



## State Level Environment Impact Assessment Authority-Karnataka

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

No. SEIAA 48 IND 2020

Date: 04-09-2020

To,

Mr. S Suresh  
Head Pharma Manufacturing  
M/s Hikal Limited - Unit 1  
Plot No, 82/ A, KIADB Industrial Area, Jigani,  
Anekal Taluk, Bangalore -560105.

Sir,

**Sub:** Proposed Expansion of Active Pharmaceutical Ingredients (API's) and Intermediates product manufacturing unit project at Plot No.82/A, 83-P, 83-P1 & 72 , KIADB, Industrial Area, Jigani , Anekal Taluk, Bangalore Urban District, Karnataka By M/s. Hikal Limited Unit-1 - issue of Environmental Clearance Reg.

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This has reference to your online application dated 4<sup>th</sup> July 2020 bearing proposal No.SIA/KA/IND2/161909/2020 addressed to SEIAA, Karnataka and subsequent letters addressed to SEIAA/SEAC Karnataka furnishing further information/seeking prior Environmental Clearance for the above project under the EIA Notification, 2006. The proposal has been appraised as per procedure prescribed in 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, EMP for the Proposed Expansion of Active Pharmaceutical Ingredients (API's) and Intermediates project and the additional clarifications furnished in response to the observations of the SEIAA/SEAC, Karnataka.

2. It is inter alia noted that Environmental Clearance has been issued to this project by MoEF&CC, Government of India vide letter No. F. No. J-11011/374/2016-IA-II(I) dated 16<sup>th</sup> February 2018 for Expansion cum Modification of Pharmaceutical unit from 1388 TPA to 4827.3 MTA of production capacity.

3. It is inter-alia noted that M/s. Hikal Limited Unit-I have Proposed for expansion of the production capacity from the existing 4827.3 MTPA to 4887.8 MTPA of Active Pharmaceutical Ingredients (API's) and Intermediates unit. It is also proposed for enhancing the number of products to 45 from the existing 43 products. The total plot area is 72,155.5 Sqm. Industry will develop greenbelt in an area of 24,130.92 Sqm i.e 33.44 % out of total area of the project site. The estimated project cost is Rs. 5 Crores. Details of existing and proposed products with capacities are given in Annexure-I :-

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4. The total water requirement for the proposed project is 1162.35 KLD, and It will be met from the KIADB water supply, The waste water generation will be 271.7 KLD, out of which 40 KLD will be the domestic sewage shall be treated in Sewage Treatment system with capacity of 50 KLD. The industrial effluent of 231.70 KLD shall be treated in ETP of 500 KLD capacity with stripper, MEE and ATFD.

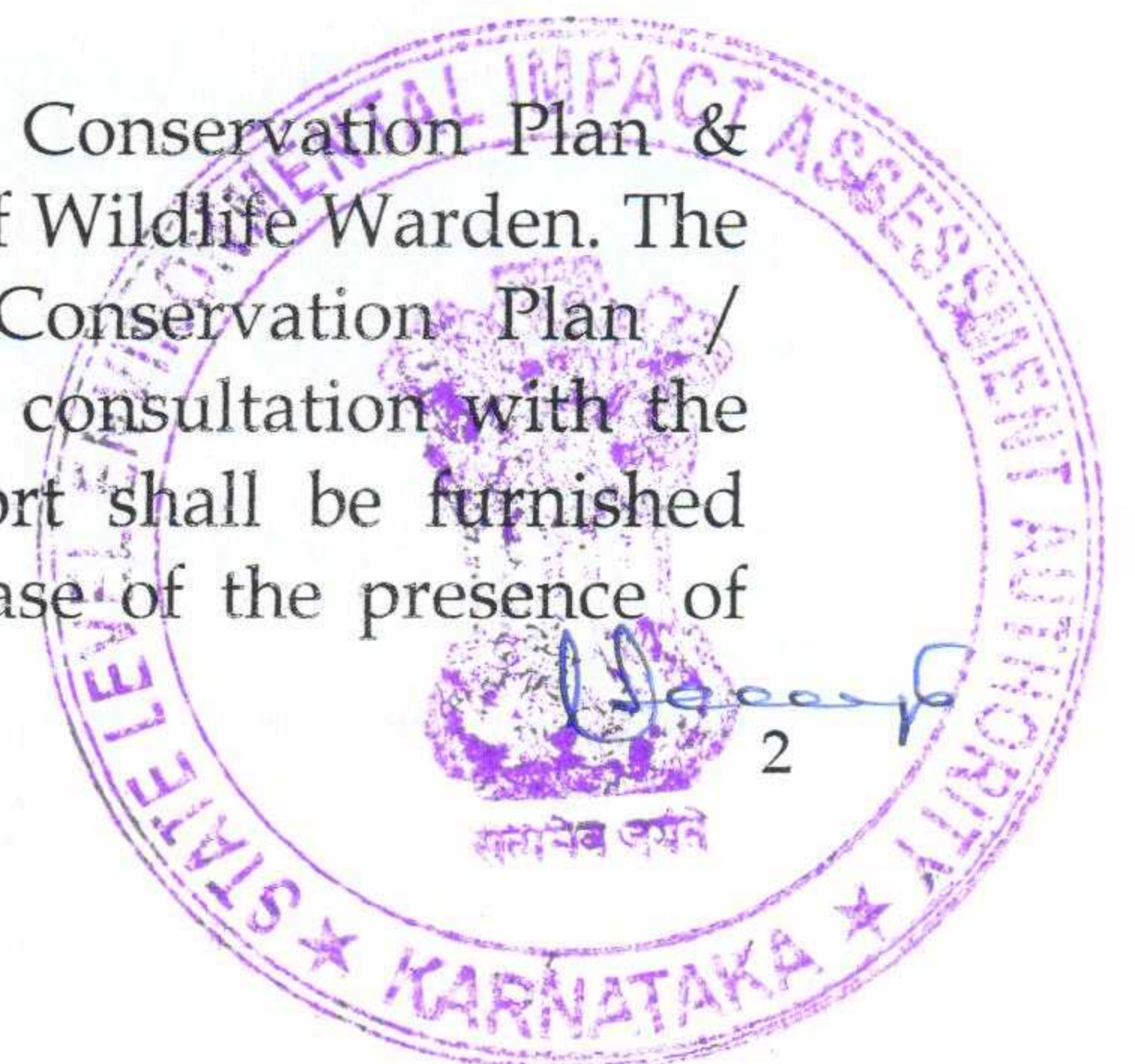
Power requirement after expansion will be 5000 KVA and will be met from Bangalore Electricity Supply Company (BESCOM), a Branch of Karnataka State Power Distribution Corporation Limited (KPTCL). Existing unit has DG set of 1500 KVA, 750 KVA, 275 KVA, Cogen Turbine 1750 KVA, 2000 KVA capacity and proposed additional DG Set of 2000KVA and it shall be used as standby during the power failure. Existing unit has 2 No X 2.8 TPH, 2 No X 6.3 TPH and 2 No X 2 Lakh K. Cal Thermic Fluid Heater and 14 MT/Hr Briquette fired boiler and proposed additional 10 MT/ Hr Briquette fired boiler with pollution controlled measures.

