



DEEPAK FERTILISERS
AND PETROCHEMICALS
CORPORATION LIMITED

DFPCL-K1/EHS/Env/2019-20/19

Date: 28-Nov-19

**Additional Principal Chief Conservator of Forest (C),
Ministry of Environment, Forest & Climate Change,
Regional Office (WCZ), Ground Floor, East Wing,
New Secretariate Building, Civil Lines
Nagpur – 440 001, Maharashtra.**

Reference:

1. EC granted for Iso Propyl Alcohol vide file no. (J-11011/218/2004-IA II(I) dt 24.02.2006).

Sub: Half yearly Environmental Clearance Compliance report.

Dear Sir,

Please find enclosed the half yearly EC compliance report of Iso Propyl Alcohol plant for the period of April-2019 to September -2019.

This is for your information and records please.

Thanking you,

Yours faithfully,

For, DEEPAK FERTILISERS AND PETROCHEMICALS CORP. LTD.,

DEEPAK PANDE
Head (EHS)

CC :

1. SRO, MPCB, Raigad Bhavan, 7th Floor, Sector-11, CBD-Belapur, Navi Mumbai – 400614.
2. Ministry of Environment, Forest, 1st Floor, New Administrative Building, Mantralaya, Mumbai – 400032.
3. CPCB Parivesh Bhawan, Opp. VMC Ward Office No. 10, Shubhanpura, Vadodara, Gujarat 390023.

DATA SHEET

1	Project type: River/water/ Mining/ Thermal/ Industry/ Nuclear/ Other (specify)	Industry
2	Name of the project	Isa Propan Alcohol (IPA 2000 MTA) Project at MIDC, Talasa, Maharashtra by Deepak Fertilisers & Petrochemicals Corporation Limited
3	Clearance letter (s) (DA No. and Date)	EC granted for Isa Propan Alcohol with DA no. E-10512/14/2006-A, D (dt) 24.02.2006
4	Location	
a.	District (S)	Ratnadi
b.	State (S)	Maharashtra
c.	Latitude/Longitude	19°04'13"N/75°08'04"E
5	Address for correspondence	
a.	Address of Consultant/Team/ Chief Engineer (with pin code & Telephone/ telex/ fax numbers)	Mr. Dinesh Parde (P) GM-1154 M/S. Deepak Fertilisers & Petrochemicals Corporation Ltd. Plot No. 1-1, MIDC Industrial Area, Talaja, District: Rajgad - 410008, Maharashtra Phone: 022 90684221, 9920942161
b.	Address of Executive Director/Engineer/Manager (with pincode/ Fax number)	Same as above
6	Salient features	
a.	of the project	Annexure-C
b.	of the environmental management plans	Annexure-B
7	Break up of the project area	
a.	Submergence area forest & non forest	NA, (MDC Land)
b.	Others	NA
8	Break up of the ground affected population with enumeration of those living houses/dwelling units. Only agricultural land only, lease holding units & agricultural land & landless labourers/artisan	NA, (MDC Land)
a.	SC, ST/Address	NA, (MDC Land)
b.	Others (Please indicate whether these figures are based on any scientific and systematic survey carried out. Or only provisional figures, if a survey is carried out give details and years of survey)	NA
9	Financial details	
a.	Project cost as originally planned and subsequent revisions with the year of price reference	153.7 Crores
b.	Allocation made for environmental management plans with item wise and year wise Break up	Yes. Rs. 25,000 for plantation Year 2008-09 Rs. 24,000 for plantation Year 2009-10 Rs. 12,000 for plantation Year 2010-11 Rs. 50,000 for plantation Year 2011-12 for Plot K-1 to K-8, Year 2011-12 for Plot K-1 to K-8 21Rs 10 lakhs for plantation, Year 2013-14 for Plot K-1 to K-8 11Rs 5 lakhs for plantation, Year 2014-15 for Plot K-1 to K-8 11Rs 5 lakhs for plantation, Year 2015-16 for Plot K-1 to K-8 11Rs 5 lakhs for plantation, Year 2016-17 for Plot K-1 to K-8 11Rs 5 lakhs for plantation, Year 2017-18 for Plot K-1 to K-8 11Rs 48 lakhs for plantation, Year 2018-19 for Plot K-1 to K-8 11Rs 20.65 lakhs for plantation year 2018-19 for Plot K-1 to K-8 21Rs 5.8 lakhs - AMC for Online Emission & Effluent Quality Monitoring System, Year 2017-18 for Plot K-1 to K-8 11Rs 48 lakhs for plantation, Year 2018-19 for Plot K-1 to K-8 21Rs 5.8 lakhs - AMC for Online Emission & Effluent Quality Monitoring System, Year 2017-18 for Plot K-1 to K-8 3Rs 1 Crores - Diversion of positive discharge or treated effluent into
c.	Benefit cost ratio/Internal rate of Return and the year of assessment	
d.	Whether (C) includes the Cost of environmental management as shown in the above.	Yes
e.	Actual expenditure incurred on the project so far.	
f.	Actual expenditure incurred on the environmental management plans so far	
10	Forest land requirement	
a.	The status of approval for diversion of forest land for non-forestry use	NA, (MDC Land)
b.	The status of compensatory afforestation program in the site of actual field experience so far	NA, (MDC Land)
11	The status of clear felling in Non-forest areas (such as submergence area of reservoir, quarry/crusher), if any with quarter letter information	NA, (MDC Land)
12	Status of construction	
a.	Date of commencement (Actual and/or planned)	Year 2006
b.	Date of completion (Actual and/or planned)	Year 2006
13	Reasons for the delay if the Project is yet to start	NA
14	Dates of site visit	
a.	The dates on which the project was monitored by the Regional Office on previous occasions, if any	NA
b.	Date of site visit for this monitoring report.	NA
15	Details of correspondence with Project authorities for obtaining Action plan/Information on Status of compliance to safeguards Other than the routine letters for logistic support for site visits)	NA

Executive Summary

1.0 Introduction

The Deepak Group of industries one of the major groups in Maharashtra state is proposing to set up India's first plant for manufacturing Isopropyl Alcohol (IPA), in technological collaboration with US-based Equistar-Lyondell. The facility will have a capacity to produce 70,000 tonnes of IPA at its Talaja unit in Raigad District of Maharashtra with a capital outlay of Rs 153.7 crores, meeting India's major requirement of the chemical. IPA is a key ingredient in sectors such as pharma, agrochemicals, organic chemicals, imaging (printing inks), health care & paint industry.

DFPCL's business can be broadly categorized into the following divisions

- ❖ Industrial Chemicals
- ❖ Ammonium Nitrate
- ❖ Agr-Inputs -- Marketing
- ❖ Crop Science Division

1.1 Need For The Project

- ❖ The IPA market in the country has immense potential and the consumption was estimated to be 62,000 MTPA in year 2002 – 2003 and the estimated consumption in the year 2005 would be 72,500 MTPA.
- ❖ IPA is extensively used by pharmaceutical companies, agrochemicals industry and also in manufacturing of inks and other components required for printing.
- ❖ The company will target the huge IPA market in India, which is at present 100 per cent dependent on imports as there are no domestic manufacturers.
- ❖ IPA consumption in the country is growing by around seven percent annually.

1.2 Need For EIA Studies

In all manufacturing industries, the plant activities must co-exist satisfactorily with its surrounding environment so as to reduce the environmental impact caused due to these activities. In order to assess the likely impacts arising out of the proposed

project on the surrounding environment and evaluating means of alleviating the likely negative impacts, if any, from the proposed project, Rapid Environmental Impact Assessment (REIA) studies carried out for various environmental components which are likely to be affected.

The REIA Studies for the proposed IPA manufacturing project deals with detailed studies for various environmental components viz. Air, noise, water, land, biological and socio-economic environment.

1.3 The Surroundings

The industrial area is well connected to the state and national road network. The state highway SH-1 connecting Pune and Thane passes from a distance of 4.0 km from the SW of the site. There is a district approach road connecting the industrial area to the state highway.

The nearest railway station Navada (on Panvel - Dija line) is about 3.5 km west of the site.

Sallent Features Of The Proposed Isopropyl Alcohol Plant at Taloja

State	Maharashtra
Village, District	Taloja A. V., Raigad
Nature of the Area	Notified Industrial Area
Mean Maximum Temperature	34° C (Summer)
Mean Minimum Temperature	21.8° C (Winter)
Relative Humidity	64.5 %
Annual Rainfall	1800 mm
Nearest Highway	SH-1
Nearest Port	Mumbai Port
Nearest Railway Station	Navada
Nearest Village	Devichapada, Tondre
Nearest City	Panvel
Nearest Air port	Sahara Air Port, Mumbai
Nearest River	Kasade River
Nearest Forest	No Forest Area
Historical & Sensitive Places	Nil

2.0 Process Description

The process route consists of the following steps to produce Iso Propyl Alcohol (IPA):

- ❖ C3 Splitter Section
- ❖ Reaction And Flash Section
- ❖ Distillation Section
- ❖ Molecular Sieve Section

Iso Propyl Alcohol (IPA) is produced by direct hydration of propylene across a catalyst bed.

Catalyst



2.1 Resources required

The major raw material required is propylene (refined grade), for which the plant authorities have a tie up with Bharat Petroleum Corporation Ltd. (BPCL) for long term exclusive supply for the proposed project. The other raw materials required is phosphoric acid, silica gel, etc are procured from the local market/suppliers.

The total water required for the proposed IPA plant is around 2785.2 m³/day. The water required is met from MIDC water supply. The total power required for the proposed project is around 3626 kW, this met from captive power plant 2 x 4.5 MW of the parent organisation which is having a spare capacity of 4.5 MW. The major utilities required for the proposed project are boiler, Cooling tower, DM plant, etc.

The parent organization is having land of 30.3492 hectares in the MIDC Industrial area of Talaja part of the land in the existing unit will be used for proposed plant. As per the MIDC norms the ratio of total plinth area to the net plot area should not be more than 0.35 After establishment of the proposed project the ratio of the total plinth area to the net plot area would be 0.293, which is well within the MIDC norms.

3.0 Baseline

Baseline environmental status in and around proposed project depicts the existing environmental conditions of air, noise, water, soil, biological and socio-economic environment.

The 24 hourly average windrose for the entire study period reveals that winds were blowing from all directions. The most dominant direction observed was NE followed by NNE, ENE and N. The maximum, minimum and mean temperature observed to be 41°C, 19.1°C, and 29.5°C respectively. The mean relative humidity observed during the study period is 64.5%.

3.1 Ambient Air Quality

A total of 9 ambient air quality monitoring stations were selected. Maximum, Minimum, Average and Percentile values have been computed from the raw data collected.

- The 98th percentile of SPM levels are in the range of 58.2 TO 149.6 $\mu\text{g}/\text{m}^3$
- The 98th percentile of RPM levels are in the range of 20.2 to 50.1 $\mu\text{g}/\text{m}^3$
- The 98th percentile of SO₂ levels were in the range of 7.5 to 11.3 $\mu\text{g}/\text{m}^3$
- The 98th percentile of NO_x levels were in the range of 12.8 to 19.3 $\mu\text{g}/\text{m}^3$

The 24 hourly average values of SPM, RPM, SO₂ & NO_x were compared with the national ambient air quality standards and it was found that all the sampling stations recorded values lower than the applicable limit for residential areas.

3.2 Noise Environment

Assessment of equivalent day and night noise levels at 11 locations in and around the plant site reveal that noise levels are ranging from 37.5 to 57.2dB(A), which can be taken as the existing baseline status. The day equivalent values calculated considering the noise levels recorded from 6 AM to 9PM. The values were found to be ranging between 49.23 dB (A) at Valap to 53.71 dB (A) at Plant site 1.

Similarly night equivalent noise levels were calculated using the noise levels recorded from 10 PM to 5 AM. These values are critical since they affect the sleep in the residential and sensitive areas. The night equivalent values were found to be ranging between 41.76 dB (A) at Ghot to 44.27dB (A) at Khanav. The noise equivalents observed were within the standards as per CPCB for Residential areas and commercial areas respectively.

3.3 Water Quality

A total of nine water samples (two surface water and seven ground water samples) have been collected from the study area.

The analytical results of the samples collected from the study area were compared with the drinking water standards IS 10500 to check for the portability.

Ground water

From the analytical results of ground water we can see that the pH of the water is ranging from 7.06 to 8.5 at valvali. The pH limit fixed for drinking water is 6.5 to 8.5 beyond this range the water will affect the mucus membrane and water supply system. In the study area the pH in the samples collected were well within the limits.

The Dissolved solids in the ground water samples are ranging from 210 at MIDC area to 560 mg/l at Pali. Except for the water sample at Ghot, Navade and Pali all samples were within the desirable limit of 500 mg/l where as other samples are within the permissible limit of 2000 mg/l. The chloride value is ranging from 14 mg/l at MIDC area to 95 mg/l at Navade, however the desirable limit is 250 mg/l and the permissible limit is 1000 mg/l.

Fluoride is the other important parameter, which has both higher and lower limits. The optimum content of fluoride in the drinking water is 0.6 to 1.5 mg/l. If the fluoride content is less than 0.6 mg/l it causes dental carries, above 1.5 mg/l it causes staining of tooth enamel, higher concentration in range of 3 – 10 mg/l causes fluorosis. In the study area the fluoride value were in the range of 0.4 mg/l to 1.1 mg/l.

Surface water

Two samples were collected from Gadl and Kasanti river. The samples showed pH of 7.4 and 7.7 respectively. Total dissolved solids were found to be 208 mg/l and 510 mg/l while chlorides were found to be 35 mg/l and 92 mg/l respectively. The surface water samples did not show any high fluoride concentrations.

3.4 Soil Quality

The analytical results of the 7 soil samples collected during the study period are summarized below.

The pH of the soil is an important property; plants cannot grow in low and high pH value soils. Most of the essential nutrients like N, P, K, Cl and SO₄ are available for plant at the neutral pH except for Fe, Mn and Al which are available at low pH range. The pH values in the study area are varying from 6.81 to 7.72 showing neutral only.

The other important parameters for characterization of soil for irrigation are N,P,K. the nitrogen value is varying from 5 to 122 meq/100gm. Phosphorus value is varying from 2.6 to 28 meq/100gm and Potassium value is varying between 11 to 136 mg/kg. All three parameters are showing that the soils require addition of N, P, K as they are falling low grade soils.

4.0 Identification Of Impacts

Any developmental activity in its wake will bring about some impacts associated with its origin, which can be broadly classified as reversible, irreversible, long and short-term impacts.

4.1 Construction Related Impacts

Since the project is proposed to be established adjacent to the existing parent industry, no major construction activity like leveling, movement of earth etc are envisaged. The most likely changes, if any, on the environment during the construction phase would be controlled by sprinkling water on road surfaces and covering the trucks with plastic sheets while moving in and out of the plant.

Generation of noise is due to operation of heavy equipment's and increased frequency of vehicular traffic in the area. However, these impacts are short term, intermittent and temporary in nature.

4.2 Operation Related Impacts

Air Environment

Prediction of impacts from the proposed IPA plant on the ambient air quality was carried out using air quality simulation models. The main sources of pollution envisaged from the plant are Fugitive emissions and Point source emissions (Boiler, DG set).

The fugitive emissions will be resulted from various operations and are expected due to evaporation losses. Even though they are within the standards for further reducing the evaporation losses by proper maintenance of all pipelines, reactors etc through regular timely maintenance and as well as by adopting good production practices.

To meet the steam requirements of the process, a boiler with a capacity of 30 TPH is proposed using a mixture of Furnace oil and Purge gas. The total fuel requirement per day would be to the tune of 52TPD of Furnace oil and 12 TPD of

purge gas, which is generated in the process of manufacture of IPA. Modeling has been carried out for 30TPH boiler emissions as a worst case to study the predicted increase in ground level concentrations due to the plant activities.

Stack and Emission Details

Stack No	Attached to	Height (m)	Dia. (m)	Velocity (m/s)	Volume NM ³ /hr	Temp. ° K	SPM g/s	SO ₂ g/s
1	Boiler 30TPH	63.5	1.4	15	51550	443	0.60	42

Predictions were carried out as per CPCB guidelines "Assessment of Impact to Air Environment: Guidelines for conducting air quality modeling" for pre monsoon season. The future predicted concentrations estimated by super imposing the predicted values over the base line values and presented in following table.

Predicted baseline values of SPM and SO₂ in SW direction

Pollutant	Baseline Max. Value - (µg/m ³)	Predicted Max. contribution to GLC's - (µg/m ³)	Predicted future AAQ concentration - (µg/m ³)
Particulate Matter	156	0.281	156.28
Sulphur dioxide (SO ₂)	12	19.70	31.70

(24 hrs average)

Water Environment

The entire wastewater generated 667 m³/day is treated in the existing effluent treatment plant before sending to Common CETP (used as dilution water) for further disposal. However, to meet the new demands, slight modifications are proposed in the existing ETP. The effluents after treatment will be routed to Talaja Common effluent Treatment plant Co-op Society Ltd for final disposal. Hence impact on ground water quality is not envisaged.

Land Environment

Solid waste generated from the proposed plant is from process (spent catalyst) expected to be in a small quantity 50 Tons per two years. And Calcium phosphate of around 1 TPM from ETP.

As the entire solid waste generated is sold authorized agents no damage is envisaged on the land environment.

CHAPTER-V ENVIRONMENTAL MANAGEMENT PLAN

5.0 Objective

The purpose of the Environmental Management Plan (EMP) is to minimize the potential environmental impacts from the project and to mitigate the consequences. EMP reflects the commitment of the project management to protect the environment as well as the neighbouring populations. The potential environmental impact envisaged from the project is studied on the following environmental components:

- Air pollution from the stacks
- Fugitive emissions
- Water pollution due to the wastewater generation
- Soil pollution due to solid waste disposal

The management action plan aims at controlling pollution at the source level to the possible extent with the available and affordable technology followed by treatment measures before they are discharged. The following additional mitigation measures are recommended in order to synchronize the economic development of the study area with the environmental protection of the region.

5.1 Environmental Management Plan

Preparation of Environmental Management Plan is required for formulation and monitoring of environmental protection measures during construction and operation of proposed plant. The plan should indicate the details as to how various measures proposed to be taken for mitigation of adverse impacts if any from the proposed project.

The following sections describe the Environmental Management Plan for proposed IPA Plant during construction and post construction phases.

5.2 Construction Phase

The construction activity includes the handling of the construction material and equipment, vehicular movement etc.

The major culprit during any construction activity is the fugitive emission that is released from the construction activity and the vehicular movement during the

construction. Dust control is a major issue during the construction phase along with the waste water generated from the construction and the domestic sewage generated by the construction camp, oil and material spillages during the handling and the transportation of the construction material and the solid waste generated during the construction.

Dust suppression is achieved by spraying water on the unpaved roads and covering the trucks transporting the construction material with tarpaulin or other covers and taking steps to minimize spillages during the transport and the handling of the material.

Noise effect on the nearby habitation during construction activities will be negligible as the nearest habitat is more than 1 km from the plant. However construction labour would be provided with noise protection devices like ear muffs, and occupational safety ware. It is recommended that all noise generating equipment to be stopped during night timings.

The waste oil generated by construction equipment would be disposed through authorized recyclers and unauthorized dumping of waste oil is prohibited.

Adequate security arrangement should be made to ensure that the local inhabitants and the stray cattle are not exposed to the potential hazards of construction activities.

5.3 Post Construction Phase

Project authorities are planning to implement several measures to curtail pollution to the maximum extent. Environment management at design stage includes all the steps undertaken at the design stage by the project proponents to meet the statutory requirements and towards minimizing environmental impacts.

The design basis for all process units will lay special emphasis on measures to minimize effluent generation and emission control at source. The specific control measures related to gaseous emissions, liquid effluent discharges, noise generation, solid waste disposal etc. are described below:

5.3.1 Air Environment

The suspended particulate matter, Sulphur dioxide and Oxides of Nitrogen concentrations in the ambient air will increase slightly due to the emissions from the proposed boiler. The desired stack height of 63.5 m will be provided as per the

guidelines issued by the GPCB for the proposed boiler for the effective dispersion of the pollutants.

The sources of air emission from the plant are a) Point source (Boiler) emissions
b) Non Point source (Fugitive) emissions

a) Point Source (Boiler) Emissions

One of the main sources of air pollutants from proposed project is the use of fuels for energy requirement. For steam requirements of the plant, one boiler of 30 TPH is being proposed.

