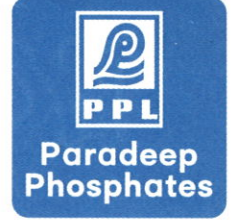


10602/MOEF/1449  
Dt. 25.05.2026



The Additional Principal Chief Conservator of Forests (C),  
Ministry of Environment, Forests & Climate Change,  
4<sup>th</sup> Floor, E & F Wing,  
Kendriya Sadan, Koramangala,  
**BENGALURU – 560 034**

Dear Sir,

**Sub: Setting up of Speciality Mixtures of Plant Nutrients manufacturing plant  
at Panambur, Mangalore, Karnataka by M/s. Paradeep Phosphates Ltd.  
Mangaluru unit – EC No. J-11011/133/2009-IA-II (I) dated 03.06.2009 -  
Half yearly report for the 2<sup>nd</sup> half of 2025-26.**

We have obtained Environmental Clearance from the Ministry of Environment & Forests, Government of India for setting up of Speciality Mixtures of Nutrients plant of capacity 2,21,000 TPA. We have also obtained Consent for Establishment (CFE) and subsequently Consent for Operation (CFO) from the Karnataka State Pollution Control Board for the Speciality Mixtures of Nutrients plant.

As stipulated in the Clause No. A (vi) & B (xvi) of the clearance letter we are enclosing herewith the six-monthly compliance report for the period ending on 31.03.2026.

Thanking you,

Yours faithfully,

**S. GIRISH**  
**CHIEF MANUFACTURING OFFICER**  
For Paradeep Phosphates Limited – Mangaluru Unit  
(Formerly Mangalore Chemicals & Fertilizers Limited)

Encl: a/a

- CC: 1. The Member Secretary,  
Karnataka State Pollution Control Board,  
# 49, Parisara Bhavan, 4<sup>th</sup> & 5<sup>th</sup> Floor, Church Street,  
**BENGALURU – 560 001**
2. The Member Secretary,  
Central Pollution Control Board,  
"Parvesh Bhawan", C.B.D. Cum-office Complex,  
East Arjun Nagar, Shahdara,  
**DELHI - 110 032**
3. The Environmental Officer,  
Karnataka State Pollution Control Board,  
Plot No.10-B, Baikampady Industrial Area,  
**MANGALURU - 575 011.**

**PARADEEP PHOSPHATES LIMITED**

[www.paradeepphosphates.com](http://www.paradeepphosphates.com)

## INDUSTRY DETAILS

1	The contact details with emails, telephone numbers, mobile numbers, fax numbers etc. of the responsible person of the project who is competent speak on behalf of the company and on environmental aspects	S. GIRISH, CHIEF MANUFACTURING OFFICER PARADEEP PHOSPHATES LIMITED – MANGALURU UNIT (Formerly MANGALORE CHEMICALS & FERTILIZERS LTD.,) PANAMBUR, MANGALURU - 575 010.
		Phone No.: 0824 – 2220632
		Fax No.: 0824 – 2407938
		<a href="mailto:s.girish@adventz.com">s.girish@adventz.com</a>
2	Updated address of the project with all contact information, emails, details of Environmental management cell and GPS locations of the specified area	PARADEEP PHOSPHATES LIMITED – MANGALURU UNIT ,MANGALA BHAVAN, PANAMBUR , MANGALORE -575 010
	STD Code, Phone	0824 – 2220600
	Fax No.	0824 – 2407938
	Details of Environmental Cell:	We have a well-established Environment cell and well-equipped in-house laboratory with sophisticated modern Analytical Instruments for carrying out various environmental monitoring parameters in water, wastewater and air emissions. The cell is headed by Chief Manager - Quality Control and Environment and is managed by qualified and trained officers.
3	Email address of the company, email address of any two responsible persons including the project head and website	1. Sadanand I.M, CGM-Production 2. K Roopesh, Chief Manager - Quality Control and Environment
	Phone numbers of responsible persons	1. 0824-2220722 2. 0824-2220668
	E-mail address of responsible persons	1. <a href="mailto:sadanand.im@adventz.com">sadanand.im@adventz.com</a> 2. <a href="mailto:k.roopesh@adventz.com">k.roopesh@adventz.com</a>
	Website of the company	<a href="http://www.paradeepphosphates.com">www.paradeepphosphates.com</a>
4	<b>Land Balance Details:</b>	
	(a) Total land area	<u>192 acres</u>
	(b) Built up area	<u>77 acres</u>
	(c) Vacant Land	<u>51 acres</u>
	(d) Greenbelt area	<u>64 acres</u>
5	<b>Groundwater Usage</b>	Groundwater is not used for any purpose
6	<b>Green belt area</b>	Developed and maintained about 64 acres of Greenbelt area with various varieties of trees. About 3000 saplings were planted during 2025-26 period.
7	<b>Solid waste management</b>	Annexure A
8	<b>Rain Water harvesting</b>	Implemented the schemes for harvesting roof water at our township and recharge bore wells. Total roof area covered is about 3500 m <sup>2</sup> and estimated water harvested is 13,300 m <sup>3</sup> /year. In addition to the above, two new roof