5. The project proposal was considered by SEAC during the video conference meeting held on 20<sup>th</sup> August 2020, as B2 category activity in accordance with the Notification S. O. 1223 (E) dated 27<sup>th</sup> March 2020. Based on the information submitted by you, presentation made by you and your consultant, the State Level Expert Appraisal Committee (SEAC) appraised the proposal and has recommended for issue of Environmental Clearance.

6. The SEIAA Karnataka has considered the project in its meeting held on 31<sup>st</sup> August 2020 and after due consideration of the relevant documents submitted by you and additional clarifications furnished in response to its observations and the appraisal and recommendation of the SEAC, 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:

**I. Statutory compliance**

- i. The project proponent shall obtain forest clearance under the provisions of Forest (Conservation) Act, 1986, in case of the diversion of forest land for non-forest purpose involved in the project.
- ii. The project proponent shall obtain clearance from the National Board for Wildlife, if applicable.
- iii. The project proponent shall prepare a Site-Specific Conservation Plan & Wildlife Management Plan and approved by the Chief Wildlife Warden. The recommendations of the approved Site-Specific Conservation Plan / Wildlife Management Plan shall be implemented in consultation with the State Forest Department. The implementation report shall be furnished along with the six-monthly compliance report. (Incase of the presence of



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schedule-1 species in the study area)

- iv. The project proponent shall obtain Consent to Establish / Operate under the provisions of Air (Prevention & Control of Pollution) Act, 1981 and the Water (Prevention & Control of Pollution) Act, 1974 from the concerned State pollution Control Board/ Committee.
- v. The project proponent shall obtain authorization under the Hazardous and other Waste Management Rules, 2016 as amended from time to time.
- vi. The Company shall strictly comply with the rules and guidelines under Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989 as amended time to time. All transportation of Hazardous Chemicals shall be as per the Motor Vehicle Act (MVA), 1989

**II Air quality monitoring and preservation**

- i. The project proponent shall install 24x7 continuous emission monitoring system at process stacks to monitor stack emission with respect to standards prescribed in Environment (Protection) Rules 1986 and connected to SPCB and CPCB online servers and calibrate these system from time to time according to equipment supplier specification through labs recognised under Environment (Protection) Act, 1986 or NABL accredited laboratories.
- ii. The project proponent shall monitor fugitive emissions in the plant premises at least once in every quarter through labs recognised under Environment (Protection) Act, 1986.
- iii. The project proponent shall install system to carryout Ambient Air Quality monitoring for common/criterion parameters relevant to the main pollutants released (e.g. PM10 and PM2.5 in reference to PM emission, and SO2 and NOx in reference to SO2 and NOx emissions) within and outside the plant area at least at four locations (one within and three outside the plant area at an angle of 120 each), covering upwind and downwind directions.
- iv. To control source and the fugitive emissions, suitable pollution control devices shall be installed to meet the prescribed norms and/or the NAAQS. Sulphur content should not exceed 0.5% in the coal for use in coal fired boilers to control particulate emissions within permissible limits (as applicable). The gaseous emissions shall be dispersed through stack of adequate height as per CPCB/SPCB guidelines.
- v. Storage of raw materials, coal etc shall be either stored in silos or in covered areas to prevent dust pollution and other fugitive emissions.
- vi. National Emission Standards for Organic Chemicals Manufacturing Industry issued by the Ministry vide G.S.R. 608(E) dated 21st July, 2010 and amended from time to time shall be followed.
- vii. The National Ambient Air Quality Emission Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16th November, 2009 shall be complied with



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**III. Water quality monitoring and preservation**

