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State Level Environment Impact Assessment Authority-Karnataka

(Constituted by MoEF, Government of India, under section 3(3) of E(P) Act, 1986)

No. SEIAA 15 IND 2016

Date: 26-04-2017

To,

Dr. Paul Vincent Menacherry
Director
M/s. Catasynth Speciality Chemicals Pvt. Ltd
R-81/82, TTC Industrial Area,
Rabale MIDC, Navi Mumbai-400 701

Sir,

Sub: Establishment of New Specialty Chemical Manufacturing facility at Industrial Plot No. 42 A of Mangalore Special Economic Zone Limited (MSEZL), Bajpe Village, Mangaluru Taluk, Dakshina Kannada District of M/s. Catasynth Speciality Chemicals Pvt. Ltd- Issue of Environmental Clearance - Reg.

This has reference to your online application dated 30th March 2016 bearing proposal No.SIA/KA/IND2/10896/2016 addressed to SEIAA, Karnataka and subsequent letters addressed to SEIAA/SEAC, Karnataka seeking prior environmental clearance for the above project under the EIA Notification, 2006. The proposal has been appraised as per prescribed procedure in the light of the provisions under the EIA Notification, 2006 on the basis of the mandatory documents enclosed with the application viz., the Application in Form 1, Pre feasibility Report, EIA/EMP Report, Risk Assessment Report, Material Balance Report for manufacture of proposed New Specialty Chemical and the additional clarifications furnished in response to the observations of the SEAC, Karnataka.

The proposal is for manufacturing the following New Specialty Chemical:

Sl. No.:	Products	Production, TPA
1	1,2-Methylendioxybenzene (MDB)	6,000
2	Piperonal	2,000
3	Piperonyl Butoxide	2,000
4	Other Derivatives of Catechol, MDB & Pipernal such as Helional	800
5	Other Derivatives of Catechol, MDB & Pipernal such as Sesamol	2,000
6	Tops and High Boilers (By-product)	2,000
Total		14,000



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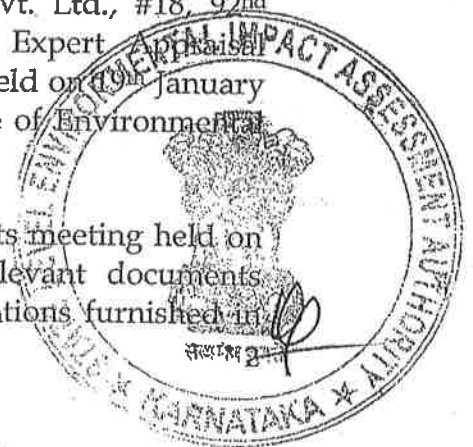
2. It is, inter-alia, noted that M/s. Catasynth Speciality Chemicals Pvt. Ltd has proposed for manufacture of 14000 TPA. The total plot area is 40,468.6Sqm is part of MSEZL, out of which 16,187.44 Sqm area is for Ground coverage of Building, 10,881.16 Sqm area is for roads & Pavements, 6400 Sqm area is for Green belt, 4000 Sqm area is for Parking, 1500 Sqm area earmarked for ETP/STP and 1500 Sqm area is earmarked for Piperack. The total built up area is 39,665Sqm. Total water consumption is 1246.5 KLD will be met from MSEZL supply and Recycled water, out of which 40 KLD for domestic purpose, 294.5 KLD for Process, 192 KLD for Boiler make ups and 720KLD for cooling tower make up. Power requirement is 7200 KW. DG set of 2 No's X 2250 KVA will be installed for emergency power back-up. It is proposed to install 2 No's X 4000Kg/Hr capacity of Furnace oil Fired Boiler & 1 No X 4000Kg/Hr Stand by Furnace oil Fired Boiler and also install 2 No's X 15 lakh kcal/hr Thermic Fluid Heater (Furnace oil) and 1 No X 15 lakh kcal/hr Thermic Fluid Heater (Standby). The total cost of the project is Rs.200 Crores.

