

DFPCL-K1/EHS/Env/2021-22/2

Date: 24-May-21

**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 **October-2020 to March -2021**.

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.



DEEPAK FERTILISERS
AND PETROCHEMICALS
CORPORATION LIMITED

FACTORY : Plot K-1, MIDC Industrial Area, Talaja 410 208, Dist. RAIGAD
Tel : + 91 22 6768 4000 Fax : + 91 22 2741 2413

CORPORATE OFFICE : Sai Hira, Survey No. 93, 25 / A1 and 25 / B1, CTS - 1130, Mundawa Ghorpadi Road, Mundawa, Pune - 411 036
Tel. : + 91 20 6645 8000 Web : www.dfpc.com

CIN : L24121MH1979PLCO21360

DATA SHEET		
1	Project type: River - valley/ Mining / Thermal/ Industry / Nuclear/ Other (specify)	Industry
2	Name of the project	Iso Propyl Alcohol (IPA 70000 MTA) Project at MIDC, Taloja, Maharashtra by Deepak Fertilisers & Petrochemicals Corporation Limited
3	Clearance letter (s) /OM No. and Date	EC granted for Iso Propyl Alcohol vide file no. (J-11011/218/2004-IA II(I) dt 24.02.2006)
4	Location	
	a. District (S)	Raigad
	b. State (S)	Maharashtra
	c. Latitude/longitude	19°04'11.3"N/73°08'04.1"E
5	Address for correspondence	
	a. Address of Concerned Project Chief Engineer (with pin code & Telephone/ telex/ fax numbers	Mr. Deepak Pande (Sr.GM-EHS), M/s Deepak Fertilisers & Petrochemicals Corporation Ltd. Plot No. K-1, MIDC Industrial area, Taloja, District Raigad – 410208, Maharashtra. Phone: - 022-50684221, 9920942161
	b. Address of Executive Project: Engineer/Manager (with pincode/ Fax numbers)	Same as above
6	Salient features	
	a. of the project	Annexure-A
	b. of the environmental management plans	Annexure-B
7	Break up of the project area	
	a. submergence area forest & non forest	NA, (MIDC Land)
	b. Others	NA
8	Break up of the project affected Population with enumeration of Those losing houses/dwelling units Only agricultural land only, both Dwelling units & agricultural Land & landless labourers/artisan	NA, (MIDC Land)
	a. SC, ST/Adivasis	NA, (MIDC Land)
	b. Others (Please indicate whether these Figures are based on any scientific And systematic survey carried out Or only provisional figures, it a Survey is carried out give details And years of survey)	NA
9	Financial details.	
	a. Project cost as originally planned and subsequent revised estimates and the year of price reference	153.7 Crores
	b. Allocation made for environmental management plans with item wise and year wise Break-up.	Yes. Year 2020-21 for Plot K-1 to K-8. 1) Rs. 5 lakhs forInstallation of Weather Monitoring Station 2) Rs. 41 lakhs for Plantation and Maintenance of Tree plantation 3) Rs. 40 lakhs for Adequacy study for ETP and APCD 4) Rs. 27 lakhs for ETP1 improvements 5) Rs. 8 lakhs for AMC for CEMS 6) Rs. 0.5 lakhs for AMC for AAQMS 7) Rs. 0.7 lakhs AMC for PM Analyzer 8) Rs. 1.5 lakhs for Spare for CFB CEMS Analyser 9) Rs. 13 lakhs for Spare of CEMS 10) Rs. 16 lakhs for Spare for AAQMS
	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, (MIDC Land)
	b The status of compensatory afforestation program in the light of actual field experience so far	NA, (MIDC Land)
11	The status of clear felling in Non-forest areas (such as submergence area of reservoir, approach roads), it any with quantitative information	NA, (MIDC Land)
12	Status of construction	
	a. Date of commencement (Actual and/or planned)	Year 2005
	b. Date of completion (Actual and/of planned)	Year 2006
13	Reasons for the delay if the Project is yet to start	NA
14	Dates of site visits	
	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 plans/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 Taloja 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
- ❖ Agri-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 – Diya line) is about 3.5 km west of the site.

Salient 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 Taloja 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 µg/m³
- The 98th percentile of RPM levels are in the range of 20.2 to 50.1 µg/m³
- The 98th percentile of SO₂ levels were in the range of 7.5 to 11.3 µg/m³
- The 98th percentile of NO_x levels were in the range of 12.8 to 19.3 µg/m³

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 Gadi and Kasardi 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 the 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 hrly 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 Taloja 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 60 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	$52000 \times 0.035 \times 2/24 = 151.7 \text{ kg/hr}$
Stack height as per MoEF	$14 (\text{SO}_2 \text{ kg/hr})^{0.33}$
Stack Height H meters	$14(151.7)^{0.33} = 63.15 \text{ m}$
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 I. 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 ETP 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 m ³ /day.
Present Load	2742.3 m ³ /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 I	Clarifloculator
4	AS I	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 Range
			Process, washes, etc	CT, Boiler, DM	Domestic & Process	
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	148	18	507	<100
4	COD	Mg/l	247	23	845	<250
5	Oil & Grease	Mg/l	<10	<5	<5	<10
6	TDS	Mg/l	897	-	831	<800
7	Amm. Nitrogen	Mg/l	94	-	-	<50
8	KJ Nitrogen	Mg/l	247	-	-	-
9	Phosphates	Mg/l	90	-	-	<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, MIDC 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	Calbozia trocera	Dhala sirisa
4	Carissa carandas	Karaunda
5	Peltophorum inerme	Perungandrai
6	Saraca indica	Asoka
7	Syzygium cumini	Zaman
8	Tamarindus indica	Imli
9	Pongamia pinnata	Beng
10	Cassia siamea	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 siamea	Kassod
4	Citrus toona	Mahanim
5	Dalbergia sissoo	Shisham
6	Dillenia indica	Chalta
7	Ficus religiosa	Pipal
8	Hardwick binata	Anjan
9	Mathuca indica	Mahua
10	Millingtonia hortensis	Akash nim

Table 5.8
Suggested Plant Species For Green Belt Development

S. No	Scientific name	Common Name
Large Plants		
1	Cedreia toona	Mahanim
2	Dalbergia sissoo	Shisham
3	Azadirachta indica	Neem
4	Delonix regia	Gul mohr
5	Millingtonia hortensis	Aksh nim
6	Mimosa pudica	Maulsari
7	Peltophorum inerme	Perungondrai
8	Samanea saman	Debdari
9	Thespsia populnea	Paras papal
Medium Plants		
1	Cassia siamiae	Kassod
2	Dillenia indica	Chalta
3	Mathuca indica	Mahua
4	Casuarina equisetifolia	Jungali Suru
5	Pongamia pinnata	Beng
6	Tabularia spasiola	-
7	Ticoma stans	
8	Terminalia catappa	Jangli badam
9	Thevetia peruviana	Pile kamer
10	Lucena leucocophala	Subabul
Small Plants		
1	Averrhoa carabola	Carabola
2	Nallotus philippensis	Sundur
3	Artabotrys odoratissimus	Madenmast
4	Caesalpinia pulcherrima	Gulotora
5	Callistemon lanceolatus	Bottle brush
6	Caryota urens	Mani
7	Cestrum diurnum	Din-Ka Raja
8	Nelia azedarch	

Table 5.10
Suggested Plant Species For Road Side Plantation

S. No	Scientific Name	Common Name
1	Azadirachta indica	Neem
2	Pongamia pinnata	Beng
3	Saraca indica	Ashoka
4	Delonix regia	Gul mohr
5	Peltophorum inerme	Copper pod tree
6	Samanea saman	Rain tree
7	Cassia nudosa	Pink cassia
8	Bassia 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.

DFPCL 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.