		water harvesting schemes are being implemented in the factory premises covering about 2431 Sq. mts., targeting 8935 m <sup>3</sup> of rain water harvesting per year.
9	Solar Power generation	<p>We have installed solar lightings at various locations inside the factory premises as well as in our township. Details are as below:</p> <ol style="list-style-type: none"> <li>1. At PPL-Mangaluru Plant premises. <ol style="list-style-type: none"> <li>a. Main plant – 251 kWp</li> <li>b. Mangala Garden in front of Safety section-1no-10Watts (LED)</li> <li>c. Mangala Garden Machinery group section Back side -1No- 11Watts (CFL)</li> <li>d. Mangala Garden instrument back side -1No-11Watts (CFL)</li> </ol> </li> <li>2. At PPL-Mangaluru Township premises <ol style="list-style-type: none"> <li>a. Children park-1No-10Watts (LED)</li> <li>b. Main gate side-1no-10Watts (LED)</li> <li>c. Inside Sewage Treatment plant-1No-10Watts (LED)</li> <li>d. Near MCF Staff club-1No-10Watts (LED)</li> </ol> </li> <li>3. At PPL-Mangaluru Guest house premises <ol style="list-style-type: none"> <li>a. Mangala/Ambica guest house walkway -2No-10x2=20Watts (LED)</li> </ol> </li> </ol>
10	Details of action taken under CREP	Annexure A
11	Current status of the plant with production details	<p>Setting up of Speciality Mixtures of Plant Nutrients manufacturing plant completed and production started in April 2011.</p> <p>Production of Speciality Mixtures of Plant Nutrients for the period from October 2025 to March 2026: 505 MT</p>

**Compliance to the Environmental clearance issued by the Government of India Ministry of Environment and Forests vide letter F. No. J-11011/133/2009- IA II (I) Dated 3<sup>rd</sup> June, 2009 for setting up of Speciality Mixtures of Nutrients plant of capacity 2,21,000 TPA, at Panambur, Mangalore, Dakshina Kannada, Karnataka by M/s. Paradeep Phosphates Limited – Mangaluru Unit(Formerly Mangalore Chemicals & Fertilizers Limited).**

**SPECIFIC CONDITIONS:**

<b>Sl.No.</b>	<b>Condition</b>	<b>Compliance</b>
i)	The projects authorities shall ensure zero discharge from the proposed plant. The wastewater generated for the existing plant shall be treated as per the standards prescribed by the Karnataka Pollution Control Board. No utilities shall be developed for this project.	<b>We have noted the condition. There is no generation and discharge of effluents from the “Speciality Mixtures of Nutrients plant”.</b>
ii)	The project authorities shall not manufacture the raw materials as this plant will be based on mixing process only.	<b>There is no manufacture of the raw materials and the plant will be based only on the mixing process.</b>
iii)	The project authority shall install dust collection system in fertilizer mixing and bagging plant to control particulate emissions.	<b>Bag filters have been installed for collecting the dust and to control particulate emissions.</b>
iv)	The company shall carry out air quality monitoring at vent/stacks and regular monitor the gaseous emissions along with particulate matter. The reports shall be submitted to the Ministry’s Regional Office at Bangalore, CPCB and SPCB.	<b>There is no gaseous emission or any vent/stack for the “Speciality Mixtures of Nutrients plant”. Therefore, air quality monitoring of vent/stack is not applicable to the “Speciality Mixtures of Nutrients plant”</b>
v)	The ambient air quality shall be monitored at least at 3 locations, minimum one in down wind direction. The location of monitoring stations shall be selected in consultation with the State Pollution Control Board.	<b>Ambient air quality monitoring stations have been set up in consultation with Karnataka State Pollution Control Board (KSPCB) and the Ambient air quality is being monitored regularly at four locations for PM<sub>10</sub>, PM<sub>2.5</sub>, NH<sub>3</sub>, SO<sub>2</sub>, NO<sub>x</sub> CO, Fluorine and Hydrocarbon and the reports are being submitted to the KSPCB every month.</b>
vi)	Data on ambient air quality, stack emissions and fugitive emissions shall be regularly uploaded on the website of the company and submitted on-line to the Ministry’s Regional Office at Bangalore, Karnataka State Pollution Control Board (KSPCB) and Central Pollution Control Board (CPCB) as well as hard copy once in six months. Data on SPM, SO <sub>2</sub> and NO <sub>x</sub> shall also be displayed outside the premises at the appropriate place for the general public.	<b>We would like to submit that there is no gaseous emission from “Speciality Mixtures of Nutrients plant”. Ambient air quality data is being uploaded on company’s website and hard copy is being submitted to Karnataka State Pollution Control Board every month. The hard copies are being submitted to Ministry’s Regional Office at Bangalore, Karnataka State Pollution Control Board (KSPCB) and Central Pollution Control Board (CPCB) once in six months along</b>

