# MAHARASHATRA POLLUTION CONTROL BOARD

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Red/L.S.I

Date:

14/Feb/2012

Consent No: BO/PAMS/R/EIC No.NM-3082-11/CAC -296

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 Deepak Fertilizers & Petrochemicals
Corporation Ltd.
K-1 to K-5, K-6, K-7 & K-8, MIDC
Indl. Area, Taloja, Dist Raigad,
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:. 31.08.2016
- 2. The Consent is valid for the manufacture of -

| Sr. No. | Sr. No. Product Name                                       |        | UOM    |  |
|---------|--|--------|--------|--|
| 1       | Ammonia  | 140400 | MT/A   |  |
| 2       | Methanol   | 99996  | MT/A   |  |
| 3       | Weak Nitric Acid   | 445500 | MT/A   |  |
| 4       | Conc. Nitric Acid  | 83400  | MT/A   |  |
| 5       | Low Density Ammonium Nitrate plus<br>Ammonium Nitrate melt | 144000 | MT/A   |  |
| 6       | Ammonium Nitrate Phosphate                                 | 324900 | MT/A   |  |
| 7       | Liquid CO2   | 36000  | MT/A   |  |
| 8       | Iso Propyl Alcohol (IPA)                                   | 70200  | MT/A   |  |
| 9       | Electric Power   | 9.4    | MW/Hr  |  |
| 10      | Steam  | 1056   | MT/Day |  |
| 11      | Bentonite Sulphur Pastilles                                | 25000  | MT/A   |  |
| 12      | Ammonium Nitrate Prills (Low Density)                      | 200000 | MT/A   |  |
| 13      | Ammonium Nitrate Prills (High Density)                     | 100000 | MT/A   |  |

| 14 | Iso Propyl Alcohol *                  | · 15000              | MT/A |  |
|----|---------------------------------------|----------------------|------|--|
| 15 | Di Iso Propyl Ether (DIPE) *          | 15000                | MT/A |  |
|    | * For drum filling operation ( Packag | ging operation) only | ,    |  |
|    | BY PRODUCT                            |                      |      |  |
| 11 | Propane                               | 33000                | MT/A |  |
| 12 | Calcium Phosphate                     | 210                  | MT/A |  |
| 13 | Crude DIPE                            | 1440                 | MT/A |  |
| 14 | Hydrogen Gas                          | <b>96</b> 0          | MT/A |  |
| 15 | Crude IPA/NPA Mixture                 | 1080                 | MT/A |  |

#### 3. CONDITIONS UNDER WATER ACT:

- (i) The daily total quantity of trade effluent quantity generated from the processes of the units located on plot No. K-1 to K-5,K-6, K-7,&K-8 in the entire complex shall not exceed 3878.28 M³/day. (Including proposed Consent to establish of Power Generating Plant.)
- (ii) The daily quantity of sewage effluent from the entire complex shall not exceed  $153.30M^3$ .

### (iii) Trade Effluent:

Treatment: The applicant shall provide comprehensive treatment systems(2 nos.) 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:

| 1  | T <sub>D</sub> U *        | Between       | F.F. 4- 0.0 |
|----|---------------------------|---------------|-------------|
| 1  | pH                        |               | 5.5 to 9.0  |
| 2  |                           | Not to exceed | 100 mg/l.   |
| 3  | BOD 3 days 27 ° C         | Not to exceed | 100 mg/l    |
| 4  | COD                       | Not to exceed | 250 mg/l    |
| 5  | Oil & Grease              | Not to exceed | 10 mg/l     |
| 6  | Total Dissolved Solids    | Not to exceed | 2100 mg/l.  |
| 7  | Sulphates                 | Not to exceed | 1000 mg/l.  |
| 8  | Chlorides                 | Not to exceed | 600 mg/l.   |
| 9  | Ammonical nitrogen (as N) | Not to exceed | 50 mg/l.    |
| 10 | Free Ammonical Nitrogen   | Not to exceed | 4.0 mg/l.   |
| 11 | Total KJ Nitrogen         | Not to exceed | 100.0 mg/l  |
| 12 | Dissolved Phosphate       | Not to exceed | 5.0 mg/l    |