DFPCL 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

○

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Q

☐ A
☐ B
☐ C
☐ D
☐ E

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graph TD
    A[GM (TECH) /VP  
(Manufacture)] --> B[Sr. Manager (Safety &)]
    B --> C[Assistant Manager (safety)]
    C --> D[Asst. Engineer]
    C --> E[Asst. Engineer  
Monitoring]
    C --> F[Asst. Engineer  
Laboratory]
    D --> G[Assistants (3+2)]
    E --> G
    F --> G
    G --> H[Operators  
(6+1)]
    H --> I[Helpers  
(9+2)]

```

Figure 5.3 Environmental Management Cell

Environment Clearance for IPA (J-11011/218/2004-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 31/03/2021
i)	The gaseous emissions (SO ₂ , NO _x , NH ₃ & HCl) and particulate matter from various process units shall confirm 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 _x , 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)	Amient Air Quality 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 AAQM 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. We have developed better method of utilization of the RO by processing MIDC RW, this has reduced inlet effluent to ETP by more than 600 m ³ /day. Treated effluent of 100 m ³ /day is also utilized in the NPK process. As a part of water conservation waste water of the plants is utilized to reduce fresh water consumption.
v)	The effluent generation shall not exceed 667 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, OCEMS 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)
vi)	The company shall undertake following Waste Minimization measures: * 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 equipment through vapour recovery system * Use of high pressure hoses for equipment cleaning to reduce waste water generation	*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.	After inhouse study and after characteristic analysis of the ETP sludge by third party, it was revealed that the ETP sludge can be used as filler in our fertilizer. Hence we send ETP sludge to CHWTSDF facility only when there is need to send it, like plant is under shutdown. We have received approved CTO for reuse of ETP sludge in NPK plant as a filler. Spent catalyst and used oil are sold to authorized re-processor.
viii)	The project authorities shall strictly comply with the rules and guidelines under MSIHC 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 MSIHCR-1989 and HWMHR-2003, with their amendments are complied with. Authorization through CTO, valid till 31/03/2021, 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.
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 month as per the factories act and records are maintained.

SN	General Conditions	Status of compliance as on 31/03/2021
i)	Project authorities shall strictly adhere to the stipulations made by the MPCB	Complied.
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. 1.
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 eight 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.	Noted
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)
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 27 th Nov 2020. 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

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

Annexure 1: Stack Monitoring Reports

TEST REPORT

Name of Organization : M/s. Deepak Fertilisers And Petrochemicals Corporation Limited.						
Customer Address : Taloja Plant Plot K-1, MIDC Industrial Area, P.O. Taloja Dist. Raigad 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	
16.10.2020		17.10.2020	17.10.2020	20.10.2020	20.10.2020	
Sample Type : Process Gas (Stack)			Sampling done by : Netel (India) Limited			
Stack Connected to : WNA - 3 Process			Stack Diameter : 953 mm			
Sampling Location : WNA - 3 Stack			Sample Code : NIL/ST/10/20/015			
Sr. No.	Parameters	Method	Unit	MDL*	Results	Consent Limits
1	Temperature	IS 11255 (Part 3)	°C	---	132	---
2	Velocity of Gas	IS 11255 (Part 3)	m/sec	---	2.36	---
3	Volumetric Flow Rate	IS 11255 (Part 3)	Nm³/hr	---	4453	---
4	Oxides of Nitrogen	IS 11255 (Part 6)	mg/Nm³	3	86.0	---
			ppm	---	154.8	---
			kg/day	---	9.191	---
			kg/ton of WNA	---	0.0316	3
5	Ammonia	IS 11255 (Part 6)	mg/Nm³	0.05	21.40	---
			ppm	---	14.88	50
			kg/hr	---	0.0663	---

Note :

- * MDL – Minimum Detectible Limit.
- ** BDL – Below Detectible 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

TEST REPORT

Name of Organization : M/s. Deepak Fertilisers And Petrochemicals Corporation Limited.						
Customer Address : Taloja Plant Plot K-1, MIDC Industrial Area, P.O. Taloja Dist. Raigad 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	
14.10.2020		15.10.2020	15.10.2020	19.10.2020	19.10.2020	
Sample Type : Flue Gas (Stack)			Sampling done by : Netel (India) Limited			
Stack Connected to : Boiler			Stack Diameter : 1500 mm			
Sampling Location : Boiler A/B			Sample Code : NIL/ST/10/20/011			
Sr. No.	Parameters	Method	Unit	MDL*	Results	Consent Limits
1	Stack Temperature	IS 11255 (Part 3)	°C	---	108	---
2	Stack Gas Velocity	IS 11255 (Part 3)	m/sec	---	6.70	---
3	Volumetric Flow Rate	IS 11255 (Part 3)	Nm³/hr	---	33193	---
4	Sulphur Dioxide	IS 11255 (Part 2)	mg/Nm³	3	BDL	---
			ppm	---	BDL	---
			kg/day	---	BDL	---
5	Oxides of Nitrogen	IS 11255 (Part 7)	mg/Nm³	3	135.5	350
			ppm	---	72.0	---
			kg/day	---	107.94	---
6	Carbon Monoxide	USEPA – 10A	mg/Nm³	4	6.4	---
			ppm	---	5.6	---
			kg/day	---	5.10	---

Note :

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Verified by:

Aamda
Surekha Jamdar
 Dy. Technical Manager

Issued by:

Shraddha Kere
Shraddha Kere
 Technical Manager

End of Report

TEST REPORT

Name of Organization : M/s. Deepak Fertilisers And Petrochemicals Corporation Limited.						
Customer Address : Taloja Plant Plot K-1, MIDC Industrial Area, P.O. Taloja Dist. Raigad 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	
14.10.2020		15.10.2020	15.10.2020	19.10.2020	19.10.2020	
Sample Type : Flue Gas (Stack)			Sampling done by : Netel (India) Limited			
Stack Connected to : GT-2			Stack Diameter : 1500 mm			
Sampling Location : HRSG-2			Sample Code : NIL/ST/10/20/012			
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	---	10.67	---
3	Volumetric Flow Rate	IS 11255 (Part 3)	Nm³/hr	---	53536	---
4	Sulphur Dioxide	IS 11255 (Part 2)	mg/Nm³	3	BDL	---
			ppm	---	BDL	---
			kg/day	---	BDL	---
5	Oxides of Nitrogen	IS 11255 (Part 7)	mg/Nm³	3	114.0	---
			ppm	---	60.6	50
			kg/day	---	146.47	---
6	Carbon Monoxide	USEPA – 10A	mg/Nm³	4	39.3	---
			ppm	---	34.3	---
			kg/day	---	50.50	---

Note :

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Verified by:

(Signature)
Surekha Jamdar
 Dy. Technical Manager

Issued by:

(Signature)
Shraddha Kere
 Technical Manager

End of Report

TEST REPORT

Name of Organization : M/s. Deepak Fertilisers And Petrochemicals Corporation Limited.						
Customer Address : Taloja Plant Plot K-1, MIDC Industrial Area, P.O. Taloja Dist. Raigad 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	
14.10.2020		15.10.2020	15.10.2020	19.10.2020	19.10.2020	
Sample Type : Flue Gas (Stack)			Sampling done by : Netel (India) Limited			
Stack Connected to : GT-5			Stack Diameter : 1500 mm			
Sampling Location : HRSG-5			Sample Code : NIL/ST/10/20/013			
Sr. No.	Parameters	Method	Unit	MDL*	Results	Consent Limits
1	Stack Temperature	IS 11255 (Part 3)	°C	---	138	---
2	Stack Gas Velocity	IS 11255 (Part 3)	m/sec	---	10.91	---
3	Volumetric Flow Rate	IS 11255 (Part 3)	Nm³/hr	---	50078	---
4	Sulphur Dioxide	IS 11255 (Part 2)	mg/Nm³	3	BDL	---
			ppm	---	BDL	---
			kg/day	---	BDL	---
5	Oxides of Nitrogen	IS 11255 (Part 7)	mg/Nm³	3	275.0	---
			ppm	---	146.2	50
			kg/day	---	330.51	---
6	Carbon Monoxide	USEPA – 10A	mg/Nm³	4	9.2	---
			ppm	---	8.0	---
			kg/day	---	11.06	---

Note :

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Verified by:

(Signature)
Surekha Jamdar
 Dy. Technical Manager

Issued by:

(Signature)
Shraddha Kere
 Technical Manager

End of Report

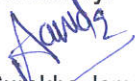
TEST REPORT

Name of Organization : M/s. Deepak Fertilisers And Petrochemicals Corporation Limited.						
Customer Address : Taloja Plant Plot K-1, MIDC Industrial Area, P.O. Taloja Dist. Raigad 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
16.10.2020		17.10.2020	17.10.2020	20.10.2020		20.10.2020
Sample Type : Process Gas (Stack)			Sampling done by : Netel (India) Limited			
Stack Connected to : ANP Cyclone Separator			Stack Diameter : 1500 mm			
Sampling Location : ANP Cyclone Separator			Sample Code : NIL/ST/10/20/016			
Sr. No.	Parameters	Method	Unit	MDL*	Results	Consent Limits
1	Temperature	IS 11255 (Part 3)	°C	---	56.0	---
2	Velocity of Gas	IS 11255 (Part 3)	m/sec	---	10.8	---
3	Volumetric Flow Rate	IS 11255 (Part 3)	Nm³/hr	---	62068	---
4	Total Particulate Matter	IS 11255 (Part 1)	mg/Nm³	3	19.4	150
			kg/day	---	28.899	---
5	Ammonia	IS 11255 (Part 6)	mg/Nm³	0.05	15.70	---
			ppm	---	22.58	50
			kg/hr	---	1.4015	---
6	Fluoride	IS 11255 (Part 5)	mg/Nm³	0.05	6.70	25
			ppm	---	8.62	---
			kg/day	---	9.9805	---

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Surekha Jamdar
 Dy. Technical Manager

Issued by:


Shraddha Kere
 Technical Manager

End of Report

TEST REPORT

Name of Organization : M/s. Deepak Fertilisers And Petrochemicals Corporation Limited.						
Customer Address : Taloja Plant Plot K-1, MIDC Industrial Area, P.O. Taloja Dist. Raigad 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
16.10.2020		17.10.2020	17.10.2020	20.10.2020		20.10.2020
Sample Type : Process Gas (Stack)			Sampling done by : Netel (India) Limited			
Stack Connected to : ANP Vacuum Pumps			Stack Diameter : 200 mm			
Sampling Location : ANP Vacuum Pumps			Sample Code : NIL/ST/10/20/017			
Sr. No.	Parameters	Method	Unit	MDL*	Results	Consent Limits
1	Temperature	IS 11255 (Part 3)	°C	---	47.0	---
2	Velocity of Gas	IS 11255 (Part 3)	m/sec	---	2.2	---
3	Volumetric Flow Rate	IS 11255 (Part 3)	Nm³/hr	---	228	---
4	Total Particulate Matter	IS 11255 (Part 1)	mg/Nm³	3	7.6	150
			kg/day	---	0.042	---
1	Ammonia	IS 11255 (Part 6)	mg/Nm³	0.05	6.20	---
			ppm	---	8.92	50
			kg/hr	---	0.0020	---
1	Fluoride	IS 11255 (Part 5)	mg/Nm³	0.05	5.50	25
			ppm	---	7.08	---
			kg/day	---	0.0301	---

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Surekha Jamdar
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Shraddha Kere
Technical Manager

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TEST REPORT

Name of Organization : M/s. Deepak Fertilisers And Petrochemicals Corporation Limited.						
Customer Address : Taloja Plant Plot K-1, MIDC Industrial Area, P.O. Taloja Dist. Raigad 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
28.10.2020		29.10.2020	29.10.2020	02.11.2020		02.11.2020
Sample Type : Process Gas (Stack)			Sampling done by : Netel (India) Limited			