		with the compliance report. Consolidated ambient air quality data for the last six months i.e. from October 2025 to March 2026 is attached as Annexure – III. Data on PM <sub>10</sub> , PM <sub>2.5</sub> , NH <sub>3</sub> , SO <sub>2</sub> and NO <sub>x</sub> have been displayed outside the premises.
vii)	The company shall develop the green belt in 33% area, out of total area to mitigate the effect of fugitive emissions and noise as per the guidelines CPCB.	The company has planted about 63,000 trees like Teak, Mangium, Eucalyptus, Subabul, Acacia etc., developed in our green belt area. The area covered by the green belt is about 64 acres.
viii)	The company shall implement all the recommendations made in the Charter on Corporate Responsibility for Environmental Protection (CREP) for fertilizer industries for existing and proposed plant.	PPL-Mangaluru has implemented all the recommendations made in the Charter of Corporate Responsibility for Environmental Protection (CREP) for fertilizer industries. Copy of compliance to CREP is enclosed as Annexure A.
ix)	Occupational health surveillance of the workers shall be carried out on a regular basis and records shall be maintained as per the Factories Act.	<p>PPL-Mangaluru Occupational Health Centre consists of 7 beds and is manned by male nurses 24 x 7. Experienced doctor is available during general shift.</p> <p>Occupational health surveillance and periodic medical examination of all employees is being carried out and records are being maintained.</p> <p>General periodical medical examinations were conducted in the month of Apr/May 2026 for company employees.</p>
x)	The company shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling.	Fire hydrant system as per TAC stipulation is provided in plant area and periodic mock drills have been conducted. All plant personnel have been periodically trained in firefighting, safety aspects, rescue operation and emergency response and handling procedures.
xi)	Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, Safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.	Necessary infrastructure and facilities are provided to all the construction labour within the factory premises. Construction work will be systematically managed to avoid the impact on the surrounding environment.

B. GENERAL CONDITIONS

i)	The project authorities shall strictly adhere to the stipulations of the SPCB/state government or any statutory body.	<b>The stipulations made by the Karnataka State Pollution Control Board and the State Government are complied with.</b>
ii)	The gaseous emissions (SO <sub>2</sub> , HCl, NO <sub>x</sub> , NH <sub>3</sub> fertilizer dust) and particulate matter from various process units shall conform to the standards prescribed by the concerned authorities from time to time. Emission data shall be periodically monitored and reports submitted to Ministry's Regional Office, CPCB and SPCB.	<b>The gaseous emission from various process units conform to the standards prescribed by the Karnataka State Pollution Control Board (KSPCB) /Central Pollution Control Board (CPCB). We have been monitoring the emissions of various stacks regularly and the analysis reports are being submitted to the KSPCB every month. Copy of the monitoring report sent to KSPCB for the month of March 2026 is enclosed as Annexure I.</b>
iii)	All the wastes generated from the various processes shall be recycled/reuse in the plant and zero discharge shall be maintained. The domestic waste water shall be treated in septic tanks and treated waste shall be used for irrigation in the green belt.	<p><b>There is no liquid effluent discharge, gaseous emissions &amp; solid wastes disposal from the "Speciality Mixtures of Nutrients Plant".</b></p> <p><b>The liquid effluent from Ammonia and Urea plants are treated in Process Condensate Stripper and deep Hydrolyser respectively. The treated effluent is reused. The treated effluent is regularly monitored for the parameters Ammonical nitrogen, Nitrate, Fluoride, pH etc. Analysis report is enclosed as Annexure VII. The wastewater from water treatment plant is treated in the wastewater recovery plant with RO, Ultra-filtration, Lamella Clarifier etc. The treated wastewater is being reused.</b></p> <p><b>The additional quantity of domestic effluent generated due to "Speciality Mixtures of Nutrients Plant" is treated in the existing domestic effluent treatment plant and the treated water is reused as cooling water makeup.</b></p>
iv)	No further expansion or modifications in the plant shall 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.	<b>We have not carried out any expansion or modifications without the prior approval of the Ministry of Environment, Forest and Climate Change.</b>