- i. The project proponent shall provide online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises (applicable in case of the projects achieving ZLD)
- ii. As already committed by the project proponent, Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged outside the premises (applicable in case of the projects achieving the ZLD).
- iii. The effluent discharge shall conform to the standards prescribed under the Environment (Protection) Rules, 1986, or as specified by the State Pollution Control Board while granting Consent under the Air/Water Act, whichever is more stringent.
- iv. Total fresh water requirement shall not exceed the proposed quantity or as specified by the Committee. Prior permission shall be obtained from the concerned regulatory authority/CGWA in this regard.
- v. Process effluent/any wastewater shall not be allowed to mix with storm water. The storm water from the premises shall be collected and discharged through a separate conveyance system.
- vi. The Company shall harvest rainwater from the roof tops of the buildings and storm water drains to recharge the ground water and utilize the same for different industrial operations within the plant.
- vii. The DG sets shall be equipped with suitable pollution control devices and the adequate stack height so that the emissions are in conformity with the extant regulations and the guidelines in this regard.

**IV. Noise monitoring and prevention**

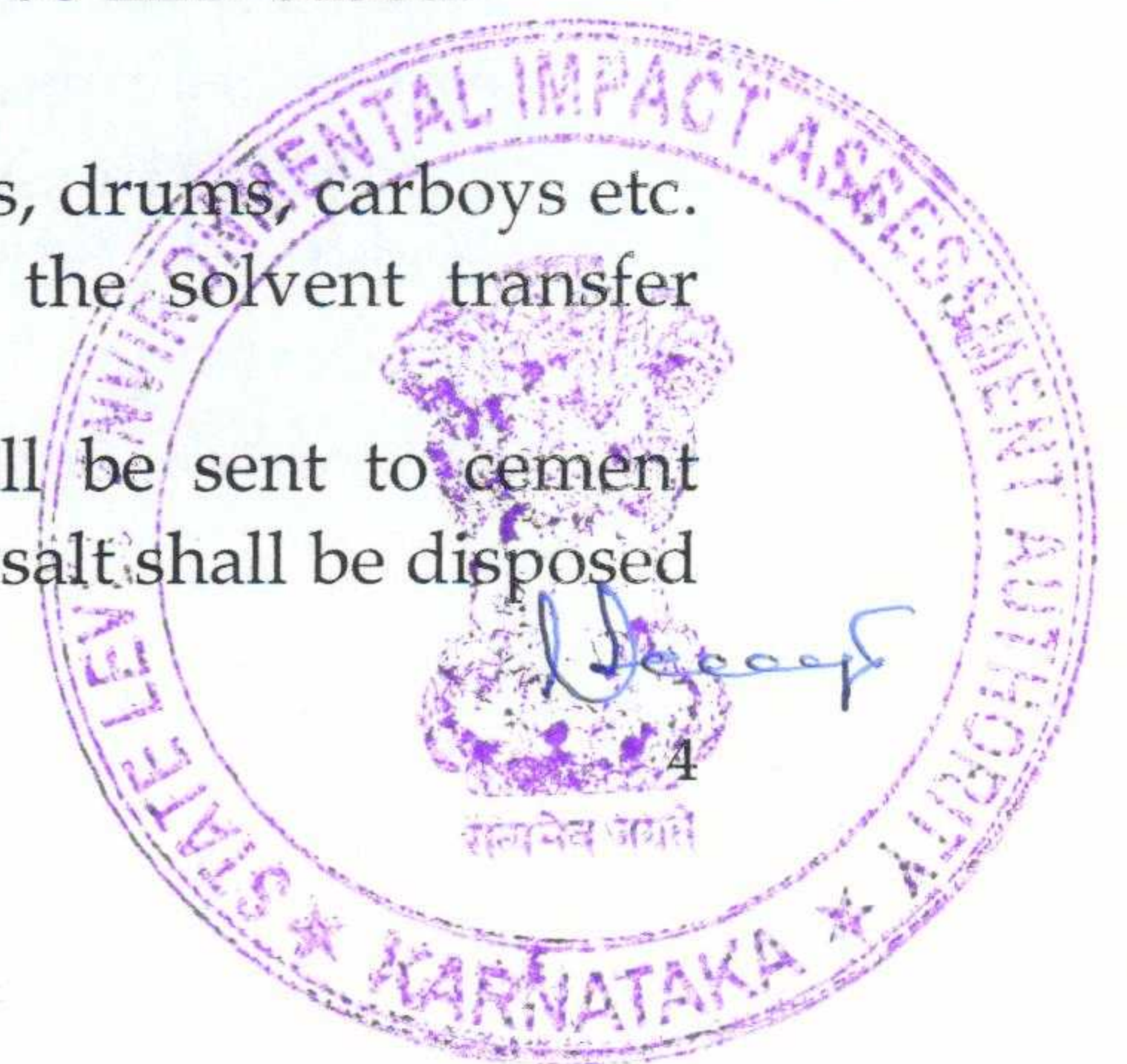
- i. Acoustic enclosure shall be provided to DG set for controlling the noise pollution.
- ii. The overall noise levels in and around the plant area shall be kept well within the standards by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation.
- iii. The ambient noise levels should conform to the standards prescribed under E(P)A Rules, 1986 viz. 75 dB(A) during day time and 70 dB(A) during night time

**V. Energy Conservation measures**

- i. The energy sources for lighting purposes shall preferably be LED based.

