

INSPECTION REPORT**Sub: - Widespread fish mortality at Velsao Beach, in Mormugao**

As directed, the undersigned official of the Board JEE – Siddhant Desai, along with Smt. Milagrina Colaco(JLA) & Shri. Sanmesh Borkar (SA) inspected Velsao Beach and M/s Paradeep Phosphates Limited located at Survey No. 110-252, Zuarinagar, Sancoale, Mormugao-Goa (hereafter referred to as “Unit”) on 08/06/2024, with regards to the above-mentioned subject.

- 1. Name, address & contact no. of complainant:** Telephonic Complaint received regarding large scale Fish Mortality at Velsea Beach
- 2. Nature of Complaint: -**
 - a) **Noise pollution:** - No
 - b) **Waste Water disposal:** - Yes
 - c) **Air emission:** - No
 - d) **Solid waste disposal:** - No
 - e) **Any other:** -
- 3. Whether any previous complaint received, if yes, details:** - Press conference given by Goenche Ramponkarancho Ekvott (GRE) and Goencho Ekvott (GE) along with allied groups and newspaper article on page 1 of **O Herald** dated **26/05/2024**
- 4. Whether any show cause notice/directions/letter for corrective if yes, provide details:** -
- 5. Name and address industry/unit against whom complaint is filed:**
M/s Paradeep Phosphates Limited located at Survey No. 110-252, Zuarinagar, Sancoale, Mormugao-Goa
- 6. Product manufactured:** -

Sr. No.	Product	Capacity
A.	Main Products	
1.	Urea	495000 MTPA

2.	Complex Fertilizers produced in NPK-A Plant	500000 MTPA
3.	Complex Fertilizers produced in NPK-B Plant	500000 MTPA
B.	By- Products	
1.	Carbon dioxide	344000 MTPA
C.	Intermediate Products	
1.	Ammonia	346500 MTPA

Sr. No.	Description	Capacity
1	Power for Captive consumption from Diesel Generator	6 MW
2	Power for Captive consumption from Steam Turbine Generator	7.5MW

7. Quantity of production: - mentioned above

8. Raw Material: -

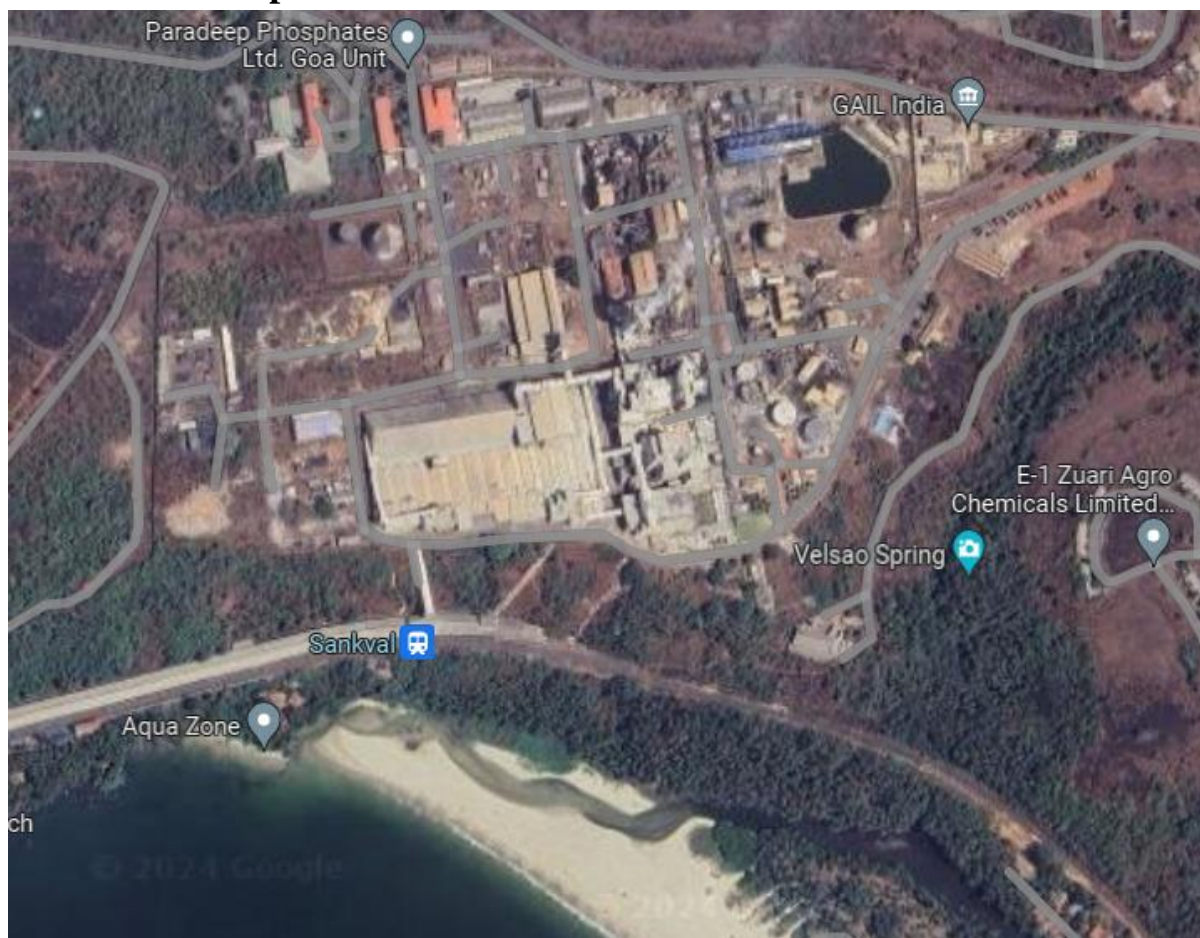
Sr. No.	Raw Material	Source
1	Natural Gas	GAIL
2	LSHS (P)	HPCL
3	Phosphoric Acid	Imported
4	Muriate of Potash	Imported
5	Ammonia for NPK	Imported
6	Sulphuric Acid	Local (within India)
7	Power	Captive + Grid