Stack Connected to : NPK Train-1			Stack Diameter : 2772 mm			
Sampling Location : NPK Train-1			Sample Code : NIL/ST/10/20/060			
Sr. No.	Parameters	Method	Unit	MDL*	Results	Consent Limits
1	Temperature	IS 11255 (Part 3)	°C	---	60.0	---
2	Velocity of Gas	IS 11255 (Part 3)	m/sec	---	11.7	---
3	Volumetric Flow Rate	IS 11255 (Part 3)	Nm³/hr	---	226339	---
4	Total Particulate Matter	IS 11255 (Part 1)	mg/Nm³	3	12.6	150
			kg/day	---	68.445	---
1	Ammonia	IS 11255 (Part 6)	mg/Nm³	0.05	13.70	---
			ppm	---	19.70	50
			kg/hr	---	4.4589	---
1	Fluoride	IS 11255 (Part 5)	mg/Nm³	0.05	BDL	25
			ppm	---	BDL	---
			kg/day	---	BDL	---

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Surekha Jamdar
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Shraddha Kere
 Technical Manager

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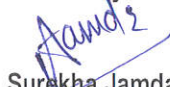
TEST REPORT

Name of Organization : M/s. Deepak Fertilisers And Petrochemicals Corporation Limited.						
Customer Address : Taloja Plant Plot K-1, MIDC Industrial Area, P.O. Taloja Dist. Raigad 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	
28.10.2020		29.10.2020	29.10.2020	02.11.2020	02.11.2020	
Sample Type : Process Gas (Stack)			Sampling done by : Netel (India) Limited			
Stack Connected to : NPK Train-2			Stack Diameter : 2772 mm			
Sampling Location : NPK Train-2			Sample Code : NIL/ST/10/20/061			
Sr. No.	Parameters	Method	Unit	MDL*	Results	Consent Limits
1	Temperature	IS 11255 (Part 3)	°C	---	62.0	---
2	Velocity of Gas	IS 11255 (Part 3)	m/sec	---	12.1	---
3	Volumetric Flow Rate	IS 11255 (Part 3)	Nm³/hr	---	232917	---
4	Total Particulate Matter	IS 11255 (Part 1)	mg/Nm³	3	9.8	150
			kg/day	---	54.782	---
1	Ammonia	IS 11255 (Part 6)	mg/Nm³	0.05	11.90	---
			ppm	---	17.12	50
			kg/hr	---	3.9875	---
1	Fluoride	IS 11255 (Part 5)	mg/Nm³	0.05	BDL	25
			ppm	---	BDL	---
			kg/day	---	BDL	---

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Surekha Jamdar
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 Technical Manager

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TEST REPORT

Name of Organization : M/s. Deepak Fertilisers And Petrochemicals Corporation Limited.						
Customer Address : Taloja Plant Plot K-1, MIDC Industrial Area, P.O. Taloja Dist. Raigad 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		
16.10.2020	17.10.2020	17.10.2020	20.10.2020	20.10.2020		
Sample Type : Process Gas (Stack)		Sampling done by : Netel (India) Limited				
Stack Connected to : Scrubber		Stack Diameter : 1500 mm				
Sampling Location : LDAN Scrubber		Sample Code : NIL/ST/10/20/018				
Sr. No.	Parameters	Method	Unit	MDL*	Results	Consent Limits
1	Temperature	IS 11255 (Part 3)	°C	---	58.0	---
2	Velocity of Gas	IS 11255 (Part 3)	m/sec	---	1.72	---
3	Volumetric Flow Rate	IS 11255 (Part 3)	Nm³/hr	---	9838	---
4	Particulate Matter	IS 11255 (Part 1)	mg/Nm³	3	6.7	100
			kg/day	---	1.582	---
5	Ammonia	IS 11255 (Part 6)	mg/Nm³	0.05	8.0	---
			ppm	---	11.48	50
			kg/hr	---	0.0787	---

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Shraddha Kere
 Technical Manager

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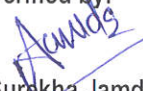
TEST REPORT

Name of Organization : M/s. Deepak Fertilisers And Petrochemicals Corporation Limited.						
Customer Address : Taloja Plant Plot K-1, MIDC Industrial Area, P.O. Taloja Dist. Raigad 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	
16.10.2020		17.10.2020	17.10.2020	20.10.2020	20.10.2020	
Sample Type : Process Gas (Stack)			Sampling done by : Netel (India) Limited			
Stack Connected to : GP Vent			Stack Diameter : 640 mm			
Sampling Location : GP Vent			Sample Code : NIL/ST/10/20/019			
Sr. No.	Parameters	Method	Unit	MDL*	Results	Consent Limits
1	Temperature	IS 11255 (Part 3)	°C	---	42.0	---
2	Velocity of Gas	IS 11255 (Part 3)	m/sec	---	1.65	---
3	Volumetric Flow Rate	IS 11255 (Part 3)	Nm³/hr	---	1805	---
4	Particulate Matter	IS 11255 (Part 1)	mg/Nm³	3	10.3	100
			kg/day	---	0.446	---
5	Ammonia	IS 11255 (Part 6)	mg/Nm³	0.05	9.4	---
			ppm	---	13.49	50
			kg/hr	---	0.0170	---

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Name of Organization : M/s. Deepak Fertilisers And Petrochemicals Corporation Limited.						
Customer Address : Taloja Plant Plot K-1, MIDC Industrial Area, P.O. Taloja Dist. Raigad 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
16.10.2020		17.10.2020	17.10.2020	20.10.2020		20.10.2020
Sample Type : Flue Gas (Stack)			Sampling done by : Netel (India) Limited			
Stack Connected to : Boiler			Stack Diameter : 1900 mm			
Sampling Location : Coal Fired Boiler			Sample Code : NIL/ST/10/20/021			
Sr. No.	Parameters	Method	Unit	MDL *	Results	Consent Limits
1	Temperature	IS 11255 (Part 3)	°C	---	104	---
2	Velocity of Gas	IS 11255 (Part 3)	m/sec	---	4.34	---
3	Volumetric Flow Rate	IS 11255 (Part 3)	Nm³/hr	---	34872	---
4	Total Particulate Matter	IS 11255 (Part 1)	mg/Nm³	3	38.4	50
			kg/day	---	32.138	---
5	Sulphur Dioxide	IS 11255 (Part 6)	mg/Nm³	0.05	1263.5	---
			ppm	---	461.1	---
			kg/day	---	1057.458	3200
6	Oxides of Nitrogen	IS 11255 (Part 5)	mg/Nm³	0.05	237.4	350
			ppm	---	126.2	---
			kg/day	---	198.687	---


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TEST REPORT

Name of Organization : M/s. Deepak Fertilisers And Petrochemicals Corporation Limited.						
Customer Address : Taloja Plant Plot K-1, MIDC Industrial Area, P.O. Taloja Dist. Raigad 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
26.11.2020		27.11.2020	27.11.2020	30.11.2020		30.11.2020
Sample Type : Process Gas (Stack)			Sampling done by : Netel (India) Limited			
Stack Connected to : ANP Prilling Tower			Stack Diameter : 1655 mm			
Sampling Location : ANP Prilling Tower			Sample Code : NIL/ST/11/20/056			
Sr. No.	Parameters	Method	Unit	MDL*	Results	Consent Limits
1	Temperature	IS 11255 (Part 3)	°C	---	42.0	---
2	Velocity of Gas	IS 11255 (Part 3)	m/sec	---	28.2	---
3	Volumetric Flow Rate	IS 11255 (Part 3)	Nm³/hr	---	204703	---
4	Total Particulate Matter	IS 11255 (Part 1)	mg/Nm³	3	21.8	150
			kg/day	---	107.101	---
5	Ammonia	IS 11255 (Part 6)	mg/Nm³	0.05	9.20	---
			ppm	---	13.23	50
			kg/hr	---	2.7082	---
6	Fluoride	IS 11255 (Part 5)	mg/Nm³	0.05	0.26	25
			ppm	---	0.33	---
			kg/day	---	1.2773	---

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Surekha Jamdar
 Dy. Technical Manager

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Shraddha Kere
 Technical Manager

End of Report

TEST REPORT

Name of Organization : M/s. Deepak Fertilisers And Petrochemicals Corporation Limited.						
Customer Address : Taloja Plant Plot K-1, MIDC Industrial Area, P.O. Taloja Dist. Raigad 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	
26.11.2020		27.11.2020	27.11.2020	30.11.2020	30.11.2020	
Sample Type : Process Gas (Stack)			Sampling done by : Netel (India) Limited			
Stack Connected to : LDAN Prilling Tower			Stack Diameter : 1632 mm			
Sampling Location : LDAN Prilling Tower			Sample Code : NIL/ST/11/20/055			
Sr. No.	Parameters	Method	Unit	MDL*	Results	Consent Limits
1	Temperature	IS 11255 (Part 3)	°C	---	55.0	---
2	Velocity of Gas	IS 11255 (Part 3)	m/sec	---	2.2	---
3	Volumetric Flow Rate	IS 11255 (Part 3)	Nm³/hr	---	15305	---
4	Total Particulate Matter	IS 11255 (Part 1)	mg/Nm³	3	5.5	150
			kg/day	---	2.020	---
5	Ammonia	IS 11255 (Part 6)	mg/Nm³	0.05	10.40	---
			ppm	---	14.96	50
			kg/hr	---	0.2290	---

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Surekha Jamdar
 Dy. Technical Manager

Issued by:

Shraddha
Shraddha Kere
 Technical Manager

End of Report

TEST REPORT

Name of Organization : M/s. Deepak Fertilisers And Petrochemicals Corporation Limited.						
Customer Address : Taloja Plant Plot K-1, MIDC Industrial Area, P.O. Taloja Dist. Raigad 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
29.12.2020		31.12.2020	31.12.2020	04.01.2021		05.01.2021
Sample Type : Process Gas (Stack)			Sampling done by : Netel (India) Limited			
Stack Connected to : NPK Train-1			Stack Diameter : 2772 mm			
Sampling Location : NPK Train-1			Sample Code : NIL/ST/12/20/069			
Sr. No.	Parameters	Method	Unit	MDL*	Results	Consent Limits
1	Temperature	IS 11255 (Part 3)	°C	---	64	---
2	Velocity of Gas	IS 11255 (Part 3)	m/sec	---	11.4	---
3	Volumetric Flow Rate	IS 11255 (Part 3)	Nm³/hr	---	217794	---
4	Total Particulate Matter	IS 11255 (Part 1)	mg/Nm³	3	10.3	150
			kg/day	---	53.839	---
5	Ammonia	IS 11255 (Part 6)	mg/Nm³	0.05	14.40	---
			ppm	---	20.71	50
			kg/hr	---	4.5105	---
6	Fluoride	IS 11255 (Part 5)	mg/Nm³	0.05	BDL	25
			ppm	---	BDL	---
			kg/day	---	BDL	---

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Surekha Jamdar
Surekha Jamdar
 Dy. Technical Manager

Issued by:

Shraddha Kere
Shraddha Kere
 Technical Manager

End of Report

TEST REPORT

Name of Organization : M/s. Deepak Fertilisers And Petrochemicals Corporation Limited.						
Customer Address : Taloja Plant Plot K-1, MIDC Industrial Area, P.O. Taloja Dist. Raigad 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
29.12.2020		31.12.2020	31.12.2020	04.01.2021		05.01.2021
Sample Type : Process Gas (Stack)			Sampling done by : Netel (India) Limited			
Stack Connected to : NPK Train-2			Stack Diameter : 2772 mm			
Sampling Location : NPK Train-2			Sample Code : NIL/ST/12/20/070			
Sr. No.	Parameters	Method	Unit	MDL*	Results	Consent Limits
1	Temperature	IS 11255 (Part 3)	°C	---	61	---
2	Velocity of Gas	IS 11255 (Part 3)	m/sec	---	10.9	---
3	Volumetric Flow Rate	IS 11255 (Part 3)	Nm³/hr	---	209930	---
4	Total Particulate Matter	IS 11255 (Part 1)	mg/Nm³	3	8.7	150
			kg/day	---	43.833	---
1	Ammonia	IS 11255 (Part 6)	mg/Nm³	0.05	16.10	---
			ppm	---	23.16	50
			kg/hr	---	4.8620	---
1	Fluoride	IS 11255 (Part 5)	mg/Nm³	0.05	BDL	25
			ppm	---	BDL	---
			kg/day	---	BDL	---

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Surekha Jamdar
Surekha Jamdar
 Dy. Technical Manager

Issued by:

Shraddha Kere
Shraddha Kere
 Technical Manager

End of Report


TEST REPORT

Name of Organization : M/s. Deepak Fertilisers And Petrochemicals Corporation Limited.						
Customer Address : Taloja Plant Plot K-1, MIDC Industrial Area, P.O. Taloja Dist. Raigad 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	
30.12.2020		31.12.2020	31.12.2020	04.01.2021	05.01.2021	
Sample Type : Process Gas (Stack)			Sampling done by : Netel (India) Limited			
Stack Connected to : LDAN Prilling Tower			Stack Diameter : 1632 mm			
Sampling Location : LDAN Prilling Tower			Sample Code : NIL/ST/12/20/073			
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)	Nm³/hr	---	13971	---
4	Total Particulate Matter	IS 11255 (Part 1)	mg/Nm³	3	7.6	150
			kg/day	---	2.548	---
1	Ammonia	IS 11255 (Part 6)	mg/Nm³	0.05	8.90	---
			ppm	---	12.80	50
			kg/hr	---	0.1788	---
1	Fluoride	IS 11255 (Part 5)	mg/Nm³	0.05	BDL	25
			ppm	---	BDL	---
			kg/day	---	BDL	---

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Surekha Jamdar