Particulate matter, SO₂ and NO_x are the major emissions from the plant. However as the fuel proposed to be used for boiler being furnace oil and purge gas Particulate matter envisaged is negligible, and for proper dispersion of SO₂ and NO_x into surrounding environs; stack height has been maintained as per the existing norms. The details of the stack height calculations are given in Table 5.1.

A stack height of 63.5 m is provided as per MoEF guidelines. And for 75 KVA DG set a stack height of 2 meters above the building is proposed.

In addition to above boiler ^{operation} is controlled by programmable Logic Control - Supervisor Control and Data Acquisition System.(PLC-SCADA) based system.

Table 5.1

Details of Stack height calculation for Boiler and DG

Boiler	Specifications
Capacity	30TPH
Fuel Consumption	52 TPD furnace oil and 12 TPD Purge gas
Sulphur %	0.35% furnace oil
Sulphur dioxide content	$52000 \times 0.035 \times 2 / 24 = 151.7$ kg/hour
Stack height as per MoEF	$14 (\text{SO}_2 \text{ kg/hr})^{1/3}$
Stack Height H meters	$14(151.7)^{1/3} = 63.15$ m
proposed stack height	63.5 m
Particulate matter control system	Cyclone and programmable Logic Control – Supervisor Control and Data Acquisition System, (PLC-SCADA) based system. <i>OK</i>
DG set	
Capacity	75 KVA
Stack height as per MoEF	$H = h + 0.2 \sqrt{\text{KVA}}$
Stack height H meters	Height of building $+ 0.2 \sqrt{75 \text{ KVA}} = 1.73\text{m}$ or say 2 meters

b) Non Point source (Fugitive) emissions

To control the fugitive emissions during various operations in the proposed plant, management is proposing dedicated pipe lines from one section to another section, and all reactor and storage tanks are provided with vent condensers. The details of the control measures proposed are given in Table 5.2.

Table 5.2

Control measure proposed for controlling Fugitive emissions

S. No	Description	Control Measure
1	To Control losses during transferring from section to section	Dedicated pipelines, solvent storage tanks provided with vent condensers
2	To Control losses during manufacturing process	All reactor are provided with vent Condensers

5.3.2 Air Quality Monitoring

a) Stack Gas Monitoring

Provisions will be made in the stack for carrying out stack gas analysis as per the laid out guidelines. The monitoring would be carried out regularly as per the conditions in the consent to operate.

b) Ambient Air Quality Monitoring

The concentration of SPM, SO₂ and NO_x in the ambient air outside the project boundaries and in the adjoining villages should be monitored as per the direction of the state pollution control board.

5.4 Water Environment

The water requirement at maximum production would be 2765.2 m³/day, for all its purposes including process, floor and reactor washings, boiler, cooling tower, canteen/ domestic requirements. The total wastewater generated from the proposed project is 667 m³/day. The details of waste water generation are given in Table 5.3

Table 5.3
Wastewater Generation Details- m³/day

S.No	Description	Effluent	Remarks
1	Domestic	1.2	STP
2	Cooling tower	249.6	ETP
3	DM Plant	57.6	ETP
4	Process, reactor wash, floor washes, etc	317.328	ETP
		14.52	ETP
		2.664	STP
5	Boiler	24	ETP
6	Export	0	-
Total		666.912	

5.4.1 Effluent Treatment Plant Details

1. Details of Proposed IPA plant

The process effluents originating from proposed IPA plant consist of Phosphates. The Phosphates containing effluents treated with milk of lime in Reaction Tank 1. The lime mixed effluent is sent to Clarifloculator where sludge, as calcium

phosphate, is separated. The separated sludge is centrifuged and solids are separated. The mother liquid is sent to parent industry ETIP for further treatment and the treated wastewater is sent to CETP for final disposal.

The effluent from utilities (boiler, DM plant and Cooling tower) are added to Reaction tank III of the parent industry treatment plant (effluent after ammonia stripping).

The domestic sewage along with part of the process water containing COD is sent to parent industry sewage treatment plant for treatment.

2. Details of Existing Effluent Treatment Plant of Parent Organization

The effluents generating from the various plants essentially consists of Ammonical - nitrogen, Nitrate - Nitrogen, phosphates. The treatment facilities are described below.

Designed capacity 3600 m³/day.
Present Load 2742.3 m³/day

a) Phosphate removal

The process effluent stream coming from Ammonium Nitrate Phosphate (ANP) plant and tank farm is first equalized in the Collection/holding tank (CT I) and pumped to Reaction tank - I to raise the pH up to 9.0 by adding lime. The overflow through gravity will go to clarifloculator for separation of calcium phosphate sludge. The sludge is sent to centrifuge and the centrate is sent back to CT 1 and the sludge cake is disposed off. The treated effluent is sent to Reaction tank IIA.

b) Dissociation of ammonia

The effluent streams from Low density ammonium nitrate (LDAN) plant, Tank farm ammonia, Ammonia Plant, and Weak Nitric acid (WNA) plant, Ammonia plant floor washings are collected in Collection/holding tank (CT II) and through gravity flows to Reaction Tank IIA.

The pH in the Reactions Tank IIA is maintained around 10.5 to 11 by addition of caustic, so that at this pH ammonium ion present in the effluent get dissociated into ammonia gas and H⁺ ions.

c) Ammonia stripping

The effluent containing dissociated ammonium gas is sent to two-stage ammonia stripping plant. At 1st stage ammonia stripping the pH of the effluent falls down from here the effluent flows to Reaction Tank IIB where pH is again raised to around 10.5 to 11 and then pumped to 2nd stage ammonia stripping. At this stage the ammonical nitrogen in the effluent will be around 108 mg/l. This effluent stream further requires treatment prior to biological denitrification process for nitrate nitrogen removal.

The above treated effluent is collected in Reaction Tank III which is neutralized by addition of DM plant wastewater and diluted with cooling tower blow down so that the ammonical nitrogen concentration is around 50 mg/l (which can be treated biologically by denite bacteria). In case the cooling tower blow down is not available, the treated effluent is recycled back to the system.

d) Nitrate -N and Nitrite -N removal

The treated wastewater from Reactions tank III which still contains Nitrate -N and Nitrite -N is subjected to two stage denitrification in denite bioreactor. The stage I denite bioreactor is equipped with 3 nos 10 HP agitators and stage II denite bioreactor is equipped with 3 nos 75 HP agitator. The treated water from stage I denite bioreactor goes to clarifier I for separation of suspended biomass part of the biomass is recycled for stabilization and excess sludge is sent to sludge drying beds.

Provision is made for addition of methanol as organic carbon source for heterotrophic denite bacteria.

e) Polishing/aeration

The treated wastewater over flowing from denite clarifier is collected in polishing aeration tank which is provided with polishing diffuse aeration grids to increase the Dissolved oxygen of the treated effluent before discharged in to CETP Sewer line.

The details of Units of ETP are given Table 5.4 and the characteristics of wastewater before and after treatment are given in Table 5.5.

Table 5.4
Existing Treatment Facilities

S. No	Code No	Units
1	CT I	Collection /holding Tank. CT-I
2	RT I	Reaction Tank-I
3	CF 1	Clarifloculator
4	AS 1	Ammonia stripper Stage-I
5	AS II	Ammonia stripper Stage-II
6	RT IIA	Reaction Tank-IIA
7	RTIIB	Reaction tank -IIB
8	RT III	Reaction Tank-III
9	DN I	Denitrification tank stage-I
10	CL I	Clarifier stage-I
11	DN II	Denitrification tank stage-II
12	CL II	Clarifier stage-II
13	PT	Polishing tank

Table 5.5
Wastewater Characteristics – Before & After Treatment

S. No	Parameters	Units	Before			After
			Process, washes, etc	CT, Boiler, DM	Domestic & Process	Rango
1	pH		6.0-7.0	6.0-7.0	6.5-8.0	5.5 to 9.0
2	Suspended solids	Mg/l	99	21	147	< 100
3	BOD	Mg/l	145	18	507	<100
4	COD	Mg/l	247	23	845	<250
5	Oil & Grease	Mg/l	<10	<5	<5	<10
6	TDS	Mg/l	697	-	831	<800
7	Amm. Nitrogen	Mg/l	94	-	-	<50
8	KJ Nitrogen	Mg/l	247	-	-	-
9	Phosphates	Mg/l	99	-	-	<1

The entire wastewater generated is treated and sent to CETP for further disposal along with treated effluent at CETP. The present existing Effluent treatment system will be modified to treat the effluents generated from the proposed IPA plant to the standards laid down by the MPCB. The flow sheet of proposed modification in existing ETP for handling the phosphate bearing effluents and the existing plant is shown below

3) Domestic Sewage Treatment Plant

The sanitary sewage wastewater and part of process wastewater containing biodegradable matter which is around 3.864 m³/day will be treated in the existing sewage treatment plant (STP) of capacity 168 m³/day. The STP comprises aeration tanks followed by clarifier. The existing sewage treatment plant consists of settling tanks, aeration tanks, and clarifiers.

5.4.2 Monitoring of Waste Treatment

All the treated effluents shall be monitored regularly for the flow rate and quality to identify any deviations in performance of effluent treatment plants. Appropriate measures would be taken if the treated effluent quality does not conform to the permissible limits.

5.4.3 Storm Water Drainage

Based on the rainfall intensity of the proposed area, MDC drainage system is designed on the basis of the storm water flow.

Storm water drainage system consists of well-designed open surface drains network so that all the storm water is efficiently drained off to without any water logging.

5.5 Noise level management

The incremental noise level due to the proposed plant will be in the range of 45 dB (A) to 49 dB(A) near the plant boundaries in all the directions. The ambient noise levels in the region are within permissible limits.

During purchasing of the major noise generating equipments all necessary control measure will be include in design requirements to have minimum noise levels meeting occupational safety and health association (OSHA) requirement. Appropriate noise barriers/shields, silencers etc. would be provided in the equipment. The noise control is taken in the following ways, namely;

- ❖ By selecting low noise prone equipment

- ❖ By isolating the noise prone unit from the working personnel's continuous exposure
- ❖ By administrative control,

The administrative control would have a major role to monitor noise, take remedial measures and ensure that no plant personnel is over exposed to noise.

Recommendations

- ❖ The use of damping material such as thin rubber/lead sheet for wrapping the work places like turbine halls, compressor rooms etc;
- ❖ Shock absorbing techniques should be adopted to reduce impact;
- ❖ Efficient flow techniques for noise associated with high fluid velocities and turbulence should be used (like reduction in noise generated by control levels in both gas and liquid systems achieved by reducing system pressure to as low as possible);
- ❖ All the openings like covers, partitions should be acoustically sealed;
- ❖ Inlet and outlet mufflers should be provided which are easy to design and construct;
- ❖ Ear plugs will be provided to workmen working near high noise generating sources;
- ❖ Noise levels should be reduced by the use of absorbing material on roof walls and floors;
- ❖ Increase the distance between source and receiver by altering the relative orientation of the source and receiver. Noise level at the receiver end reduces in inverse proportion to the square of the distance between the receiver and the source;
- ❖ Provision of separate cabins for workers/operators; and

- ❖ The industrial compound should be thickly vegetated with species of rich canopy

The plant already having an in-house environmental laboratory for the routine monitoring of air, water, soil and noise. For all non-routine analysis, the plant may utilize the services of external laboratories and facilities.

5.6 Solid Waste Management

The main solid waste generated from proposed IPA plant are Calcium phosphate 1 TPD from treatment plant and spent catalyst 60 Tons for two years from manufacturing process. The entire solid waste is sold to authorized agents collecting solid waste.

Table 5.6
Solid Waste Generation & Disposal

Solid Waste	Generation, TPA	Disposal Method
Silica gel	60 Tons per two years	Will be sold to MPCB authorized solid waste collecting vendor
Calcium phosphate	1 TPD	

5.7 Green Belt Development

The purpose of a greenbelt around the plant site is to capture the fugitive emissions, attenuate the noise generated and improve the aesthetics. The greenbelt at the plant site would form an effective barrier between the plant and the surroundings. Open spaces, where tree plantation may not possible, will be covered with shrubs and grass to prevent erosion of topsoil. Adequate attention will be paid to plantation of trees, their maintenance and protection. During commissioning of the project management is proposing to develop a greenbelt all along the boundary wall of plant, along the roads, and surroundings of the production block, boiler, ETP, etc.

A Green belt with 2500 plants is developed in the plant area consisting of species like, Gulmohar, Bamboo, Karanj, Jambhool, Astumbul, and Neem. Annually and proposed to add around 200 plants per year..

5.7.1 Plant Species for Greenbelt

While selecting the plant species for the proposed green belt, the following guidelines will be considered:

- ✱ Fast growing type
- ✱ Should have a thick canopy cover
- ✱ Should be perennial green
- ✱ Native origin
- ✱ Should have a large leaf area index.

5.7.2 Design of Green Belt

As far possible the following guidelines will be considered in green belt development.

- ☐ The spacing between the trees will be maintained slightly less than the normal spaces, so that the trees may grow vertically and slightly increase the effective height of the green belt.
- ✱ Planting of trees in each row will be in staggered orientation.
- ✱ In the front row shrubs consisting of Callistemon, Prosopis etc. will be grown
- ✱ Since the trunks of the tall trees are generally devoid of foliage, it will be useful to have shrubs and trees in front of the trees so as to give coverage to this portion.
- ✱ Shrubs and trees will be planted in encircling rows around the project site
- ✱ The short trees (< 10 m height) will be planted in the first two rows (towards plant side) of the green belt. The tall trees (> 10 m height) will be planted in the outer three rows (away from plant side).

Tall trees one line and short trees one line will be planted around the boiler house, DG set room and around the production blocks to control the fugitive emissions and to reduce the noise.

The list of plants proposed to be planted in future for developing greenbelt are given in Table 5.7 to 5.10

Table 5.7

Plant Species Recommended For Reduction Of Noise Level

S. No	Scientific Name	Common Name
1	Azadirachta indica	Neem
2	Aegle marmelos	Bel
3	Calceolaria tozeri	Dhala sirisa
4	Carissa carandas	Karanda
5	Peltophorum inerme	Perungandrai
6	Saraca indica	Asoka
7	Syzygium cumini	Zaman
8	Tamarindus indica	Imli
9	Pongamia pinnata	Beng
10	Cassia siamla	Chakundi

Table 5.8

Plant Species Recommended For Protection Against Gases And Particulates

S. No	Scientific name	Common Name
1	Butea monosperma	Dhak
2	Cassia fistula	Amaltas
3	Cassia siamla	Kassod
4	Citrus toona	Mahanim
5	Dalbergia sissoo	Shisham
6	Dillenia indica	Chalta
7	Ficus religiosa	Pipal
8	Hardwick binata	Anjan
9	Mahua indica	Mahua
10	Moringa hortensis	Akash nim

Table 5.8
Suggested Plant Species For Green Belt Development

S. No	Scientific name	Common Name
	Large Plants	
1	<i>Codirela loona</i>	Mahanim
2	<i>Dalbergia sissoo</i>	Shisham
3	<i>Azadirachta indica</i>	Neem
4	<i>Delonix regia</i>	Gul mohr
5	<i>Millingtonia hortensis</i>	Aksh nim
6	<i>Mimosaops elengi</i>	Maulsari
7	<i>Peltophorum inerme</i>	Perungondrai
8	<i>Samania saman</i>	Debdari
9	<i>Thespsia populnea</i>	Paras papal
	Medium Plants	
1	<i>Cassia siamia</i>	Kassod
2	<i>Dillenia indica</i>	Chalta
3	<i>Mathuca indica</i>	Mahua
4	<i>Casurlana equisetifolia</i>	Jungali Suru
5	<i>Pongamia pinnata</i>	Beng
6	<i>Tabulia spasiosa</i>	-
7	<i>Ticoma stans</i>	
8	<i>Terminalia catappa</i>	Jangli badam
9	<i>Thevetia peruviana</i>	Pile kamer
10	<i>Lucena leucocophala</i>	Subabul
	Small Plants	
1	<i>Avurehoa carabbola</i>	Carabola
2	<i>Nallotus philippensis</i>	Sundur
3	<i>Artaboteys odoratissimus</i>	Madannast
4	<i>Caesalpinia pulcherima</i>	Gulotora
5	<i>Callistemon lanceolatus</i>	Bottle brush
6	<i>Caryota urens</i>	Mani
7	<i>Castrum difrunum</i>	Din-Ka Raja
8	<i>Nelia ezedarch</i>	

Table 5.10
Suggested Plant Species For Road Side Plantation

S. No	Scientific Name	Common Name
1	Azadirachta indica	Neem
2	Pongamia pinnata	Berg
3	Saraca Indica	Ashoka
4	Delonix regia	Gul mohr
5	Peltopherum inerme	Copper pod tree
6	Samania saman	Rain tree
7	Cassia nudosa	Pink cassia
8	Cassia latifolia	Mahuva
9	Bahunia variegata	-

5.8 Industrial Safety, health & Hygiene:

The industry has set up a safety, health and environment cell with a qualified person as in charge for safety, health and environment. Reports to the factory manager directly. The chemical laboratory with qualified chemist carries out the necessary analysis and reports to Manager (SHE). Annual Medical checkup is done for all employees. Further check ups are done as and when necessary on doctors advice; required qualified external experts are appointed as and when necessary.

DFFCL takes pride in its health and safety record. We have capabilities in handling and movement of hazardous, toxic and inflammable chemicals. In appreciation of our skill and efforts in maintaining a good record on health and safety, the British Safety Council has presented the company with The British Safety Council Award for the year 2000-2001, making it the third year in a row.

DFFCL follow strict norms for handling of chemicals at our end and recommend safety norms for handling and transportation of our products.

- General Safety Parameters for loading and Transportation of Chemicals
- Vehicle Permit System
- Product-wise Safety Precautions

5.9 Environmental Laboratory Equipment

The parent industry is having an in-house environmental laboratory for the routine monitoring of air, water, soil and noise. For all non-routine analysis, the plant may utilize the services of external laboratories and facilities. The list of laboratory equipments available for monitoring and analysis are listed in below Table.

Table 5.11
List of Equipment of Environmental Laboratory

Name of the Equipment
Weather Monitoring Station
a) Online Automatic gaseous stack monitoring kit for SO ₂ , NO _x , O ₂ , Flue gas volume, Temperature etc. b) On line dust monitor
RD Samplers
Portable Flue Gas Combustion Analyser
Bomb Calorimeter for analyzing sulfur content, calorific value etc.
Atomic Absorption Spectrophotometer
Mercury analyzer
Portable Noise level meter (Dosimeter)
Portable Waste Water Analysis Kit
BOD Incubator & COD Digester with colorimeter
Electronic Balance
Colorimeter
Conductivity Meter
Different micron sieves (set)
Dissolved Oxygen Meter – Portable type
Electronic colony counter
Flask Shaker
Hot Air Oven
Laboratory Water Distillation and demineralization unit

5.10 Post Project Environmental Management

The environmental management in the proposed unit will also be handled by the existing setup. Presently the environmental management department is headed by Sr. Manager (Safety and Environment). He reports to GM (Tech/VP (Manufacture)). The Sr. Manager is assisted by three assistant managers to look after the safety and environmental factors round the clock. Each assistant engineer in turn is assisted by the staff trained in safety and environmental protection.

The organization setup for Environmental Management of the proposed project is given in Figure 5.3.

The department is the nodal agency to co-ordinate and provide necessary services on environmental issues during operation of the project. This environmental group is responsible for implementation of environmental management plan, interaction with the environmental regulatory agencies, reviewing draft policy and planning. This department interacts with Maharashtra State Pollution Control Board (MSPCB) and other environment regulatory agencies. The department also interacts with local people to understand their problems and to formulate appropriate community development plan.