- (iv) Trade Effluent Disposal: The treated effluent should be recycled / reused to the maximum extent and remaining should be disposed into 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 270 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       | Canteen Waste           | 105.00   | Kg/Day   | Sale     |
| 2       | Paper Waste             | 40.20    | Kg/Day   | Sale     |
| 3       | Damaged Bags            | 550 00   | No/M     | Sale     |
| 4       | Metal Scrap             | 80.00    | MT/A     | Sale     |
| 5       | ETP Sludge (Biological) | 28.00    | Kg/Day   | Manure   |
| 6       | Carbuoys                | 380 00   | No/M     | Sale     |
| 7       | Damaged Drums of use    | App      | prox 2 % | Sale     |
| 8       | M.S.Drums               | 150 0    | Nos/M    | Sale     |
| 9       | Ceramic packing         | 1.00     | MT/A     | sale     |

(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:

| CMD   |
|-------|
|       |
| CMD   |
|       |
| CMD   |
|       |
| O CMD |
| 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:

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:

- 1) The following equipments / units shall be provided with Dust Collector of sufficient capacity to limit the emissions A) Bag filter and coating section of ANP Plant. B) Coating section of LDAN Plant, C) Any other source of SPM.
- 2) Air pollution control arrangement should be provided to A) LDAN plant B) WNA plant, so as to limit the emissions.
- 3) Flare burner shall be provided to Ammonia and IPA plants.
- 4) Scrubber of sufficient capacity shall be provided to evaporator for scrubbing ammonia. (The scrubbed effluent shall be utilized in the process.)

# b. The applicant shall observe the following fuel pattern:-

| Sr. No. | Type Of Fuel     | Quantity | UOM      |
|---------|------------------|----------|----------|
| 1       | Natural Gas      | 41.62    | MT/Day   |
| 2       | Furnace Oil      | 127.50   | MT / Day |
| 3       | Diesel           | 2000.00  | MT / Day |
| 4       | Ethanol / Naptha | 2050.00  | MT/Day   |
| 5       | HSD              | 250.00   | Lit/Hr   |

#### c. Standards for emissions of Air Pollutants

| 1. | SPM/TPM         | Not to exceed        | 150 mg/Nm <sup>3</sup>     |
|----|-----------------|----------------------|----------------------------|
| 2. | SO2             | Not to exceed        | 5732 Kg/Day                |
| 3. | NOx             | Not to exceed        | 50 ppm                     |
| 4. | NH3             | Not to exceed        | 50 ppm                     |
| 5. | NOx(Nitric acid | plant)Not to exceed  | 3 Kg/T of weak Nitric Acid |
| 6. | NH3 (Ammonia    | Plant) Not to exceed | 3 Kg/hr                    |

# d. Standards for emission of VOC Pollutants

| Sr. No. |                                     |  | Maximum  |     |  |
|---------|-------------------------------------|--|----------|-----|--|
| 01      | MA, PA, Phenol                      | <del>- (* - (* - (* - (* - (* - (* - (* - (*</del> | (mg/Nm3) | 20  |  |
| 02      | Ethyl benezene (EB), Styrene, T     | oluene,  |          | 100 |  |
|         | Xylene, Aromatics, EG, PG           |  |          |     |  |
| 03      | Non-methane HC (Paraffin), Acetone, | olefins  |          | 150 |  |

(A) The industry shall phase out the Ozone Depleting Substances (ODS) as per ODS Rules 2000 and shall be informed to MPCB within a period of 3 months.

# GUIDELINES FOR FUGITIVE EMISSION CONTROL

- 1. Fugitive emissions over reactors, formulation areas, centrifuges, chemicals loading, transfer areas etc. are yet to be collected through hoods and ducts by induced drafts and controlled by scrubber / dust collector.
- 2. Usually scrubbers installed for channelized emissions are used for fugitive emissions to control also & sometimes dedicated scrubbers are provided. This practice may be permitted as long as tail gas concentrations are within the prescribed limits.
- 3. In addition, organic gaseous emissions (odour & toxic) be routed to activated carbon beds (absorption) or to thermal oxidizer and for dust emissions cyclones / bag filters are to be provided.
- 4. Emphasis be given to solvent management / solvent loss prevention.
- 5. Enclosures to chemical storage area, collection of emissions from loading of raw materials. In particulars, solvents through hoods and ducts by induced draft, and control by scrubber / dust collector or to be ensured.
- 6. Vapour balancing, nitrogen blanketing ISO tanks etc. to be provided, besides special care needs to be taken for control in respect of odorous chemicals.