3. The wastewater generation will be 330.1 KLD, out of which 35 KLD will be the domestic sewage and shall be treated in STP, 295.1 KLD will be the Industrial effluent from Process, Boiler feed and Cooling Tower shall be treated in the CETP of MSEZL. The Organic solid waste generated of quantity 45 Kg/day and Sewage sludge of 10 Kg/day shall be composted & used as manure for Green belt and Inorganic solid waste generated of quantity 53 Kg/day shall be disposed through Authorized vendor. The Hazardous waste generated such as Used/ Spent oil of 5 TPA, Spent Carbon/catalyst of 120 TPA shall be handed over to Authorized recyclers and Chemical sludge from ETP of 2400 TPA, Process residues waste of 8600 TPA, Distillation residue of 480 TPA shall be sent to TSDF.

4. The project proposal has been considered by SEAC during the meeting held on 26th & 27th May 2016 and ToR was issued on 5th July 2016 for conducting Environment Impact Assessment (EIA) Study. The project is located within the notified industrial area and hence does not require public consultation. The EIA has been conducted and report submitted by M/s Hubert Enviro care Systems Pvt. Ltd., #18, 92nd Street, Ashok Nagar, Chennai-600083 who are accredited from NABET vide No. NABET/ EIA/ RA017/049. The proponent has submitted the EIA report on 16th December 2016.

5. Based on the information submitted by you, presentation made by you and your consultant M/s Hubert Enviro care Systems Pvt. Ltd., #18, 92nd Street, Ashok Nagar, Chennai-600083. The State Level Expert Appraisal Committee (SEAC) examined the proposal in the meeting held on 19th January 2017 & 28th February 2017 and has recommended for issue of Environmental Clearance.

6. The SEIAA Karnataka has considered the project in its meeting held on 18th March 2017 and after due consideration of the relevant documents submitted by the project proponent and additional clarifications furnished in



response to its observations and the appraisal and recommendation of the SEAC and decided to accord Environmental Clearance in accordance with the provisions of Environmental Impact Assessment Notification-2006 and its subsequent amendments, subject to strict compliance of the following terms and conditions: -

Part A- SPECIFIC CONDITIONS

1. National Emission Standards for Organic Chemicals Manufacturing Industry issued by the Ministry vide G.S.R. 608(E) dated 21st July, 2010 and amended time to time shall be followed by the unit.
2. The total waste water generation shall not exceed 330.1 KLD. The industrial effluent of 295.1 KLD shall be treated in CETP of MSEZL. The project proponent shall submit a MoU entered into with MSEZL in this regard along with route map of effluent pipe line and operational arrangements. The MoU shall also cover the safety aspects of the pipe line carrying effluent to the CETP.
3. The project proponent shall ensure safe and scientific disposal of the treated water that would be available in excess of the treated water proposed to be recycled.
4. Total water requirement from MSEZL water supply shall not exceed 688.3 KLD and prior permission shall be obtained from the concerned Authority. No ground water shall be used.
5. The process emissions from the boiler shall be dispersed through stack of adequate height as per CPCB/KSPCB standards. The gaseous emissions from the DG set/ Boiler shall be dispersed through stack height as per CPCB standards shall be provided. Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution.
6. Ambient air quality data shall be collected as per NAAQS standards notified by the Ministry vide G.S.R. No. 826(E) dated 16th September, 2009. The levels of PM₁₀, PM_{2.5}, SO₂, NO_x, CO, VOC, HBr, NH₃, H₂S, HF and HCl shall be monitored in the ambient air and emissions from the stacks and displayed at a convenient location near the main gate of the company and at important public places. The company shall upload the results of monitored data on its website and shall update the same periodically. It shall simultaneously be sent to the Regional office of MoEF - Bangalore, SEIAA - Karnataka, the respective zonal office of CPCB and the KSPCB.
7. The proponent shall ensure that the effluent disposal pipeline is monitored regularly by the company and it shall be ensured that there is no leakage from the pipeline. In case of any such eventualities the company shall immediately stop disposal through the pipeline and take the corrective measures.
8. The company shall upload the status of compliance of the stipulated environmental clearance conditions, including results of monitored data on its website and shall update the same periodically. It shall simultaneously be sent to the Regional office of MoEF - Bangalore.