Environmental Management Cell

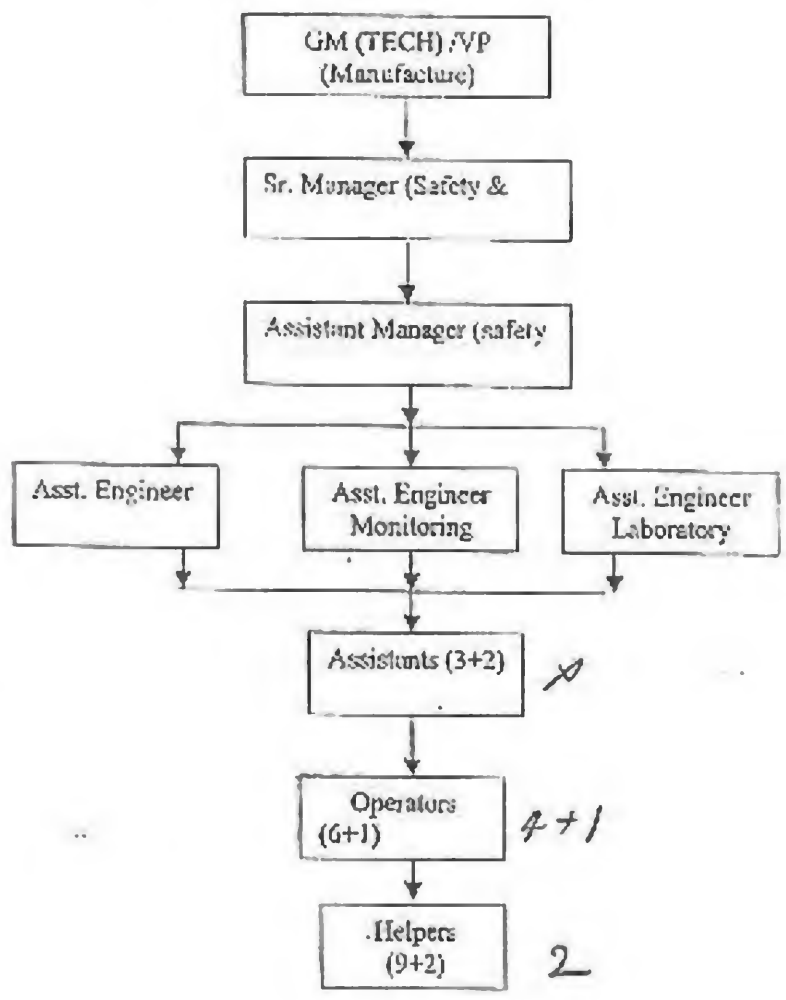


Figure 5.3 Environmental Management Cell

Environment Clearance for IPA (J-11011/210/2004-IA II(I) dated 24.02.2006), MoEF, Paryavaran Bhavan, CGO Complex, Lodhi Road, New Delhi - 110 003.

SN	Specific Conditions	Status of compliance as on 30/09/19
i)	The gaseous emissions (SO ₂ , NO _x , NH ₃ & HCl) and particulate matter from various process units shall conform to the standards prescribed by authority from time to time. At no time the emission levels shall go beyond the stipulated standards. The Stack height shall be as per CPCB guidelines. In the event of failure of any pollution control system adopted by the unit, the respective unit shall not be restarted until the control measures are rectified to achieve the desired efficiency. Further, the company shall interlock the production system with the pollution control devices.	There is no process stack in IPA emitting any gaseous emissions (SO ₂ , NO _x , NH ₃ , HCl & SPM). However monitoring of other plants stacks is being done by third party. Online Continuous Emission Monitoring System installed on individual process and utilities stacks. The stacks meet height requirement as per CPCB guidelines. All care is taken to keep the pollution control devices operational. (Annexure - 1)
ii)	AAQ monitoring stations shall be set up in the downwind direction as well as where maximum ground level concentrations are anticipated in consultation with the MPCB.	Three continuous monitoring AAQ/M stations are installed and connected to MPCB portal and operated continuously.
iii)	Fugitive emissions in the work zone, environment, product and raw material storage area shall be regularly monitored. The emissions shall be controlled and confirm to the limits prescribed by CPCB.	In IPA plant fugitive emissions are hydrocarbon and 11 detectors are installed at critical locations.
iv)	Total water requirement should not exceed 2800 m ³ /day as per permission accorded by MIDC vide letters dated 03.03.04 and 07.07.05. Further, efforts shall be made for further conservation of water and utilization of waste water.	Water requirement doesn't exceed. As a part of water conservation waste water of the plants is utilized to reduce fresh water consumption. RO system is installed for waste water utilization.
v)	The effluent generation shall not exceed 657 m ³ /day. All the effluent shall be treated in the augmented ETP and shall be monitored for the pH, SS, TDS, O & G, BOD, COD, Phosphates & ammoniacal Nitrogen & other relevant parameters. All the treated effluent shall be sent to CETP at Talaja for further treatment. The domestic effluent shall be treated in the existing Sewage Treatment Plant.	Effluent generation is maintained within the stipulated norms. In IPA plant itself the COD water stream treated in organic recovery column to reduce the COD before sending it to ETP. In addition to monitoring of all the ETP parameters (pH, TSS, TDS, O & G, BOD, COD, Phosphates & ammoniacal Nitrogen & other relevant parameters) through sampling internally and third party, OCERS is installed for monitoring of ETP parameters (pH, TSS, BOD, COD, NH ₄ -N, NO ₃ -N, Fluorides and Flow). Treated effluent is sent to CETP Talaja. Domestic effluent is used at ETP bioreactor. (Annexure - 2)

SN	Specific Conditions	Status of compliance as on 30/09/19
v)	The company shall undertake following Waste Minimization measures: <ul style="list-style-type: none"> * Metering and control of quantities of active ingredients to minimize waste * Reuse of by-products from the process as raw materials or as raw material substitute in other processes. * Use of automated filling to minimize spillage * Use of close feed system into batch reactor * Venting equipments through vapour recovery system. * Use of high pressure hoses for equipment cleaning to reduce waste water generation 	<ul style="list-style-type: none"> * No active ingredient involved in IPA * Propane and Di Isopropyl Ether are the by products from IPA plant and these are sold to customers. * All the tankers are filled through the closed automated system to avoid the spillage. * Our IPA plant is a continuous process and closed filled system is provided to reactor. * As such there is no venting equipment however critical vents are connected to flare system. * High pressure are used to clean the equipments during shutdowns.
vii)	The solid waste generated in the form ETP sludge shall be stored in HDPE lined secured landfill at the site. Spent catalyst and used oil shall be sold to authorized re processor.	ETP sludge is sent to CHWTSDP facility. Spent catalyst and used oil are sold to authorized re-processor.
viii)	The project authorities shall strictly comply with the rules and guidelines under MSHC Rules, 1989 as amended in October, 1994 and January 2000 and HWMH Rules, 2003 as amended from time to time. Authorization from the SPCB shall be obtained for collection, treatment, storage and disposal of hazardous wastes.	All related provisions of MSHC-1989 and HWMH-2003, with their amendments are complied with. Authorization through CTO, valid till 30/05/2020, is obtained from MPCB for collection, treatment, storage and disposal of hazardous waste.
ix)	Company shall develop surface/roof top rain water harvesting structures to harvest runoff water for recharge of ground water.	Rain water harvesting system is provided at WNA 3 & 4 plants.
x)	Green belt shall be provided in at least 25% of the plant area to mitigate the effects of fugitive emission all around the plant. Development of green belt shall be as per CPCB guidelines	Complied with. About 31 % of plot area is developed as Green belt. In addition to this, green belt on 50 acre of degraded forest land is also developed at Dhavel Village which is located near Dombivali which approximately 15 kms away from our site.
xi)	Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the factories act.	Medical examination of all the workers is done once in a six months as per the factories act and records are maintained.
SN	General Conditions	Status of compliance as on 30/09/19
i)	Project authorities shall strictly adhere to the stipulations made by the MPCB	Complied with.
ii)	At no time the emissions shall exceed the prescribed limits. In the event of failure of any pollution control system adopted by the unit, the unit shall be put out of operation and shall not be restarted until the desired efficiency has been achieved.	Same as specific condition No. 2.

SN	General Conditions	Status of compliance as on 30/09/19
iii)	No further expansion or modification in the plant should be carried out without prior approval of the Ministry of Environment and Forests. In case of deviations or alterations in the project proposal from those submitted to this ministry for clearance, a fresh reference shall be made to the ministry to assess the adequacy of conditions imposed and to add additional environmental protection measures required, if any.	Complied
iv)	The overall noise levels in and around the plant area shall be kept well within the standards (85 dBA) by providing noise control measures including acoustic hoods, silencers, enclosures, etc. on all sources of noise generation. The ambient noise levels shall conform to the standards prescribed under the EP Act, 1986, Rules, 1989 viz. 75 dBA (day time) and 70 dBA (night time).	Acoustic enclosures have been provided to DG sets. Periodic noise monitoring is done by MOEF approved 3rd party laboratory at six different locations and noise level is within the standards prescribed under EP Act, 1986, Rules, 1989. (Annexure - 3)
v)	The Project Proponent shall also comply with all the environmental protection measures and safeguards recommended in the EIA report.	Environment protection measures and recommendations given in EIA are complied with.
vi)	A separate Environmental Management Cell equipped with full fledged laboratory facilities shall be set up to carry-out the Environmental Management and Monitoring functions.	A separate Environmental Management Cell equipped with required facilities is set up.
vii)	The Project authorities shall earmark separate funds of Rs 25.80 lakhs to implement the conditions stipulated by the Ministry of Environment and Forest as well as the State Government along with the implementation schedule for all the conditions stipulated herein. The funds so provided shall not be diverted for any other purpose.	Fund is utilized for implementation of environmental safeguard.
viii)	The Company shall undertake welfare measures and community development measures for the local people in the vicinity of project area.	CSR activities are carried out through Ishanya Foundation Trust, set up by the company for rural development, women empowerment, health & education. (Annexure - 4)

SN	General Conditions	Status of compliance as on 30/09/19
ix)	The implementation of the project vis-a-vis environmental action plan shall be monitored by the Ministry's Regional Office at Bhopal / MPCB / CPCB. A Six monthly compliance status report shall be submitted to monitoring agencies.	Six monthly compliance reports are being sent to Regional Office of MOEF/MPCB/CPCB. Last report was sent on 30th May 2019. Copy of the same posted on the company's web-site.
x)	The Project Proponent shall inform the public that the project has been accorded environmental clearance by the Ministry and copies of the letters are available with the MPCB and may also be seen at website of the Ministry at http:// envfor.nic.in . This shall be advertised within seven days from date of issue of the clearance letter at least in two local news papers that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and the copy of the same shall be forwarded to ministry's regional office at Bhopal.	Complied with
xi)	The project authorities shall inform the Regional Office as well as Ministry, the date of financial closure and final approval of the project by the concerned authorities and the date of start of the project.	Complied with
xii)	The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.	Noted
xiii)	The Ministry reserves the right to stipulate additional conditions, if found necessary. The company in a time bound manner will implement these conditions.	Noted
xiv)	The above conditions shall be enforced, inter-alia under the provisions of the Water (Prevention and Control of Pollution) Act, 1974, the Environment (Protection) Act, 1986, Hazardous Wastes (Management and Handling) Rules, 2003 and the Public Liability Insurance Act, 1991 along with their amendments and rules.	Noted

List of Annexures Submitted	
Annexure. No.	Content
1	Stack Monitoring Reports
2	Treated water analysis report
3	Ambient Noise Monitoring Reports
4	CSR Report



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TEST CERTIFICATE

Doc No. : GLP/375/1001

Test Certificate No.	GAD0046		T. C. Date	05/04/2019
Customer Name and Address	M/s. DEEPAK FERTILISERS AND PETROCHEMICALS CORP. LTD. PLOT K-1, MEDC INDUSTRIAL AREA, TALOJA. A.V. 410 208, DIST. - RAIGAD.			
Letter Ref / Date.	---			
Sampling Done By	GLPL	Page No.	1 of 1	
Sample Received on	03/04/2019	Analysis Period	04/04/2019 To 05/04/2019	

SAMPLING DETAILS - STACK EMISSION

Stack No.	---
Stack Attached to	NPK Train - 2
Stack Dimension (mm)	2772
Fuel Used	---
Date of Sample collection	02/04/2019
Time of Sampling (Hrs)	14:10
Temperature of flue gas (°C)	42
Average flue gas velocity (m/s)	11.1
Average volume of flue gas discharged (Nm ³ /hr)	227146
Static Pressure (mm Hg)	756.5
Moisture (%)	0.88

ANALYSIS REPORT :

Parameters	Unit	Results	M.P.C.B. Limits	Methods
TPM	mg/Nm ³	11.9	150.0	Laboratory Analytical Techniques / 80 / 2013 14 / CPCB
	Kg/day	64.87		
NOx	mg/Nm ³	27.3	50.0	
	ppm v/v	14.6		
Ammonia	Kg/day	141.94	50.0	IS 11265 (Part 6) 2003
	mg/Nm ³	4.3		
	ppm v/v	6.2		
Fluoride (Particulate & Gaseous)	Kg/day	25.65	25 mg/Nm ³ as Total Fluoride in 150 mg/Nm ³ of Particulate Matter	APHA Edition II 154
	mg/Nm ³	Nil		
	ppm	Nil		
	Kg/day	Nil		

End

For GADARK LAB PVT. LTD.

AUTHORISED SIGNATORY
[KAILAS V. CHITALKAR]

CHECKED BY

Note :

- The results relate only to the samples tested
- Test certificate shall not be reproduced except in full, without written approval of the laboratory
- Samples will be preserved for a period 15 days from the delivery of Test Certificate.
- Test Results relate only to the conditions prevailing at the time of sampling
- Customer complaint register is available at laboratory.



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TEST CERTIFICATE

Doc.No : GLFL/CF/5.16/01

Test Certificate No.	GA/19/04/3		T. C. Date	05/04/2019
Customer Name and Address	M/S. DEEPAK FERTILISERS AND PETROCHEMICALS CORP. LTD. PLOT K-1, MIDC INDUSTRIAL AREA, TALOJA, A.V. 410 208, DIST. - RAIGAD			
Letter Ref / Date .	—			
Sampling Done By	GLPL	Page No.	1 of 1	
Sample Received on	03/04/2019	Analysis Period	04/04/2019 To 05/04/2019	

SAMPLING DETAILS - STACK EMISSION

Stack No.	12	13
Stack Attached to	WNA PLANT - III	WNA PLANT - IV
Stack Dimension (mm)	953	953
Stack Height (Meters)	60	52
Date of Sample collection	03/04/2019	03/04/2019
Time of Sampling (Hrs.)	15:40	15:50
Volume of flue gas sampled [lit. at 25°C]	38.5	38.6

ANALYSIS REPORT :

Parameters	Unit	Stack 12	Stack 13	M.P.C.B. LIMITS	Methods
NOx	Kg/Ton of Weak Nitric Acid produced	0.00102	0.00112	3.0	Laboratory Analytical Techniques / 80 / 2013-14 / CPCB
NH ₃	mg/Nm ³	19.8	21.5		IS 11255 (Part 6) 2002
	ppm	28.5	30.9		
	Kg/Hr	1.01	1.05	3.0	

End

For GADARK LAB PVT. LTD.

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[KAILAS V. CHITALKAR]

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3. Samples will be preserved for a period 15 days from the delivery of Test Certificate.
4. Test Results relate only to the conditions prevailing at the time of sampling
5. Customer complaint register is available at laboratory



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TEST CERTIFICATE

Doc No. GLPL/075/1001

Test Certificate No.	G/V/19/044	T. C. Date	05/04/2019
Customer Name and Address	M/s. DEEPAK FERTILISERS AND PETROCHEMICALS CORP. LTD. PLOT K-1, MIDC INDUSTRIAL AREA, TALOJA, A.V. 410 208, DIST. - RAIGAD.		
Letter Ref / Date	---		
Sampling Done By	GLPL	Page No.	1 of 1
Sample Received on	03/04/2019	Analysis Period	04/04/2019 To 05/04/2019

SAMPLING DETAILS - STACK EMISSION

Stack No.	---
Stack Attached to	COAL FIRE BOILER
Stack Dimension (mm)	1500
Fuel Used	Coal
Date of Sample collection	03/04/2019
Time of Sampling (Hrs)	11:50
Temperature of flue gas (°C)	124
Average flue gas velocity (m/s)	5.3
Average volume of flue gas discharged (Nm ³ /hr)	40958
Static Pressure (mm Hg)	758.4
Moisture (%)	0.64

ANALYSIS REPORT :

Parameters	Unit	Results	M.P.C.B. Limits	Methods
TPM	mg/Nm ³	35.9	100.0	Laboratory Analytical Techniques / 80 / 2013-14 : CPCB
	Kg/day	35.29		
Sulphur Dioxide	mg/Nm ³	480.7		
	ppm w/v	193.6		
NOx	Kg/day	472.46	1328.0	
	mg/Nm ³	32.1		
	ppm w/v	17.1	50.0	
Mercury	Kg/day	31.8		
	mg/Nm ³	0.0011		
	ppm	0.00013	Not Specified	
	Kg/day	0.00106		

End

For GADARK LAB PVT. LTD.

AUTHORISED SIGNATORY
[KAILAS V. CHITALKAR]

CHECKED BY

Note :

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TEST CERTIFICATE

Doc No : G_PLQ/15.1001

Test Certificate No.	GA/19/042	T. C. Date	05/04/2019
Customer Name and Address	M/S. DEEPAK FERTILISERS AND PETROCHEMICALS CORP. LTD. PLOT K-1, MIDC INDUSTRIAL AREA, TALOJA, A.V. 410 206, DIST. - RAIGAD		
Letter Ref / Date .	---		
Sampling Done By	GLPI	Page No.	1 of 1
Sample Received on	03/04/2019	Analysis Period	04/04/2019 To 05/04/2019

SAMPLING DETAILS - STACK EMISSION

Stack No	10	11
Stack Attached to	WNA PLANT - I	WNA PLANT - II
Stack Dimension (mm)	953	953
Stack Height (Meters)	39	39
Date of Sample collection	03/04/2019	03/04/2019
Time of Sampling (Hrs.)	15:15	14:20
Volume of flue gas sampled (Lit. at 25°C)	38.5	38.8

ANALYSIS REPORT :

Parameters	Unit	Stack 10	Stack 11	M.P.C.B. LIMITS	Methods
NOx	Kg/Ton of Weak Nitric Acid produced	0.00109	0.00105	3.0	Laboratory Analytical Techniques / IS : 2013-14 / CPCB
NH ₃	mg/Nm ³	25.8	18.2		IS 11255 (Part 6) 2003
	ppm	37.2	26.1		
	Kg/hr	1.22	0.98	3.0	

End

For GADARK LAB PVT. LTD.

AUTHORISED SIGNATORY
[KAILAS V. CHITALKAR]

CHECKED BY

Note :

1. The results relate only to the sample tested.
2. Test certificate shall not be reproduced except in full, without written approval of the laboratory.
3. Samples will be preserved for a period 15 days from the delivery of Test Certificate.
4. Test Results relate only to the conditions prevailing at the time of sampling.
5. Customer complaint register is available at laboratory.



GADARK LAB PVT. LTD.

INDUSTRIAL ANALYSTS & CONSULTANTS

LAB. : H-51, Additional M.I.D.C. Kuda, Taluka - Kuda, District - Sardarpur - 410 525.
Tel. : (02362) 223519 • E-mail : info@gadark.in • Website : www.gadark.in

OFF. : 15, Hindustan Kohinoor Industrial Complex, L.B.S. Marg, Vikhili (West), Mumbai - 53
Tel. : (022) 2577055 • 70

TEST CERTIFICATE

Doc No: G.FL/02/1031

Test Certificate No.	GA/1904/3		T. G. Date	05/04/2019
Customer Name and Address	M/s. DEEPAK FERTILISERS AND PETROCHEMICALS CORP. LTD. PLOT K-1, MIDC INDUSTRIAL AREA, TALOJA, A.V. 410 208. DIST. - RAIGAD.			
Letter Ref / Date .	---			
Sampling Done By	GLPI	Page No.	1 of 1	
Sample Received on	03/04/2019	Analysis Period	04/04/2019 To 05/04/2019	

SAMPLING DETAILS - STACK EMISSION

Stack No.	---	
Stack Attached to	NPK Train - 1	
Stack Dimension (mm)	2772	
Fuel Used	---	
Date of Sample collection	02/04/2019	
Time of Sampling (hrs)	13:25	
Temperature of flue gas (°C)	45	
Average flue gas velocity (m/s)	10.9	
Average volume of flue gas discharged (Nm ³ /min)	221949	
Static Pressure (mm Hg)	756.4	
Moisture (%)	6.45	

ANALYSIS REPORT :

Parameters	Unit	Results	M.P.C.B. Limits	Methods
TPM	mg/Nm ³	12.2	150.0	Laboratory Analytical Techniques / 00 / 2013-14 / CPCB
	Kg/day	64.59		
NOx	mg/Nm ³	25.1	50.0	
	ppm w/v	13.5		
Ammonia	Kg/day	135.07		IS 11255 (Part 3) 2003
	mg/Nm ³	1.7		
	ppm w/v	2.5	50.0	
Fluoride (Particulate & Gaseous)	Kg/day	0.22		APHA Edition II-134
	mg/Nm ³	Nil	25 mg/Nm ³ as Total Fluoride in 150 mg/Nm ³ of Particulate Matter	
	ppm	Nil		
	Kg/day	Nil		

End

For GADARK LAB PVT. LTD.

