (iv) **Trade Effluent Disposal:** The treated effluent shall be recycled / reused/ reprocess to the maximum extent possible and remaining shall be sent to CETP.

- (v) **Sewage Effluent Treatment:** The applicant shall provide comprehensive treatment system as is warranted with reference to influent quality and operate and maintain the same continuously so as to achieve the quality of treated effluent to the following standards.

(1)	Suspended Solids	Not to exceed	100	mg/l.
(2)	BOD 3 days 27° C.	Not to exceed	100	mg/l.

- (vi) **Sewage Effluent Disposal:** The treated domestic effluent shall be soaked in a soak pit, which shall be got cleaned periodically. Overflow, if any, shall be used on land for gardening / plantation only.

(vii) **Non-Hazardous Solid Wastes: -**

Sr. No.	Type Of Waste	Quantity	UOM	Disposal
1	Wood Pallets	6.00	MT/A	By sale
2	Scrap Material	11.00	MT/A	By sale

3	Carboys Plastic	1000.00	Nos./Y	By sale
4	Office Paper waste	1.00	MT/A	By sale
5	Woven Sack Bag HDPE	1.00	MT/A	By sale
6	Drums	2700.00	Nos./Y	By sale
7	Boiler ash for bagasse	1100.00	MT/Day	By sale
8	Boiler ash for coal	32.00	MT/Day	Sale to Brick manufacturer

(viii) **Other Conditions:** Industry should monitor effluent quality regularly.

4. The applicant shall comply with the provisions of the Water (Prevention & Control of Pollution) Cess Act, 1977 (to be referred as Cess Act) and amendment Rules, 2003 there under

The daily water consumption for the following categories is as under:

- | | | |
|---|-----|-------------|
| (i) Domestic purpose | ... | 39.00 CMD |
| (ii) Water gets Polluted & Pollutants are Biodegradable | ... | 549.00 CMD |
| (iii) Water gets Polluted, Pollutants are not Biodegradable & Toxic | ... | 0.00 CMD |
| (iv) Industrial Cooling, spraying in mine pits or boiler feed | ... | 1253.00 CMD |

The applicant shall regularly submit to the Board the returns of water consumption in the prescribed form and pay the Cess as specified under Section 3 of the said Act.

5. CONDITIONS UNDER AIR ACT:

- (i) The applicant shall install a comprehensive control system consisting of control equipments as is warranted with reference to generation of emission and operate and maintain the same continuously so as to achieve the level of pollutants to the following standards:

a. Control Equipment:

- I. Scrubber of sufficient capacity shall be provided to process vent gas to scrub the process emissions.
- II. ESP of adequate capacity should be provided to Bagasse fired boiler.
- III. Closed type boiler ash handling system should be provided to avoid fugitive emissions.
- IV. There shall not be any secondary (fugitive) emissions.

b. Standards for Emissions of Air Pollutants:

- | | | |
|---------------------------------|---------------|--------------------------|
| (i) SPM/TPM | Not to exceed | 150.0 mg/Nm ³ |
| (ii) SO ₂ (Boiler) | Not to exceed | 2.7 Kg/day |
| (iii) SO ₂ (Process) | Not to exceed | 50.0 ppm |
| (iv) NO _x | Not to exceed | 50 ppm |
| (v) Ammonia | Not to exceed | 50 ppm |

- (ii) **The applicant shall observe the following fuel pattern:-**

Sr. No.	Type Of Fuel	Quantity	UOM
01	Furnace Oil	4.80	MT /M
02	LSD	4.80	MT /M
03	Bagasse	400.00	MT /M
04	Coal	245.00	MT /M
05	Coal	180.00	MT /M
06	HSD	360.00	MT /M

- (iii) **The applicant shall erect the chimney(s) of the following specifications:-**

Sr. No.	Chimney Attached To	Height in Mtrs.
1	Steam Star Boiler	54.00
2	Ethylene vent in MPP 2	15.00
3	H2 plant PSA vent	15.00
4	Process plant HCL vent	6.00
5	DG Set (320 KVA) 2 Nos	3.60 Each
6	DG Set (1000 KVA)	7.82
7	DG Set (100 KVA)	2.5
8	Bagasse/Coal fired boiler	60.00
9	Alkan Plant TFH	24.00
10	Pilot plant TFH	8.00
11	New Bagasse / Coal boiler	42.00
12	Alkan plant vent gas stack	12.00
13	Non-IBR boiler	13.00
14	Thermal Fluid Heater (TFH)	26.50
15	Hydrogen plant TFH	15.00
16	Incinerator	30.00
17	Ethyl plant vent gas	24.00
18	SMPV vent	12.00
19	MPP 3 vent	12.00