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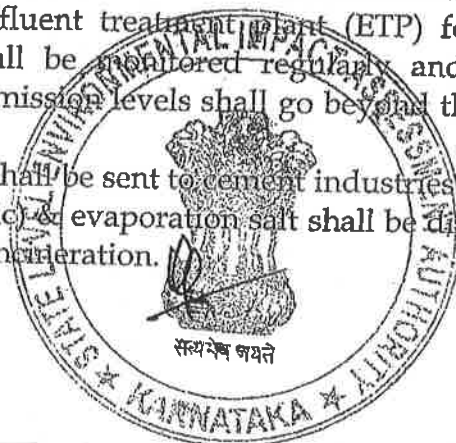
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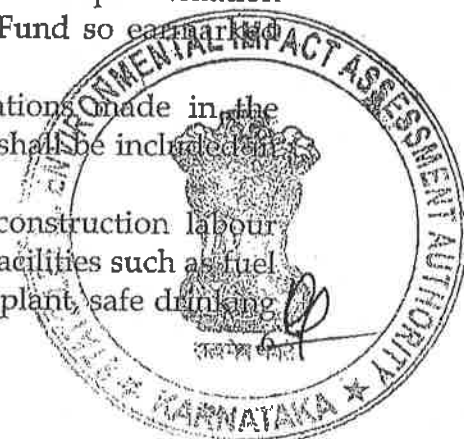
- SEIAA - Karnataka, the respective zonal office of CPCB and the KSPCB. The levels of PM₁₀, PM_{2.5}, SO₂, NO_x, CO, HBr, NH₃, H₂S, HF and VOC (ambient levels) and emissions from the stacks shall be monitored and displayed at a convenient location near the main gate of the company and at important public places.
9. The company shall install online monitoring system in the proposed plants with an arrangement to reflect the monitored data on the company's server, which can be accessed by the KSPCB on real time basis. In addition to this, the company shall also install online NO_x analyzers for the existing boilers. The real time data sharing shall be worked out in the consultation with the KSPCB.
 10. The Company shall obtain Authorization for collection, storage and disposal of hazardous waste under the Hazardous and other Wastes (Management and Transboundary Movement) Rules, 2016 for management of hazardous wastes and prior permission from KSPCB shall be obtained for disposal of solid / hazardous waste to the TSDF. The concerned company shall undertake measures for firefighting facilities in case of emergency.
 11. The proponent shall ensure that the post project environmental monitoring is carried out through the reputed institutes / organizations in order to assess the changes if any in the marine environment due to disposal of effluent.
 12. The project proponent shall maintained proper record of disposal of both the liquid and solid wastes shall be maintained with proper acknowledgements for disposal in accordance with law.
 13. In plant control measures for checking fugitive emissions from all the vulnerable sources shall be provided. Fugitive emissions shall be controlled by providing closed storage, closed handling & conveyance of chemicals/materials, multi cyclone separator and water sprinkling system. Dust suppression system including water sprinkling system shall be provided at loading and unloading areas to control dust emissions. Fugitive emissions in the work zone environment, product, raw materials storage area etc. shall be regularly monitored. The emissions shall conform to the limits stipulated by the KSPCB.
 14. Hazardous chemicals shall be stored in tanks in tank farms, drums, carboys etc. Flame arresters shall be provided on tank farm. Solvent transfer shall be by pumps.
 15. The company shall undertake following Waste Minimization measures :-
 - a. Metering and control of quantities of active ingredients to minimize waste.
 - b. Reuse of by-products from the process as raw materials or as raw material substitutes in other processes.
 - c. Use of automated filling to minimize spillage.
 - d. Use of Close Feed system into batch reactors.
 - e. Venting equipment through vapour recovery system.