AUTHORISED SIGNATORY
(KAILAS V. CHITALKAR)

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5. Customer complaint register is available at laboratory.



GADARK LAB PVT. LTD.

INDUSTRIAL ANALYSTS & CONSULTANTS

LAB. : H-54, Additional MID.C. Kuda, Taluka - Kunal, District - Sanchaurug - 415 525.
Tel. : (02302) 223019 • E-mail : info@gadark.in • Website : www.gadark.in

OFF. : 15, Hindustan Kothisar Industrial Complex, L.B.S. Marg, Vikhral (West), Mumbai - 83
Tel. : (022) 25777069 / 70

TEST CERTIFICATE

Doc.No: GLPL/CF/1007

Test Certificate No.	GA18052	T. C. Date	06/05/2019
Customer Name and Address	M/s. DEEPAK FERTILISERS AND PETROCHEMICALS CORP. LTD, PLOT K-1, MIDC INDUSTRIAL AREA, TALOJA. A.Y. 410 208, DIST. - RAIGAD.		
Letter Ref / Date			
Sampling Done By	GLPL	Page No.	1 of 1
Sample Received on	03/05/2019	Analysis Period	04/05/2019 To 06/05/2019

SAMPLING DETAILS - STACK EMISSION

Stack No.	--
Stack Attached to	LDAN PRILLING TOWER
Stack Dimension (mm)	1632
Fuel Used	---
Date of Sample collection	03/05/2019
Time of Sampling (Hrs)	12:40
Temperature of flue gas (°C)	52
Average flue gas velocity (m/s)	19.9
Average volume of flue gas discharged (Nm ³ /hr)	137509
Static Pressure (mm Hg)	756.5
Moisture (%)	0.22

ANALYSIS REPORT :

Parameters	Unit	Results	M.P.C.B. Limits	Methods
TPM	mg/Nm ³	20.9	100.0	Laboratory Analytical Techniques / GO / 2013-14 / CPCB
	Kg/day	69.02		
NOx	mg/Nm ³	29.6		
	ppm v/v	15.7	50.0	
Ammonia	Kg/day	97.30		
	mg/Nm ³	22.3		
	ppm v/v	32.1	50.0	
	Kg/day	73.74		IS 11255 (Part 6) 2003

End

For GADARK LAB PVT. LTD.

Kailas V. Chitalkar

AUTHORISED SIGNATORY
(KAILAS V. CHITALKAR)

[Signature]
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GADARK LAB PVT. LTD.

INDUSTRIAL ANALYSTS & CONSULTANTS

LAB : H-54, Additional M.I.D.C. Kurla, Taluka - Kadal, District - Siondhurg - 416 525
Tel. : (02382) 223519 - E-mail : info@gadark.in - Website : www.gadark.in

OFF : 10, Hindustan Kohinoor Industrial Complex, L.D.S. Marg, Vikhroli (West) Mumbai - 83
Tel. : (022) 25777009 / 70

TEST CERTIFICATE

Doc No: GLP0751001

Test Certificate No.	G418A055	T. C. Date	06/05/2019
Customer Name and Address	M/s. DEEPAK FERTILISERS AND PETROCHEMICALS CORP. LTD. PLOT K-1, MIDC INDUSTRIAL AREA, TALOJA, A.V. 410 298, DIST. - RAIGAD.		
Letter Ref / Date	---		
Sampling Done By	GLPL	Page No.	1 of 1
Sample Received on	03/05/2019	Analysis Period	04/05/2019 To 05/05/2019

SAMPLING DETAILS - STACK EMISSION

Stack No.	6
Stack Attached to	AMMONIA PRIMARY REFORMER
Stack Dimension (mm)	1375
Fuel Used	Natural Gas
Date of Sample collection	02/05/2019
Time of Sampling (Hrs)	14:15
Temperature of flue gas (°C)	158
Average flue gas velocity (m/s)	9.2
Average volume of flue gas discharged (Nm ³ /hr)	35380
Static Pressure (mm Hg)	753.1
Moisture (%)	0.46

ANALYSIS REPORT :

Parameters	Unit	Results	M.P.C.B. Limits	Methods
TSPM	mg/Nm ³	30.2	100.0	Laboratory Analytical Techniques / ISO / 2013-14 / CIPGH
	Kg/day	24.2		
Sulphur Dioxide	mg/Nm ³	2.3	Not Specified	
	ppm v/v	5.9		
	Kg/day	1.88		
NOx	mg/Nm ³	25.6	50.0	
	ppm v/v	14.2		
	Kg/day	21.52		
CO	mg/Nm ³	32.3	Not Specified	APHA Edition II-134
	ppm	26.2		
	Kg/day	25.82		

End

For GADARK LAB PVT. LTD.

Kailas V. Chitalkar

AUTHORISED SIGNATORY
(KAILAS V. CHITALKAR)

[Signature]
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Note :

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GADARK LAB PVT. LTD.

INDUSTRIAL ANALYSTS & CONSULTANTS

LAB. : H-54 Additional W.I.D. Karol, Taluka - Kurla, District - Sionchudurg - 416 520.
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Tel. : (022) 2577269 / 70

TEST CERTIFICATE

Doc No: GJL006.1001

Test Certificate No.	GA/1906/3	T. C. Date	06/05/2019
Customer Name and Address	M/s. DEEPAK FERTILISERS AND PETROCHEMICALS CORP. LTD. PLOT K-1, MIDC INDUSTRIAL AREA, TALOJA, A.V. 410 208, DIST. - RAIGAD.		
Letter Ref / Date	--		
Sampling Done By	BLPL	Page No.	1 of 1
Sample Received on	03/05/2019	Analysis Period	04/05/2019 To 05/05/2019

SAMPLING DETAILS - STACK EMISSION

Stack No.	--
Stack Attached to	AMP PRILLING TOWER
Stack Dimension (mm)	3000
Fuel Used	--
Date of Sample collection	03/05/2019
Time of Sampling (Hrs)	14.45
Temperature of flue gas (°C)	44
Average flue gas velocity (m/s)	27.0
Average volume of flue gas discharged (Nm ³ /hr)	138446
Static Pressure (mm Hg)	756.1
Moisture (%)	8.17

ANALYSIS REPORT :

Parameters	Unit	Results	M.P.C.B. Limits	Methods
TPM	mg/Nm ³	12.7	150.0	Laboratory Analytical Techniques / IS / 2013-14 / GPCB
	Kg/day	59.88		
NOx	mg/Nm ³	42.9	50.0	
	ppm v/v	22.8		
Ammonia	Kg/day	202.66	50.0	IS 11255 (Part 6) 2003
	ppm v/v	26.1		
Fluoride (Particulate & Gaseous)	mg/Nm ³	NI	25 mg/Nm ³ as Total Fluoride in 150 mg/Nm ³ of Particulate Matter	APIA Edison II-134
	ppm	NI		
	Kg/Mev	NI		

End

For GADARK LAB PVT. LTD.

Kailas V. Chitalkar

AUTHORISED SIGNATORY
(KAILAS V. CHITALKAR)

[Signature]
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INDUSTRIAL ANALYSTS & CONSULTANTS

LAB. : H-54, Additional M.I.D.C. Kuda, Taluka - Kudal, District - Sindhudurg - 410 026.
Tel. : (02362) 223519 • E-mail : info@gadark.in • Website : www.gadark.in

OFF. : 15, Hindustan Kohinoor Industrial Complex, L.B.S. Marg, Vikhroli (West), Mumbai - 80.
Tel. : (022) 2577068 / 70

TEST CERTIFICATE

Doc No: G.FLDFM 1001

Test Certificate No.	GA/18/054	T. C. Date	03/05/2019
Customer Name and Address	M/s. DEEPAK FERTILISERS AND PETROCHEMICALS CORP. LTD, PLOT K-1, MIDC INDUSTRIAL AREA, TALOJA, A.V. 410 206, DIST. - RAIGAD.		
Letter Ref / Date	---		
Sampling Done By	GI Ft	Page No.	1 of 1
Sample Received on	03/05/2019	Analysis Period	02/05/2019 To 03/05/2019

SAMPLING DETAILS - STACK EMISSION

Stack No	21
Stack Attached to	CES - A Engine Exhaust Boiler
Stack Dimension (mm)	1500
Fuel Used	Natural Gas
Date of Sample collection	02/05/2019
Time of Sampling (Hrs)	15:45
Temperature of flue gas (°C)	177
Average flue gas velocity (m/s)	6.9
Average volume of flue gas discharged (Nm ³ /hr)	35856
Static Pressure (mm Hg)	-146.1
Moisture (%)	0.35

ANALYSIS REPORT :

Parameters	Unit	Results	M.P.C.B. LIMITS	Methods
TPM	mg/Nm ³	9.7	100.0	Laboratory Analytical Techniques / 00 / 2013-14 / CPCB
	Kg/day	7.70		
Sulphur Dioxide	mg/Nm ³	Nil	Not Specified	
	ppm v/v	Nil		
NOx	Kg/day	Nil		
	mg/Nm ³	97.1	60.0	
	ppm v/v	48.7		
CO	Kg/day	80.58	Not Specified	APHA Edition II-134
	mg/Nm ³	32.1		
	ppm	28.0		
	Kg/day	25.35		

End

For GADARK LAB PVT. LTD.

Kailas V. Chitalkar

AUTHORISED SIGNATORY
[KAILAS V. CHITALKAR]

[Signature]
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LAB. : 454, Additions, M.I.D.C. Kural, Taluka - Kudal, District - Sindhudurg - 416 525.
Tel. : (02362) 223519 • E-mail : info@gadark.in • Website : www.gsdark.in

OFF. : 15, Hindustan Kohinoor Industrial Complex, L.B.S. Marg, Vihroli (West), Mumbai - 85.
Tel. : (022) 2577069 / 70

Doc.No: GLPLQFS 1001

TEST CERTIFICATE

Test Certificate No.	GA180515	T. C. Date	05/05/2019
Customer Name and Address	M's. DEEPAK FERTILISERS AND PETROCHEMICALS CORP. LTD. PLOT K-1, MIDC INDUSTRIAL AREA, TALOJA, A.V. 410 208, DIST. - RAIGAD.		
Letter Ref / Date	---		
Sampling Done By	GLPL	Page No.	1 of 1
Sample Received on	03/05/2019	Analysis Period	04/05/2019 To 03/05/2019

SAMPLING DETAILS - STACK EMISSION

Stack No.	22
Stack Attached to	CES - D Engine Exhaust Boiler
Stack Dimension (mm)	1530
Fuel Used	Natural Gas
Date of Sample collection	02/05/2019
Time of Sampling (Hrs)	12:40
Temperature of flue gas (°C)	185
Average flue gas velocity (m/s)	9.0
Average volume of flue gas discharged (Nm ³ /hr)	37233
Static Pressure (mm Hg)	753.1
Moisture (%)	0.18

ANALYSIS REPORT :

Parameters	Unit	Results	M.P.C.B. LIMITS	Methods
TPM	mg/Nm ³	6.1	100.0	Laboratory Analytical Techniques / ISO / 2013-14 / ISPCB
	Kg/day	5.45		
Sulphur Dioxide	mg/Nm ³	Ni	Not Specified	
	ppm v/v	Ni		
NOx	Kg/day	Ni		
	mg/Nm ³	45.9	50.0	
	ppm v/v	24.4		
CO	Kg/day	41.21		
	mg/Nm ³	36.7	Not Specified	APHA Edition II-134
	ppm	32.0		
	Kg/day	32.75		

End

For GADARK LAB PVT. LTD.

Kailas V. Chitalkar

AUTHORISED SIGNATORY
(KAILAS V. CHITALKAR)

[Signature]
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- Customer complaint register is available on brochure.



Netel (India) Limited

STACK MONITORING REPORT

Name of Organization : Mrs. Deepak Fertilisers And Petrochemicals Corporation Limited						
Customer Address : Talga Plant Flat 4-1, MIDC Industrial Area, P.O. Talga Dist. Raigad 410008 Maharashtra						
Customer Reference : Work Order no. 4800055803, Dated 24.07.2019						
Date of Sampling	Sample Received Date	Analysis Start Date	Analysis Complete Date	Report on Date		
18.08.2019	17.08.2019	17.08.2019	20.08.2019	20.08.2019		
Sample Type : Fuel Gas (Stack)			Sampling done by : Netel (India) Limited			
Stack Connected to : ---			Stack Diameter : 75 mm			
Sampling Location : CNA-3			Sample Code : ML187008190066			
Sr. No.	Parameters	Method	Unit	MDL*	Results	Consent Limits
1	Temperature	IS 11255 (Part 3)	°C	---	45	---
2	Velocity of Gas	IS 11255 (Part 3)	m/sec	---	2.0	---
3	Volumetric Flow Rate	IS 11255 (Part 3)	Nm ³ /hr	---	30.0	---
4	Oxides of Nitrogen	IS 11255 (Part 3)	mg/Nm ³	J	46.4	---
			ppm	---	25.8	---
			kg/day	---	0.033	---
5	Ammonia	IS 11255 (Part 3)	mg/Nm ³	0.05	22.3	---
			ppm	---	32.1	50
			kg/day	---	0.0007	---

Note:

- * MDL - Minimum Detectable Limit.
- ** BDL - Below Detectable Limit.
- This Test Report shall not be reproduced except in full, without written approval of the Laboratory.
- This Test Report refers only to the sample tested.
- The Complaint Register is available with the Laboratory as per Environment Protection Act, 1986.

Verified by:

Surekha Jamdar
Surekha Jamdar
Dy. Technical Manager

Issued by:

Shraddha Kere
Shraddha Kere
Technical Manager

End of Report

A Nationalva Group Company

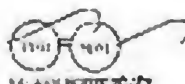
W-408, Raha 6 MIDC,
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INDIA.

Tel: + 91 22 2760 7100 / 2760 7123
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E-mail: sales@netel-india.com
Website: www.netelindia.com
CIN: U74999MH2003PLC142228



Regd. office : Liberty Building, 3rd Floor, Sir Withal Das Tankerway Marg, (New Marine Lines), Mumbai - 400 020. Tel: 22036201 Fax:





Netel (India) Limited

STACK MONITORING REPORT

Name of Organization : M/s. Deepak Fertilisers And Petrochemicals Corporation Limited.						
Customer Address : Talaja Plant Plot No. 1, MIDC Industrial Area, P.O. Talaja Dist. Raigad 410208 Maharashtra						
Customer Reference : Work Order No. 4800055833 Dated 24.07.2019						
Date of Sampling	Sample Received Date	Analysis Start Date	Analysis Complete Date	Report on Date		
18.08.2019	17.08.2019	17.08.2019	20.08.2019	20.08.2019		
Sample Type : Flue Gas (Stack)			Sampling done by : Netel (India) Limited			
Stack Connected to : —			Stack Diameter : 663 mm			
Sampling Location : WNA - 1			Sample Code : NLET-03790265			
Sr. No.	Parameters	Method	Unit	MDL*	Results	Consent Limits
1	Temperature	IS 11255 (Part 3)	°C	—	57	—
2	Velocity of Gas	IS 11255 (Part 3)	m/sec	—	2.1	—
3	Volumetric Flow Rate	IS 11255 (Part 3)	Nm ³ /hr	—	4764	—
4	Oxides of Nitrogen	IS 11255 (Part 3)	mg/Nm ³	3	68.0	—
			ppm	—	37.8	—
			kg/day	—	7.775	—
			kilocal of WNA	—	0.0264	—
1	Ammonia	IS 11255 (Part 3)	mg/Nm ³	0.05	22.7	—
			ppm	—	32.8	50
			g/hr	—	0.106	—

Note :

1. *MDL - Minimum Detectable Limit.
2. **BDL - Back Detectable Limit.
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5. The Complaint Register is available with the Laboratory as per Environment Protection Act, 1986.

Verified by:

Surekha Jamdar
Dy. Technical Manager

Issued by:

Shraddha Kere
Shraddha Kere
Technical Manager

End of Report

A Netel India Group Company

99-408, Rebsale MIDC,
TTC Industrial Area,
NAMI MUMBAI - 400 061,
INDIA.

Tel : + 91 022 2760 7100 / 2760 7101
Fax : + 91 022 2760 7100

E-mail : sales@netel-india.com
Website : www.netelindia.com
CIN : U74999MH2005PLC142128



Regd. office : Liberty Building, 3rd Floor, Sir Vithaldas Thackersey Marg, (New Marine Lines), Mumbai - 400 020, Tel : 22066231 / 51





Netel (India) Limited

STACK MONITORING REPORT

Name of Organization : M/s. Deepak Fertilizers And Petrochemicals Corporation Limited						
Customer Address : Talaja Plant Plot K-1, MIDC Industrial Area, P. O. Talaja Dist. Raigad-410208 Maharashtra						
Customer Reference : Work Order no. 4800365893, Dated 24.07.2019						
Date of Sampling	Sample Received Date	Analysis Start Date	Analysis Complete Date	Report on Date		
01.08.2019	02.08.2019	02.08.2019	05.08.2019	05.08.2019		
Sample Type : Flue Gas (Stack)			Sampling done by : Netel (India) Limited			
Stack Connected to : --			Stack Diameter : 553 mm			
Sampling Location : WNA - 4			Sample Code : NIT/ST/08/19/002			
Sr. No.	Parameters	Method	Unit	MDL*	Results	Consent Limits
1	Temperature	IS 11255 (Part 3)	°C	---	131	---
2	Velocity of Gas	IS 11255 (Part 3)	m/sec	---	2.3	---
3	Volumetric Flow Rate	IS 11255 (Part 3)	M ³ /hr	---	4288	---
4	Oxides of Nitrogen	IS 11255 (Part 6)	mg/Nm ³	3	76.9	---
			ppm	---	42.7	---
			kg/hr	---	7.974	---
			kg/hr of WNH	---	0.0269	---
5	Ammonia	IS 11255 (Part 6)	mg/Nm ³	0.05	24.2	---
			ppm	---	34.8	50
			kg/hr	---	0.104	---

Note:

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- The Complaint Register is available with the Laboratory as per Environmental Protection Act, 1986.

Verified by:

Surakha Jamdar
Surakha Jamdar
Dy. Technical Manager

Issued by:

Sraddha Kare
Sraddha Kare
Technical Manager

End of Report

A Netelwala Group Company

W-106, Rabale MIDC, Talaja, Talaja Industrial Area, Talaja, Dist. Raigad-410208, Maharashtra, INDIA.