# 6. Standards for Stack Emissions:

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

| Sr. No. | Chimney Attached To              | Height        | in  |
|---------|----------------------------------|---------------|-----|
| V, 200  |                                  | Mtrs.         |     |
| 1       | D.G.Sets-2 Nos. (500 KVA each)   | 4.50 *        |     |
| 2       | D.G.Set 2 Nos. (1000 KVA)        | 6.50 *        |     |
| 3       | D.G.Set (200 KVA)                | 3.00 *        |     |
| 4       | D.G.Set (1500 KVA)               | 6.50 *        |     |
| 5       | D.G.Set (5 KVA)                  | 3.00 *        | 3 4 |
|         | (* Installed above th            | Timping to    | dg) |
| 6       | Ammonia Primary Reformer         | 30.00         |     |
| 7       | Boiler A & B                     | 30,00         |     |
| 8       | Methanol Primary Reformer        | 30.00         |     |
| 9       | CNA Plants                       | 42.00         |     |
| 10      | WNA-I Plats                      | <b>39</b> .00 |     |
| 11      | WNA-II Plats                     | <b>39</b> .00 |     |
| 12      | WNA-III Plats                    | 60.00         |     |
| 13      | WNA-IV Plats                     | 52.00         |     |
| 14      | ANP Prilling Tower               | 84.00         |     |
| 15      | LDAN Prilling Tower              | 84.00         |     |
| 16      | ANP Bag Filter                   | 30.00         |     |
| 17      | ANP Vacuum Pump                  | 27.80         |     |
| 18      | LDAN Ventury Scrubber            | 24.50         |     |
| 19      | Boiler-C                         | 30.50         |     |
| 20      | Boiler-D                         | 63.00         |     |
| 21      | CES-A Engine Exhaust Boiler      | 30.75         |     |
| 22      | CES-B Engine Exhaust Boiler      | 30.75         |     |
| 23      | CO <sub>2</sub> Liquifier        | 8.00          |     |
| 24      | Stripper                         | 8.00          |     |
| 25      | Combined                         | 8.00          |     |
| 26      | Turbine-1                        | 30.00         |     |
| 27      | HRSG-1                           | 30.00         |     |
| 28      | Turbine-2                        | 30.00         | -   |
| 29      | HRSG-2                           | 30.00         |     |
| 30      | G.P.Vent                         | 30.00         |     |
| 31      | 780 Weak nitric Acid plant       | 48.00         |     |
| 32      | 600 TPD Low Density Ammonium     | 2.00          |     |
| ·       | Nitrate (LDAN) prilling towers,  |               |     |
| -       | dryers                           |               |     |
| -33     | 300 TPD High Density Ammonium    | 11.00         |     |
|         | Nitrate (HDAN) prilling towers,  |               |     |
|         | dryers                           |               |     |
| 34      | 300 TPD High Density AN prilling | 2.00          |     |
|         | tower                            |               |     |
| 35      | 40 TPH Boiler                    | 86.00         |     |
| 36      | 15 TPH Boiler                    | 86.00         |     |

| 37 | Pastillator (2 Nos) | 8 Each |
|----|---------------------|--------|
| 38 | Batch and Feed Tank | 10.00  |

- (ii) 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.
- (iii) 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.