 Dy. Technical Manager

Issued by:


Shradha Kere
 Technical Manager

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TEST REPORT

Name of Organization : M/s. Deepak Fertilisers And Petrochemicals Corporation Limited.						
Customer Address : Taloja Plant Plot K-1, MIDC Industrial Area, P.O. Taloja Dist. Raigad 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
30.12.2020		31.12.2020	31.12.2020	04.01.2021		05.01.2021
Sample Type : Process Gas (Stack)			Sampling done by : Netel (India) Limited			
Stack Connected to : ANP Prilling Tower			Stack Diameter : 1655 mm			
Sampling Location : ANP Prilling Tower			Sample Code : NIL/ST/12/20/074			
Sr. No.	Parameters	Method	Unit	MDL*	Results	Consent Limits
1	Temperature	IS 11255 (Part 3)	°C	---	43	---
2	Velocity of Gas	IS 11255 (Part 3)	m/sec	---	22.1	---
3	Volumetric Flow Rate	IS 11255 (Part 3)	Nm³/hr	---	160186	---
4	Total Particulate Matter	IS 11255 (Part 1)	mg/Nm³	3	18.8	150
			kg/day	---	72.276	---
1	Ammonia	IS 11255 (Part 6)	mg/Nm³	0.05	11.70	---
			ppm	---	16.83	50
			kg/hr	---	2.6959	---
1	Fluoride	IS 11255 (Part 5)	mg/Nm³	0.05	1.41	25
			ppm	---	1.81	---
			kg/day	---	5.4207	---

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 Dy. Technical Manager

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Shradha Kere
 Technical Manager

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TEST REPORT

Customer Name : 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. 4800055893, Dated 24.07.2019					
Sample Type : Process Stack			Sampling Done By : Netel (India) Limited		
Stack Connected to : ANP Prilling Tower			Stack Diameter : 1655 mm		
Date of Sampling : 07.01.2021			Analysis Date : 09.01.2021 — 12.01.2021		
Sample Received : 09.01.2021			Date of Reporting : 13.01.2021		
Sampling Location : ANP Prilling Tower			Sample Code : NIL/ST/01/21/018		
Sr. No.	Parameter	Result	Unit	Consent Limit	Method
1	Temperature	44	°C	---	IS 11255 (Part 3)
2	Velocity of Gas	22.51	m/sec	---	IS 11255 (Part 3)
3	Volumetric Flow Rate	162627	Nm ³ /hr	---	IS 11255 (Part 3)
4	Particulate Matter	17.7	mg/Nm ³	150	IS 11255 (Part 1)
		69.084	kg/day	---	
5	Ammonia	16.7	mg/Nm ³	---	IS 11255 (Part 6)
		24.0	ppm	50	
		2.716	kg/hr	---	
6	Fluoride	0.29	mg/Nm ³	25	IS 11255 (Part 5)
		0.37	ppm	---	
		1.132	kg/day	---	

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Dy. Technical Manager

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Shraddha Kere

Technical Manager

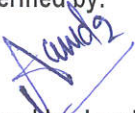
End of Report

TEST REPORT

Customer Name : 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. 4800055893, Dated 24.07.2019					
Sample Type : Process Stack			Sampling Done By : Netel (India) Limited		
Stack Connected to : LDAN Prilling Tower			Stack Diameter : 1632 mm		
Date of Sampling : 07.01.2021			Analysis Date : 09.01.2021 — 12.01.2021		
Sample Received : 09.01.2021			Date of Reporting : 13.01.2021		
Sampling Location : LDAN Prilling Tower			Sample Code : NIL/ST/01/21/017		
Sr. No.	Parameter	Result	Unit	Consent Limit	Method
1	Temperature	59	°C	---	IS 11255 (Part 3)
2	Velocity of Gas	2.33	m/sec	---	IS 11255 (Part 3)
3	Volumetric Flow Rate	15708	Nm ³ /hr	---	IS 11255 (Part 3)
4	Particulate Matter	7.7	mg/Nm ³	150	IS 11255 (Part 1)
		2.903	kg/day	---	
5	Ammonia	8.1	mg/Nm ³	---	IS 11255 (Part 6)
		11.7	ppm	50	
		0.127	kg/hr	---	

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 Surekha Jamdar
 Dy. Technical Manager

Issued by:


 Shraddha Kere
 Technical Manager

End of Report



Netel (India) Limited

TEST REPORT

Customer Name : M/s. Deepak Fertilisers And Petrochemicals Corporation Limited.					
Customer Address : Taloja Plant Plot K-1, MIDC Industrial Area, P.O. Taloja Dist. Raigad 410208 Maharashtra					
Customer Reference : Work Order no. 4800055893, Dated 24.07.2019					
Sample Type : Process Gas (Stack)			Sampling Done By : Netel (India) Limited		
Stack Connected to : WNA - 1			Stack Diameter : 953 mm		
Date of Sampling : 25.02.2021			Analysis Date : 27.02.2021 — 02.03.2021		
Sample Received : 27.02.2021			Date of Reporting : 03.03.2021		
Sampling Location : WNA - 1			Sample Code : NIL/ST/02/21/165		
Sr. No.	Parameter	Result	Unit	Consent Limit	Method
1	Temperature	136	°C	---	IS 11255 (Part 3)
2	Velocity of Gas	2.42	m/sec	---	IS 11255 (Part 3)
3	Volumetric Flow Rate	4527	Nm ³ /hr	---	IS 11255 (Part 3)
4	Oxides of Nitrogen	14.9	mg/Nm ³	---	IS 11255 (Part 6)
		26.8	ppm	---	
		1.619	kg/day	---	
		0.0073	kg/ton of WNA	3	
5	Ammonia	20.4	mg/Nm ³	---	IS 11255 (Part 6)
		29.3	ppm	50	
		0.0924	kg/hr	---	

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 Technical Manager

End of Report

A Neterwala Group Company

W-408, Rabale MIDC,
 TTC Industrial Area,
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 INDIA.

Tel. : 72080976 92 / 93 / 94 / 95

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

CIN : U74999MH2003PLC142228



Regd. office : Liberty Building, 3rd Floor, Sir Vithaldas Thackersey Marg, (New Marine Lines), Mumbai - 400 020. Tel. : 22066231 / 61





Netel (India) Limited

TEST REPORT

Customer Name : M/s. Deepak Fertilisers And Petrochemicals Corporation Limited.					
Customer Address : Taloja Plant Plot K-1, MIDC Industrial Area, P.O. Taloja Dist. Raigad 410208 Maharashtra					
Customer Reference : Work Order no. 4800055893, Dated 24.07.2019					
Sample Type : Process Gas (Stack)			Sampling Done By : Netel (India) Limited		
Stack Connected to : WNA - 2			Stack Diameter : 953 mm		
Date of Sampling : 25.02.2021			Analysis Date : 27.02.2021 — 02.03.2021		
Sample Received : 27.02.2021			Date of Reporting : 03.03.2021		
Sampling Location : WNA - 2			Sample Code : NIL/ST/02/21/166		
Sr. No.	Parameter	Result	Unit	Consent Limit	Method
1	Temperature	140	°C	---	IS 11255 (Part 3)
2	Velocity of Gas	2.13	m/sec	---	IS 11255 (Part 3)
3	Volumetric Flow Rate	3946	Nm ³ /hr	---	IS 11255 (Part 3)
4	Oxides of Nitrogen	16.4	mg/Nm ³	---	IS 11255 (Part 6)
		29.5	ppm	---	
		1.553	kg/day	---	
		0.0060	kg/ton of WNA	3	
5	Ammonia	17.4	mg/Nm ³	---	IS 11255 (Part 6)
		25.0	ppm	50	
		0.0687	kg/hr	---	

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Technical Manager

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Netel (India) Limited

TEST REPORT

Customer Name : M/s. Deepak Fertilisers And Petrochemicals Corporation Limited.	
Customer Address : Taloja Plant Plot K-1, MIDC Industrial Area, P.O. Taloja Dist. Raigad 410208 Maharashtra	
Customer Reference : Work Order no. 4800055893, Dated 24.07.2019	
Sample Type : Process Gas (Stack)	Sampling Done By : Netel (India) Limited
Stack Connected to : WNA - 3	Stack Diameter : 953 mm
Date of Sampling : 25.02.2021	Analysis Date : 27.02.2021 — 02.03.2021
Sample Received : 27.02.2021	Date of Reporting : 03.03.2021
Sampling Location : WNA - 3	Sample Code : NIL/ST/02/21/167

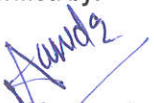
Sr. No.	Parameter	Result	Unit	Consent Limit	Method
1	Temperature	133	°C	---	IS 11255 (Part 3)
2	Velocity of Gas	2.56	m/sec	---	IS 11255 (Part 3)
3	Volumetric Flow Rate	4825	Nm ³ /hr	---	IS 11255 (Part 3)
4	Oxides of Nitrogen	10.9	mg/Nm ³	---	IS 11255 (Part 6)
		19.6	ppm	---	
		1.262	kg/day	---	
		0.0047	kg/ton of WNA	3	
5	Ammonia	22.3	mg/Nm ³	---	IS 11255 (Part 6)
		32.1	ppm	50	
		0.1076	kg/hr	---	

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Netel (India) Limited

TEST REPORT

Customer Name : M/s. Deepak Fertilisers And Petrochemicals Corporation Limited.					
Customer Address : Taloja Plant Plot K-1, MIDC Industrial Area, P.O. Taloja Dist. Raigad 410208 Maharashtra					
Customer Reference : Work Order no. 4800055893, Dated 24.07.2019					
Sample Type : Process Gas (Stack)			Sampling Done By : Netel (India) Limited		
Stack Connected to : WNA - 4			Stack Diameter : 953 mm		
Date of Sampling : 25.02.2021			Analysis Date : 27.02.2021 — 02.03.2021		
Sample Received : 27.02.2021			Date of Reporting : 03.03.2021		
Sampling Location : WNA - 4			Sample Code : NIL/ST/02/21/168		
Sr. No.	Parameter	Result	Unit	Consent Limit	Method
1	Temperature	127	°C	---	IS 11255 (Part 3)
2	Velocity of Gas	2.58	m/sec	---	IS 11255 (Part 3)
3	Volumetric Flow Rate	4935	Nm ³ /hr	---	IS 11255 (Part 3)
4	Oxides of Nitrogen	8.9	mg/Nm ³	---	IS 11255 (Part 6)
		16.0	ppm	---	
		1.054	kg/day	---	
		0.0026	kg/ton of WNA	3	
5	Ammonia	23.2	mg/Nm ³	---	IS 11255 (Part 6)
		33.4	ppm	50	
		0.1145	kg/hr	---	

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 Surekha Jamdar
 Dy. Technical Manager

Issued by:


 Shraddha Kere
 Technical Manager

End of Report

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Netel (India) Limited

TEST REPORT

Customer Name : M/s. Deepak Fertilisers And Petrochemicals Corporation Limited.					
Customer Address : Taloja Plant Plot K-1, MIDC Industrial Area, P.O. Taloja Dist. Raigad 410208 Maharashtra					
Customer Reference : Work Order no. 4800055893, Dated 24.07.2019					
Sample Type : Process Stack			Sampling Done By : Netel (India) Limited		
Stack Connected to : LDAN Prilling Tower			Stack Diameter : 1632 mm		
Date of Sampling : 26.02.2021			Analysis Date : 01.03.2021 — 04.03.2021		
Sample Received : 01.03.2021			Date of Reporting : 05.03.2021		
Sampling Location : LDAN Prilling Tower			Sample Code : NIL/ST/02/21/182		
Sr. No.	Parameter	Result	Unit	Consent Limit	Method
1	Temperature	62	°C	---	IS 11255 (Part 3)
2	Velocity of Gas	2.03	m/sec	---	IS 11255 (Part 3)
3	Volumetric Flow Rate	13563	Nm ³ /hr	---	IS 11255 (Part 3)
4	Particulate Matter	10.2	mg/Nm ³	150	IS 11255 (Part 1)
		3.320	kg/day	---	
5	Ammonia	11.3	mg/Nm ³	---	IS 11255 (Part 6)
		16.3	ppm	50	
		0.153	kg/hr	---	

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Surekha Jamdar
Dy. Technical Manager

Issued by:


Shraddha Kere
Technical Manager

End of Report

A Neterwala Group Company

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Netel (India) Limited

TEST REPORT

Customer Name : 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. 4800055893, Dated 24.07.2019					
Sample Type : Process Stack			Sampling Done By : Netel (India) Limited		
Stack Connected to : LDAN Venturi Scrubber			Stack Diameter : 1500 mm		
Date of Sampling : 26.02.2021			Analysis Date : 01.03.2021 — 04.03.2021		
Sample Received : 01.03.2021			Date of Reporting : 05.03.2021		
Sampling Location : LDAN Venturi Scrubber			Sample Code : NIL/ST/02/21/184		
Sr. No.	Parameter	Result	Unit	Consent Limit	Method
1	Temperature	82	°C	---	IS 11255 (Part 3)
2	Velocity of Gas	2.19	m/sec	---	IS 11255 (Part 3)
3	Volumetric Flow Rate	11664	Nm ³ /hr	---	IS 11255 (Part 3)
4	Particulate Matter	10.3	mg/Nm ³	150	IS 11255 (Part 1)
		2.883	kg/day	---	
5	Ammonia	9.7	mg/Nm ³	---	IS 11255 (Part 6)
		14.0	ppm	50	
		0.113	kg/hr	---	

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Surekha Jamdar
Dy. Technical Manager

Issued by:


Shraddha Kere
Technical Manager

End of Report