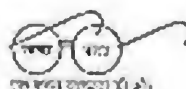
Tel : 91 222 2400 7102 / 2760 7103
Fax : 91 222 2400 7100

E-mail : sales@netelindia.com
Website : www.netelindia.com

CIN : U74999MH2005PLC142270



Regd. office : Liberty Building, 3rd Floor, Sir M. V. Road, Tilakwadi Marg, (Near Marine Lines), Mumbai - 400 020. Tel : 22062311 / 11





Netel (India) Limited

STACK MONITORING REPORT

Name of Organization : WS Deepak Fertilisers And Petrochemicals Corporation Limited.
 Customer Address : Tagla Plant Polk-1, MIDC Industrial Area, P.O. Tagla Dist. Raigad 413209 Maharashtra
 Customer Reference : Work Order no. 490065893, Dated 24.07.2019

Date of Sampling	Sample Received Date	Analysis Start Date	Analysis Complete Date	Report on Date
01.08.2019	02.08.2019	02.08.2019	05.08.2019	05.08.2019

Sample Type : Flue Gas (Stack) Sampling done by : Netel (India) Limited
 Stack Connected to : -- Stack Diameter : 563 mm
 Sampling Location : WMA - 3 Sample Code : NLS1306V9002

Sr. No.	Parameters	Method	Unit	MDL*	Results	Consent Limits
1	Temperature	IS 11255 (Part 3)	°C	--	138	--
2	Velocity of Gas	IS 11255 (Part 3)	m/sec	--	2.3	--
3	Volumetric Flow Rate	IS 11255 (Part 3)	Nm ³ /hr	--	4252	--
4	Oxides of Nitrogen	IS 11255 (Part 3)	mg/Nm ³	3	82.6	--
			ppm	--	45.9	--
			kg/day	--	8.429	--
			kg/day of WMA	--	0.0267	--
5	Ammonia	IS 11255 (Part 3)	mg/Nm ³	0.05	18.3	--
			ppm	--	26.3	50
			kg/hr	--	0.078	--

Note:

- * MDL - Minimum Detectable Limit
- ** EDL - Below Detectable Limit
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- The Complaint Register is available with the Laboratory as per Environment Protection Act, 1986

Verified by:

Surekha Jamdar
 Surekha Jamdar
 Dy. Technical Manager

Issued by:

Shraddha Kora
 Shraddha Kora
 Technical Manager

End of Report

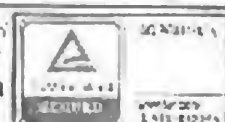
A Netel India Group Company

W-108, Reale MIDC,
 TTC Industrial Area
 NAWI MUMBAI - 400 701,
 INDIA.

Tel : + 91 022 2780 7100 / 2780 7103
 Fax : + 91 022 2780 7100

E-mail : sales@netelindia.com
 Website : www.netelindia.com

CIN : U74399MH2005PLC142228



Regd. office : Liberty Building, 3rd Floor, Sir Vithaldas Thackersey Marg, (New Marine Lines), Mumbai - 400 026, Tel : 22666251 / 61





Netel (India) Limited

STACK MONITORING REPORT

Name of Organization : M/s. Deepak Fertilisers And Petrochemicals Corporation Limited.						
Customer Address : Talaja Plant Pol K-1, MIDC Industrial Area P.O. Talaja Dist. Raigarh 410208 Maharashtra						
Customer Reference : Work Order no. 4800055893 Dated 24.07.2019						
Date of Sampling	Sample Received Date	Analysis Start Date	Analysis Complete Date	Report on Date		
01.08.2019	02.08.2019	02.08.2019	05.08.2019	05.08.2019		
Sample Type : Flue Gas (Stack)			Sampling done by : Netel (India) Limited			
Stack Connected to : ---			Stack Diameter : 953 mm			
Sampling Location : WKA - 2			Sample Code : NL/ST/08/10007			
Sr. No.	Parameters	Method	Unit	MDL*	Results	Consent Limits
1	Temperature	IS 11255 (Part 3)	°C	---	57	---
2	Velocity of Gas	IS 11255 (Part 3)	m/sec	---	2.3	---
3	Volumetric Flow Rate	IS 11255 (Part 3)	Nm ³ /hr	---	5200	---
4	Oxides of Nitrogen	IS 11255 (Part 6)	mg/Nm ³	2	92.3	---
			ppm	---	51.3	---
			kg/day	---	11.526	---
			kg/ton of WKA	---	0.0392	---
5	Ammonia	IS 11255 (Part 6)	mg/Nm ³	0.05	16.5	---
			ppm	---	23.7	50
			kg/hr	---	0.086	---

Note:

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- ** BDL - Below Detectable Limit.
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- The Complaint Register is available with the Laboratory to per Environment Protection Act, 1986.

Verified by:

Surekha Jamdar
Dy. Technical Manager

Issued by:

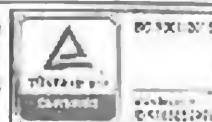
Shraddha Kere
Technical Manager

"Final Report"

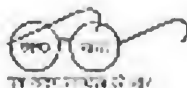
A Naterwala Group Company

W-409, Rubale MIDC, Tel: +91 022 2700 7102 / 2760 7110
ITC Industrial Area, Fax: +91 022 2700 7100
NAVI MUMBAI - 400 701, INDIA.

Email: sa@netel-india.com
Website: www.netel-india.com
CIN: U74999MH2003PLC142228



Regd. office : Liberty Building, 3rd Floor, 5th Mile, Thackersey Marg (New Marine Lines), Mumbai - 400 020. Tel. : 22069251 / 111



www.netel-india.com



Netel (India) Limited

STACK MONITORING REPORT

Name of Organization : M/s. Daspak Fertilizers And Petrochemicals Corporation Limited.
Customer Address : Targa Plant Plot K-1, MIDC Industrial Area, P.O. Targa Dist. Raigad-410209 Maharashtra
Customer Reference : Work Order no. 400055983 Date 24/07/2019

Table with 5 columns: Date of Sampling, Sample Received Date, Analysis Start Date, Analysis Complete Date, Report on Date. Values: 27.08.2019, 28.08.2019, 28.08.2019, 31.08.2019, 31.08.2019

Sample Type : Flue Gas (Stack) Sampling done by : Netel (India) Limited
Stack Connected to : Boiler Stack Diameter : 1500
Sampling Location : HRSG 5 Sample Code : MILS1A06190380

Main data table with 7 columns: Sr. No., Parameters, Method, Unit, MDL, Results, Consent Limits. Rows include parameters like Stack Temperature, Stack Gas Velocity, Volumetric Flow Rate, Sulphur Dioxide, Oxides of Nitrogen, and Carbon Monoxide.

Note:

- 1. *MDL - Method Detectable Limit.
2. **NDL - Below Detectable Limit.
3. This Test Report shall not be reproduced except in full without written approval of the Laboratory.
4. This Test Report refers only to the sample tested.
5. The Complaint Register is available with the Laboratory as per Environmental Protection Act, 1986.

Verified by:

Signature of Sushrutha Jendiar
Sushrutha Jendiar
Dy. Technical Manager

Issued by:

Signature of Shradha Kere
Shradha Kere
Technical Manager

Field Report

A Netel India Group Company

W-406, Rabale MIDC,
TIC Industrial Area,
NAVE MUMBAI - 400 701,
INDIA.

Tel : + 91 022 2780 7102 / 2760 7100
Fax : + 91 022 2780 7100

E-mail: sales@netel-india.com
Website: www.netel-india.com

CIN: UY4530MH2013PLC142223



Regd. office : Liberty Building, 3rd Floor, Sir Vithaldas Thackersey Marg, (New Marine Lines), Mumbai - 400 020. Tel. : 22006231 / 2





Netel (India) Limited

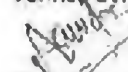
STACK MONITORING REPORT

Name of Organization : M/s. Deepak Fertilisers And Petrochemicals Corporation Limited.						
Customer Address : Talaja Plant Plot K-1, MIDC Industrial Area, P.O. Talaja Dist: Raigad 410205 Maharashtra						
Customer Reference : Work Order no. 4800055003 Dated 24.07.2019						
Date of Sampling	Sample Received Date	Analysis Start Date	Analysis Complete Date	Report on Date		
27.08.2019	28.08.2019	28.08.2019	31.08.2019	31.08.2019		
Sample Type : Flue Gas (Stack)			Sampling done by : Netel (India) Limited			
Stack Connected to : Boiler			Stack Diameter : 1500			
Sampling Location : HRSG 2			Sample Code : NLS/ST/GR/19/007			
Sr. No.	Parameters	Method	Unit	MDL*	Results	Consent Limits
1	Stack Temperature	IS 11255 (Part 3)	°C	..	103	--
2	Stack Gas Velocity	IS 11255 (Part 3)	m/sec	--	13.78	--
3	Volumetric Flow Rate	IS 11255 (Part 3)	Km ³ /hr	--	53987	--
4	Sulphur Dioxide	IS 11255 (Part 2)	mg/Nm ³	3	5.8	--
			ppm	--	2.3	--
			kg/day	..	7.64	--
5	Oxides of Nitrogen	IS 11255 (Part 2)	mg/Nm ³	2	8.8	--
			ppm	--	4.5	50
			kg/day	--	11.14	--
6	Carbon Monoxide	USEPA - 10A	mg/Nm ³	4	6.5	--
			ppm	--	5.8	--
			kg/day	--	8.55	--

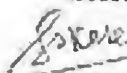
Note:

- * MDL - Minimum Detectable Limit.
- ** BDL - Below Detectable Limit.
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- The Consent Register is available with the Laboratory as per Environment Protection Act, 1986.

Verified by:


Surendra Jamdar
Dy. Technical Manager

Issued by:


Surendra Kere
Technical Manager

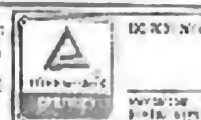
End of Report

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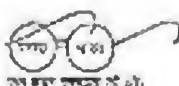
W-408, Rubale MIDC,
TTC Industrial Estate,
NAVE MUMBAI - 400 701
INDIA.

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GIR : U74900MH2003PLC14222E



Regd. office : Liberty Building, 3rd Floor, Sir Vithaldas Thackersey Marg, (New Marine Lines), Mumbai - 400 020. Tel : 22990201 / 91





Netel (India) Limited

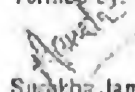
STACK MONITORING REPORT

Name of Organization : M/s. Deepak Fertilisers And Petrochemicals Corporation Limited						
Customer Address : Talaja Plant Plot K-1, MIDC Industrial Area, P.O. Talaja Dist. Raigad-410208 Maharashtra						
Customer Reference : Work Order no. 480066893, Dated 24.07.2019						
Date of Sampling	Sample Received Date	Analysis Start Date	Analysis Complete Date	Report on Date		
27.08.2019	28.08.2019	29.08.2019	31.08.2019	31.08.2019		
Sample Type : Flue Gas (Stack)			Sampling done by : Netel (Inde) Limited			
Stack Connected to : Boiler			Stack Diameter : 1500			
Sampling Location : HRSG 1			Sample Code : NILEG10R130356			
Sr. No.	Parameters	Method	Unit	MDL*	Results	Consent Limits
1	Stack Temperature	IS 11255 (Part 3)	°C	--	101	---
2	Stack Gas Velocity	IS 11255 (Part 3)	m/sec	--	9.74	---
3	Volumetric Flow Rate	IS 11255 (Part 3)	Nm ³ /hr	--	49137	---
4	Sulphur Dioxide	IS 11255 (Part 2)	mg/Nm ³	3	5.8	---
			ppm	--	2.3	---
			kg/day	--	6.96	---
5	Oxides of Nitrogen	IS 11255 (Part 7)	mg/Nm ³	3	15.0	---
			ppm	--	8.0	50
			kg/day	--	17.60	---
6	Carbon Monoxide	USEPA - 104	mg/Nm ³	4	40.5	---
			ppm	--	35.5	---
			kg/day	--	47.88	---

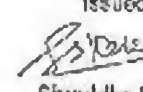
Note:

1. * MDL - Minimum Detectable Limit.
2. ** BDL - Below Detectable Limit.
3. This Test Report shall not be reproduced except in full without written approval of the Laboratory.
4. This Test Report refers only to the sample tested.
5. The Compliance Register is available with the Laboratory as per Environment Protection Act, 1986.

Verified by:


Sureshha Jamdar
Dy. Technical Manager

Issued by:


Shruddha Kera
Technical Manager

End of Report

A. Netelwala Group Company

W-408, Rabale MIDC,
TTC Industrial Area,
Navi Mumbai - 400 701,
India.

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Fax : + 91 022 2765 7100

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CIN : U74309MH2005PLC142223



Regd. office : Liberty Building, 3rd Floor, Sir Vithaldas Thackersey Marg, (New Marine Lines), Mumbai - 400 023. Tel : 22066231 / 67





Netel (India) Limited

STACK MONITORING REPORT

Name of Organization : M/s. Ceepak Fertilisers And Petrochemicals Corporation Limited						
Customer Address : Talsja Plant Plot K-1, MIDC Industrial Area, P.O. Tarapur Dist. Raigad 410206 Maharashtra						
Customer Reference : Work Order no. 480005993, Dated 24.07.2019						
Date of Sampling	Sample Received Date	Analysis Start Date	Analysis Complete Date	Report on Date		
27.08.2019	28.08.2019	29.08.2019	31.08.2019	31.08.2019		
Sample Type : Flue Gas (Stack)			[Sampling done by : Netel (India) Limited			
Stack Connected to : Boiler			Stack Diameter : 1500			
Sampling Location : CES-3 Engine Exhaust Boiler			Sample Code : NL/ST/DB/IS/131			
Sr. No.	Parameters	Method	Unit	MDL*	Results	Consent Limits
1	Stack Temperature	IS 11255 (Part 3)	°C	---	182	---
2	Stack Gas Velocity	IS 11255 (Part 3)	m/sec	---	9.23	---
3	Volumetric Flow Rate	IS 11255 (Part 3)	Nm ³ /hr	---	36285	---
4	Sulphur Dioxide	IS 11255 (Part 2)	mg/Nm ³	3	4.4	---
			ppm	---	1.7	---
			kg/day	---	4.04	---
5	Oxides of Nitrogen	IS 11255 (Part 2)	mg/Nm ³	3	12.2	---
			ppm	---	6.5	50
			kg/day	---	11.21	---
6	Carbon Monoxide	USEPA - 10A	mg/Nm ³	4	16.2	---
			ppm	---	15.0	---
			kg/day	---	16.72	---

Note :

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- **BDL - Below Detectable Limit.
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Verified by:

Surekha Jambdar
Dy. Technical Manager

Issued by:

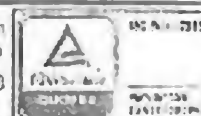
Shraddha Kere
Technical Manager

End of Report

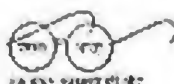
A Netelwala Group Company

W-4/5, Rebar MIDC, Talo Industrial Area, NAVI MUMBAI - 400 781, INDIA.
Tel : + 91 022 2700 7100 / 2750 7103
Fax : + 91 022 2700 7100

E-mail : esree@netel-india.com
Website : www.netel-india.com
CIN : U74999MH29037LC142220



Regd. office : Liberty Building, 3rd Floor, Sir Vithaldas Thackersey Marg, (near Marine Line) Mumbai - 400 020 Tel. : 22008221 (R)





Netel (India) Limited

STACK MONITORING REPORT

Name of Organization : M/s. Deepak Fertilisers And Petrochemicals Corporation Limited						
Customer Address : Talaja Hall, Plot No-1, MIDC Industrial Area, P.O. Talaja Indl. Rajgad 410200 Maharashtra						
Customer Reference : Work Order no. 4800355803 Dated 24.07.2019						
Date of Sampling	Sample Received Date	Analysis Start Date	Analysis Complete Date	Report on Date		
27.08.2019	28.08.2019	28.08.2019	31.08.2019	31.08.2019		
Sample Type : Flue Gas (Stack)			Sampling Done by : Netel (India) Limited			
Stack Connected to : Boiler			Stack Diameter : 1500			
Sampling Location : CFS-A Engine Exhaust Boiler			Sample Code : MIL/ST/06/19/100			
Sr. No.	Parameters	Method	Unit	MDL*	Results	Consent Limits
1	Stack Temperature	IS 11255 (Part 3)	°C	---	174	---
2	Stack Gas Velocity	IS 11255 (Part 3)	m/sec	---	8.63	---
3	Volumetric Flow Rate	IS 11255 (Part 3)	Nm ³ /hr	---	36437	---
4	Sulphur Dioxide	IS 11255 (Part 2)	mg/Nm ³	3	3.7	---
			ppm	---	1.4	---
			kg/day	---	3.24	---
5	Oxides of Nitrogen	IS 11255 (Part 7)	mg/Nm ³	3	7.3	---
			ppm	---	2.9	50
			kg/day	---	6.38	---
6	Carbon Monoxide	USEPA - 10A	mg/Nm ³	4	6.4	---
			ppm	---	5.6	---
			kg/day	---	5.60	---

Note:

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2. * EDL - Below Detectable Limit
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5. The Compliance Register is available with the Laboratory as per Environment Protection Act, 1986.

Verified by:

Surekha Jamdar
 Surekha Jamdar
 Dy. Technical Manager

Issued by:

Shraddha Kere
 Shraddha Kere
 Technical Manager

*** End of Report ***

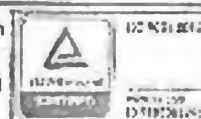
A Nataraj Group Company

W-404, Rabale MIDC,
 TTC Industrial Area,
 NAWI MUMBAI - 400 761
 INDIA

Tel : + 91 22 2760 3100 / 2760 3101
 Fax : + 91 22 2760 3100

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 Website : www.netel-india.com

CIN : U74999MH2003PLC142224



Regd. office : Liberty Building, 3rd Floor, Sir Vithaldas Thackersey Marg (New Marine Line), Mumbai - 400 020. Tel : 221160231 / 51



Tel : 221160231 / 51



Netel (India) Limited

STACK MONITORING REPORT

Name of Organization : M/s. Durgam Fertilisers And Petrochemicals Corporation Limited						
Customer Address : Talaja Plant (Plot K-1, MIDC Industrial Area - P-11, Talaja Dist. Raigad 410208 Maharashtra)						
Customer Reference : Work Order no. 4800053553, Dated 24.07.2019						
Date of Sampling	Sample Received Date	Analysis Start Date	Analysis Complete Date	Report on Date		
27.08.2019	28.08.2019	28.08.2019	31.08.2019	31.08.2019		
Sample Type : Flue Gas (Stack)			Sampling done by : Netel (India) Limited			
Stack Connected to : Boiler			Stack Diameter : 1830			
Sampling Location : Boiler 0			Sample Code : NL/ST/08/19/033			
Sr. No.	Parameters	Method	Unit	MDL	Results	Consent Limits
1	Stack Temperature	IS 11250 (Part 3)	°C	---	106	---
2	Stack Gas Velocity	IS 11255 (Part 3)	m/sec	---	5.49	---
3	Volumetric Flow Rate	IS 11255 (Part 3)	Nm ³ /hr	---	40701	---
4	Sulphur Dioxide	IS 11255 (Part 7)	mg/Nm ³	3	3.9	---
			ppm	---	1.5	---
			kg/day	---	3.81	---
5	Oxides of Nitrogen	IS 11255 (Part 7)	mg/Nm ³	3	39.2	---
			ppm	---	20.8	50
			kg/day	---	35.28	---
6	Carbon Monoxide	USEPA - 10A	mg/Nm ³	4	6.9	---
			ppm	---	6.0	---
			kg/day	---	6.74	---

Note:

1. * MDL - Minimum Detectable Limit.
2. ** DDL - Below Detectable Limit.
3. This Test Report shall not be reproduced, copied or put, without written approval of the Laboratory.
4. This Test Report refers only to the sample tested.
5. The Complaint Register is available with the Laboratory as per Environment Protection Act, 1986.

Verified by:

Surekha Jamdar
Surekha Jamdar
 Dy. Technical Manager

Issued by:

Shraddha Kore
Shraddha Kore
 Technical Manager

End of Report

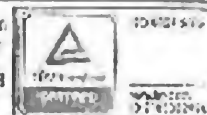
A Netelwala Group Company

W-406, Raigad MIDC,
 TTC Industrial Area
 Navi Mumbai - 400 701
 INDIA

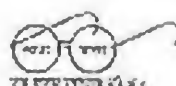
Tel. : + 91 022 2760 7100 / 2700 7102
 Fax : + 91 022 2750 7100

E-mail : sales@netel-india.com
 Website : www.netel-india.com

CIN : U74395M-42000PLC-42253



Regd. office : Liberty Building, 3rd Floor, Shri Mahadev Traders, Morji, (New Morji Bus Lines), Mumbai - 400 041. Tel : 22066231/41





Netel (India) Limited

STACK MONITORING REPORT

Name of Organization : M/s. Dahanu Fertilisers And Petrochemicals Corporation Limited						
Customer Address : Talaja Plant Plot K-1, MIDC Industrial Area, P.O. Talaja Dist. Raigad 410208 Maharashtra						
Customer Reference : Work Order no. 46500/5893, Dated 24.07.2019						
Date of Sampling	Sample Received Date	Analysis Start Date	Analysis Complete Date	Report on Date		
27.06.2019	28.06.2019	28.06.2019	31.06.2019	31.06.2019		
Sample Type : Flue Gas (Stack)			Sampling done by : Netel (India) Limited			
Stack Connected to : Reformer			Stack Diameter : 1273			
Sampling Location : Ammonia Primary Reformer			Sample Code : NUST02819099			
Sr. No.	Parameters	Method	Unit	MDE*	Results	Consent Limits
1	Stack Temperature	IS 11255 (Part 3)	°C	---	171	---
2	Stack Gas velocity	IS 11255 (Part 3)	m/sec	---	9.54	---
3	Volumetric Flow Rate	IS 11255 (Part 3)	Nm ³ /hr	---	33972	---
4	Sulphur Dioxide	IS 11255 (Part 2)	mg/Nm ³	3	5.0	---
			ppm	---	1.9	---
			kg/day	---	4.08	---
5	Oxides of Nitrogen	IS 11255 (Part 7)	mg/Nm ³	3	6.8	---
			ppm	---	3.5	50
			kg/day	---	5.54	---
6	Carbon Monoxide	USEPA - 10A	mg/Nm ³	2	8.2	---
			ppm	---	7.2	---
			kg/day	---	6.69	---

Note:

1. MDE - Minimum Detectable Limit
2. --- ND - Below Detectable Limit.
3. This Test Report shall not be reproduced except in full, without written approval of the Laboratory.
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5. The Complaint Register is available with the Laboratory as per Environmental Protection Act 1986.