- f. Use of high pressure hoses for equipment clearing to reduce wastewater generation.
16. For control of fugitive emission following steps shall be followed:
- Closed handling system shall be provided for chemicals.
 - Reflux condenser shall provide over reactor.
 - System of leak detection and repair of pump/pipeline based on preventive maintenance.
 - The acids shall be taken from storage tanks to reactors through closed pipeline. Storage tanks shall be vented through trap receiver and condenser operated on chilled water.
 - Cathodic protection shall be provided to the underground solvent storage tanks.
17. Solvent management shall be as follows:
- Solvent used in the process shall be completely recovered and reused.
 - Efforts are to be made to recover inorganic salts.
 - Reactor shall be connected to chilled brine condenser system.
 - Reactor and solvent handling pump shall have mechanical seals to prevent leakages.
 - The condensers shall be provided with sufficient HTA and residence time so as to achieve more than 95% recovery
 - Solvents shall be stored in a separate space specified with all safety measures.
 - Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done.
 - Entire plant shall be flame proof. The solvent storage tanks shall be provided with breather valve to prevent losses.
 - Fugitive emissions in the work zone environment, product, raw materials storage area etc. shall be regularly monitored. The emissions shall conform to the limits imposed by KSPCB.
18. Regular preventive maintenance for avoiding leakage, spillage etc
19. Multi-cyclone followed by bag filter shall be provided to the boilers to control particulate emissions within 100 mg/Nm³. The gaseous emissions shall be dispersed through stack of adequate height as per CPCB/KSPCB guidelines.
20. Two stage chilled water/caustic scrubber shall be provided to process vents to control HCl. Two stage scrubbers with caustic lye media solution shall be provided to process vents to control SO₂. The scrubbing media shall be sent to effluent treatment plant (ETP) for treatment. Efficiency of scrubber shall be monitored regularly and maintained properly. At no time, the emission levels shall go beyond the prescribed standards.
21. As proposed spent carbon shall be sent to cement industries. ETP sludge, process (inorganic & organic) & evaporation salt shall be disposed off to the TSD for land filling / incineration.



22. Boiler ash shall be stored separately as per CPCB guidelines so that it shall not adversely affect the air quality, becoming air borne by wind or water regime during rainy season by flowing along with the storm water. Direct exposure of workers to dust shall be avoided.
23. During transfer of materials, spillages shall be avoided and garland drains be constructed to avoid mixing of accidental spillages with domestic waste and storm drains.
24. Provisions of the Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989 as amended in October 1994 and January 2000 & Factories Act, 1948 shall be strictly complied with.
25. Transportation of hazardous chemicals shall be done as per the provisions of the Motor Vehicle Act & Rules.
26. The Company shall harvest surface as well as rainwater from the rooftops of the buildings and storm water drains to recharge the ground water and use the same water for the various activities of the project to conserve fresh water.
27. The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire fighting system shall be as per the OISD 117 norms.
28. Training shall be imparted to all employees on safety and health aspects of chemicals handling. Pre-employment and routine periodical medical examinations for all employees shall be undertaken on regular basis. Training to all employees on handling of chemicals shall be imparted.
29. Usage of PPEs by all employees/ workers shall be ensured.
30. Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.
31. The project proponent shall install energy efficient devices and appliances conforming to the Bureau of Energy Efficiency norms.
32. The proponent shall develop green belt on an area of 1.58 Acres as proposed in addition to ensuring development of 33 % of the total MSEZ area to be developed as per the condition imposed by the Ministry of Environment and Forests while issuing environmental clearance to MSEZ vide letter No. 21-383/2007-IA-III dated 03.04.2008 and 18.06.2015. Selection of plant species shall be as per the CPCB guidelines in consultation with the concerned DCF. Heavy foliage indigenous tree species such as Mahagoni, Honge, Akash Mallige, Kadamba, Ficus etc shall be planted. In addition to that, the unit shall take up adequate plantation on road sides and other open areas. The adequate financial provisions shall be made in the budget of the project for implementation of the above suggested environmental safeguards. Fund so earmarked shall not be diverted for any other purposes.
33. The company shall comply with the recommendations made in the EIA/EMP/Risk assessment report. Risk assessment shall be included in the safety Manual.
34. Provision shall be made for the housing for the construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile sewage treatment plant, safe drinking