## 7. 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 sitting 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

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

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

| Sr.<br>No. | Type Of Waste  | Quantity | UOM                     | Disposal                                       |
|------------|--|----------|-------------------------|--|
|            |  |          |                         |  |
| 1          | 18.1 Spent catalyst  | 48.34    | MT/Y                    | Sale to authorized party approved by CPCB/MPCB |
| 2          | 31.1 Residues and wastes*  | 8.00     | MT/Y                    | Sale to Recylcer/CHWTSDF                       |
| 3          | 33.3 Discarded containers /<br>barrels / liners                                | 346.00   | MT/Y                    | Sale to authorized party for decontamination   |
| -1         | 5.2 Used Oil Filters<br>(Non-Metallic)   | 25.00    | Nos/Y                   | CHWTSDF  |
| 5          | 31.1 Residues and wastes* (Silica Gel)   | 60.00    | MT/2 yr                 | Sale to Authorized party or recycler           |
| 6          | 28.3 Date-expired, discarded and off-specification drugs (Lead Acid Batteries) | 34.00    | Nos /Y                  | Sale to Reuser                                 |
| 7          | 28.3 Date-expired, discarded and off-specification drugs (NI Cd batteries)     | 400.00   | Nos/ Once<br>in<br>5 yr | Sale to Reuser                                 |
| 8          | 28.3 Date-expired, discarded and off-specification drugs (Dry Cell Batteries)  | 300.00   | Nos/ Once<br>in<br>3 yr | Sale to Reuser                                 |
| 9          | 5.1 Used /spent oil  | 125.91   | KL/Yr                   | Sale to authorized party approved by CPCB/MPCB |
| 10         | 5.2 Wastes/residue containing oil  | 5.122    | MT /Yr                  | CHWTSDF  |
| 11         | 33.3 Used Containers   | 3012.00  | Nos/Yr                  | CHWTSDF  |
| 12         | 33.3 Spray cans  | 800      | Nos/Yr                  | CHWTSDF  |
| 13         | 17.2 Platinum Rhodium Catalyst as spent catalyst                               | 100.00   | Kg/Yr                   | CHWTSDF  |
| 1-1        | 17. 2 Used denoxed catalyst as<br>Spent catalyst                               | 10.00    | MT/6 Yrs                | CHWTSDF  |
| 15         | 5.2 Used oil filter (Non Metalic)  | 20.00    | Nos/Yr                  | CHWTSDF  |

#### (ii) Treatment: - NIL

9. 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.

# 10. 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.
- 11. This consent shall not be construed as exemption from obtaining necessary NOC from any other Government agencies as may deemed fit necessary.
- 12. If CETP does not work for achieving standards and problem of pollution occurs industry shall voluntary stop the production or reuse / recycle the effluent totally.

- 13. This is issued as per the decision taken in the meeting of the Consent Appraisal Committee of the Board held on 31.01.2012.
- 14. The Capital investment of the industry is Rs. 1528.30 Crores. (C.I of Plot No. K-1 to K-7 Rs 901.68 Cr & K-7 & K-8 Rs 610 Cr +K-7 Rs 14.53 Cr and K-6 is Rs. 2.9 Cr, )

(Ajay A.Deshpande)
Joint Director (PAMS)

ग्नाथी

To,

M/s Deepak Fertilizers & Petrochemicals Corporation Ltd K-1 to K-5, K-6, K-7 & K-8, MIDC

Indl . Area, Taloja , Dist- Raigad, Maharashtra

Copy to:

RO Navi Mumbai / SRO Taloja, Navi Mumbai III

-They are directed to ensure the compliance of consent conditions

CAO/CESS

Received Consent fee of -

| Sr. No. | Amount(Rs.) | DD. No. | Date         | Drawn On |
|---------|-------------|---------|--------------|----------|
| 1       | 3050000/-   | 004496  | 22 July 2011 | IDBI     |
| 3       | 100/=       | 004447  | 12 July 2011 | IDBI     |
| 3       | 9016892/-   | 004972  | 12 Sep 2011  | IDBI     |
| 4       | 100/-       | 004973  | 12 Sep 2011  | IDBI     |
| 5       | 25000/-     | 005131  | 03 Oct 2011  | IDBI     |
| 6       | 219860/-    | 005249  | 20 Oct 2011  | IDBI     |
| 7       | 50000/-     | 005588  | 03 Dec 2011  | IDBI     |
| 8       | 25000/-     | 004440  | 11 Jul 2011  | IDBI     |
| 9       | 3050000/-   | 005822  | 04 Jan 2012  | IDBI     |