**VI. Waste management**

- i. Hazardous chemicals shall be stored in tanks, tank farms, drums, carboys etc. Flame arresters shall be provided on tank farm and the solvent transfer through pumps.
- ii. Process organic residue and spent carbon, if any, shall be sent to cement industries. ETP sludge, process inorganic & evaporation salt shall be disposed off to the TSDF.



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- iii. The company shall undertake waste minimization measures as below:-
- 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 substitutes in other processes.
  - Use of automated filling to minimize spillage.
  - Use of Close Feed system into batch reactors.
  - Venting equipment through vapour recovery system.
  - Use of high pressure hoses for equipment clearing to reduce wastewater generation

### **VII. Green Belt**

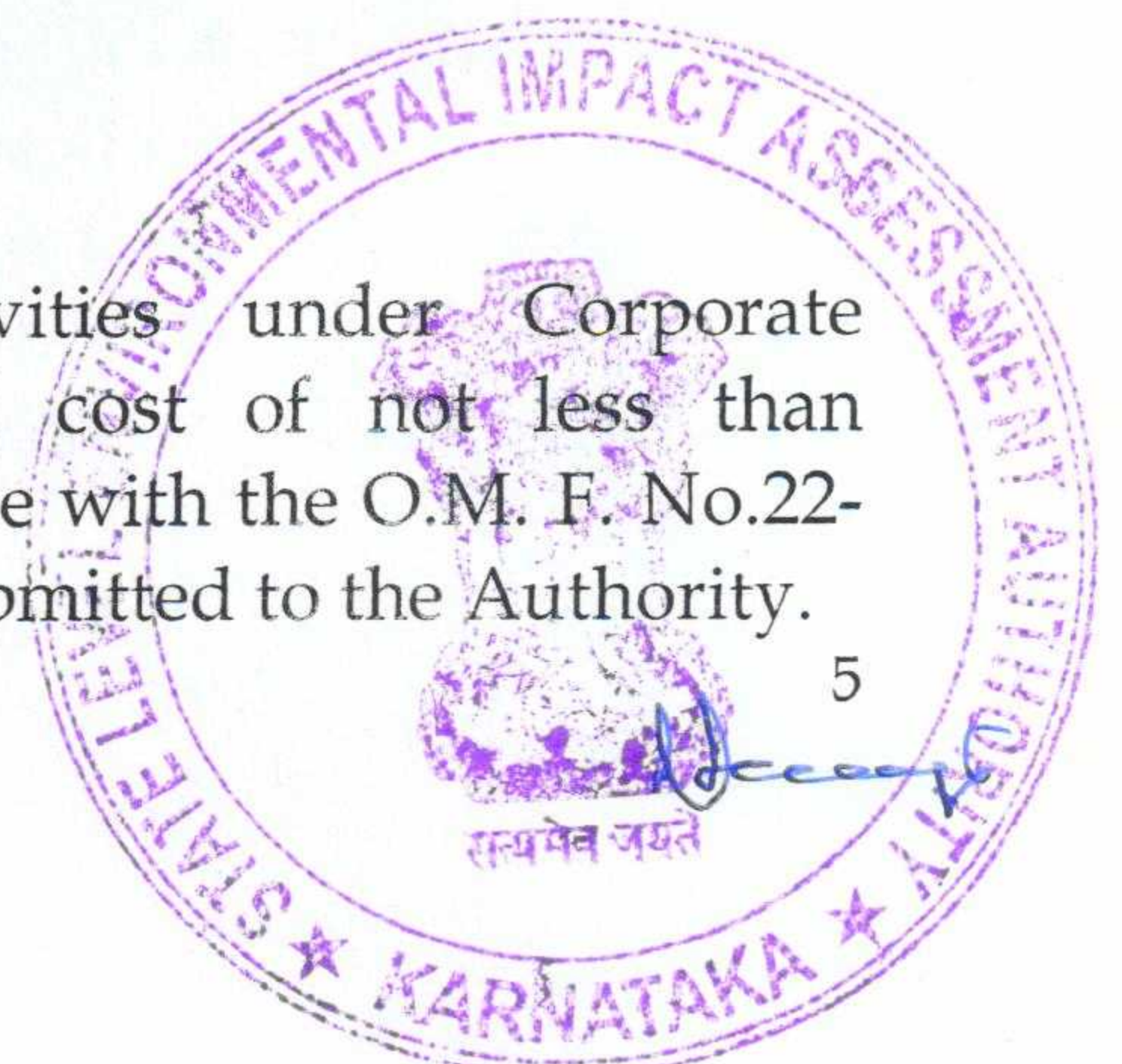
- The green belt of 5-10 m width shall be developed in more than 33% of the total project area, mainly along the plant periphery, in downward wind direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department.

### **VIII. Safety, Public hearing and Human health issues**

- Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented
- 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 norms.
- The PP shall provide Personal Protection Equipment (PPE) as per the norms of Factory Act.
- 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.
- 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, creche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
- Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.
- There shall be adequate space inside the plant premises earmarked for parking of vehicles for raw materials and finished products, and no parking to be allowed outside on public places

### **IX. Corporate Environment Responsibility**

- The project authorities shall undertake activities under Corporate Environment Responsibility (CER) with a total cost of not less than Rs. 25 Lakhs towards CM Care Fund, in accordance with the O.M. F. No.22-65/2017-IA.III dated 01<sup>st</sup> May 2018 and report be submitted to the Authority.