v)	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 immediately put out of operation and shall not be restarted until the desired efficiency has been achieved.	<b>We would like to submit that there is no gaseous emission from the “Speciality Mixtures of Nutrients Plant”, as the plant is based only on the mixing process.</b>
vi)	The locations of ambient air quality monitoring stations shall be reviewed in consultation with the State Pollution Control Board (SPCB) and additional stations shall be installed, if required, in the downwind direction as well as where maximum ground level concentrations are anticipated.	<b>Ambient air quality monitoring stations have been set up in consultation with Karnataka State Pollution Control Board (KSPCB) and the Ambient air quality is being monitored regularly for PM<sub>10</sub>, PM<sub>2.5</sub>, NH<sub>3</sub>, SO<sub>2</sub>, NO<sub>x</sub> CO, Fluorine and Hydrocarbon and the reports are being submitted to the KSPCB every month. Ambient air quality report for the period October 2025 to March 2026 is attached. Annexure – III.</b>
vii)	Dedicated scrubbers and stacks of appropriate height as per the Central Pollution Control Board guidelines shall be provided to control the emissions from various vents. The scrubbed water shall be sent to ETP for further treatment.	<b>We would like to submit that, as indicated during the environmental clearance there is no gaseous emission from the “Speciality Mixtures of Nutrients Plant”. Hence stack or scrubbing is not applicable for the proposed plant.</b>
viii)	Fugitive emissions in the work zone environment, product, and raw materials storage area shall be regularly monitored. The emissions shall conform to the limits imposed by the State Pollution Control Boards/Central Pollution Control Board.	<b>There are no any fugitive emissions in the work zone environment, product, and raw materials storage area as this plant will be based on mixing process only.</b>
ix)	The project authorities shall strictly comply with the rules and guidelines under Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989 as amended in October 1994 and January, 2000 and Hazardous Waste (Management and Handling) Rules, 1989 as amended from time to time. Authorization from the SPCB shall be obtained for collection, treatment, storage and disposal of hazardous wastes.	<b>Rules and guidelines under Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989 as amended in October 1994 and January, 2000 and Hazardous Waste (Management and Handling) Rules, 1989 are complied with. There is no Hazardous waste generation from the “Speciality Mixtures of Nutrients plant”. However, we have obtained authorization from Karnataka State Pollution Control Board for collection, treatment, storage and disposal of hazardous wastes for the existing plants. We have valid authorization issued by the KSPCB under Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016.</b>

x)	The overall noise levels in and around the plant area shall be kept well within the standards 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 Environment (Protection) Act, 1986 Rules, 1989 viz. 75 dBA (day time) and 70 dBA (night time)	<p><b>Additional noise generation due to the 'Speciality Mixtures of Plant Nutrients' facility is negligible. The noise levels of equipment and machinery is within the allowable limit.</b></p> <p><b>The overall noise levels in and around the plant area is kept well within the standards prescribed under Environment (Protection) Act, 1986 Rules, 1989 viz. 75 dBA (day time) and 70 dBA (night time)</b></p> <p><b>Noise monitoring details is attached as Annexure VI.</b></p>
xi)	The company shall develop rain water harvesting structures to harvest the run off water for recharge of ground water.	<p><b>We have completed the scheme for harvesting roof water at our township. The roof water is being used to recharge the bore well.</b></p> <p><b>Total roof area covered – 3500 Sq. mt.</b></p> <p><b>Approximate water harvested–13300 m<sup>3</sup> per year.</b></p> <p><b>In addition to the above, two new roof water harvesting schemes are being implemented in the factory premises covering about 2431 Sq. mts., targeting 8935 m<sup>3</sup> of rain water harvesting per year. These schemes have been taken up for accomplishing our concern and social accountability for ground water conservation.</b></p>
xii)	The company shall undertake eco-developmental measures including community welfare measures in the project area for the overall improvement of the environment. The eco-development plan should be submitted to the SPCB within three months of receipt of this letter for approval.	<p><b>The eco-development plan has been submitted to Karnataka State Pollution Control Board vide letter No.10602/KSPCB/565 dated 26.08.2009 and implementation is completed.</b></p>
xiii)	The project proponent shall also comply with all the environmental protection measures and safeguards proposed in the EIA/EMP report.	<p><b>We would like to bring to your kind attention that the good office of Ministry of Environment and Forests has decided that no EIA is required for the proposed expansion. Therefore, this clause may not be applicable to the "Specialty Mixtures of Nutrients plant".</b></p>
xiv)	A separate Environmental Management Cell equipped with full fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions.	<p><b>We have a well-established Environment cell and well equipped in-house laboratory with sophisticated modern Analytical Instruments for carrying out various environmental monitoring parameters in water, wastewater and air emissions. The cell is headed by Chief</b></p>