- (i) The applicant shall provide ports in the chimney/(s) and facilities such as ladder, platform etc. for monitoring the air emissions and the same shall be open for inspection to/and for use of the Board's Staff. The chimney(s) vents attached to various sources of emission shall be designated by numbers such as S-1, S-2, etc. and these shall be painted/ displayed to facilitate identification.

- (ii) 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 standard in respect of noise to less than 75 dB(A) during day time and 70 dB(A) during night time. Day time is reckoned in between 6 a.m. and 10 p.m. and night time is reckoned between 10 p.m. and 6 a.m.

(vi) **Other Conditions:**

- 1) The industry should not cause any nuisance in surrounding area.
- 2) The industry should monitor stack emissions and ambient air quality Regularly.

6. Conditions for D.G. Set :-

- a. Noise from the D.G. Set should be controlled by providing an acoustic enclosure or by treating the room acoustically.
- b. Industry should provide acoustic enclosure for control of noise. The acoustic enclosure/ acoustic treatment of the room should be designed for minimum 25 dB (A) insertion loss or for meeting the ambient noise standards, whichever is on higher side. A suitable exhaust muffler with insertion loss of 25 dB (A) shall also be provided. The measurement of insertion loss will be done at different points at 0.5 meters from acoustic enclosure/room and then average.
- c. The industry shall take adequate measures for control of noise levels from its own sources within the premises in respect of noise to less than 55 dB(A) during day time and 45 dB(A) during the night time. Day time is reckoned between 6 a.m. to 10 p.m and night time is reckoned between 10 p.m to 6 a.m.
- d. Industry should make efforts to bring down noise level due to DG set, outside industrial premises, within ambient noise requirements by proper siting and control measures.
- e. Installation of DG Set must be strictly in compliance with recommendations of DG Set manufacturer.
- f. A proper routine and preventive maintenance procedure for DG set should be set and followed in consultation with the DG manufacturer which would help to prevent noise levels of DG set from deteriorating with use
- g. D.G. Set shall be operated only in case of power failure
- h. The applicant should not cause any nuisance in the surrounding area due to operation of D.G. Set

7. CONDITIONS UNDER HAZARDOUS WASTE (MANAGEMENT, HANDLING & TRANSBOUNDRY MOVEMENT) RULES, 2008:

- (i) The Industry shall handle hazardous wastes as specified below.

Sr. No.	Type Of Waste	Quantity	UOM	Disposal
1	20.1 Contaminated aromatic, aliphatic or naphthenic solvents	368.50	MT	Incineration/CHWTSDF
2	36.2 Ash from incineration of hazardous waste	2.00	MT	CHWTSDF
3	35.3 Spent carbon*	3.00	MT	Incineration
4	34.2 Toxic metal-containing residue from water purification	1.00	MT	Landfill after bagging
5	20.3 Distillation residues	1.00	MT	CHWTSDF
6	33.1 Chemical-containing residue	11.00	MT	CHWTSDF
7	5.1 Used /spent oil	11.00	MT	Sale to MPCB Authorized Party
8	28.5 Spent organic solvents	240.00	MT	Sale to MPCB Authorized Party/CHWTSDF
9	33.3 Discarded containers / barrel liners	300.00	MT	Sale to MPCB Authorized Party/Return party
10	34.3 Chemical sludge from wastewater treatment	6.00	MT	Incineration

(ii) Treatment: - NIL

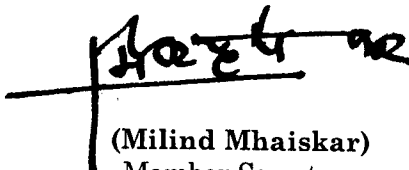
8. Whenever due to any accident or gas leakage or other unforeseen act or even, such emissions occur or is apprehended to occur in excess of standards laid down, such information shall be forthwith Reported to Collector, Directorate of Industry, Safety and Health, Police Station, Fire Brigade, Directorate of Health Services, Department of Explosives, Board and Local Body and the production process should be stopped by taking all necessary safety measures. The industry shall also monitor the emission and ensure that the emissions do not cause any harm or nuisance in the surrounding. The industry should not restart the process without permission of the Board and other statutory organization as require under the law.