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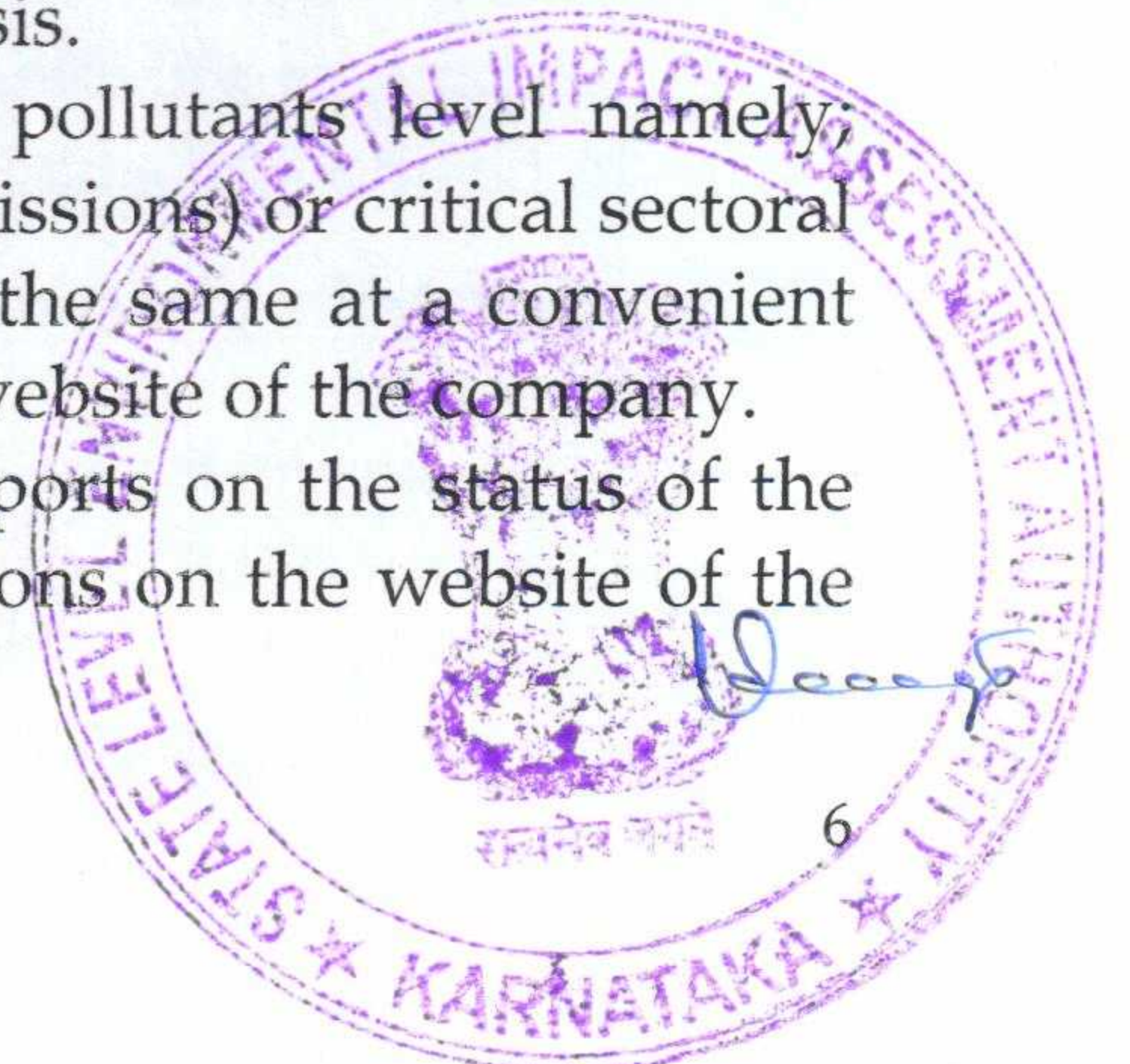
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- ii. The company shall have a well laid down environmental policy duly approved by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements/deviation/violation of the environmental / forest / wildlife norms/ conditions. The company shall have defined system of reporting infringements / deviation / violation of the environmental / forest / wildlife norms / conditions and / or shareholders / stake holders. The copy of the board resolution in this regard shall be submitted to the MoEF&CC as a part of six-monthly report.
- iii. A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly to the head of the organization.
- iv. Action plan for implementing EMP and environmental conditions along with responsibility matrix of the company shall be prepared and shall be duly approved by competent authority. The year wise funds earmarked for environmental protection measures shall be kept in separate account and not to be diverted for any other purpose. Year wise progress of implementation of action plan shall be reported to the Ministry/Regional Office along with the Six Monthly Compliance Report.
- v. Self environmental audit shall be conducted annually. Every three years third party environmental audit shall be carried out.