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- water, medical health care, crèche etc. The housing may be in the form of temporary structure to be removed after the completion of the project. All the construction wastes shall be managed so that there is no impact on the surrounding environment.
35. Avoids bromination processes (wherever followed)
 36. Treatment of recalcitrant's to be documented and kept at all times.
 37. Adopts Good Management Practices (GMP) & Green Chemistry.
 38. Storage facilities for the fuel shall be made in the plant area in consultation with Department of Explosives, Nagpur. Disaster Management Plan shall be prepared to meet any eventuality in case of an accident taking place due to storage of Fuel.
 39. The company shall adopt Corporate Environment Policy as per the Ministry's O.M. No. J-11013/41/2006-IA.II(I) dated 26.04.2011 and implemented.
 40. Provisions of CRZ Notification, 2011 (Notification No. S. O. 19 (E) dated 06.01.2011) shall be complied with if any part of the project site falls within the coastal regulation zone as defined in the above said notification.
 41. The project proponent shall replace Ranney Nickel with Palladium/carbon.
 42. The Project proponent also shall earmark at least 2.5 % of the total cost of the project towards the corporate social responsibility and item-wise details along with time bound action plan shall be prepared and submitted to the Authority.

B. GENERAL CONDITIONS:

1. The project authorities shall strictly adhere to the stipulations made by the Karnataka State Pollution Control Board (KSPCB).
2. 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.
3. No further expansion or modifications in the plant shall be carried out without prior approval of the SEIAA/Ministry of Environment and Forests as the case may be. In case of deviations or alterations in the project proposal from those submitted to this Authority for clearance, a fresh reference shall be made to the Authority to assess the adequacy of conditions imposed and to add additional environmental protection measures required, if any.
4. The gaseous emissions (PM₁₀, PM_{2.5}, SO₂, NO_x, CO, HBr, NH₃, H₂S, HF, VOC) and Particulate Matter along with RSPM levels from ~~from~~ ^{from} ~~the~~ ^{the} process units shall conform to the standards prescribed by the concerned authorities from time to time. At no time, the emission levels shall go beyond the stipulated standards. In the event of failure of pollution control system(s) adopted by the unit, the respective unit shall not be restarted until the control measures are rectified to achieve the desired



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- efficiency. Stack monitoring for PM₁₀, PM_{2.5}, SO₂, NO_x, CO, HBr, NH₃, H₂S, HF and VOC shall be carried.
5. The project authorities shall strictly comply with the rules and regulations under Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989 as amended in October 1994 and January 2000. All transportation of Hazardous Chemicals shall be as per the MVA, 1989. Authorization from the KSPCB shall be obtained for collection, treatment, storage, and disposal of hazardous wastes.
 6. The project authorities must strictly comply with the rules and regulations with regard to handling and disposal of hazardous wastes in accordance with the Hazardous and other Wastes (Management and Transboundary Movement) Rules, 2016. Authorization from the KSPCB must be obtained for collection/treatment/ storage/disposal of hazardous wastes.
 7. Application of solar energy should be incorporated for illumination of common areas, lighting for gardens and street lighting in addition to provision for solar water heating. A hybrid system or fully solar system for lighting and heating should be provided. Details in this regard should be submitted to the SEIAA.
 8. 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 Environment (Protection) Act, Rules, 1989 viz. DBA (day time) and 70 dBA (night time).
 9. The project proponent shall also comply with all the environmental protection measures and safeguards as per the information provided.
 10. The implementation of the project vis-à-vis environmental action plans shall be monitored by MoEF, Regional Office at Bangalore / KSPCB/ CPCB and the Regional Director, Department of Environment & Ecology, Mangaluru. A six monthly compliance status report shall be submitted to monitoring agencies.
 11. The project proponent shall inform the public that the project has been accorded environmental clearance by the SEIAA and copies of the clearance letter are available with the KSPCB and may also be seen at Website of the Authority at <http://www.seiaa.karnataka.gov.in> <http://environmentclearance.nic.in/>. 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 MoEF Regional Office at Bangalore / KSPCB/ CPCB and the Regional Director, Department of Environment & Ecology, Mangaluru.
 12. The project authorities shall inform the MoEF Regional Office at Bangalore / KSPCB/ CPCB and the Regional Director, Department of Ecology and Environment, Mangaluru, the date of financial closure and