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Netel (India) Limited

TEST REPORT

Customer Name : M/s. Deepak Fertilisers And Petrochemicals Corporation Limited.					
Customer Address : Taloja Plant Plot K-1, MIDC Industrial Area, P.O. Taloja Dist. Raigad 410208 Maharashtra					
Customer Reference : Work Order no. 4800055893, Dated 24.07.2019					
Sample Type : Process Stack			Sampling Done By : Netel (India) Limited		
Stack Connected to : G P Vent			Stack Diameter : 640 mm		
Date of Sampling : 26.02.2021			Analysis Date : 01.03.2021 — 04.03.2021		
Sample Received : 01.03.2021			Date of Reporting : 05.03.2021		
Sampling Location : G P Vent			Sample Code : NIL/ST/02/21/183		
Sr. No.	Parameter	Result	Unit	Consent Limit	Method
1	Temperature	86	°C	---	IS 11255 (Part 3)
2	Velocity of Gas	2.33	m/sec	---	IS 11255 (Part 3)
3	Volumetric Flow Rate	2234	Nm ³ /hr	---	IS 11255 (Part 3)
4	Particulate Matter	12.7	mg/Nm ³	150	IS 11255 (Part 1)
		0.681	kg/day	---	
5	Ammonia	13.8	mg/Nm ³	---	IS 11255 (Part 6)
		19.8	ppm	50	
		0.031	kg/day	---	

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End of Report

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Netel (India) Limited

TEST REPORT

Customer Name : M/s. Deepak Fertilisers And Petrochemicals Corporation Limited.					
Customer Address : Taloja Plant Plot K-1, MIDC Industrial Area, P.O. Taloja Dist. Raigad 410208 Maharashtra					
Customer Reference : Work Order no. 4800055893, Dated 24.07.2019					
Sample Type : Flue Gas Stack			Sampling Done By : Netel (India) Limited		
Stack Connected to : Boiler			Stack Diameter : 1900 mm		
Date of Sampling : 26.02.2021			Analysis Date : 01.03.2021 — 04.03.2021		
Sample Received : 01.03.2021			Date of Reporting : 05.03.2021		
Sampling Location : Coal Fire Boiler			Sample Code : NIL/ST/02/21/185		
Sr. No.	Parameter	Result	Unit	Consent Limit	Method
1	Temperature	104	°C	---	IS 11255 (Part 3)
2	Velocity of Gas	4.89	m/sec	---	IS 11255 (Part 3)
3	Volumetric Flow Rate	39391	Nm ³ /hr	---	IS 11255 (Part 3)
4	Particulate Matter	33.7	mg/Nm ³	50	IS 11255 (Part 1)
		31.859	kg/day	---	
5	Sulphur Dioxide	572.5	mg/Nm ³	---	IS 11255 (Part 2)
		218.5	ppm	---	
		541.2	kg/day	3200	
6	Oxides of Nitrogen	162.0	mg/Nm ³	---	IS 11255 (Part 7)
		132.0	ppm	350	
		153.2	kg/day	---	

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Technical Manager

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Netel (India) Limited

TEST REPORT

Customer Name : 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. 4800055893, Dated 24.07.2019					
Sample Type : Flue Gas (Stack)			Sampling Done By : Netel (India) Limited		
Stack Connected to : GT-2			Stack Diameter : 1500 mm		
Date of Sampling : 10.03.2021			Analysis Date : 12.03.2021 — 15.03.2021		
Sample Received : 12.03.2021			Date of Reporting : 16.03.2021		
Sampling Location : HRSG 2			Sample Code : NIL/ST/03/21/016		
Sr. No.	Parameter	Result	Unit	Consent Limit	Method
1	Temperature	98	°C	---	IS 11255 (Part 3)
2	Velocity of Gas	10.77	m/sec	---	IS 11255 (Part 3)
3	Volumetric Flow Rate	54838	Nm ³ /hr	---	IS 11255 (Part 3)
4	Sulphur Dioxide	1.4	mg/Nm ³	---	IS 11255 (Part 2)
		0.5	ppm	---	
		1.843	kg/day	---	
5	Oxides of Nitrogen	13.6	mg/Nm ³	350	IS 11255 (Part 7)
		7.2	ppm	---	
		17.899	kg/day	---	
6	Carbon Monoxide	32.5	mg/Nm ³	---	USEPA – 10A
		28.4	ppm	---	
		42.774	kg/day	---	

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 Surekha Jamdar

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Netel (India) Limited

TEST REPORT

Customer Name : 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. 4800055893, Dated 24.07.2019					
Sample Type : Flue Gas (Stack)			Sampling Done By : Netel (India) Limited		
Stack Connected to : GT-5			Stack Diameter : 1500 mm		
Date of Sampling : 10.03.2021			Analysis Date : 12.03.2021 — 15.03.2021		
Sample Received : 12.03.2021			Date of Reporting : 16.03.2021		
Sampling Location : HRSG 5			Sample Code : NIL/ST/03/21/017		
Sr. No.	Parameter	Result	Unit	Consent Limit	Method
1	Temperature	104	°C	---	IS 11255 (Part 3)
2	Velocity of Gas	10.63	m/sec	---	IS 11255 (Part 3)
3	Volumetric Flow Rate	53264	Nm ³ /hr	---	IS 11255 (Part 3)
4	Sulphur Dioxide	BDL	mg/Nm ³	---	IS 11255 (Part 2)
		BDL	ppm	---	
		BDL	kg/day	---	
5	Oxides of Nitrogen	225.0	mg/Nm ³	350	IS 11255 (Part 7)
		119.6	ppm	---	
		287.626	kg/day	---	
6	Carbon Monoxide	5.7	mg/Nm ³	---	USEPA – 10A
		5.0	ppm	---	
		7.287	kg/day	---	

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Netel (India) Limited

TEST REPORT

Customer Name : M/s. Deepak Fertilisers And Petrochemicals Corporation Limited.					
Customer Address : Taloja Plant Plot K-1, MIDC Industrial Area, P.O. Taloja Dist. Raigad 410208 Maharashtra					
Customer Reference : Work Order no. 4800055893, Dated 24.07.2019					
Sample Type : Flue Gas (Stack)			Sampling Done By : Netel (India) Limited		
Stack Connected to : Boiler			Stack Diameter : 1830 mm		
Date of Sampling : 10.03.2021			Analysis Date : 12.03.2021 — 15.03.2021		
Sample Received : 12.03.2021			Date of Reporting : 16.03.2021		
Sampling Location : Boiler D			Sample Code : NIL/ST/03/21/018		
Sr. No.	Parameter	Result	Unit	Consent Limit	Method
1	Temperature	105	°C	---	IS 11255 (Part 3)
2	Velocity of Gas	4.82	m/sec	---	IS 11255 (Part 3)
3	Volumetric Flow Rate	35880	Nm ³ /hr	---	IS 11255 (Part 3)
4	Sulphur Dioxide	BDL	mg/Nm ³	---	IS 11255 (Part 2)
		BDL	ppm	---	
		BDL	kg/day	---	
5	Oxides of Nitrogen	6.8	mg/Nm ³	350	IS 11255 (Part 7)
		3.6	ppm	---	
		5.856	kg/day	---	
6	Carbon Monoxide	9.1	mg/Nm ³	---	USEPA – 10A
		7.9	ppm	---	
		7.836	kg/day	---	

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Verified by:

Surekha

Surekha Jamdar
Dy. Technical Manager

Issued by:

Shraddha

Shraddha Kere
Technical Manager

End of Report

A Neterwala Group Company

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

Tel. : 72080976 92 / 93 / 94 / 95

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

CIN : U74999MH2003PLC142228



Regd. office : Liberty Building, 3rd Floor, Sir Vithaldas Thackersey Marg, (New Marine Lines), Mumbai - 400 020. Tel. : 22066231 / 61





Netel (India) Limited

TEST REPORT

Customer Name : M/s. Deepak Fertilisers And Petrochemicals Corporation Limited.					
Customer Address : Taloja Plant Plot K-1, MIDC Industrial Area, P.O. Taloja Dist. Raigad 410208 Maharashtra					
Customer Reference : Work Order no. 4800055893, Dated 24.07.2019					
Sample Type : Flue Gas (Stack)			Sampling Done By : Netel (India) Limited		
Stack Connected to : Boiler			Stack Diameter : 1500 mm		
Date of Sampling : 10.03.2021			Analysis Date : 12.03.2021 — 15.03.2021		
Sample Received : 12.03.2021			Date of Reporting : 16.03.2021		
Sampling Location : Boiler A			Sample Code : NIL/ST/03/21/019		
Sr. No.	Parameter	Result	Unit	Consent Limit	Method
1	Temperature	109	°C	---	IS 11255 (Part 3)
2	Velocity of Gas	6.25	m/sec	---	IS 11255 (Part 3)
3	Volumetric Flow Rate	30927	Nm ³ /hr	---	IS 11255 (Part 3)
4	Sulphur Dioxide	BDL	mg/Nm ³	---	IS 11255 (Part 2)
		BDL	ppm	---	
		BDL	kg/day	---	
5	Oxides of Nitrogen	26.1	mg/Nm ³	350	IS 11255 (Part 7)
		13.9	ppm	---	
		19.373	kg/day	---	
6	Carbon Monoxide	6.6	mg/Nm ³	---	USEPA – 10A
		5.8	ppm	---	
		4.899	kg/day	---	

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Verified by:

Ajunda

Surekha Jamdar

Dy. Technical Manager

Issued by:

Srkere

Shraddha Kere

Technical Manager

End of Report

A Neterwala Group Company

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Regd. office : Liberty Building, 3rd Floor, Sir Vithaldas Thackersey Marg, (New Marine Lines), Mumbai - 400 020. Tel. : 22066231 / 61





Netel (India) Limited

TEST REPORT

Customer Name : M/s. Deepak Fertilisers And Petrochemicals Corporation Limited.					
Customer Address : Taloja Plant Plot K-1, MIDC Industrial Area, P.O. Taloja Dist. Raigad 410208 Maharashtra					
Customer Reference : Work Order no. 4800055893, Dated 24.07.2019					
Sample Type : Process Gas (Stack)			Sampling Done By : Netel (India) Limited		
Stack Connected to : ---			Stack Diameter : 2772 mm		
Date of Sampling : 11.03.2021			Analysis Date : 13.03.2021 — 16.03.2021		
Sample Received : 13.03.2021			Date of Reporting : 17.03.2021		
Sampling Location : NPK Train - 2			Sample Code : NIL/ST/03/21/023		
Sr. No.	Parameter	Result	Unit	Consent Limit	Method
1	Temperature	61	°C	---	IS 11255 (Part 3)
2	Velocity of Gas	11.99	m/sec	---	IS 11255 (Part 3)
3	Volumetric Flow Rate	231499	Nm ³ /hr	---	IS 11255 (Part 3)
4	Particulate Matter	20.2	mg/Nm ³	150	IS 11255 (Part 1)
		112.231	kg/day	---	
5	Ammonia	16.2	mg/Nm ³	---	IS 11255 (Part 6)
		23.3	ppm	50	
		3.750	kg/hr	---	
6	Fluoride	BDL	mg/Nm ³	25	IS 11255 (Part 5)
		BDL	ppm	---	
		BDL	kg/day	---	

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Verified by:


Surekha Jamdar
 Dy. Technical Manager

Issued by:


Shraddha Kere
 Technical Manager

End of Report

A Neterwala Group Company

W-408, Rabale MIDC,
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Regd. office : Liberty Building, 3rd Floor, Sir Vithaldas Thackersey Marg, (New Marine Lines), Mumbai - 400 020. Tel. : 22066231 / 61





Netel (India) Limited

TEST REPORT

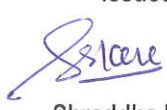
Customer Name : M/s. Deepak Fertilisers And Petrochemicals Corporation Limited.					
Customer Address : Taloja Plant Plot K-1, MIDC Industrial Area, P.O. Taloja Dist. Raigad 410208 Maharashtra					
Customer Reference : Work Order no. 4800055893, Dated 24.07.2019					
Sample Type : Process Gas (Stack)			Sampling Done By : Netel (India) Limited		
Stack Connected to : ---			Stack Diameter : 2772 mm		
Date of Sampling : 11.03.2021			Analysis Date : 13.03.2021 — 16.03.2021		
Sample Received : 13.03.2021			Date of Reporting : 17.03.2021		
Sampling Location : NPK Train - 1			Sample Code : NIL/ST/03/21/022		
Sr. No.	Parameter	Result	Unit	Consent Limit	Method
1	Temperature	58	°C	---	IS 11255 (Part 3)
2	Velocity of Gas	11.76	m/sec	---	IS 11255 (Part 3)
3	Volumetric Flow Rate	229116	Nm ³ /hr	---	IS 11255 (Part 3)
4	Particulate Matter	16.8	mg/Nm ³	150	IS 11255 (Part 1)
		92.380	kg/day	---	
5	Ammonia	13.4	mg/Nm ³	---	IS 11255 (Part 6)
		19.3	ppm	50	
		3.070	kg/hr	---	
6	Fluoride	BDL	mg/Nm ³	25	IS 11255 (Part 5)
		BDL	ppm	---	
		BDL	kg/day	---	

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Surekha Jamdar
 Dy. Technical Manager

Issued by:


Shraddha Kere
 Technical Manager

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Netel (India) Limited

TEST REPORT

Customer Name : M/s. Deepak Fertilisers And Petrochemicals Corporation Limited.					
Customer Address : Taloja Plant Plot K-1, MIDC Industrial Area, P.O. Taloja Dist. Raigad 410208 Maharashtra					
Customer Reference : Work Order no. 4800055893, Dated 24.07.2019					
Sample Type : Process Gas (Stack)			Sampling Done By : Netel (India) Limited		
Stack Connected to : ---			Stack Diameter : 1500 mm		