## X. Miscellaneous

- i. The project proponent shall make public the environmental clearance granted for their project along with the environmental conditions and safeguards at their cost by prominently advertising it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days and in addition this shall also be displayed in the project proponent's website permanently.
- ii. The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.
- iii. The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.
- iv. The project proponent shall monitor the criteria pollutants level namely; PM10, SO2, NOx (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the projects and display the same at a convenient location for disclosure to the public and put on the website of the company.
- v. The project proponent shall submit six-monthly reports on the status of the compliance of the stipulated environmental conditions on the website of the

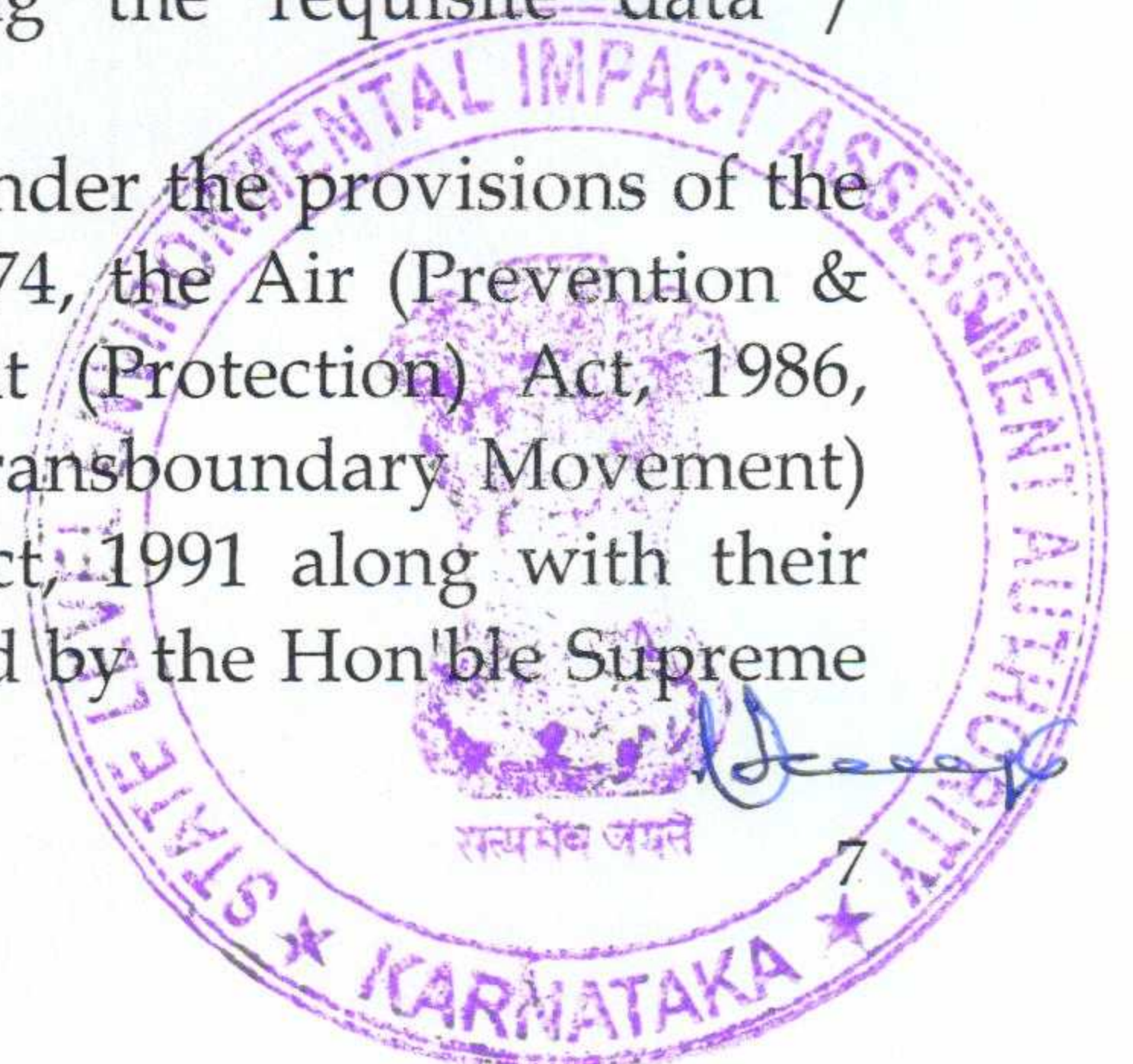


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- ministry of Environment, Forest and Climate Change at environment clearance portal.
- vi. "The HYCRs with its contents of a covering letter, compliance reports, and environmental monitoring data has to be in PDF format merged into a single document. The email should clearly mention the name of project, EC No & date, period of submission and to be sent to the Regional Office of MOEF&CC by email only at email ID [rosz.bng-mefcc@gov.in](mailto:rosz.bng-mefcc@gov.in) Hard copy of HYCRs shall not be acceptable".
  - vii. The project proponent shall submit the environmental statement for each financial year in Form-V to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company.
  - viii. The project proponent 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, commencing the land development work and start of production operation by the project.
  - ix. The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.
  - x. The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report, commitment made during Public Hearing and also that during their presentation to the Expert Appraisal Committee.
  - xi. No further expansion or modifications in the plant shall be carried out without prior approval of this Authority or the Ministry of Environment, Forests and Climate Change (MoEF&CC).
  - xii. Concealing factual data or submission of false/fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.
  - xiii. The SEIAA may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
  - xiv. The SEIAA reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.
  - xv. The Regional Office of MoEF&CC shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information/monitoring reports.
  - xvi. The above conditions shall be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (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 and any other orders passed by the Hon'ble Supreme



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Court of India / High Courts and any other Court of Law relating to the subject matter.

- xvii. Any appeal against this EC 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.
- xviii. The project proponent shall adopt and comply all the mechanism included by the MoEF&CC which is given in the Annexure-II and shall be abide by the conditions there on. The project proponent shall undertake all necessary steps to bring down the CEPI score of the industrial area and the improve the environment condition in accordance with the mechanism evolved by MoEF & CC.
- xix. The project proponent shall submit the map duly authenticated by chief wild life warden showing the boundary of Bannerghatta National Park Vis a Vis the project location before undertaking construction activity and shall be adhered to the recommendation or comments of the Chief wildlife warden thereon as committed.