Verified by:

Surajda Jankar
 Surajda Jankar
 Dy. Technical Manager

Issued by:

Shiraddha Kora
 Shiraddha Kora
 Technical Manager

End of Report

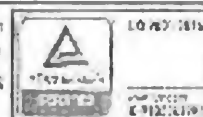
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W-406, Bafra MIDC,
 TTC Industrial Area,
 New MIDC Road, 400 021,
 INDIA

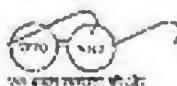
Tel. : + 91 022 2760 7100 / 2760 7100
 Fax : + 91 022 2760 7100

E-mail: sales@netelindia.com
 Website: www.netel-india.com

CIN : U74939MH2013PLC142238



Regd. office: Liberty Building, 3rd Floor, St. Vitthaldas Thackersey Marg, (New Marine Lines), Mumbai - 400 020. Tel. : 22058231 / 51





Netel (India) Limited

STACK MONITORING REPORT

Name of Organization : M/s. Deepak Fertilisers And Petrochemicals Corporation Limited.						
Customer Address : Takja Plant, Plot K-1, MIDC Industrial Area, P.O. Takja Dist. Raigad 410208 Maharashtra						
Customer Reference : Work Order no. 480005893, Dated 24.07.2015						
Date of Sampling	Sample Received Date	Analysis Start Date	Analysis Complete Date	Report on Date		
26.09.2015	27.09.2015	27.09.2015	30.09.2015	30.09.2015		
Sample Type : Flue Gas (Stack)			Sampling done by : Netel (India) Limited			
Stack Connected to : --			Stack Diameter : 1632 mm			
Sampling Location : LDAN Pilling Tower			Sample Code : NIDST/09/19/074			
Sr. No.	Parameters	Method	Unit	MUL*	Results	Consent Limits
1	Temperature	IS 11255 (Part 3)	°C	---	38.0	---
2	Velocity of Gas	S 11255 (Part 3)	m/sec	---	1.8	---
3	Volumetric Flow Rate	S 11255 (Part 3)	Nm ³ /hr	---	12827	---
4	Particulate Matter	IS 11255 (Part 1)	mg/Nm ³	3	6.2	---
			kg/day	---	1.909	---
5	Ammonia	IS 11255 (Part 6)	mg/Nm ³	0.05	9.8	---
			ppm	---	6.81	50
			kg/hr	---	0.1257	---

Note:

- * MDA - Minimum Detectable Limit.
- ** BDL - Back Detectable Limit.
- This Test Report shall not be reproduced except in full, without written approval of the Laboratory.
- This Test Report refers only to the sample tested.
- The Complaint Register is available with the Laboratory as per Environment Protection Act, 1986.

Verified by:

Surekha Jamdar
Surekha Jamdar
Cy. Technical Manager

Issued by:

Shradha Kere
Shradha Kere
Technical Manager

End of Report

A Kalenvala Group Company

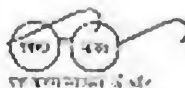
W-106, Rabal MIDC,
TTC Industrial Area,
NAVE MUMBAI - 400 701
INDIA

Tel : + 91 22 2760 7100 / 2760 7108
Fax : + 91 22 2760 7100

Email : sales@netel-india.com
Website : www.netel-india.com
CIN : U74999MH2000PLC142228



Regd. office : 1, Dany Building, 3rd Floor, Sir Vithaldas Thackersey Marg, (New Marine Lines), Mumbai - 400 026. Tel : 22058031 / 61





Netel (India) Limited

STACK MONITORING REPORT

Name of Organization		: M/s. Deepak Fertilisers And Petrochemicals Corporation Limited				
Customer Address		: Talaja Plant Plot K-1, MIDC Industrial Area, P.O. Talaja Dist. Raigad 415203 Maharashtra				
Customer Reference		: Work Order no. 480055853, Dated 24.07 2019				
Date of Sampling	Sample Received Date	Analysis Start Date	Analysis Complete Date	Report on Date		
26.03.2019	27.09.2019	27.09.2019	30.09.2019	30.09.2019		
Sample Type			: Flue Gas (Stack)			
Stack Connected to			: Scrubber			
Sampling Location			: LDAN Scrubber			
Sampling done by			: Netel (India) Limited			
Stack Diameter			: 1500 mm			
Sample Code			: NIL/ST/03/15/975			
Gr. No.	Parameters	Method	Unit	MDL*	Results	Consent Limits
1	Temperature	IS 11255 (Part 3)	°C	---	79.0	---
2	Velocity of Gas	IS 11255 (Part 3)	m/sec	---	2.1	---
3	Volumetric Flow Rate	IS 11255 (Part 3)	Nm ³ /hr	---	11402	---
4	Particulate Matter	IS 11255 (Part 3)	mg/m ³	5	5.8	---
			kg/day	---	1.532	---
5	Ammonia	IS 11255 (Part 3)	mg/Nm ³	0.05	6.0	---
			ppm	---	4.17	50
			kg/hr	---	0.0584	---

Note

- * MDL - Minimum Detectable Limit.
- ** ECL - Below Detectable Limit.
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Verified by:

Surekha Jamdar
Dy. Technical Manager

Issued by:

Shradha Kere
Technical Manager

End of Report

A Netelwala Group Company

W-406, Raigad MIDC
TTC Industrial Area,
RAVI MUMBAI - 415 701,
INDIA

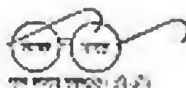
Tel : 91 222 2700 7102 / 2700 7103
Fax : 91 222 2700 7100

E-mail : sales@netel-india.com
Website : www.netel-india.com

CIN : U71999MH2003PLC142233



Regd. office : Liberty Building, 3rd Floor, Sir Vithaldas Thackersey Marg, (Near Marine Lines), Mumbai - 400 020 Tel. : 22065233 / 22065234





Netel (India) Limited

STACK MONITORING REPORT

Name of Organization : M/s. Deepak Fertilisers And Petrochemicals Corporation Limited.						
Customer Address : Talaja Plant Plot K-1, MIDC Industrial Area, F.O. Talaja Dist. Raigad 410208 Maharashtra						
Customer Reference : Work Order no. 4803058853, Dated 24.07.2019						
Date of Sampling	Sample Received Date	Analysis Start Date	Analysis Complete Date	Report on Date		
26.09.2019	27.09.2019	27.09.2019	30.09.2019	30.09.2019		
Sample Type : Fuel Gas (Stack)			Sampling done by : Netel (India) Limited			
Stack Connected to : Vent			Stack Diameter : 640 mm			
Sampling Location : GP Vent			Sample Code : NIL/STMS/130075			
Sr. No.	Parameters	Method	Unit	MDL*	Results	Consent Limits
1	Temperature	IS 11258 (Part 3)	°C	--	89.0	--
2	Velocity of Gas	IS 11260 (Part 3)	m/sec	--	1.9	--
3	Volumetric Flow Rate	IS 11265 (Part 3)	Nm ³ /hr	--	1020	--
4	Particulate Matter	IS 11255 (Part 1)	mg/Nm ³	3	9.1	--
			kg/day	--	0.399	--
5	Amonia	IS 11255 (Part 6)	mg/Nm ³	0.05	8.2	--
			ppm	--	5.70	50
			kg/hr	--	0.0150	--

Note :

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- ** BDL - Below Detectable Limit
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- The Complaint Register is available with the Laboratory as per Environment Protection Act 1986.

Verified by:

Surekha Jamdar
Surekha Jamdar
Dy. Technical Manager

Issued by:

Shraddha Kere
Shraddha Kere
Technical Manager

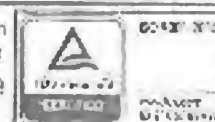
End of Report

A Netelwala Group Company

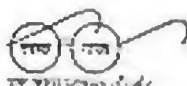
W-108, Raigad MIDC,
TIC Industrial Area,
NANDUMBAH - 400 201
INDIA.

Tel : + 91 022 2788 7102 / 2760 7105
Fax : + 91 022 2788 7100

E-mail : sales@netelindia.com
website : www.netelindia.com
CIN : U74999MH2005PLC142228



Raigad office : Liberty Building, 3rd Floor, Sir Millaladas Thackersey Marg, (New Marine Lines), Mumbai - 400 020, Tel. : 22081231 / 64





GADARK LAB PVT. LTD.

INDUSTRIAL ANALYSTS & CONSULTANTS

LAB : H-51, Additional M.I.D.C. Kudal, Taluka - Kudal, District - Sindhudurg - 415 525
Tel. : (02362) 221519 • E-mail : info@gadark.in • Website : www.gadark.in

OFF : 15, Hindustan Kohinoor Industrial Complex, L.B.S. Marg, Vikhroli (West), Mumbai - 43.
Tel. : (022) 25777069 / 70

TEST CERTIFICATE Doc. No: GLPL/QF/5.10/01

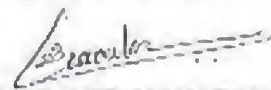
Test Certificate No.	GW/O/19/1097	T.C. Date:	08/04/2019
Customer Name and Address	M/s. DEEPAK FERTILISERS AND PETROCHEMICALS CORP. LTD. PLOT K - 1, MIDC INDUSTRIAL AREA, TALOJA, A. V. 410 208, DIST. - RAIGAD.		
PO No./Date	4800051214, Dated 21/06/2018		
Lab Reference No.	GW/O/19/1097	Page No.	1 of 1
Sampling Done By	GLPL On 01/04/2019	Sample Received on	02/04/2019
Sample Collected by	GLPL	Analysis Period	02/04/2019 To 08/04/2019
Sample Description	ETP Outlet Sample, 1 lit in plastic bottle		

ANALYSIS REPORTS:

Parameters	Units	Test Results	Specification Range as per MPCB Limits	Methods
pH	---	8.15	6.0 To 8.5	APHA 4500 F ⁺
COD	mg/ltr	86	Not Specified	APHA 5220 B
BOD 3 days 27°C	mg/ltr	20	100 Max	IS 3025 (Part 44) - 1993
Total Suspended Solids at 105°C	mg/ltr	30	100 Max	APHA 2540 D
Total Dissolved Solids at 180°C	mg/ltr	2010	2100 Max	APHA 2540 C
Oil & Grease	mg/ltr	< 0.1	10 Max.	APIA 5520 B
Fluoride	mg/ltr	0.081	1.5 Max.	APHA 4500 F ⁺
Residual Chlorine	mg/ltr	Nil	1.0 Max.	APHA 4500 Cl E
Total Ammonical Nitrogen	mg/ltr	25.5	50 Max	APIA 4500 NH ₃ A
Nitrate-Nitrogen	mg/li	12.8	20.0 Max	APHA 4500 NO ₃ B
Free Ammonical Nitrogen	mg/ltr	0.008	4 Max	APHA 4500 NH ₃ C
Dissolved Phosphate	mg/ltr	0.32	5 Max	APHA 4500 P - D
Cyanide	mg/ltr	< 0.001	0.2 Max	APHA 4500 E
Arsenic	mg/ltr	< 0.001	0.2 Max	APHA 3112 B
Hexavalent Chromium as Cr '6	mg/ltr	< 0.001	0.1 Max	APHA 3500 Cr B
Total Chromium as Cr	mg/ltr	0.041	2.0 Max	APHA 3111 B & C
Vanadium	mg/ltr	< 0.001	0.2 Max.	APHA 3500 V

End

For GADARK LAB PVT. LTD.


AUTHORISED SIGNATORY
[SACHIN B. GAONKAR]


CHECKED BY

Note:

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4. Customer complaint register is available at laboratory.



GADARK LAB PVT. LTD.

INDUSTRIAL ANALYSTS & CONSULTANTS

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OFF. : 15, Industrial Kollimar Industrial Complex, L.B.S. Marg, Vikhroli (West), Mumbai - 50
Tel. : (022) 25777068 / 70

TEST CERTIFICATE Doc. No. GLPL/CF/5 10/01

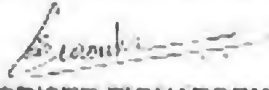
Test Certificate No	GWOM/19/1097	T.C. Date:	08/04/2019
Customer Name and Address	M/s. DEEPAK FERTILISERS AND PETROCHEMICALS CORP. LTD. PLOT K - 1, MIDC INDUSTRIAL AREA, TALOJA, A. V. 410 208, DIST. - RAIGAD.		
PO No./Date	4800051214, Dated 21/06/2018		
Lab Reference No.	GWOM/19/1097	Page No.	1 of 1
Sampling Done By	GLPL On 01/04/2019	Sample Received on	02/04/2019
Sample Collected by	GLPL	Analysis Period	02/04/2019 to 08/04/2019
Sample Description	FTP Outlet Sample, 1 lit in plastic bottle		

ANALYSIS REPORTS:

Parameters	Units	Test Results	Specification Range as per MPCB Limits	Methods
Chlorides	mg/ltr	58.38	Not Specified	APHA 4500 Cl ⁻
Sulphates	mg/ltr	80.5	Not Specified	APHA 4500 SO ₄ ²⁻ E
Total Kjeldahl Nitrogen	mg/ltr	32.4	Not Specified	APHA 4500 N ^{org} B
Dissolved Oxygen	mg/ltr	5.7	Not Specified	APHA 4500 O C

End

For GADARK LAB PVT. LTD.


AUTHORISED SIGNATORY
[SACHIN B. GAONKAR]


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GADARK LAB PVT. LTD.

INDUSTRIAL ANALYSTS & CONSULTANTS

LAB.: H-54, Additional M.I.D.C. Kuda, Taluka - Kudal, District - Sindhudurg - 416 525
Tel.: (02352) 223519 • E-mail: info@gadark.in • Website: www.gadark.in

UNIT.: 15, Hindustan Kolinox Industrial Complex, I. B.S. Marg, Vikhroli (West), Mumbai - 85.
Tel.: (022) 25777089 / 70

TEST CERTIFICATE

Doc. No. GLPL/QF/5.10/01

Test Certificate No.	GW/O/19/1494	T.C. Date:	08/05/2019
Customer Name and Address	M/s. DEEPAK FERTILISERS AND PETROCHEMICALS CORP. LTD. PLOT K - 1, MIDC INDUSTRIAL AREA, TALOJA, A. V. 410 208, DIST. - RAIGAD.		
PO No./Date	4800051214, Dated 21/06/2018		
Lab Reference No.	GW/O/19/1494	Page No.	1 of 1
Sampling Done By	GLPL On 03/05/2019	Sample Received on	04/05/2019
Sample Collected by	GLPL	Analysis Period	04/05/2019 To 08/05/2019
Sample Description	ETP Outlet Sample, 1 lit in plastic bottle		

ANALYSIS REPORTS:

Parameters	Units	Test Results	Specification Range as per MPCB Limits	Methods
pH	---	7.46	6.0 To 8.5	APHA 4500 H ⁺
COD	mg/ltr	53	Not Specified	APHA 5220 B
BOD 3 days 27°C	mg/ltr	23	100 Max.	IS 3025 (Part 4): 1983
Total Suspended Solids at 105°C	mg/ltr	38	100 Max.	APHA 2540 D
Total Dissolved Solids at 180°C	mg/ltr	2048	2500 Max.	APHA 2540 C
Oil & Grease	mg/ltr	≤ 0.1	10 Max.	APHA 5520 B
Fluoride	mg/ltr	0.054	1.5 Max.	APHA 4500 F
Residual Chlorine	mg/ltr	Nil	1.0 Max.	APHA 4500 Cl B
Total Ammonical Nitrogen	mg/ltr	18.6	50 Max.	APHA 4500 NH ₃ A
Nitrate-Nitrogen	mg/ltr	12.2	20.0 Max.	APHA 4500 NO ₃ B
Free Ammonical Nitrogen	mg/ltr	N ^l	4 Max.	APHA 4500 NH ₃ C
Dissolved Phosphate	mg/ltr	0.28	5 Max.	APHA 4500 P - D
Cyanide	mg/ltr	< 0.001	0.2 Max.	APHA 4500 E
Arsenic	mg/ltr	< 0.001	0.2 Max.	APHA 3112 B
Hexavalent Chromium as Cr ⁺⁶	mg/ltr	< 0.001	0.1 Max.	APHA 3500 Cr B
Total Chromium as Cr	mg/ltr	0.046	2.0 Max.	APHA 3111 B & C
Vanadium	mg/ltr	< 0.001	0.2 Max.	APHA 3500 V

End

For GADARK LAB PVT. LTD.

AUTHORISED SIGNATORY
[KAILAS V. CHITALKAR]

CHECKED BY

Note:

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4. Customer complaint register is available at laboratory.



GADARK LAB PVT. LTD.

INDUSTRIAL ANALYSTS & CONSULTANTS

LAB. : H-54, Additional W.T.D.C. Kudal, Taluka - Kudal, District - Sindhudurg - 416 525

Tel. : (02362) 223519 • E-mail : info@gadark.in • Website : www.gadark.in

Off. : 15, Hindustan Koinoor Industrial Complex, L.B.S. Marg, Vikhedi (West), Mumbai - 63.
Tel. : (022) 25777069 / 70

TEST CERTIFICATE

Doc. No: GLPL/GF/5.10/01

Test Certificate No.	GW/O/19/1494	T.C. Date:	08/05/2019
Customer Name and Address	M/s. DEEPAK FERTILISERS AND PETROCHEMICALS CORP. LTD. PLOT K - 1, MIDC INDUSTRIAL AREA, TALOJA, A. V. 410 208, DIST. - RAIGAD.		
PO No./Date	4800051214, Dated 21/05/2018		
Lab Reference No.	GW/O/19/1494	Page No	1 of 1
Sampling Done By	GLPL On 03/05/2019	Sample Received on	04/05/2019
Sample Collected by	GLPL	Analysis Period	04/05/2019 To 06/05/2019
Sample Description	V - Notch ETP Treated Sample , 1 lit in plastic bottle		

ANALYSIS REPORTS:

Parameters	Units	Test Results	Specification Range as per MPCB Limits	Methods
Chlorides	mg/ltr	177.29	Not Specified	APHA 4500 Cl
Sulphates	mg/ltr	75.50	Not Specified	APHA 4500 SO ₄ ²⁻ F
Total Kjeldahl Nitrogen	mg/ltr	22.6	Not Specified	APHA 4500 N ₂ B
Dissolved Oxygen	mg/ltr	5.1	Not Specified	APHA 4500 O C

End

For GADARK LAB PVT. LTD.

AUTHORISED SIGNATORY
[KAILAS V. CHITALKAR]

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Nota:

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4. Customer complaint register is available at laboratory.



GADARK LAB PVT. LTD.