Date of Sampling : 11.03.2021			Analysis Date : 13.03.2021 — 16.03.2021		
Sample Received : 13.03.2021			Date of Reporting : 17.03.2021		
Sampling Location : ANP Deducting Unit Stack			Sample Code : NIL/ST/03/21/020		
Sr. No.	Parameter	Result	Unit	Consent Limit	Method
1	Temperature	58	°C	---	IS 11255 (Part 3)
2	Velocity of Gas	10.86	m/sec	---	IS 11255 (Part 3)
3	Volumetric Flow Rate	61971	Nm ³ /hr	---	IS 11255 (Part 3)
4	Particulate Matter	33.9	mg/Nm ³	150	IS 11255 (Part 1)
		50.420	kg/day	---	
5	Ammonia	24.7	mg/Nm ³	---	IS 11255 (Part 6)
		35.5	ppm	50	
		1.531	kg/hr	---	
6	Fluoride	6.40	mg/Nm ³	25	IS 11255 (Part 5)
		8.24	ppm	---	
		9.519	kg/day	---	

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Verified by:

Surekha Jamdar

Surekha Jamdar

Dy. Technical Manager

Issued by:

Shraddha Kere

Shraddha Kere

Technical Manager

End of Report

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Netel (India) Limited

TEST REPORT

Customer Name : M/s. Deepak Fertilisers And Petrochemicals Corporation Limited.					
Customer Address : Taloja Plant Plot K-1, MIDC Industrial Area, P.O. Taloja Dist. Raigad 410208 Maharashtra					
Customer Reference : Work Order no. 4800055893, Dated 24.07.2019					
Sample Type : Process Gas (Stack)			Sampling Done By : Netel (India) Limited		
Stack Connected to : ---			Stack Diameter : 200 mm		
Date of Sampling : 11.03.2021			Analysis Date : 13.03.2021 — 16.03.2021		
Sample Received : 13.03.2021			Date of Reporting : 17.03.2021		
Sampling Location : ANP - Vacuum Pump			Sample Code : NIL/ST/03/21/021		
Sr. No.	Parameter	Result	Unit	Consent Limit	Method
1	Temperature	49	°C	---	IS 11255 (Part 3)
2	Velocity of Gas	6.42	m/sec	---	IS 11255 (Part 3)
3	Volumetric Flow Rate	669	Nm ³ /hr	---	IS 11255 (Part 3)
4	Particulate Matter	12.7	mg/Nm ³	150	IS 11255 (Part 1)
		0.204	kg/day	---	
5	Ammonia	7.3	mg/Nm ³	---	IS 11255 (Part 6)
		10.5	ppm	50	
		0.005	kg/hr	---	
6	Fluoride	7.80	mg/Nm ³	25	IS 11255 (Part 5)
		10.04	ppm	---	
		0.125	kg/day	---	

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Verified by:

[Signature]

Surekha Jamdar
Dy. Technical Manager

Issued by:

[Signature]

Shraddha Kere
Technical Manager

End of Report

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Annexure 2: Treated Water Analysis Reports

TEST REPORT

Name of Organization : M/s. Deepak Fertilisers And Petrochemicals Corporation Limited.						
Customer Address : Taloja Plant Plot K-1, MIDC Industrial Area, P.O. Taloja Dist. Raigad 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	
16.10.2020		19.10.2020	19.10.2020	21.10.2020	22.10.2020	
Sample Type : Water			Sampling done by : Netel (India) Limited			
Sample Container : Plastic can			Sample Quantity : 2 Litres			
Sampling Location : Treated Effluent (ETP)			Sample Code : NIL/W/10/20/096			
Sr. No.	Test Parameter	Method	Unit	MDL*	Result	Consent Limits
1	pH	IS 3025 (Part 11)	—	0.5 - 13.5	7.14	6.0 - 8.5
2	Total Dissolved Solids	IS 3025 (Part 16)	mg/lit	5	1620	2100
3	Total Suspended Solids	IS 3025 (Part 17)	mg/lit	5	28	100
4	COD	IS 3025 (Part 58)	mg/lit	10	102	250
5	BOD	IS 3025 (Part 44)	mg/lit	5	37	100
6	Residual Free Chlorine	IS 3025 (Part 26)	mg/lit	0.1	<0.1	1
7	Fluoride	APHA 4500-F-D	mg/lit	0.02	0.3	1.5
8	Nitrate Nitrogen	IS 3025 (Part 34)	mg/lit	0.5	14.9	20
9	Phosphate	APHA 4500-P-C	mg/lit	1	4.6	5
10	Free Ammonical Nitrogen	IS 3025 (Part 34)	mg/lit	0.5	0.16	4
11	Ammonical Nitrogen	IS 3025 (Part 34)	mg/lit	0.1	22.8	50
12	Arsenic	APHA 3114-C	mg/lit	0.005	BDL	0.2
13	Cyanide	APHA 4500-CN-E	mg/lit	0.01	BDL	0.2
14	Vanadium	APHA 3111-B	mg/lit	0.2	BDL	0.2
15	Total Chromium (as Cr)	APHA 3111-B	mg/lit	0.01	BDL	2
16	Hexavalent Chromium (Cr ⁶⁺)	APHA 3500-Cr-B	mg/lit	0.1	BDL	0.1
17	Oil & Grease	APHA 5520-B	mg/lit	0.2	0.2	10

Note :

1. MDL – Method Detectible Limit.
2. BDL – Below Detectible Limit.
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5. The complaint register is available with the Laboratory as per Environment Protection Act, 1986.

Verified by:

A. J. J.
Surekha Jamdar

Dy. Technical Manager
Issued by:

S. K.

Shraddha Kere
Technical Manager

End of Report

TEST REPORT

Customer Name : 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. 4800055893, Dated 24.07.2019					
Sample Type : Waste Water			Sampling done by : Netel (India) Limited		
Sample Container : Plastic can			Sample Quantity : 2 Litres		
Date of Sampling : 27.11.2020			Analysis Date : 30.11.2020 — 03.12.2020		
Sample Received : 30.11.2020			Date of Reporting : 04.12.2020		
Sampling Location : ETP Treated Effluent			Sample Code : NIL/W/11/20/142		
Sr. No.	Test Parameter	Result	Unit	Consent Limits	Method
1	pH	7.06	—	6.0 - 8.5	IS 3025 (Part 11)
2	Total Dissolved Solids	1328	mg/lit	2100	IS 3025 (Part 16)
3	Total Suspended Solids	38	mg/lit	100	IS 3025 (Part 17)
4	COD	56	mg/lit	250	IS 3025 (Part 58)
5	BOD	14	mg/lit	100	IS 3025 (Part 44)
6	Residual Free Chlorine	BDL	mg/lit	1	IS 3025 (Part 26)
7	Fluoride	0.70	mg/lit	1.5	APHA 4500-F-D
8	Nitrate Nitrogen	10.8	mg/lit	20	IS 3025 (Part 34)
9	Phosphate	4.5	mg/lit	5	APHA 4500-P-C
10	Free Ammonical Nitrogen	0.3	mg/lit	4	IS 3025 (Part 34)
11	Ammonical Nitrogen	18.9	mg/lit	50	IS 3025 (Part 34)
12	Arsenic	BDL	mg/lit	0.2	APHA 3114-C
13	Cyanide	BDL	mg/lit	0.2	APHA 4500-CN-E
14	Vanadium	BDL	mg/lit	0.2	APHA 3111-B
15	Total Chromium (as Cr)	BDL	mg/lit	2	APHA 3111-B
16	Hexavalent Chromium (Cr ⁶⁺)	BDL	mg/lit	0.1	APHA 3500-Cr-B
17	Oil & Grease	0.3	mg/lit	10	APHA 5520-B

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Verified by:

Issued by:



Surekha Jamdar
Dy. Technical Manager



Shraddha Kere
Technical Manager

End of Report

TEST REPORT

Name of Organization : M/s. Deepak Fertilisers And Petrochemicals Corporation Limited.						
Customer Address : Taloja Plant Plot K-1, MIDC Industrial Area, P.O. Taloja Dist. Raigad 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	
31.12.2020		02.01.2021	02.01.2021	05.01.2021	06.01.2021	
Sample Type : Water			Sampling done by : Netel (India) Limited			
Sample Container : Plastic can			Sample Quantity : 2 Litres			
Sampling Location : Treated Effluent (ETP)			Sample Code : NIL/W/01/21/018			
Sr. No.	Test Parameter	Method	Unit	MDL*	Result	Consent Limits
1	pH	IS 3025 (Part 11)	–	0.5 - 13.5	7.64	6.0 - 8.5
2	Total Dissolved Solids	IS 3025 (Part 16)	mg/lit	5	1488	2100
3	Total Suspended Solids	IS 3025 (Part 17)	mg/lit	5	60	100
4	COD	IS 3025 (Part 58)	mg/lit	10	32	250
5	BOD	IS 3025 (Part 44)	mg/lit	4	9	100
6	Residual Free Chlorine	IS 3025 (Part 26)	mg/lit	0.1	<0.1	1
7	Fluoride	APHA 4500-F-D	mg/lit	0.02	0.11	1.5
8	Nitrate Nitrogen	IS 3025 (Part 34)	mg/lit	0.05	11.9	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	0.81	4
11	Ammonical Nitrogen	IS 3025 (Part 34)	mg/lit	0.1	38.4	50
12	Arsenic	APHA 3114-C	mg/lit	0.01	BDL	0.2
13	Cyanide	APHA 4500-CN-E	mg/lit	0.01	BDL	0.2
14	Vanadium	APHA 3111-B	mg/lit	0.2	BDL	0.2
15	Total Chromium (as Cr)	APHA 3111-B	mg/lit	0.01	BDL	2
16	Hexavalent Chromium (Cr ⁶⁺)	APHA 3500-Cr-B	mg/lit	0.1	BDL	0.1
17	Oil & Grease	APHA 5520-B	mg/lit	0.2	0.2	10

Note :

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2. BDL – Below Detectible Limit.
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Verified by:


Surekha Jamdar
 Dy. Technical Manager

Issued by:


Shraddha Kere
 Technical Manager

End of Report

TEST REPORT

Customer Name : M/s. Deepak Fertilisers And Petrochemicals Corporation Limited.					
Customer Address : Taloja Plant Plot K-1, MIDC Industrial Area, P.O. Taloja Dist. Raigad 410208 Maharashtra					
Customer Reference : Work Order no. 4800055893, Dated 24.07.2019					
MoEFCC Validity : 16 October 2024			NABL Validity : 19 March 2022		
Sample Type : Treated Waste Water			Sampling Done By : Netel (India) Limited		
Sample Packaging : Plastic Bottle			Sample Quantity : 2 Litres		
Date of Sampling : 28.01.2021			Analysis Date : 30.01.2021 — 02.02.2021		
Sample Received : 30.01.2021			Date of Reporting : 03.02.2021		
Sampling Location : Treated Effluent (ETP)			Sample Code : NIL/W/01/21/164		
Sr. No.	Parameters	Result	Unit	Consent Limits	Method
1	pH	7.44	—	6.0 - 8.5	APHA 4500(H ⁺)-B
2	Total Dissolved Solids	1298	mg/lit	2100	APHA 2350-C&D
3	Total Suspended Solids	63	mg/lit	100	IS 3025 (Part 17)
4	COD	79	mg/lit	250	APHA 5220-B
5	BOD	27	mg/lit	100	IS 3025 (Part 44)
6	Residual Free Chlorine	BDL	mg/lit	1	IS 3025 (Part 26)
7	Fluoride	0.2	mg/lit	1.5	APHA 4500(F)-D
8	Nitrate Nitrogen	3.8	mg/lit	20	APHA 4500(NO ₃)-B
9	Phosphate	3.9	mg/lit	5	APHA 4500(P)-C
10	Free Ammonical Nitrogen	0.83	mg/lit	4	IS 3025 (Part 34)
11	Ammonical Nitrogen	35.9	mg/lit	50	IS 3025 (Part 34)
12	Arsenic	BDL	mg/lit	0.2	APHA 3111-B
13	Cyanide	BDL	mg/lit	0.2	IS 3025 (Part 27)
14	Vanadium	BDL	mg/lit	0.2	APHA 3111-D
15	Total Chromium (as Cr)	BDL	mg/lit	2	APHA 3111-B
16	Hexavalent Chromium (Cr ⁶⁺)	BDL	mg/lit	0.1	APHA 3500-C
17	Oil & Grease	BDL	mg/lit	10	APHA 5520-B

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Surekha Jamdar
 Dy. Technical Manager

Issued by:


Shraddha Kere
 Technical Manager

End of Report



Netel (India) Limited

TEST REPORT

Customer Name : M/s. Deepak Fertilisers And Petrochemicals Corporation Limited.					
Customer Address : Taloja Plant Plot K-1, MIDC Industrial Area, P.O. Taloja Dist. Raigad 410208 Maharashtra					
Customer Reference : Work Order no. 4800055893, Dated 24.07.2019					
MoEFCC Validity : 16 October 2024			NABL Validity : 19 March 2022		
Sample Type : Treated Waste Water			Sampling Done By : Netel (India) Limited		
Sample Packaging : Plastic Bottle			Sample Quantity : 2 Litres		
Date of Sampling : 26.02.2021			Analysis Date : 01.03.2021 — 04.03.2021		
Sample Received : 01.03.2021			Date of Reporting : 05.03.2021		
Sampling Location : Treated Effluent (ETP)			Sample Code : NIL/W/02/21/152		
Sr. No.	Parameters	Result	Unit	Consent Limits	Method
1	pH	7.49	—	6.0 - 8.5	APHA 4500(H ⁺)-B
2	Total Dissolved Solids	1506	mg/lit	2100	APHA 2350-C&D
3	Total Suspended Solids	60	mg/lit	100	IS 3025 (Part 17)
4	COD	89	mg/lit	250	APHA 5220-B
5	BOD	27	mg/lit	100	IS 3025 (Part 44)
6	Residual Free Chlorine	BDL	mg/lit	1	IS 3025 (Part 26)
7	Fluoride	0.3	mg/lit	1.5	APHA 4500(F)-D
8	Nitrate Nitrogen	13.3	mg/lit	20	APHA 4500(NO ₃)-B
9	Phosphate	3.6	mg/lit	5	APHA 4500(P)-C
10	Free Ammonical Nitrogen	2.25	mg/lit	4	IS 3025 (Part 34)
11	Ammonical Nitrogen	43.6	mg/lit	50	IS 3025 (Part 34)
12	Arsenic	BDL	mg/lit	0.2	APHA 3111-B
13	Cyanide	BDL	mg/lit	0.2	IS 3025 (Part 27)
14	Vanadium	BDL	mg/lit	0.2	APHA 3111-D
15	Total Chromium (as Cr)	BDL	mg/lit	2	APHA 3111-B
16	Hexavalent Chromium (Cr ⁶⁺)	BDL	mg/lit	0.1	APHA 3500-C
17	Oil & Grease	0.3	mg/lit	10	APHA 5520-B

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Surekha Jamdar
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Shraddha Kere
 Technical Manager

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 INDIA.

Tel. : 72080976 92 / 93 / 94 / 95

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