Yours faithfully,



  
(Vijayakumar Gogi)  
Member Secretary,  
SEIAA, Karnataka.

Copy to:

- 1) The Secretary, Ministry of Environment, Forests and Climate Change, Indira Paryavaran Bhavan, Jor Bagh Road, Aliganj, 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, 17<sup>th</sup> Main Road, Koramangala II Block, Bangalore - 560 034.
- 4) Guard File.



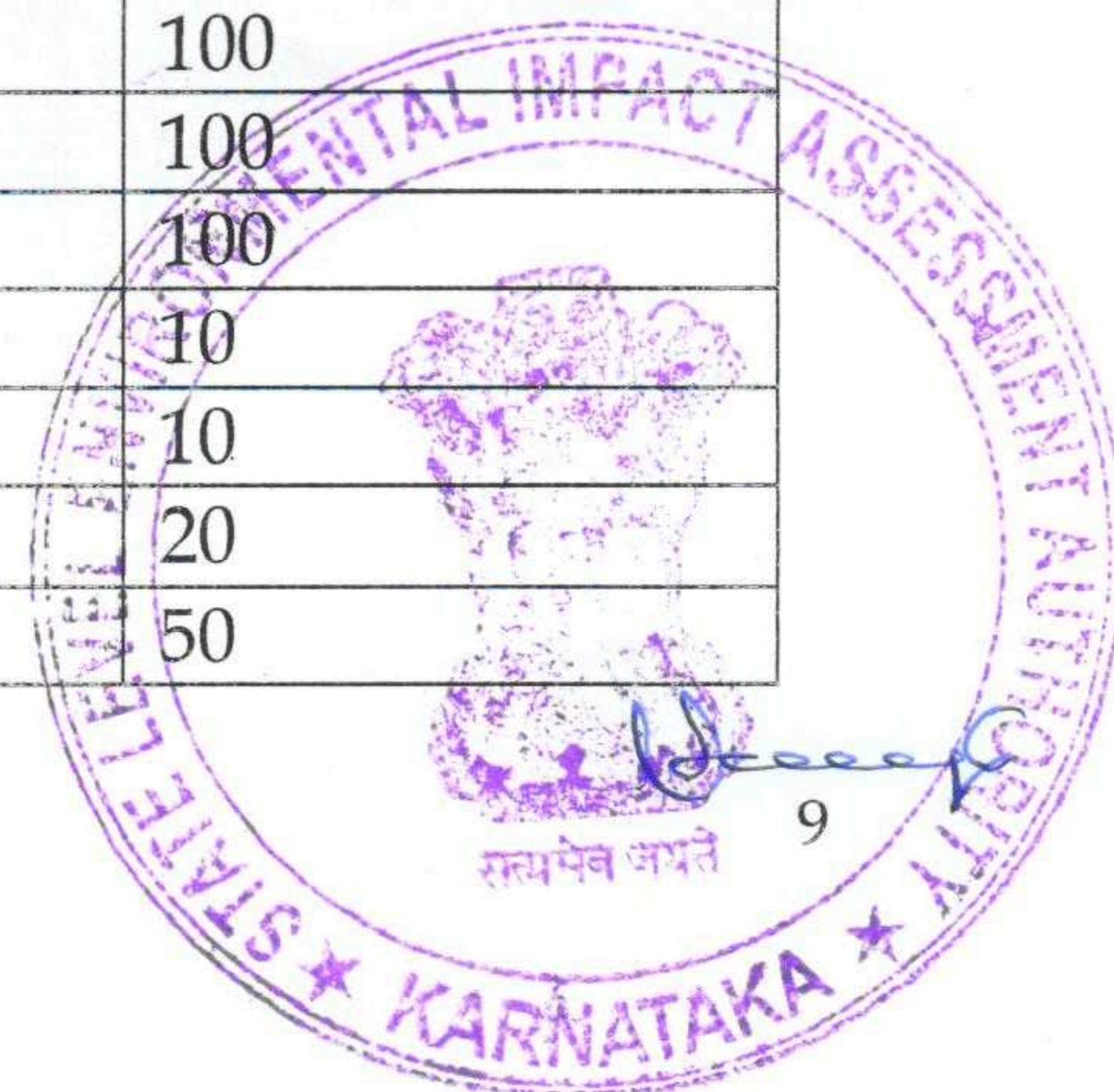
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ANNEXURE-I  
List of Existing products

Existing Products [IA/KA/IND2/60368/2016, F.No.J-11011/374/2016-IA-II(I)]		
Sl.No	Name of the product	Total (MTA)
01	Gabapentin	2000
02	Burpropionhcl	75
03	Cinnarizene	20
04	Ondansetronhcl	1
05	Acebutalol-Hcl	15
06	P-Benzoxylanilinehcl	40
07	Ondansetronapi	1
08	Oxypentifylline	75
09	Tripolidine-Hcl	4
10	Gemfibrozil	180
11	Decoquinat	275
12	Levetiracetam	10
13	Verapamil	20
14	Valproicacid	50
15	Sodiumvalproate	50
16	Di-Valproexsodium	20
17	Magnesiumvalproate	10
18	Topiramate	20
19	T-Lucine	12
20	Flunarazine	12
21	Venlafloxinehcl	40
22	Neotame	50
23	Piracetam	650
24	Etiracetamfresh	500
25	Etiracetamracemic	150
26	Tpca.Hcl	10
27	Cmmdt	10
28	Tri-Fluoromethylcinnamicacid	10
29	Memantinehcl	10
30	Piperazinenitrohcl	50
31	Sevelamercarbonate	100
32	Colesevalamhydrochloride	100
33	Pregablin	100
34	Sitagliptin	10
35	Vildagliptin	10
36	Lacosamide	20
37	Valocyclovirhydrochloride	50