		<p>Manager - Quality Control and Environment and is managed by qualified and trained Manager-Environment and officers.</p> <p>Regular meetings are conducted by the Environment cell. Last meeting was conducted on 02.02.2026</p>
xv)	<p>The project authorities shall earmark adequate funds to implement the conditions stipulated by the Ministry of Environment and Forests 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.</p>	<p>The required fund has been earmarked to implement the conditions stipulated by the Ministry of Environment and Forests as well as the State Government.</p> <p>Recurring costs: Rs.3.0 crores.</p>
xvi)	<p>The implementation of the project vis-a-vis environmental action plans shall be monitored by the concerned Regional Office of the Ministry/SPCB/CPCB. A six monthly compliance status report shall be submitted to monitoring agencies and shall be posted on the website of the company.</p>	<p>Six monthly compliance status report is being submitted to the monitoring agencies and is being posted on the website of the company.</p>
xvii)	<p>The project proponent shall inform the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the SPCB and may also be seen at Website of the Ministry at <a href="http://envfor.nic.in">http://envfor.nic.in</a> . This shall be advertised within seven days from the date of issue of the clearance letter; at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and a copy of the same shall be forwarded to the concerned Regional Office of the Ministry</p>	<p>As per the condition we have advertised in English daily "Deccan Herald" and in Kannada daily "Prajavani" on 19.06.2009 about the environmental clearance accorded by the Ministry of Environment &amp; Forests, Government of India for "Setting up of Speciality Mixtures of Nutrients manufacturing plant of capacity 2,21,000 TPA (Micronutrients-10,000 TPA, Speciality Fertilizers-1,00,000 TPA, Fertigation products-11,000 TPA and Soil conditioners-1,00,000 TPA)". A copy of the same has been forwarded to the Ministry's Regional Office, Bangalore vide letter No. 10602/MOEF/527 dated 20.06.2009.</p>
xviii)	<p>The project authorities shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities and the date of start of the project.</p>	<p>Project is financed by the internal source. Hence the date on financial closure is not applicable to this project. The approval has been obtained for the project by the concerned authorities. As indicated in covering letter installation and commissioning of plant equipment is completed.</p>

**CHARTER ON CORPORATE RESPONSIBILITY  
FOR ENVIRONMENTAL PROTECTION (CREP)**

**Fertilizer Industry**

**Wastewater Management**

Sl.No.	Stipulation	Compliance
1	Efforts will be made for conservation of water, particularly with a target to have consumption less than 8, 12 and 15 m <sup>3</sup> /tonne of urea produced for plant based on gas, naphtha and fuel oil, respectively. In case of plants using Naptha and Gas both as feed stocks, water consumption target of less than 10 m <sup>3</sup> /tonne will be achieved. An action plan for this will be submitted by June 2003 and targets will be achieved by March 2004.	In case of Paradeep Phosphates Limited – Mangaluru Unit (PPL-Mangaluru) the average water consumption for the year 2018-19, 2019-20, 2020-21, 2021-22 ,2022-23, 2023-24, 2024-25 and 2025-26 are 5.75, 5.49, 6.20, 6.28, 6.99, 5.33, 5.40, 5.17 m <sup>3</sup> /MT of urea produced respectively. Thus, as our plants are based on Natural gas the water consumption is well within the target of less than 8 M <sup>3</sup> /MT of Urea produced.
2	Use of arsenic for CO <sub>2</sub> absorption in ammonia plants and chromate-based chemicals for cooling systems, which is still continuing in some industries, will be phased out and replaced with non-arsenic and non-chromate systems by December 2003. In this regard, action plan will be submitted by June 2003.	We are using Benfield solution for CO <sub>2</sub> absorption in Ammonia plant ever since commissioning of our plants. Thus, there is no source of arsenic. Hence there is no Arsenic waste generation or pollution due to arsenic from our industry.  We have changed over chromate to non-chromate cooling water treatment programme in 1991. Thus, there is no chromate waste generation or pollution due to chromate from PPL-Mangaluru
3	Adequate treatment for removal of oil, chromium (till non-chromate based cooling system is in place) and fluoride will be provided to meet the prescribed standards at the source (end of respective process unit) itself. Action plan will be firmed up by June 2003 for compliance by March 2004.	We have procured mechanical oil skimmers for removing oil from oil separators in our plants. The oil content in final treated effluent is less than 10 ppm.  We have changed over our Cooling Water treatment system from chromate to non chromate since 1991. Our DAP Plant is zero liquid effluent plant. We do not have Phosphoric Acid plant or any other process generating effluents bearing fluoride. Hence, chromium and fluoride are not present in our liquid effluent.