CIN : U74999MH2003PLC142228



Regd. office : Liberty Building, 3rd Floor, Sir Vithaldas Thackersey Marg, (New Marine Lines), Mumbai - 400 020. Tel. : 22066231 / 61






Netel (India) Limited

TEST REPORT

Customer Name : M/s. Deepak Fertilisers And Petrochemicals Corporation Limited.					
Customer Address : Taloja Plant Plot K-1, MIDC Industrial Area, P.O. Taloja Dist. Raigad 410208 Maharashtra					
Customer Reference : Work Order no. 4800055893, Dated 24.07.2019					
MoEFCC Validity : 16 October 2024			NABL Validity : 19 March 2022		
Sample Type : Treated Waste Water			Sampling Done By : Netel (India) Limited		
Sample Packaging : Plastic Bottle			Sample Quantity : 2 Litres		
Date of Sampling : 11.03.2021			Analysis Date : 13.03.2021 — 16.03.2021		
Sample Received : 13.03.2021			Date of Reporting : 17.03.2021		
Sampling Location : Treated Effluent (ETP)			Sample Code : NIL/W/03/21/046		
Sr. No.	Parameters	Result	Unit	Consent Limits	Method
1	pH	7.83	—	6.0 - 8.5	APHA 4500(H ⁺)-B
2	Total Dissolved Solids	1579	mg/lit	2100	APHA 2350-C&D
3	Total Suspended Solids	63	mg/lit	100	IS 3025 (Part 17)
4	COD	56	mg/lit	250	APHA 5220-B
5	BOD	31	mg/lit	100	IS 3025 (Part 44)
6	Residual Free Chlorine	BDL	mg/lit	1	IS 3025 (Part 26)
7	Fluoride	0.4	mg/lit	1.5	APHA 4500(F)-D
8	Nitrate Nitrogen	10.7	mg/lit	20	APHA 4500(NO ₃)-B
9	Phosphate	4.7	mg/lit	5	APHA 4500(P)-C
10	Free Ammonical Nitrogen	2.98	mg/lit	4	IS 3025 (Part 34)
11	Ammonical Nitrogen	41	mg/lit	50	IS 3025 (Part 34)
12	Arsenic	BDL	mg/lit	0.2	APHA 3111-B
13	Cyanide	BDL	mg/lit	0.2	IS 3025 (Part 27)
14	Vanadium	BDL	mg/lit	0.2	APHA 3111-D
15	Total Chromium (as Cr)	BDL	mg/lit	2	APHA 3111-B
16	Hexavalent Chromium (Cr ⁶⁺)	BDL	mg/lit	0.1	APHA 3500-C
17	Oil & Grease	0.4	mg/lit	10	APHA 5520-B

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Verified by:


Surekha Jamdar
 Dy. Technical Manager

Issued by:


Shradha Kere
 Technical Manager

End of Report

A Neterwala Group Company

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

Tel. : 72080976 92 / 93 / 94 / 95

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



Regd. office : Liberty Building, 3rd Floor, Sir Vithaldas Thackersey Marg, (New Marine Lines), Mumbai - 400 020. Tel. : 22066231 / 61



Annexure 3: Ambient Noise Monitoring Reports

TEST REPORT

Name of Organization : M/s. Deepak Fertilisers And Petrochemicals Corporation Limited.					
Address : Taloja Plant Plot K-1, MIDC Industrial Area, P.O. Taloja Dist. Raigad 410208 Maharashtra					
Customers Reference : Work Order no. 4800055893, Dated 24.07.2019					
Instrument Model : Lutron SL-4033-SD (Class 1)			Instrument Serial No. : Q640780		
Date of Sampling : 14.10.2020			Date of Calibration : 26.02.2020		
Date of Reporting : 16.10.2020			Next Calibration Due : 25.02.2021		
Sr. No.	Location	Leq (dBA)			
		Day	MPCB Limit	Night	MPCB Limit
1	Main Gate	67.6	75	68.1	70
2	NPK Gate No. 4	53.5	75	51.9	70
3	NPK Raw Material Storage Area	69.9	75	68.2	70
4	NPK Production Unit	59.4	75	58.8	70
5	Near IPA Gate	66.1	75	66.1	70
6	Near CFB Cooling Tower	73.0	75	69.2	70
7	Ammonia Unloading	61.6	75	59.9	70
8	K-6 Plot (Near Main Gate)	67.4	75	65.9	70

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Verified by:


Surekha Jamdar
 Dy. Technical Manager

Issued by:


Shraddha Kere
 Technical Manager

End of Report

NOISE LEVEL MONITORING REPORT

Name of Organization : M/s. Deepak Fertilisers And Petrochemicals Corporation Limited.					
Address : Taloja Plant Plot K-1, MIDC Industrial Area, P.O. Taloja Dist. Raigad 410208 Maharashtra					
Customers Reference : Work Order no. 4800055893, Dated 24.07.2019					
Instrument Model : Lutron SL-4033-SD (Class 1)			Instrument Serial No. : Q640792		
Date of Sampling : 26.11.2020			Date of Calibration : 26.02.2020		
Date of Reporting : 30.11.2020			Next Calibration Due : 25.02.2021		
Sr. No.	Location	Leq (dBA)			
		Day	MPCB Limit	Night	MPCB Limit
1	Main Gate	66.4	75	65.6	70
2	NPK Gate No. 4	55.6	75	54.3	70
3	NPK Raw Material Storage Area	67.5	75	65.7	70
4	NPK Production Unit	53.5	75	54.0	70
5	Near IPA Gate	63.6	75	63.1	70
6	Near CFB Cooling Tower	73.3	75	68.2	70
7	Ammonia Unloading	61.2	75	60.9	70
8	K-6 Plot (Near Main Gate)	68.8	75	68.2	70

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Verified by:


Surekha Jamdar
 Dy. Technical Manager

Issued by:


Shraddha Kere
 Technical Manager

End of Report

NOISE LEVEL MONITORING REPORT

Name of Organization : M/s. Deepak Fertilisers And Petrochemicals Corporation Limited.					
Address : Taloja Plant Plot K-1, MIDC Industrial Area, P.O. Taloja Dist. Raigad 410208 Maharashtra					
Customers Reference : Work Order no. 4800055893, Dated 24.07.2019					
Instrument Model : Lutron SL-4033-SD (Class 1)			Instrument Serial No. : Q640792		
Date of Sampling : 30.12.2020			Date of Calibration : 26.02.2020		
Date of Reporting : 02.01.2021			Next Calibration Due : 25.02.2021		
Sr. No.	Location	Leq (dBA)			
		Day	MPCB Limit	Night	MPCB Limit
1	Main Gate	66.7	75	65.6	70
2	NPK Gate No. 4	54.8	75	53.7	70
3	NPK Raw Material Storage Area	69.8	75	68.8	70
4	NPK Production Unit	61.1	75	61.1	70
5	Near IPA Gate	63.4	75	63.3	70
6	Near CFB Cooling Tower	71.7	75	69.6	70
7	Ammonia Unloading	57.8	75	56.8	70
8	K-6 Plot (Near Main Gate)	69.1	75	67.9	70

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Issued by:


Shraddha Kere
 Technical Manager

End of Report

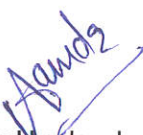
NOISE LEVEL MONITORING REPORT

Customer Name : M/s. Deepak Fertilisers And Petrochemicals Corporation Limited.					
Customer Address : Taloja Plant Plot K-1, MIDC Industrial Area, P.O. Taloja Dist. Raigad 410208 Maharashtra					
Customer Reference : Work Order no. 4800055893, Dated 24.07.2019					
Instrument Model : Lutron SL-4033-SD (Class 1)			Instrument Serial No. : Q640792		
Date of Sampling : 30.01.2021			Date of Calibration : 26.02.2020		
Date of Reporting : 02.02.2021			Next Calibration Due : 25.02.2021		
Sr. No.	Location	Leq (dBA)			
		Day	MPCB Limit	Night	MPCB Limit
1	Main Gate	67.9	75	66.4	70
2	NPK Gate No. 4	55.4	75	54.0	70
3	NPK Raw Material Storage Area	69.6	75	68.7	70
4	NPK Production Unit	57.9	75	56.3	70
5	Near IPA Gate	62.9	75	62.3	70
6	Near CFB Cooling Tower	69.7	75	68.8	70
7	Ammonia Unloading	61.9	75	61.1	70
8	K-6 Plot (Near Main Gate)	71.4	75	70.0	70

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Verified by:


Surekha Jamdar
 Dy. Technical Manager

Issued by:


Shraddha Kere
 Technical Manager

End of Report



Netel (India) Limited

NOISE LEVEL MONITORING REPORT

Customer Name : M/s. Deepak Fertilisers And Petrochemicals Corporation Limited.					
Customer Address : Taloja Plant Plot K-1, MIDC Industrial Area, P.O. Taloja Dist. Raigad 410208 Maharashtra					
Customer Reference : Work Order no. 4800055893, Dated 24.07.2019					
Instrument Model : Lutron SL-4033-SD (Class 1)			Instrument Serial No. : Q640774		
Date of Sampling : 25.02.2021			Date of Calibration : 25.09.2020		
Date of Reporting : 01.03.2021			Next Calibration Due : 24.09.2021		
Sr. No.	Location	Leq (dBA)			
		Day	MPCB Limit	Night	MPCB Limit
1	Main Gate	68.8	75	67.8	70
2	NPK Gate No. 4	52.9	75	51.6	70
3	NPK Raw Material Storage Area	70.2	75	68.5	70
4	NPK Production Unit	58.4	75	57.0	70
5	Near IPA Gate	66.5	75	65.0	70
6	Near CFB Cooling Tower	70.7	75	68.3	70
7	Ammonia Unloading	58.9	75	57.1	70
8	K-6 Plot (Near Main Gate)	72.1	75	66.5	70

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Verified by:


Surekha Jamdar
Dy. Technical Manager

Issued by:


Shraddha Kere
Technical Manager

End of Report

A Neterwala Group Company

W-408, Rabale MIDC,
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Regd. office : Liberty Building, 3rd Floor, Sir Vithaldas Thackersey Marg, (New Marine Lines), Mumbai - 400 020. Tel. : 22066231 / 61





Netel (India) Limited

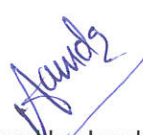
NOISE LEVEL MONITORING REPORT

Customer Name : M/s. Deepak Fertilisers And Petrochemicals Corporation Limited.					
Customer Address : Taloja Plant Plot K-1, MIDC Industrial Area, P.O. Taloja Dist. Raigad 410208 Maharashtra					
Customer Reference : Work Order no. 4800055893, Dated 24.07.2019					
Instrument Model : Lutron SL-4033-SD (Class 1)			Instrument Serial No. : Q640774		
Date of Sampling : 11.03.2021			Date of Calibration : 25.09.2020		
Date of Reporting : 15.03.2021			Next Calibration Due : 24.09.2021		
Sr. No.	Location	Leq (dBA)			
		Day	MPCB Limit	Night	MPCB Limit
1	Main Gate	66.1	75	65.0	70
2	NPK Gate No. 4	52.9	75	53.3	70
3	NPK Raw Material Storage Area	67.4	75	67.0	70
4	NPK Production Unit	61.7	75	60.0	70
5	Near IPA Gate	62.7	75	61.8	70
6	Near CFB Cooling Tower	67.1	75	63.2	70
7	Ammonia Unloading	60.4	75	58.6	70
8	K-6 Plot (Near Main Gate)	68.6	75	67.2	70

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Annexure 4: CSR Report

Deepak Fertilizers and Petrochemicals Corporation Ltd, Taloja

CSR Report 2020-21 Yearly (Up to March 2021)

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 Taloja and Pune in Maharashtra.

The CSR Arm of Deepak Fertilisers and Petrochemicals Corporation Limited, Pune (DFPCL), Ishanya Foundation (ISFON) 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 in and around Taloja MIDC and urban area of Pune.**

Nearly 21371 families served in urban, rural and tribal areas through various initiatives by the end of financial year 2021.

Sr. No	Name of Project	Major Activity	No. of Families Benefited
1	Wadi & Health	Wadi, Veg., WRD	0419
3	Dairy Development	Livestock & Artificial Insemination	0283
4	Arogyam	Mobile Clinic, Cataract Surgery, Health Awareness Camp, Pathology Service, Masks, Donation Ambulance and PPE Kit, Support for Free medicine to the patients.	18670
	Community Development and Social Welfare	Drinking Water Scheme	250
5	Vocational Skill Development	Professional Beautician Practice & Art of Mehendi, Certificate Course in Information Technology with Typing & Spoken English, Tailoring; BSc. Optometry, PB BSc Nursing, BSc. Nursing, Plumbing, Para Medical Course-Diploma In Medical Laboratory Technician; direct placement	134
6	LEED	Entrepreneurship Development, Yellow Ribbon NGO Fair, Muskaan, Income Generation Program	1515
7	Gyanam	Scholl Infrastructure and human Resource	100
	Total		21371

DFPCL 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 <ul style="list-style-type: none"> •1) Horticulture Plantation (Mango), 2) Promotion of Vegetables crops, 3) Promotion of Floriculture, 4) Health, 5) Farmers Capacity Building
Dairy Development <ul style="list-style-type: none"> •1) Cattle Induction 2) Door-step health services for cattle 3) Artificial Insemination 4) Fodder Development 5) Vaccination 6) Farmers Capacity Building
Vocational Training <ul style="list-style-type: none"> •Diploma in ophthalmology and Tailoring
LEED <ul style="list-style-type: none"> •Entrepreneurship Development.