INDUSTRIAL ANALYSTS & CONSULTANTS

LAB : H-54, Additional M.I.D.C. Kudsal, Tal.Ke - Kudal, District - Sindhudurg - 416 625
Tel. : (02362) 223519 • E-mail : info@gadark.in • Website : www.gadark.in

OFF : 15, Hindkadan, Kothisar Industrial Complex, L.D.S. Marg, Vikhrol (West) Mumbai - 23.
Tel. : (022) 2577089 / 70

TEST CERTIFICATE

Doc. No. GLPL/QP/5.10/01

Test Certificate No.	GW/O/19/1961	T.C. Date:	15/05/2019
Customer Name and Address	M/s. DEEPAK FERTILISERS AND PETROCHEMICALS CORP. LTD. PLOT K - 1, MIDC INDUSTRIAL AREA, TALOJA, A. V. 410 208, DIST. - RAIGAD.		
PO No./Date	---		
Lab Reference No.	GW/O/19/1961	Page No.	1 of 1
Sampling Done By	GLPL On 10/08/2019	Sample Received on	11/05/2019
Sample Collected by	GLPL	Analysis Period	11/05/2019 To 15/05/2019
Sample Description	ETP Treated Sample, 1 lit in plastic bottle		

ANALYSIS REPORTS:

Parameters	Units	Test Results	Specification Range as per MPCB Limits	Methods
pH	---	8.24	6.0 To 8.5	APHA 4500 H*
COD	mg/ltr	38	Not Specified	APHA 5220 B
BOD 3 days 27°C	mg/ltr	6	100 Max.	IS 3025 (Part 44) - 1993
Total Suspended Solids at 105°C	mg/ltr	38	100 Max.	APHA 2540 D
Total Dissolved Solids at 180°C	mg/ltr	1950	2100 Max.	APHA 2540 C
Oil & Grease	mg/ltr	< 0.1	10 Max.	APHA 5520 B
Fluoride	mg/ltr	0.081	1.5 Max.	APHA 4500 F
Residual Chlorine	mg/ltr	Nil	1.0 Max.	APHA 4500 Cl E
Total Ammonical Nitrogen	mg/ltr	21.2	50 Max.	APHA 4500 NH ₃ A
Nitrate-Nitrogen	mg/ltr	11.0	20.0 Max.	APHA 4500 NO ₃ B
Free Ammonical Nitrogen	mg/ltr	Nil	4 Max.	APHA 4500 NH ₃ C
Dissolved Phosphate	mg/ltr	0.33	5 Max.	APHA 4500 P - D
Cyanide	mg/ltr	< 0.001	0.2 Max.	APHA 4500 E
Arsenic	mg/ltr	< 0.001	0.2 Max.	APHA 3112 B
Hexavalent Chromium as Cr ⁺⁶	mg/ltr	< 0.001	0.1 Max.	APHA 3500 Cr B
Total Chromium as Cr	mg/ltr	0.021	2.0 Max.	APHA 3111 B & C
Vanadium	mg/ltr	< 0.001	0.2 Max.	APHA 3500 V

End

For GADARK LAB PVT. LTD.

AUTHORISED SIGNATORY
[SACHIN B. GAONKAR]

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Note:

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4. Customer complaint register is available at laboratory



GADARK LAB PVT. LTD.

INDUSTRIAL ANALYSTS & CONSULTANTS

LAB. : H-54, Additional M.I.D.C. Kurla, Teeka - Kurla, District - Sindhudurg - 416 525

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OFF. : 15, Industrial Kharinor Industrial Complex, U. B. S. Marg, Vikhrol (West), Mumbai - 83.

Tel. : (022) 25777039 / 70

TEST CERTIFICATE

Doc. No: GI PL/GF/5.10/01

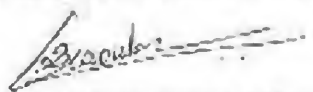
Test Certificate No.	GW/O/19/1961	T.C. Date:	15/06/2019
Customer Name and Address	M/s. DEEPAK FERTILISERS AND PETROCHEMICALS CORP. LTD. PLOT K - 1, MIDC INDUSTRIAL AREA, TALOJA, A. V. 410 208, DIST. - RAIGAD.		
PO No./Date	---		
Lab Reference No.	GW/O/19/1961	Page No.	1 of 1
Sampling Done By	GLPL On 10/06/2019	Sample Received on	11/06/2019
Sample Collected by	GLFL	Analysis Period	11/06/2019 To 15/06/2019
Sample Description	ETP Treated Sample , 1 lit In plastic bottle		

ANALYSIS REPORTS:

Parameters	Units	Test Results	Specification Range as per MPCB Limits	Methods
Chlorides	mg/ltr	166.47	Not Specified	APHA 4500 Cl ⁻
Sulphates	mg/ltr	476.25	Not Specified	APHA 4500 SO ₄ ²⁻ E
Total Kjeldahl Nitrogen	mg/ltr	28.5	Not Specified	APHA 4500 N ^{total} B
Dissolved Oxygen	mg/ltr	5.6	Not Specified	APHA 4500 O ₂ C

End

For GADARK LAB PVT. LTD.


AUTHORISED SIGNATORY
[SACHIN B. GAONKAR]


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Note:

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3. Samples will be preserved for a period 15 days from the delivery of Test Certificate
4. Customer complaint register is available at laboratory.



Netel (India) Limited

WATER MONITORING REPORT

Name of Organization : M/s. Deepak Fertilizers And Petrochemicals Corporation Limited						
Customer Address : Talaja Plant Plot No. 1, MIDC Industrial Area, P.O. Talaja Dist. Raigarh-410200 Maharashtra						
Customer Reference : Work Order no. 480035800, Dated 24.07.2019						
Date of Sampling	Sample Received Date	Analysis Start Date	Analysis Complete Date	Report on Date		
23.07.2019	30.07.2019	30.07.2019	02.08.2019	03.08.2019		
Sample Type : Water			Sampling done by : Netel (India) Limited			
ULR Number : TC67081900000459CF			Container / Qtn. : Plastic can (2 lit)			
Sampling Location : Treated Effluent (TEF)			Sample Code : NIL/WC7/ G158			
Sr. No.	Test Parameter	Method	Unit	MDL*	Result	KPCB Limits
1	pH	IS 3025 (Part 1)	-	0.5 - 13.5	7.98	6.5 - 8.5
2	Total Dissolved Solids	IS 3025 (Part 18)	mg/lit	5	1774	2100
3	Total Suspended Solids	IS 3025 (Part 17)	mg/lit	5	19	100
4	COD	IS 3025 (Part 5B)	mg/lit	10	26	250
5	BOD	IS 3025 (Part 44)	mg/lit	4	10	100
6	Residual Free Chlorine	IS 3025 (Part 25)	mg/lit	0.1	BDL	1
7	Fluoride	APHA 4500-F-D	mg/lit	0.02	0.88	1.5
8	Nitric Nitrogen	IS 3025 (Part 34)	mg/lit	0.05	16.3	20
9	Phosphate	APHA 4500-P-C	mg/lit	1	4.3	5
10	Free Ammonical Nitrogen	IS 3025 (Part 34)	mg/lit	0.5	BDL	4
11	Ammonical Nitrogen	IS 3025 (Part 34)	mg/lit	0.1	35.0	50
12	Arsenic	APHA 3114-C	mg/lit	0.035	BDL	0.2
13	Cyanide	APHA 4500-CN-E	mg/lit	0.01	BCL	0.2
14	Vanadium	APHA 3114-B	mg/lit	0.2	BCL	0.2
15	Total Chromium (as Cr ⁶⁺)	APHA 3111-B	mg/lit	0.01	BCL	2
16	Hexavalent Chromium (Cr ⁶⁺)	APHA 3500-Cr-B	mg/lit	0.1	BCL	0.1
17	Oil & Grease	APHA 8520-B	mg/lit	0.2	BCL	10

Note:

1. MDL - Method Detectable Limit.
2. BDL - Blank Detectable Limit.
3. This Test Report shall not be reproduced except in full, without written approval of the Laboratory.
4. This Test Report refers only to the samples tested.
5. The complaint register is available with the Laboratory as per Environment Protection Act, 1986.

Verified by:

Surekha
Surekha Jemdar
Dy. Technical Manager

Issued by:

Surekha
Shradha Kere
Technical Manager

End of Report

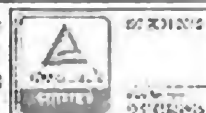
A Netelwala Group Company

W-408, Rabelo MIDC,
TTC Industrial Area
NEW MUMBAI - 400 761,
INDIA.

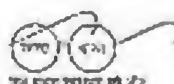
Tel. : +91 022 2700 7102 / 2760 7100
Fax : +91 022 2700 7100

Email : sales@netel-india.com
Website : www.netel-india.com

CIN : U74999MH2006PLC142278



Regional Office : Liberty Building, 3rd Floor, 50 Vithaldas Thackersey Marg (New Marine Lines), Mumbai - 400 001. Tel. : 2206621 / 61





Netel (India) Limited

WATER MONITORING REPORT

Name of Organization : M/s. Deepak Fertilisers And Petrochemicals Corporation Limited.
 Customer Address : Tarqa Plant Plot K-1, MIDC Industrial Area, P.O. Talga Dist. Raigad 410201 Maharashtra
 Customer Reference : Work Order no. 490055803, Dated 26.07.2019

Date of Sampling	Sample Received Date	Analysis Start Date	Analysis Complete Date	Report on Date
29.08.2019	30.08.2019	30.08.2019	02.09.2019	03.09.2019

Sample Type : Water
 Sampling done by : Netel India Limited
 ULR Number : TO3703/9002004930P
 Container / Qtn. : Plastic can (2 lit)
 Sampling Location : Treated Effluent (ETP)
 Sample Code : NDL/9002/19/46

Sr. No.	Test Parameter	Method	Unit	MDL	Result	Consens. Limits
1	pH	IS 3025 (Part 1)	-	0.5 - 13.5	5.58	6.0 - 8.5
2	Total Dissolved Solids	IS 3025 (Part 1a)	mg/l	5	144	210
3	Total Suspended Solids	IS 3025 (Part 1a)	mg/l	5	17	100
4	COB	IS 3025 (Part 5b)	mg/l	10	27	250
5	BOD	IS 3025 (Part 4a)	mg/l	4	7	100
6	Residual Free Chlorine	IS 3025 (Part 2b)	mg/l	0.1	NDL	1
7	Fluoride	APHA 4500-F-D	mg/l	0.02	0.07	15
8	Nitrate	IS 3025 (Part 34)	mg/l	0.05	0.3	50
9	Phosphate	APHA 4500-P-C	mg/l	-	3.8	5
10	Free Ammonia Nitrogen	IS 3025 (Part 34)	mg/l	0.5	BDL	4
11	Ammoniacal Nitrogen	IS 3025 (Part 34)	mg/l	0.1	41.8	50
12	Arsenic	APHA 3114-D	mg/l	0.005	BDL	0.2
13	Cyanide	APHA 4500-CN-E	mg/l	0.01	BDL	0.2
14	Vanadium	APHA 3111-B	mg/l	0.2	BDL	0.2
15	Total Chromium (as Cr)	APHA 3111-B	mg/l	0.01	BDL	2
16	Hexavalent Chromium (Cr ^{VI})	APHA 3500-Cr-B	mg/l	0.1	BDL	0.1
17	Oil & Grease	APHA 5520-B	mg/l	0.2	BDL	10

Note:

1. MDL - Method Detection Limit.
2. BDL - Below Detectable Limit.
3. This Test Report shall not be reproduced except in full, without written approval of the Laboratory.
4. This Test Report refers only to the sample tested.
5. The complete register is available with the Laboratory as per Environment Protection Act, 1986.

Verified by:

Surekha Jamdar
 Dy. Technical Manager

Issued by:

Shradha Kote
 Technical Manager

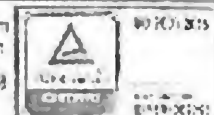
End of Report

A Netel India Group Company

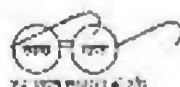
W-209, Rabale MIDC
 TTC Industrial Area,
 NAVI MUMBAI - 400 711
 INDIA.

Tel - 01 022 2760 7102, 2760 7103
 Fax - 01 022 2760 7100

E-mail - sales@netel.india.com
 Website - www.netelindia.com
 CRL - J74399MH2003PL0147228



Regd. office: Liberty Building, 3rd Floor, Sir Vithaldas Thackersey Marg, (Near Marine Lines), Mumbai - 400 020. Tel - 22385231-16





Netel (India) Limited

WATER MONITORING REPORT

Name of Organization : M/s. Detpak Fertilisers And Petrochemicals Corporation Limited
Customer Address : Taraja Pansol Plot K-1, MIDC Industrial Area, F.O. Taraja Dist. Raigad 410208 Maharashtra
Customer Reference : Work Order no. 4930055833, Dated 24.07.2019

Table with 5 columns: Date of Sampling, Sample Received Date, Analysis Start Date, Analysis Complete Date, Report on Date. Values: 26.09.2019, 26.09.2019, 26.09.2019, 20.09.2019, 01.10.2019

Sample Type : Waste Water
ULR Number : TCC7351900005222P
Sampling Location : Water Effluent (TTF)
Sampling done by : Netel (India) Limited
Container / Qtr : Plastic can (2 lit)
Sample Code : 19750001076

Main data table with 7 columns: Sr. No., Test Parameter, Method, Unit, MCL, Result, MPCB Limits. Contains 17 rows of test results for parameters like pH, TDS, TSS, COD, BOD, Chlorine, Fluoride, Nitrate Nitrogen, Phosphate, Ammonia Nitrogen, etc.

Note:

- 1. MCL - Method Detectable Limit.
2. BDL - Brevet Detectable Limit.
3. This Test Report shall not be reproduced except in full, without the prior approval of the Laboratory.
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Verified by:

Signature of Surajita Jandari
Surajita Jandari
Dy. Technical Manager

Issued by:

Signature of Shradha Kere
Shradha Kere
Technical Manager

---End of Report---

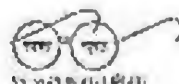
A Netelwala Group Company

W-405, Relvive MIDC, F.O. Industrial Area, NAWI KHURSA/ - 400 501, INDIA. Tel: +91 022 2700 7100 / 2700 7102. Fax: +91 022 2700 7100

Email: adcs@netel.in, netel.com
Web Site: WWW.NETELINDIA.COM
CIN: U71999MH2012PLC112526



Regd. office Liberty Building, 3rd Floor, St. Vincent's Trustees Marg, (New Marine Lines), Mumbai - 400 020. Tel: 22086221 / 61





GADARK LAB PVT. LTD.

INDUSTRIAL ANALYSTS & CONSULTANTS

LAB. : H-04, Additional M.I.D.C. Kuda, Taluka - Kudal, District - Sindhudurg - 416 525.
Tel. : (02362) 223519 • E-mail : info@gadark.in • Website : www.gadark.in

OFF : 15, Hindustan Kohinoor Industrial Complex, L.B.S. Marg, Vikhroli (West), Mumbai - 63.
Tel. : (022) 2577069 / 70

TEST CERTIFICATE

Doc No: GLPL/OF/5.10/01

Test Certificate No.	GA/19/04/77	T.C. Date :	11/04/2019
Customer Name and Address.	M/s. DEEPAK FERTILISERS AND PETROCHEMICALS CORP. LTD. PLOT K-1, MIDC INDUSTRIAL AREA, TALOJA, A.V. 410 208, DIST. - RAIGAD.		
Letter Ref / Date .	---		
Measurement Done By	GLPL	Page No.	1 of 1

AMBIENT NOISE LEVEL MEASUREMENT :-

Date of Measurement	04/04/2019
---------------------	------------

Sr. No.	LOCATION	NOISE LEVEL dB (A)	
		DAY TIME 12:10 HRS.	NIGHT TIME 22:30 HRS.
01	Near Main Gate	62.3	57.4
02	Near Ammonia Unloading Gate	64.7	63.5
03	Near NPK Gate	66.2	60.7
04	IPA Gate	68.4	62.4
05	CFB Gate	63.4	58.9
M.P.C.B. LIMITS		76.0	70.0

End

For GADARK LAB PVT. LTD.

AUTHORISED SIGNATORY
[KAILAS V. CHITALKAR]

CHECKED BY

Note :

1. The results relate only to the samples tested
2. Test certificate shall not be reproduced except in full, without written approval of the laboratory.
3. Test Results relate only to the conditions prevailing at the time of sampling
4. Customer contact register is available at laboratory.



GADARK LAB PVT. LTD.

INDUSTRIAL ANALYSTS & CONSULTANTS

LAB : H-51, Additional M.I.D.C. Kodal, Taluka - Kudal, District - Sindhudurg - 416 523.

Tel : (02302) 223519 • Email : info@gadark.in • Website : www.gadark.in

OFF : 15, Hindustan Kulkarni Industrial Complex, L.B.S. Marg, Vikhroli (West), Mumbai - 63
Tel : (022) 25777069 / 70

TEST CERTIFICATE

Doc.No : GLPL/CF/5 1301

Test Certificate No.	GA/19/05/37	T.C. Date :	10/05/2019
Customer Name and Address.	M/s. DEEPAK FERTILISERS AND PETROCHEMICALS CORP. LTD. PLOT K-1, MIDC INDUSTRIAL AREA, TALOJA, A.V. 410 208, DIST. - RAIGAD.		
Letter Ref / Date .	--		
Measurement Done By	GIPL	Page No.	1 of 1

AMBIENT NOISE LEVEL MEASUREMENT :-

Date of Measurement	04/05/2019
---------------------	------------

Sr. No.	LOCATION	NOISE LEVEL dB (A)	
		DAY TIME 11:45 HRS.	NIGHT TIME 23:15 HRS.
01	Near Main Gate	64.4	58.9
02	Near Ammonia Unloading Gate	68.3	65.1
03	Near NPK Gate	61.7	55.0
04	IPA Gate	64.8	54.9
05	CFB Gate	62.2	58.4
M.P.C.B. LIMITS		75.0	70.0

End

For GADARK LAB PVT. LTD.

AUTHORISED SIGNATORY
[KAILAS V. CHITALKAR]

CHECKED BY

Note :-

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3. Test Results relate only to the conditions prevailing at the time of sampling
4. Customer complaint register is available at laboratory.



GADARK LAB PVT. LTD.

INDUSTRIAL ANALYSTS & CONSULTANTS

LAB : H-54, Additional MIDC, Kudal, Taluka - Kudal, District - Sindhudurg - 415 525

Tel. : (02352) 223519 • E-mail : info@gadark.in • Website : www.gadark.in

OFF : 15, Hindustan Kohinoor Industrial Complex, L.S.S. Marg, Vikhroli (West), Mumbai - 85.

Tel. : (022) 2577069 / 70

TEST CERTIFICATE

Lab.No : GLP/Q-15/1901

Test Certificate No.	GA/19/06/166	T.C. Date :	15/06/2019
Customer Name and Address.	M/s. DEEPAK FERTILISERS AND PETROCHEMICALS CORP. LTD. PLOT K-1, MIDC INDUSTRIAL AREA, TALOJA, A.V. 410 205, DIST. - RAIGAD.		
Lotter Ref / Date .	---		
Measurement Done By	GLPL	Page No.	1 of 1

AMBIENT NOISE LEVEL MEASUREMENT :-

Date of Measurement	10/06/2019
---------------------	------------

Sr No.	LOCATION	NOISE LEVEL dB (A)	
		DAY TIME 11:30 HRS.	NIGHT TIME 22:40 HRS
01	Near Main Gate	63.9	56.3
02	Near Ammonia Unloading Gate	70.1	63.1
03	Near NPK Gate	62.7	56.1
04	IPA Gate	63.9	57.7
05	CFR Gate	65.1	53.6
M.P.C.B. LIMITS		75.0	70.0

End

For GADARK LAB PVT. LTD.

AUTHORISED SIGNATORY
[KAILAS V. CHITALKAR]

CHECKED BY

Note :

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2. Test certificates shall not be reproduced except in full, without written approval of the laboratory
3. Test Results relate only to the conditions prevailing at the time of sampling
4. Customer complaint register is available at laboratory



Netel (India) Limited

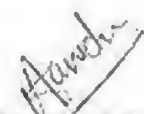
NOISE LEVEL MONITORING REPORT

Name of Organization : M/s. Deepak Fertilisers And Petrochemicals Corporation Limited					
Address : Talaja Plant Plot K-1, MIDC Industrial Area, P.O. Talaja Dist. Raigad 410203 Maharashtra					
Customers Reference : Work Order no. 4800056983, Dated 24.07.2019					
Instrument Model : Lutron SL-4033-SD (Class 1)			Instrument Serial No. : C640792		
Date of Sampling : 14.08.2019			Date of Calibration : 24.09.2019		
Date of Reporting : 17.08.2019			Next Calibration Due : 23.09.2019		
Sr. No.	Location	Leq (dBA)			
		Day	MPCE Limit	Night	MPCE Limit
1	Main Gate	65.9	75	66.4	70
2	NPK Gate No. 4	55.3	75	55.3	70
3	NPK Raw Material Storage Area	68.5	75	67.0	70
4	NPK Production Unit	56.5	75	55.4	70
5	Near IPA Gate	66.2	75	65.6	70
6	Near CFB Cooling Tower	70.6	75	69.1	70
7	Ammonia Unloading	58.2	75	57.5	70
8	K-6 Plot (Near Main Gate)	68.8	75	68.1	70

Note:

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3. The Complaint Register is available with the Laboratory as per Environment Protection Act, 1986.