Sl.No.	Stipulation	Compliance
4	Proper and complete nitrification and denitrification will be ensured, wherever such process is used for effluent treatment, by September 2003.	PPL-Mangaluru is employing thermal urea hydrolysis and steam stripping system for treating ammonia and urea bearing effluent streams from our Ammonia and Urea plants. We are not following any biological nitrification method for effluent treatment. Hence this clause is not applicable to PPL-Mangaluru
5	Ground water monitoring around the storage facilities and beyond the factory premises will be carried out at regular intervals particularly for pH, fluoride. CPCB will finalize the guidelines for groundwater monitoring by December 2003.	We are monitoring ground water by collecting and analyzing the well water outside our factory boundary. We are also analyzing the water from the test borewells provided near hermit storage area.
6	No effluent arising from process plants and associated facilities will be discharged to the storm water drain. The quality of storm water will be regularly monitored by all the industries.	<p>We have achieved the aim of reusing the entire treated wastewater and the target of zero wastewater discharge during 2010. This is achieved by up gradation of our trade effluent and sewage treatment system by installation of Lamella clarifier, Ultrafiltration &amp; Reverse Osmosis technology (RO) for treatment of trade effluent and Membrane Bio-reactor (MBR) technology for treatment of sewage effluent. The treated wastewater and sewage effluent streams are completely reused and there is no discharge of any effluent.</p> <p>The effluent streams are not discharged to storm water drain. The quality of storm water is being monitored regularly.</p>
7	The industries, where waste water/effluent flows through the storm water drains even during the dry season will install continuous systems for monitoring the storm water quality for pH, ammonia and fluoride. If required, storm water will be routed through effluent treatment plant before discharging. An action plan will be submitted by June 2003 and necessary action will be taken by June 2004.	As mentioned in point No. 6 the effluent streams are not discharged to storm water drain. Hence this is not applicable to PPL-Mangaluru.

### Air Pollution Management

Sl.No.	Stipulation	Compliance
1	All the upcoming urea plants will have urea prilling towers based on natural draft so as to minimize urea dust emissions	Our Urea plant was commissioned in 1976 and hence not applicable to us.
2	The existing urea plants, particularly, the plants having forced draft prilling towers, will install appropriate systems (e.g. scrubber, etc.) for achieving existing norms of urea dust emissions. In this regard, industries will submit action plan by June 2003 and completion of necessary actions by June 2004.	In case of PPL-Mangaluru, the SPM emission level from urea prilling tower is in the range of 50-90 mg/Nm <sup>3</sup> and is well within the stipulated limit of 150 mg/Nm <sup>3</sup> . Hence dust scrubbing system is not necessary to our urea plant.
3	The sulphuric acid plants having SCSA system will switch over to DCDA system by March 2004 to meet the emission standard for SO <sub>2</sub> as 2 kg/tonne of H <sub>2</sub> SO <sub>4</sub> produced. An action plan for this will be submitted by June 2003.	Our Sulphuric acid Plant was commissioned during 2006 and is DCDA technology.
4	Sulphuric acid plants having DCDA system will improve the conversion and absorption efficiencies of the system as well as scrubbers to achieve SO <sub>2</sub> emissions of 2 kg/tonne of acid produced in case of plants having capacity above 300 tpd and 2.5 kg/tonne in case of plants having capacity upto 300 tpd. An action plan will be submitted by June 2003 and emission levels will be complied with by September 2004.	In our Sulphuric Acid plant SO <sub>2</sub> emission is <1.5 kg/tonne of acid produced
5	Stack height for sulphuric acid plants will be provided as per the guidelines and on the basis of normal plant operations (and not when the scrubbers are in use) by June 2003. The scrubbed gases are to be letout at the same height of the stack.	Stack height for sulphuric acid plant is provided as per the KSPCB guidelines and the scrubbed gases are letout at the same height of the stack.
6	An action plan for providing proper dust control system at rock phosphate grinding unit in Phos Acid/SSP Plants.	This is not applicable to PPL-Mangaluru as we are not having Phosphoric Acid /Single Super Phosphate plants.