Health and Education <ul style="list-style-type: none"> •1) Mobile Clinic, 2) Health check-up camp, 3) Eye camp, 4) Kitchen Garden, 5) Donation of Ambulance and PPT kit to Health department of Govt. Of Maharashtra

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
- 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 Cultivation



Major Achievements:

Total no. of Mangoes Planted	: 12,330
Survival Rate	: 78.20 %
Acres	: 206
Families covered	: 409 wadi + 10 WRD support = 419
Villages & hamlets covered	: 18
Total income from vegetable sales	: ₹ 102 Lakh
Number of farmers cultivating vegetables on their own	: 384
Nursery developed	: Mango - 06 (2,656 grafts) + Jasmine - 01 (2,347 saplings) + Vegetable Seedlings - 06 (10,858 nos.)
Demonstration of new plots	: 29 (Turmeric - 03; Capsicum - 01; Okra - 05; Cherry Tomato - 04; Rose plantation - 04; Jasmine - 05; Papaya - 03; Marigold - 04)
Aspirants meetings	: 85

Wadi Project

Success Stories

Name of Aspirant:

Mrs. Suman Goma Bhagat & Mr. Goma Shanivar Bhagat

Village: Wangani, **Taluka:** Panvel,
District: Raigad

Family Profile:

Mrs. Suman and Goma have two sons, Ramesh (28 yrs) and Mahesh (24 yrs) and both work on temporary basis at Taloja MIDC. Their son-in-law's five children are enrolled in the school. Goma is a marginal land holder and agriculture is the main source of income for the family.



Vegetable Farming

Crop	: Cucumber
Cultivated Area @R	: 15
Yield (kgs.)	: 1,980
Home Consumption Qty (kgs.)	: 60
Sold Qty (kgs.)	: 1,920
Average Rate (₹)	: 24.74
Total Income (₹)	: 47,500

Land: 2 acre



Success Stories

Name of Aspirant:

Mrs. Maee & Mr. Krishna Manglya Nirguda

Village: Bhalyachiwadi, **Taluka:** Panvel,
District: Raigad

Family Profile:

Maee and Krishna have two sons who are studying in 2nd and 1st standard. Agriculture is their main source of income. After wadi intervention, he took training of mango grafting and started nursery with the support of Ishanya Foundation. Now Krishna is preparing graft and selling in the local market. He learnt an additional skills which has become a new source of income.

Mango Graft Nursery

Grafts Prepared	: 875
Sold Qty (nos.)	: 700
Average Rate of Graft	: 23
Total Income (₹)	: 16,100

Land: 1 acre



Dairy Development Project (DDP)

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

Major Achievements:

Total milk produced	: 4,35,010 lit
Milk consumed at home	: 94,525 lit
Milk consumed by calf	: 61,760 lit
Milk sold in the market	: 2,78,725 lit
Additional Income through sale of milk	: ₹ 1,04,31,150/-
Cow Dung Produced	: 95.61 MT
Artificial Insemination + Sorted Semen AI-06	: 763
Pregnancy Diagnosis (PD) (Jan-20 to Dec-20)	: 710 (Confirm Pregnancy Diagnosis - 234, Empty - 63; Repeat - 318 & Pending - 95 = 710)
	CP Rate - 45.80%
Calving	: 250 (Male - 147, Female - 103)

Fodder Development & Vermicompost

Fodder Development

Green fodder is a cost-efficient initiative for the farmer's livestock. However, its availability is in short supply. With the limited land under fodder cultivation there is a need to focus to improve productivity of fodder crops. To increase the profit of the dairy enterprise, IsFon supported for cultivation of Azolla, Maize and Napier grass.



Vermicompost

Vermicomposting is basically a managed process of worms digesting organic matter i.e. cowdung and agricultural waste to transform the material into a beneficial soil amendment. The worm castings are very important to the fertility of the soil. As a value addition to the dairy enterprise, IsFon took the initiative to develop Vermicompost beds in villages around Talaja.

Name of Aspirant:

Mrs. Taibai Kashinath Kambale & Mr. Kashinath Parshuram Kambale

Village: Vakdi, **Taluka:** Panvel,

District: Raigad

Family Profile:

Taibai and Kashinath have 2 daughters who are both married. Kashinath is a landless farmer. Before intervention, both Taibai and Kashinath worked as agriculture labourers in the village and faced difficulties to get regular work and Income. After support from IsFon, the family is getting regular income from their dairy business.

Support Given : 01 cross breed cow, Medicine Kit, Training, Exposure

Average Milk per Day : 11

Rate of Milk : ₹ 50/Lit

Income per Day : 550 (₹ 16,500/month)

Land: Landless Farmer



Vocational Skills Development Project (VSDP)

Skill enhancement through various training programs such as Tailoring courses and Optometry courses were initiated by IsFon. These activities created a positive impact on the aspirants, by providing them financial stability and inclusivity within the community.

TAILORING COURSE

30

**SPONSORSHIP OF FEES BY ISFON FOR
B.Sc OPTOMETRY AT LAXMI COLLEGE OF
OPTOMETRY**

4



Tailoring course being conducted by Ms. Anita Pawar from IsFon



Sr. No.	Description	Beneficiaries Covered
1.	Professional Beautician course & Art of Mehendi with Spoken English	20
2.	Certificate Course in Information Technology	31
3.	Post Basic B.Sc Nursing with Symbiosis College of Nursing	09
4.	B.Sc Nursing with St. Andrew's College of Nursing	01
5.	Diploma in Laboratory Technician Course with Suburban College of Nursing	01
6.	Basic Plumbing Course with Dnyanada Institute of Piping Flow Technology	21
7.	Soft Skills, Mock Interview and Typing facilitated by IsFon	17
Total		100

Success Stories



Mr. Abhijit Shinde, BE (Mech) - Earning ₹ 32,575/- pm

Abhijit aged 23 years stays at Yerwada in Pune. His mother is associated with IsFon's IGP initiative and is the only earning member. After completing his Xth, Abhijit joined for a Diploma in Mech. Engg. course and passed with flying colours. He wanted to do his BE but could not afford it and had decided to give up further studying and take up a job to support his family which was equally important.

IsFon suggested to him to apply for BE and he got admission at Trinity College of Engineering on merit. IsFon sponsored his fees and now after completing BE (Mech) he is employed at Eaton India Innovation Centre with a salary of ₹ 32,575/- pm.



Ms. Gauri Potdar, CCIT - Earning ₹ 11,500/- pm

Gauri stays at Dhanori, Pune and completed the 'Certificate Course in Information Technology' (CCIT) with spoken English from IsFon. The CCIT course from IsFon helped Gauri to fetch a job at Teleperformance Pvt. Ltd. Pune, as a Call Operator.

Her father is a rickshaw driver and earns Rs 6,000 pm. Gauri, with her salary of ₹ 11,500/- pm is now able to support her family and is very proud of that fact.

Livelihood Enhancement through Entrepreneurship Development (LEED)

LEED provides entrepreneurship opportunities and facilitates livelihood through secondary income generation for financially challenged women.

Income Generation Project (IGP)

- Women who already have the basic stitching skills using a sewing machine are trained to make various gifting products.
- These products are designed by our in-house team and perfected after several samples are made by professional tailors.
- After a thorough quality control check the beneficiaries are trained to make them.
- This new enhanced skill set supplements their livelihood.

IGP HIGHLIGHTS:

Products made available at
BHARATRATH STORE
MAITRI SHOP
DAILY FRESH

Products at online platform:
creaticityonline.com

11,000 masks were stitched during the Covid Pandemic making the women financially independent which was also the need of the hour.



Products made under the IGP Project



Women associated with the IGP program undergoing skill enhancement training at Anubhuti Foundation

₹ 4,51,931

SALE OF PRODUCTS

₹ 1,96,156

**INCOME GENERATION
BY LADIES**

Success Stories

Name of Aspirant:

Mrs. Devshree Virpal Ridhlan

Support of Course: Bachelor of Optometry

Sponsored Amount: ₹ 1,64,000/-

Devshree is living in a slum area of Vashi. Earlier her father and mother were working in society as security and housekeeping staff respectively. The family could not afford the fees of optometry for Devshree. She applied for sponsorship and after screening we supported her with 80% fees of college for three years. After her father's death all the responsibility fell on her elder brother and mother. After completion of the course she worked at Laxmi Eye Hospital and is now working with **Lenskart Pvt. Ltd.**, in Thane. She is earning ₹ 28,000 /- per month.

Bachelor of Optometry

Support Given : Bachelor of Optometry

Average Monthly Income : ₹ 28,000/-

Annual Income : ₹ 3,36,000/-

Impact : Financially independent & able to support family



Devshree says "I am very thankful to the Ishanya Foundation for helping me. Now I am financially independent and also supporting my family."

Aarogyam

DFPCL is consistently working for improvement of health by providing doorstep health services through health check-up camp. During outbreak of COVID-19 DFPCL has been donated 4 ambulance and 2500 nos. PPE kit to Health Department of Govt. of Maharashtra. Also provided 2100 lit hand sanitizer to the various government offices.



Health Awareness Program - 01 (68 women benefitted)

Type of Service Provided through Mobile Clinic:

- a. Mobile Medical Units will help mobilise healthcare to conduct screenings, basic diagnosis and provide awareness and medication.
- b. Mobile Medical Unit shall be equipped with a doctor and a nurse who were trained to recognise symptoms of health-related ailments, conduct basic diagnosis of common diseases, prescribe medication and referrals to specialised clinics in case of further medical complications.
- c. Mobile healthcare services are able to cover Two to Three villages/locations in a single day.
- d. The services provided would of necessity be preventive and promotive and outpatient curative care. Where there are cases needing acute medical care on the day the Mobile clinic reaches the site, such care would be provided, and patient referral organized.



Mobile Clinic - 8,873 patients benefitted.



Activities Carried Out During Pandemic



Donation of four ambulances to Brihanmumbai Municipal Corporation during Pandemic



Donation of 2,500 PPE Kits to Haffkine Institute, Mumbai



Distribution of masks in marginalised community of Pune & Taloja - 2,535 beneficiaries

Community Development & Social Welfare (CDSW)

Under this initiative by IsFon, community members come together to resolve common problems by taking collective action. The aim of this initiative is to bring about community development through collective actions of the members of the community by acting as an active catalyst so as to overcome economic, social and environmental difficulties.

To resolve the problem of scarcity of portable water at Kanpoli village (Taloja), IsFon has installed water lifting / conveyance equipments and built elevated storage tank of 25,000 litres capacity with 4 water distribution points, benefitting 250 families.

Drinking water facility being provided by IsFon at Kanpoli, Taloja