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final approval of the project by the concerned authorities and the date of start of the project.

13. The SEIAA, Karnataka may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
14. The SEIAA, Karnataka reserves the right to stipulate additional conditions, if found necessary. The company in a time bound manner will implement these conditions.
15. The above conditions will be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986 Hazardous and other Wastes (Management and Transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 along with their amendments and rules.
16. The issue of Environment Clearance doesn't confer any right to the project proponent to operate / run the project without obtaining statutory clearances / sanctions from all other concerned Authorities.
17. Concealing factual data or submission of false/fabricated data and failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract action under the provisions of Environmental (Protection) Act, 1986.
18. Any appeal against this environmental clearance shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.
19. Officials from the Department of Environment and Ecology, Bangalore/ Regional Office of MoEF, Bangalore who would be monitoring the implementation of Environmental safeguards should be given full cooperation, facilities and documents/ data by the project proponents during their inspection. A complete set of all the documents submitted to MoEF / SEIAA should be forwarded to the APCCF, Regional Office of MoEF, Bangalore/ Regional Director, Department of Ecology and Environment, Mangaluru/ Regional Officer, KSPCB Bangalore.
20. In the case of any change(s) in the scope of the project, the project would require a fresh appraisal by this Authority.
21. The Authority reserves the right to add additional safeguard measures subsequently, if found necessary, and to take action including revoking of the environment clearance under the provisions of the Environment (Protection) Act, 1986, to ensure effective implementation of the suggested safeguard measures in a time bound and satisfactory manner.
22. All other statutory clearances such as the approvals for storage of diesel from Chief Controller of Explosives, Fire Department, Forest Conservation Act, 1980 and Wildlife (Protection) Act, 1972 etc. shall be obtained, as applicable by project proponent from the competent authorities.
23. These stipulations would be enforced among others under the provisions of water (Prevention and Control of Pollution) Act, 1974, the Air (Prevention and Control of Pollution) Act, 1981, the Environment



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(Protection) Act, 1986, the Public Liability (Insurance) Act, 1991 and EIA Notification, 2006.

24. Under the provisions of Environment (Protection) Act, 1986, legal action shall be initiated against the project proponent if it is found that construction of the project has been started without obtaining environmental clearance.



Yours faithfully,


(RAMACHANDRA) 26/11/17
Member Secretary,
SEIAA - Karnataka.

Copy to:

- 1) The Secretary, Ministry of Environment, Forests and Climate Change, Indira Park, Indira Nagar, New Delhi-110 003.
- 2) The Member Secretary, Karnataka State Pollution Control Board, Bangalore.
- 3) The APCCF, Regional Office, Ministry of Environment & Forests (SZ), Kendriya Sadan, IV Floor, E & F wings, 17th Main Road, Koramangala II Block, Bangalore - 560 034.
- 4) Regional Director (Environment) Department of Environment and Ecology, Government of Karnataka, 1st Floor, Corporation Commercial Complex, Dakshina Kanada, Mangaluru.
- 5) Guard File.