Sl.No.	Stipulation	Compliance
7	Particulate as well as gaseous fluoride will be monitored and adequate control systems will be installed by June 2004 to achieve the norms on total fluoride emissions (25mg/Nm <sup>3</sup> )	Present emission levels are well within the limits in our DAP plant. SPM level is in the range of 60 - 80 mg/Nm <sup>3</sup> and fluoride is <5 mg/Nm <sup>3</sup> .
8	Continuous SO <sub>2</sub> emission monitoring systems will be installed in sulphuric acid plants (having capacity 200 tpd and above) by March 2004. Action plan for this will be submitted by June 2003.	Continuous SO <sub>2</sub> emission monitoring systems has been installed in our Sulphuric Acid plant and the system is working satisfactorily.
9	Regular monitoring of ambient air quality with regard to SO <sub>2</sub> , NO <sub>x</sub> , PM, SO <sub>3</sub> , fluoride and acid mist will be carried out.	Monitoring ambient air quality with regard to SO <sub>2</sub> , NO <sub>x</sub> , SPM, fluoride and acid mist are being carried out.

### Solid Waste Management

Sl.No.	Stipulation	Compliance
1	Gypsum will be effectively managed by providing proper lining, dykes with approach roads and monitoring of groundwater quality around storage facilities. Accumulated gypsum will be properly capped. In this regard, action plan will be submitted by June 2003 and for compliance by December 2003.	This is not applicable to PPL-Mangaluru as there is no process plant which generates gypsum.
2	An action plan for proper handling, storage and disposal of spent catalyst having toxic metals will be submitted by June 2003 and implemented by September 2003. The industry will also explore recovery/buy-back of spent catalyst by September 2003.	Spent catalysts are sold to outside parties who are having Authorisation from CPCB for reprocessing the waste and recovery of metals.
3	Carbon slurry, sulphur muck and chalk will be properly managed and disposed of in properly designed landfill either within premises or in common facility. Action plan on this will be submitted by June 2003 and implemented by March 2004.	Sulphur Cake generated at Sulphuric Acid Plant is used as filler material in DAP Plant. There is no generation of Carbon slurry, and chalk at our industry

Sl.No.	Stipulation	Compliance
4	Existing stock of chromium and arsenic bearing sludge will be properly disposed by December 2003. Industries will also explore recovery of chromium from the sludge. CPCB will provide guidelines for proper disposal of the sludge.	<p>Presently we are not generating any chromate sludge because cooling water treatment system has been changed over from chromate to non-chromate programme in September 1991.</p> <p>Chromate sludge generated prior to September 1991 was disposed in a secured on-site landfill during February 2006.</p> <p>We are using Benfield solution for CO<sub>2</sub> absorption in Ammonia plant ever since commissioning of our plants. Hence, we do not use any arsenic containing chemical in our plant and there is no arsenic bearing sludge generation.</p>

**A. Stack Emission Monitoring:**

	Stack		PM, mg/Nm <sup>3</sup>	Fluorine, mg/Nm <sup>3</sup>
1	Urea Prill Tower	Fan A	80	--
		Fan B	70	--
		Fan C	74	--
		Fan D	76	--
2	DAP Stack		72	3.50
3	Incinerator Stack		18	--

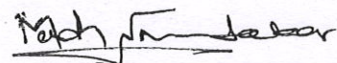
	Stack	SO <sub>2</sub> , mg/Nm <sup>3</sup>	NO <sub>x</sub> , mg/Nm <sup>3</sup>	Acid mist, mg/Nm <sup>3</sup>
1	Primary Reformer	BDL	116@3% O <sub>2</sub>	--
2	IJT Boiler	Not in operation	--	--
3	Process Air Heater	BDL	--	--
4	Process N.G. Heater	BDL	--	--
5	Ammonia Converter start up heater	Not in operation	--	--
6	BHEL Boiler	BDL	61	--
7	DAP Package Boiler	Not in operation	--	--
8	Sulphuric Acid Plant Stack	429	--	24

**B. Analysis of CPP Stack Emission:**

Stack	SO <sub>2</sub> , mg/Nm <sup>3</sup>	NO <sub>x</sub> , mg/Nm <sup>3</sup>	Stack	SO <sub>2</sub> , mg/Nm <sup>3</sup>	NO <sub>x</sub> , mg/Nm <sup>3</sup>
DG # 1	Not in Operation		DG # 4	Not in Operation	
DG # 2	BDL	128	DG # 5	BDL	36
DG # 3	BDL	48	DG # 6	BDL	61

**C. Meteorological Data:**

1	Relative Humidity, %	:	67.0 – 82.0
2	Wind Velocity, Km/Hr	:	<1.0 – 12.0
3	Rainfall, mm	:	5.60
4	Barometric Pressure, mm of Hg	:	758.04 – 760.28
5	Maximum Temperature, °C	:	32.0 – 34.5
6	Minimum Temperature, °C	:	24.5 – 27.0

BDL - Below Detection Limit (5 mg/Nm<sup>3</sup>)


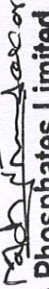
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Panambur, Mangaluru - 575010.