9. Machine/equipment installed: - Urea Plant, NPK-A & NPK-B plants

10. Approximate production in last 2 months (based on receipts of purchase of raw materials orders and payments received): -

11. Manpower requirement: -

12. Status of operation of unit: - In operation during the inspection

13.Site description and schematic sketch of site: -

14.Type of area: - The unit lies within Sancoale Industrial Area, schools of fish were found dead on the beach towards the south of the Unit called Velsao Beach

15.Distance of nearest residence/school/hospital/any prominent structure: Next to GAIL(India) Limited

16.Distance of water body (Specify which if any): - The Unit's Railway loading point is located approximately 100 m away from rivulet and the Unit is located approximately 250m away from the rivulet

17.Noise Pollution Control measures adopted: -

18.Water consumption (meter reading of previous water supply bills): -

19.Waste water generation: -

20.Disposal method: - Effluent Treatment Plant

21.Capacity of septic tank/soak pit/sewage treatment plant/effluent treatment plant: - 550 KLD

22.Whether capacity sufficient (Yes/No): -

23. Electrical consumption: - Captive + Grid

24. Solid waste generated: -

a) Type: -

b) Quantity: -

c) Disposal: -

25. Hazardous Waste: -

26. Permission from:

a) Local body: - Yes

b) **Goa State Pollution Control Board:** - Consent to Operate and Authorization No. 12/2018-PCB/58613/R000121 dated 18/09/2019 was valid up to 31/12/2023

The Unit has applied for renewal of CCA on OCMMS vide application Number 1948660 dated 28/10/2023

27. Noise levels recorded: -

28. DG set capacity: - 8100 KVA

29. Boiler capacity: -

Sr.No.	Location of Boiler	Capacity	No. of Installations
1	Boiler (Utility)	70 MT/hr	3
2	Boiler (MP)	5 MT/hr	1

30. Oven capacity: -

31. Furnace capacity: -

32. Rotary kiln: -

33. Dust suppression methods: -

34. In case of Induction furnace: -

35. In case of sponge iron units: -

36. Is ambient monitoring carried out (Yes/No): - Yes

37. Are reports submitted as per consent conditions (Yes/No): - Yes

38. Is environmental statement submitted (Yes/No): - Yes

39. Is water cess submitted (Yes/No): -

40. Are all consent conditions complied with (Yes/No): - Partially complied

41. Is Bank Guarantee submitted (Yes/No): -

42. If yes, has the unit complied, give details: -

43. Additional observations:

The inspecting team of officials reached the Velsao Beach site and the following observations were made:

- i. Schools of dead fish were washed ashore and scattered all over the beach.
- ii. Several types of fish were found dead. (pictures of the same have been attached below).
- iii. At the time of sample collection at the creek the team observed a storm water drain from Paradeep Phosphate Ltd. Leading to the beach and upon closer inspection it was observed that the colour of the water flowing in the storm water drain was slightly milky. Further, sediments of this white substance were also observed on the wall of the Storm water drain. (Photographs have been attached below)
- iv. Accordingly, a sample was taken from the discharge point of this storm water drain, which is the creek of the River, i.e., Sample 1 – mouth of creek – (Coordinates: 15.370699, 73.872664), It may be noted that smell of Ammonia was observed at the time of sampling.
- v. Subsequently, samples were also taken from the following locations on the beach site, as follows:

Sample Number	Location	Co-ordinates
2	Downstream of rivulet	15.370155, 73.873505
3	Upstream of rivulet	15.370862, 73.871207
4	Beach water Sample	15.370475, 73.870776

- vi. The Team then proceeded to the premises of M/s Paradeep Phosphates Limited to inspect and identify any possible discharge from their premises.
- vii. The garland drains/storm water drains along the boundary of the Unit were inspected and there were traces of similar milky white water flowing in the storm water garland drains near the Urea loading gantry of the Unit. There were white sediments settled on the walls of the drains similar to that observed at the storm water drain near the creek. (Photographs attached below)

- viii. Accordingly, a final sample was collected from this drain that leads to the outside the Unit premises, i.e., Sample 5 – Storm water drain of PPL – (Coordinates: 15.372613, 73.870969)
- ix. The team also inspected the ETP of the unit and There were no pipelines or any other possible means observed for discharge of Untreated Effluent.
- x. The unit representative informed that a Culvert catchment pit has been built by the Unit to gather the surface runoff water and the said pit has two water submersible pumps, to pump the water back to the holding pond within the plant premises.
- xi. Traces of sedimentation caused due to Surface runoff water from the unit can be clearly seen on google images. (refer image attached below)

Photographs:



Fig 1



Fig 2



Fig 3



Fig 4



Fig 5



Fig 6



Fig 7



Fig 8

Figures 1, 2, 3, 4, 5, 6, 7 & 8: show various dead fish washed ashore on the Velsao Beach



Fig 9



Fig 10



Fig 11



Fig 12

Fig: 9, 10, 11 & 12 shows storm water drain from Paradeep Phosphate Ltd. Leading to the beach having a milky white appearance & sediments of this white substance were also observed on the wall of the Storm water drain



Fig 13



Fig 14

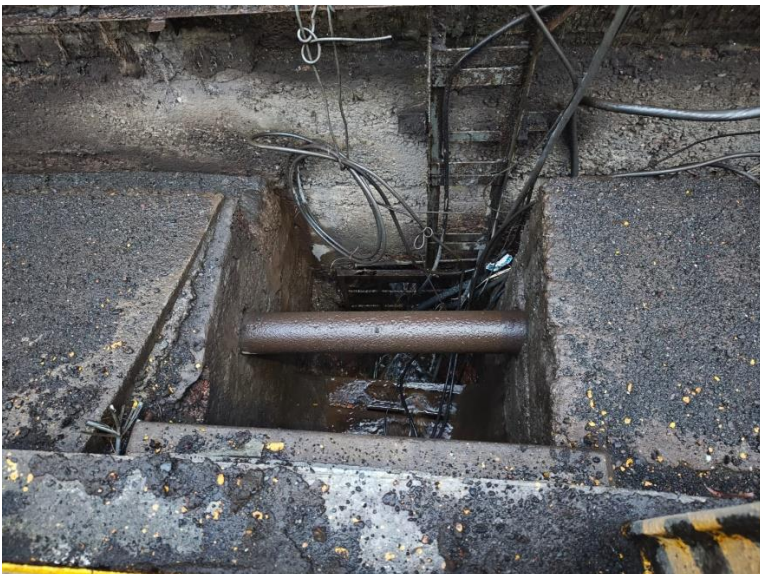


Fig 15



Fig 16

Fig 13, 14, 15 & 16: show the storm water garland drains within the unit premises near the Urea Loading gantry, having the same milky white appearing run off water.



Fig 17: shows Google Earth image of surface runoff traces flowing from the unit



Fig 18: shows Google image of locations from where the team collected Samples for testing.

Conclusion:

- Consent status of the Unit: Consent to Operate and Authorization No. 12/2018-PCB/58613/R000121 dated 18/09/2019 was valid up to 31/12/2023 & The Unit has applied for renewal of CCA on OCMMS vide application Number 1948660 dated 28/10/2023
- Surface runoff water, milky white in appearance was observed in the garland storm water drains of the Unit and the same was flowing outside the Premises of the unit.
- No discharge of untreated effluents was observed from the ETP of the unit.
- Sample Reports awaited.

Name of the Inspecting Official:

Name of the Official	Siddhant Desai	Sanmesh Borkar	Milagrina Colaco
Designation of the Official	JEE	SA	JLA
Signature of the Official	