Verified by:


Surokha Jamdar
Dy. Technical Manager

Issued by:


Shradha Kere
Technical Manager

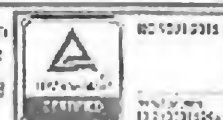
End of Report

A Netelworld Group Company

VH-409, Rabale MIDC,
TTC Industrial Area,
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INDIA.

Tel : + 91 222 2790 7102 / 2790 7103
Fax : + 91 222 2790 7100

E-mail : sales@netel-india.com
Website : www.netel-india.com
CIN : U74999MH2003PLC142228



Regd. office : Liberty Building, 3rd Floor, St. Vitthaladas Thackeray Marg. (New Marine Lines), Mumbai - 400 020, Tel. : 22000231 / 01





Netel (India) Limited

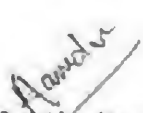
NOISE LEVEL MONITORING REPORT

Name of Organization : MS Reliance Industries Limited					
Address : Nagelhane, Taluka Raha, District Raigad - 402 125					
Customers Reference : Work Order No. NNO23030690, Date 25.08.2017					
Instrument Model : Lutron SL-4033-SD (Class 1)			Instrument Serial No. : Q940792		
Date of Sampling : 25.08.2019			Date of Calibration : 17.08.2019		
Date of Reporting : 28.08.2019			Next Calibration Due : 18.08.2020		
Sr. No.	Location	Leq (dBA)			
		Day	MPCB Limit	Night	MPCB Limit
1	Main Gate	72.7	75	69.4	70
2	NPK Gate No. 4	57.9	75	56.5	70
3	NPK Raw Material Storage Area	68.6	75	68.0	70
4	NPK Production Unit	62.8	75	61.7	70
5	Near IPA Gate	67.2	75	66.7	70
6	Near CFB Cooling Tower	74.3	75	68.4	70
7	Ammonia Unloading	70.5	75	69.5	70
8	K-S Plot (Near Main Gate)	67.9	75	66.4	70

Note:

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3. The Complaint Register is available with the Laboratory as per Environment Protection Act, 1986.

Verified by:


Sushkha Jamdar
 Dy. Technical Manager

Issued by:


Shiraddha Kare
 Technical Manager

End of Report

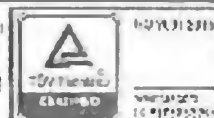
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W-408, Rabale MIDC
 TTC Industrial Area,
 NANI MUMBAI - 400 701
 INDIA.

Tel : + 91 22 2790 7102 / 2790 7100
 Fax : + 91 22 2790 7100

E-mail : sales@netel-india.com
 Website : www.netelIndia.com

CIN : U74999MH2003PLC142223



Regd. office : Liberty Building, 5th Floor, Sir Mhatre's Thackersey Marg (New Marine Line), Mumbai - 400 029. Tel. : 22665231 / 61





DEEPAK FERTILISERS
AND PETROCHEMICALS
CORPORATION LIMITED

Deepak Fertilizers and Petrochemicals Corporation Ltd, Talaja CSR Report 2019-20 Half Yearly

VISION

To act as an effective catalyst in Deepak Fertilisers And Petrochemicals Corporation Limited (DFPCL) geographies of operations in creating a self-reliant and respectable society with secure and sustained means to livelihood, through employable skills and resource support and additionally to promote and support the rich cultural heritage of India.

MISSION

The mission for the identified society at large, in geographies of DFPCL's operations and influence, shall be:

- To identify the potential of and gaps in the economic and social support systems, so as to help develop a sustained, self-reliant society with special emphasis on the youth, women & marginal farmers
- To undertake vocational skill and soft skill development initiatives enabling sustained and respectable employment opportunities for leading a self-reliant life
- To facilitate income generation programs of individuals / groups through alignment of skill development with self-employment opportunities
- To provide marketing and financial support to help enhance sustained income generation initiatives
- To generate community development activities and promote self-help groups so as to improve the living conditions of people through peoples' initiatives
- To initiate activities and develop government / institutional linkages in community preventive / corrective health facilities where needed
- To undertake farmer skill building, soil / nutrient / agri-inputs / produce enhancement initiatives
- To support performing arts among local communities for promotion of talent & cultural richness of the society
- To provide a much-needed crisis support for unexpected calamities and disasters
- To co-ordinate / conduct any other CSR initiatives which are consistent with the provisions of Section 135 of the Companies Act, 2013 or other provisions as may be prescribed by the government from time to time.

Introduction:

As a true corporate citizen, DFPCL is committed to social thought and action and is resolute in its dedication to serve the society they live in. The Company has been engaged in community work through **Ishanya Foundation** at Talaja and Pune in Maharashtra.

The CSR Arm of Deepak Fertilisers and Petrochemicals Corporation Limited, Pune (DFPCL), Ishanya Foundation (ISTON) is a registered NGO under the provision of the Bombay Public Trust Act 1950.

DFPCL has always considered its surrounding communities as an important group of stakeholders in its business and is committed to contribute towards improving their quality of life through various measures. Projects being implemented in: 47 villages and 19 hamlets and urban area of Pune:

Sr.No.	Block	Revenue Village	Hamlet
1	Panvel	Ambc	
2	Panvel	Ambivali	
3	Panvel	Shirwali	

4	Panvel	Chinchvali -T	
5	Panvel	Wavanja	
6	Panvel	Nitlas	
7	Panvel	Devichapada	
8	Panvel	Pale Kh	
	Panvel		Dongryachapada
9	Panvel	Chindran	
10	Panvel	Tondre	
11	Panvel	Khairne	
12	Panvel	Mahalungi	
13	Panvel	Kanpali	
14	Panvel	Nere	
	Panvel		Nerepada
	Panvel		Bhokarpada
	Panvel		Sangtoli
15	Panvel	Owe	
	Panvel		Owe Camp
	Panvel		Peth
16	Panvel	Shivkar	
	Panvel		Mohapada
17	Ambarnath	Brudul	
18	Panvel	Cherwali	
19	Panvel	Waje	
20	Ambarnath	Shelarpada (Ambrnath)	
	Ambarnath		Mhatrepada
21	Ambarnath	Chirad	
22	Ambarnath	Chinchvali (Ambrnath)	
23	Panvel	Pale BK	
	Panvel		Walvali
	Panvel		Kolwadi
24	Panvel	Khanav	
25	Ambarnath	Kumbarli	
26	Panvel	Taloramajkar	
	Panvel		Dharna
	Panvel		Pethali
27	Panvel	Turbhe	
28	Panvel	Siddhikarvale	
29	Panvel	Morbe	
30	Ambarnath	Karvale KH	
31	Panvel	Wagani (TT)	
32	Panvel	Karnbeli	
	Panvel		Bhalyachiwadi
	Panvel		Yelmar
33	Panvel	Khairwadi	

	Panvel		Fanswadi
	Panvel		Garnal
34	Panvel	Modhar	
	Panvel		Katrapada
35	Panvel	Hedutne	
36	Panvel	Gadeswar	
	Panvel		Rithghar
37	Panvel	Dhundre	
38	Panvel	Dhamni	
	Panvel		Housechiwadi
39	Panvel	Deharang	
40	Panvel	Kondap	
41	Panvel	Poyanje	
42	Panvel	Wardoli	
43	Ambarnath	Nariwali	
44	Ambarnath	Narhcan	
45	Ambarnath	Usatne	
46	Ambarnath	Dombiwali	
47	Panvel	Vihighar	

Nearly 11253 families served in urban, rural and tribal areas through various initiatives by the end of financial year 2018-19.

Sr. No	Name of Project	Major Activity	No. of Families Benefited
1	Wadi & Health	Wadi, Veg., WRD	0488
		Eye & Gen. Health	3294
2	Women Empowerment	Women training	0252
3	Dairy Development	Livestock & AI	0442
4	Community Development & Social Welfare	Disaster Management & Health	0757
5	VSDP Health & Education	Vocational Courses	0418
		Health Camp + LAB	1241
6	LEED	KIP + Muskaan + YRNI + Entrepreneurship	3291
7	I-REACH	Art & Culture	1070
	Total		11253

DFPCI is implementing need-based activities in more than 50 hamlets and villages of New Panvel and urban area of Pune. Under CSR initiatives projects and activities are being implemented:

Wadi Development

- Horticulture Plantation (Mango)
- Promotion of Vegetables crops
- Promotion of Floriculture
- Health
- Farmers Capacity Building

Dairy Development

- Cattle Induction
- Door-step health services for cattle
- Artificial Insemination
- Fodder Development
- Vaccination
- Farmers Capacity Building

Vocational Training

- Diploma in optometry
- Tailoring

Health and Education

- Health check-up camp
- Eye camp
- Kitchen Garden

Wadi Project

The overall objective of the project is to improve the standard and quality of living of the poor rural families through a holistic and enabling project approach. This can be achieved by helping the tribal and other families to develop productive assets such as a 'Wadi' (integrated farming system comprising of horticulture, agriculture) to enable them to earn substantial and sustainable livelihood over a long-term period. Simultaneously, there is need for a thrust to tackle the root causes of poor health and improve the quality of living, particularly of women.

The proposed project thus primarily aims at the following:

- To provide secondary sustainable source of income
- To increase the asset base of the tribals & other
- To empower of women through economic and social development
- To improve the health status of the community



Fertilizer Application Demonstration

- To improve environment through carbon fixation

Project Activities:

Under wadi livelihood project each participant family takes up intensive land development and plantation work on half acre (0.2 ha) of wasteland or marginal land, to convert this into a productive forestry plantation and orchard (WADI).

Objectives are highlighted below:

- Mobilisation of community through project promotional meetings and exposure.
- Selection of beneficiaries and land
- Plantation of fruit and forestry trees.
- Development of eroded wasteland through soil and water conservation.
- Water resource development and water conveyance
- Cultivation of suitable improved intercrops both for food and for cash incomes wherever possible during the initial stage
- Capacity building of staff and beneficiaries
- Development of Model Plots: The objective of these demonstration / model plots will be to create awareness in farmers about cost effective farming techniques, new introduction of crops, diversified farming techniques etc.
- Community Health Activities:
 - Eye Check-up Camps and Cataract Operation
 - Seasonal and perennial Kitchen Garden
 - General Health Check-up camps for Women and children
- Women Empowerment:
 - Training to existing women's groups
 - Wadi on women's name
 - Exposure



Mango Graft Distribution to B-VII

Major Achievements:

Sr.No.	Major Activity	Target	Achievement	Remarks
1	Wadi Plantation Batch-VII: Selection, Layout, Pit digging, Pit Filling with Basal Dose and Plantation of Wadi and Documentation	80	80	Plantation of 2480 Mango Grafts- (Variety-Keshar) Survival 97 % as on Oct 19.
2	Support for Farm Implements Batch-VII	80	80	Set of one Spade, Pickaxe and Secateurs per farmer
3	Live Fencing to Wadi (Bamboo)	80	80	Plantation of Forestry Plants done (Bamboo) -4000 nos.
4	Plant Protection (B-I to B-VII)	556	556	Done support for pesticide (Bordopost, Carbendazim and Insecticide)
5	Support for Nutrient management (B-I to B-VII)	556	556	NPK and Micronutrient
6	Support for WRD and Conveyance	80	0	Planned in Nov. December Month
7	Soil and Water Conservation-B-VII	80	80	Planned in Nov. December Month
8	Support of Vegetable Seed (Nos. of Farmers)	240	240	vegetable cultivation done on - 80-acre area. Farmer getting additional income of Rs.15000-25000 per farmer.
13	Trial Plot (Exotic/ new vegetables)	6	6	Zukeni, Paddy, Okera, Sweet Corn, Marigold, Sweet Corn.
14	Vegetable Nursery in tray	03	03	Promoted for preparation of vegetable seedlings.

15	Mango Graft Nursery	5	02	Intended mango graft make available at local level.
16	Jasrain Nursery	01	01	1500 plants are ready
Capacity Building				
1	Farmers internal exposure	4	0	Planned
2	Exposure of staff and Volunteers	2	1	
4	Kishan Melava	2	1	133 Participants
5	Village Meeting	150	30	



Kisan Melava



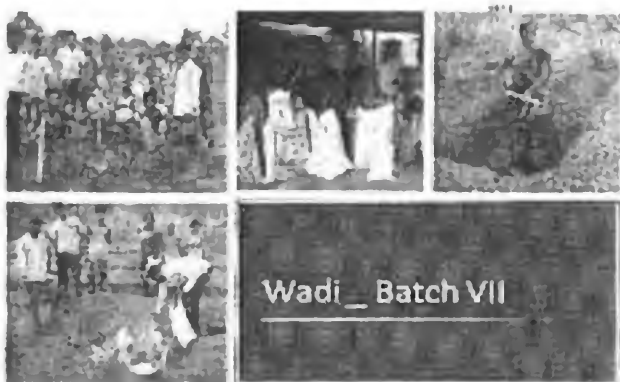
Fertilizer Distribution

WADI PROJECT
Kisan Melava for Vegetable sale



Agri-Net Web at Education, State-VIS
Organic and rural
Vegetable

Aspect of
Vegetable, all,
21st of Dec, 2009



Wadi_Batch VII

Dairy Development Project

Dairy is an important subsidiary source of income for small/marginal and agricultural labourers in rural area. The manure from animals provides good source of organic matter to improve soil fertility and crop yield. The surplus fodder and agricultural by products are gainfully utilized for feeding the animals. Since agriculture is mostly seasonal, there is possibility of finding employment throughout year for many women through dairy farming. Thus, dairy also provides employment throughout the year. The main beneficiaries of project are small/marginal farmers and landless labours. The aspirant can earn a gross surplus of about 35000 per year from a unit



Artificial Insemination

Major Achievements:

Sr. No.	Major Activity	Target	Achievement	Remarks
1	Training of aspirant's new batches	02	02	Total 10 aspirants attended Training with exposure
2	Livestock Training (CLDP)	02	00	Planned in Dec 19 and March 20
3	Cattle Camp (Doorstep Visit, Monitoring and Treatment of Cattle)	04	02	Visits has been done with the help of external expert Dr. D. S. Chature. He has treated cow and calf those have health and other problems.
4	External Exposure Visit	01	00	Planned in Dec
5	Internal Exposure Visit	02	02	
6	Purchase of Cows	15	10	Support given to 10 aspirants for livelihood development through cow induction activity under dairy development project. Apart from this provided health services, Insurance and some basic required medicines.
7	Vaccination FMD	600	600	Prevention is better than cure, done FMD vaccination to 500 milking animals as a preventive measure. (Cows- 76+ Calves-85+other-357=518 ,Cow-82 + 518=600)
10	Artificial Insemination	160	185	DFPCL Providing doorstep artificial insemination services in 41 villages of Parvel taluka
11	Pregnancy Diagnosis (up to Nov End)	137	137	Doing regular and timely pregnancy diagnosis
12	Calving		50	New 30 cow were born during this half year. Which will lead increase in milk production and income of the aspirants. (Male- 20, Female-30)

Details	Cow Milk Summery	Calf Milk Summery	Total
Total Milk Produced	90040	13,310	1,03,350
Milk Consumed at Home	17345	2995	20,340
Milk Consumed by Calf	9305	1945	11,250
Milk Sold	63290	8370	71,760
Additional Income through sale of Milk	2212350	287500	24,99,850
Cow Dung Produced in MT	20.42	3.56	

	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20
Artificial Insemination	307	602	549	602	735	185
Pregnancy Diagnosis	178	367	294	367	431	137
Calving						
Male	49	57	91	135	142	20
Female	56	64	141	109	137	30

Vocational Training:

Skill Based Vocational Training Programs prepares aspirants to work in various fields of trade. It provides equal opportunity for employment and livelihood. After completion of course, the aspirants are supported with employment to lead a sustainable livelihood. VSDHE uses various forms of formal, non-formal and informal learning which help in achieving social equality, inclusion and sustainable development. Some of the highlights of the program include:

- Life Skills and Values
- Spoken English
- Exposure visits
- One-on-One Mentoring
- Support for Placements
- Soft Skills Training Programs
- Practical Oriented Training
- Internships (based on each course)
- Pick-up and Drop Facility
- Digital Literacy and Financial Literacy
- Placement Tracking



Major Achievements:

Sr. No	Vocational Course	Plan	Achievement	Remark
1	Tailoring Course	24	19	Most of the aspirants start Av. Income Rs. 3500/Month 20.16 Lakh /Year
2	Support for Job Oriented Courses (Optometry-07)	09	09	Diploma in Optometry is a two-year course conducted with the KK Eye Institute, Mumbai. Optometry is a primary eye care profession. An optometrist, will help evaluate a person's vision and help him find the right spectacles contact lenses and other optical aids. Apart from this, an optometry can also perform specialised tests to diagnose ocular diseases. As an optometrist, you will find job opportunities with eye hospitals, optical chains and in leading multinational optical / contact lens companies.

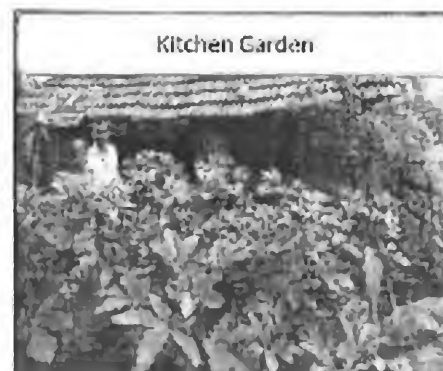
Case Study - VSD

Name of Aspirant : Mr. Anup Vinod Pachghare
Village: Nere Taluka: Panvel District: Raigad
Support of Course: Engineering (Information Technology)
Support of Year: 2016 to 2018 (2 years)
Family Background: His family is migrated from Vidharbha for livelihood and his father is working in a small NGO on contract basis. After our support Mr. Anup is working as fresher in a reputed company with good remuneration.
Support of Amount: 84904 rupees
Company Name: Clover Infotech Private Limited, Andheri East.
Position: Database Administrator
Joining Date: 09-aug-2018
Salary Per Month: 20000/-



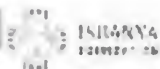
Aarogyam and Dnyanam project:

DFPCI is consistently working for improvement of health by providing doorstep health services through health check-up camp and as education initiative is a program that support students from standard 1 to 10 with tuition in all the subjects so that the students are encouraged to study and not give up their studies half way. Under the initiative special focus is given on difficult subjects like Mathematics, English and Science.



Sr. No	Activity	Plan	Achievement	Remark
01	Health check-up camps	1	2 (271 Patients)	(271 patients screened; 60 patients refer to MGM) Patients who come from a section of the society who cannot enjoy the privilege of expensive medical services availed the benefit of these check-up camps.
02	Eye Check-up Camps	2	02 (370 patients)	Patients who come from a section of the society who cannot enjoy the privilege of expensive medical services availed the benefit of these camps.
03	School Screening	01	001-1303 Students)	Students)
04	Kitchen Garden	400	400	Vegetable seed distributed to families from project area.

Aarogyam: Eye Check-up Camp



Aarogyam: School Screening Camp



Case Study Aarogyam



Name of Aspirant : Mrs. Vanita Vasuday Bhopi
Village : Devichapada Taluka, Panyal District Raigad
Source of Income : Gas Stove Repair Shop

Family Profile : In his family have 3 members including her husband and son. Their livelihood is only depending on stove repairing work at Devichapada. Due to low vision she has getting difficulties to do his daily work. She came to know information about our eye camp through our audio campaigning by auto rickshaw and decided to take benefit of this opportunity. She has done eye check-up in our eye camp and so get diagnosed dense cataract surgery. Now she has getting clear vision and able to manage daily work. It improve livelihood of the family.



No. of Family Members	Date of Cataract Surgery	Cataract Surgery Eye	Hospital	Camp Date
03	14.08.19	Left	LCT	2 Aug 2019