9. Industry shall comply with following additional conditions:

- i. The applicant shall maintain good housekeeping and take adequate measures for control of pollution from all sources so as not to cause nuisance to surrounding area / inhabitants.
- ii. The applicant shall bring minimum 33% of the available open land under green coverage/ tree plantation.
- iii. Solid waste – The non hazardous solid waste arising in the factory premises, sweepings, etc., be disposed of scientifically so as not to cause any nuisance / pollution. The applicant shall take necessary permissions from civic authorities for disposal to dumping ground.
- iv. The applicant shall provide for an alternate electric power source sufficient to operate all pollution control facilities installed by he applicant to maintain compliance with the terms and conditions of the consent. In the absence, the applicant shall stop, reduce or otherwise, control production to abide by terms & conditions of this consent regarding pollution levels.
- v. The applicant shall not change or alter quantity, quality, the rate of discharge, temperature or the mode of the effluent / emissions or hazardous wastes or control equipments provided for without previous written permission of the Board.
- vi. The applicant shall provide facility for collection of environmental samples and samples of trade and sewage effluents, air emissions and hazardous wastes to the Board staff at the terminal or designated points and shall pay to the Board for the services rendered in this behalf.
- vii. The applicant shall make an application for renewal of the consent at least 60 days before the date of the expiry of the consent.
- viii. The firm shall submit to this office, the 30th day of September every year, the Environmental Statement Report for the financial year ending 31st March in the prescribed Form-V as pre the provisions of rule 14 of the Environment (Protection) (Second Amendment) Rules, 1992.
- ix. As inspection book shall be opened and made available to the Board's officers during their visit to the applicant.
- x. The applicant shall install a separate electric meter showing the consumption of energy for operation of domestic and industrial effluent treatment plants and air pollution control system. A register showing consumption of chemicals used for treatment shall be maintained.
- Xi. Separate drainage system shall be provided for collection of trade and sewage effluents. Terminal manholes shall be provided at the end of collection system with arrangement for measuring the flow. No effluent shall be

admitted in the pipes / sewers down- stream of the terminal manholes. No effluent shall find its way other than in designed and provided collection System.

- xii. Neither storm water nor discharge from other premises shall be allowed to mix with the effluents from the factory.
- 10 This consent shall not be construed as any exemption from obtaining necessary No Objection Certificate from other Government agencies as may deemed fit necessary.
11. If CETP does not operate efficiently and problem of pollution occurs, industry should voluntarily stop the production or total effluent should reuse.
12. The applicant should comply with the conditions of Environment Clearance granted by GoM, GoI vide NO SEAC-2010/CR.498/T.C.-2 dated 24.2.2011.
13. This consent is issued with amalgamation of two consents vide No. BO/RO-Pune/PCI-I/EIC-PN-4363-09/R/CC-06 dated 12.01.2010 and BO/RO-Pune/RO(P&P)/EIC-PN-7373-10/O/CC-74 dated 29.03.2011.
12. This consent is issued as per the decision taken in the meeting of the Consent Appraisal Committee of the Board held on 16/04/2012 with the approval of Hon'ble Chairman of the Board.
13. The Total Capital investment of the industry is Rs 101.45 Crore.
(Rs 97.27 Cr + 4.18 Cr)


(Milind Mhaiskar)
Member Secretary

To,
M/s Alky Amines Chemicals Ltd.
Plot No D-6/1 and D-6/2, MIDC Kurkumbh,
Tal- Daund, Dist-Pune, Maharashtra

Copy to :

RO, Pune /SRO, Pune I

-- They are directed to collect Bank Guarantee of Rs 5 Lakhs from the industry .
and ensure the compliance of consent conditions.

CAO/Cess Branch/Master file

Received Consent fee of -

Sr. No.	Amount(Rs.)	DD. No.	Date	Drawn On
1	248800/-	038350	03 Feb 2012	Axis Bank