Annexure-III

Ambient Air Quality inside PPL-Mangalore premises from October 2025 to March 2026

Details	Particulate Matter (size less than 10 µm) or PM <sub>10</sub> , µg/m <sup>3</sup>	Particulate Matter (size less than 2.5 µm) or PM <sub>2.5</sub> , µg/m <sup>3</sup>	Ammonia µg/m <sup>3</sup>	Sulphur Dioxide as (SO <sub>2</sub> ) µg/m <sup>3</sup>	Oxides of Nitrogen as (NO <sub>2</sub> ) µg/m <sup>3</sup>	Ozone (O <sub>3</sub> ) µg/m <sup>3</sup>	Carbon Monoxide (CO) mg/m <sup>3</sup>	Hydrocarbon µg/m <sup>3</sup>	Fluorine µg/m <sup>3</sup>
							4 (1 hour)	Not specified	Not specified
National Ambient Air Quality Standard for Industrial Area (24 hours)	100	60	400	80	80	100 (8 hour)			
October 2025	Maximum 57 Minimum 30	25 16	49 26	9 5	16 5	20 13	0.1 <0.1	ND	ND
November 2025	Maximum 58 Minimum 35	26 16	59 22	10 5	16 5	19 13	0.1 <0.1	ND	ND
December 2025	Maximum 59 Minimum 35	28 16	25 10	8 5	10 5	18 10	0.1 <0.1	ND	ND
January 2026	Maximum 58 Minimum 32	26 14	56 22	9 5	16 7	18 12	0.1 <0.1	ND	ND
February 2026	Maximum 58 Minimum 39	27 16	52 24	9 5	17 8	18 10	0.1 <0.1	ND	ND
March 2026	Maximum 57 Minimum 38	26 18	57 20	8 5	16 8	19 14	0.1 <0.1	ND	ND

ND - Not detectable

  
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**CONTINUOUS ONLINE MONITORING SYSTEMS**

Values from Continuous online monitoring systems for the period: 01.10.2025 to 31.03.2026

Month	Parameter	Analyser Values (in mg/l except for pH)	
		Min.	Max.
October 2025	pH	7.1	7.5
	Ammonical Nitrogen, mg/l	0.1	2.9
	TSS, mg/l	1.0	4.0
November 2025	pH	7.1	7.6
	Ammonical Nitrogen, mg/l	0.5	3.6
	TSS, mg/l	1.0	4.0
December 2025	pH		
	Ammonical Nitrogen, mg/l		
	TSS, mg/l		
January 2026	pH	6.9	7.3
	Ammonical Nitrogen, mg/l	0.1	3.6
	TSS, mg/l	1.0	4.0
February 2026	pH	6.8	7.2
	Ammonical Nitrogen, mg/l	0.1	4.2
	TSS, mg/l	1.0	4.0
March 2026	pH	6.8	7.5
	Ammonical Nitrogen, mg/l	0.1	0.6
	TSS, mg/l	1.0	4.0

Plant Shutdown for Annual Maintenance



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Annexure- VI

NOISE LEVELS AT PLANT BOUNDARY

Noise Levels monitored at the plant boundary for the period: 01.10.2025 to 31.03.2026

Month	Location	Noise Level in dB(A)	
		Day	Night
October 2025	Near Administration Building	58	52
	Near Captive Power Plant	65	62
	Near East boundary wall	51	47
	Near 18 MG Reservoir	50	48
November 2025	Near Main Gate	63	59
	Near Administration Building	66	49
	Near Captive Power Plant	66	60
	Near East boundary wall	52	48
	Near 18 MG Reservoir	52	47
	Near Main Gate	65	60
December 2025	Near Administration Building	60	52
	Near Captive Power Plant	45	41
	Near East boundary wall	49	47
	Near 18 MG Reservoir	48	46
January 2026	Near Main Gate	66	61
	Near Administration Building	59	51
	Near Captive Power Plant	65	60
	Near East boundary wall	48	45
	Near 18 MG Reservoir	47	45
	Near Main Gate	65	60

*Vishwanath*

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February 2026	Near Administration Building	53	48
	Near Captive Power Plant	63	58
	Near East boundary wall	54	49
	Near 18 MG Reservoir	52	47
	Near Main Gate	65	58
March 2026	Near Administration Building	53	47
	Near Captive Power Plant	65	59
	Near East boundary wall	52	47
	Near 18 MG Reservoir	51	48
	Near Main Gate	64	60

*Nash*

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