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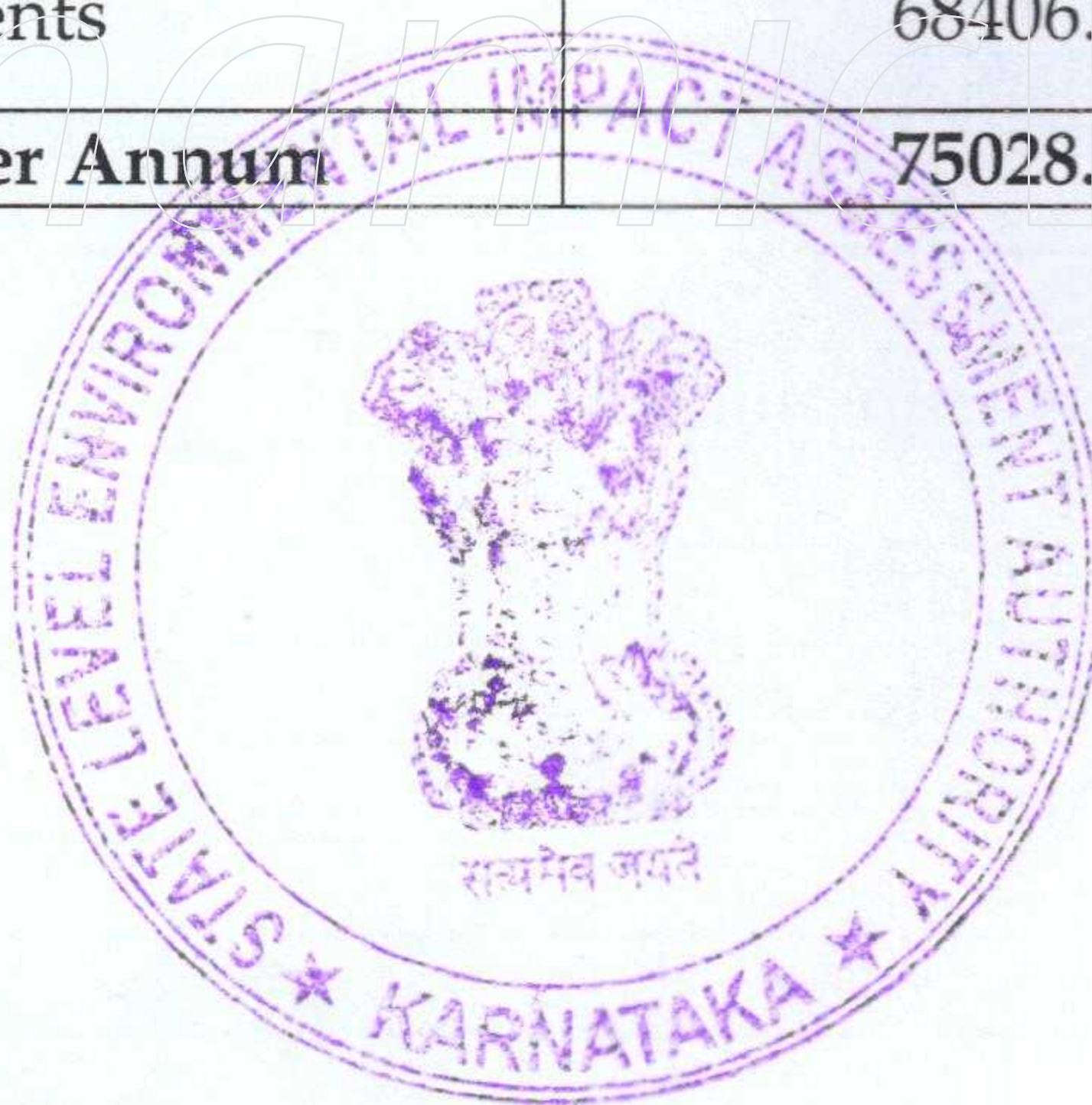
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38	Olmesartan	10
39	Donepezilhydrochloridedihydrate	2
40	Quetiapinefumurate	40
41	Prasugrel(Tppo)	10
42	Butraphanol	0.3
43	Methimazole	5
<b>Sub-TotalQuantity</b>		<b>4827.3</b>
<b>Proposed Products for</b>		
<b>44</b>	<b>FAVIPIRAVIR</b>	<b>60.0</b>
<b>45</b>	<b>APIXABAN</b>	<b>0.5</b>
<b>Grand Total Quantity</b>		<b>4887.8</b>

List of By-Products

Sl.No.	Name of the ByProduct	Quantity per annum (MT)	Disposal
1	SpentPotassiumcarbonate	54.5	Sale
2	PalladiumCarboncatalyst	4.6	Returnedtothe supplier
3	RaneyNickleCatalyst	28.8	Returnedtosu pplier
4	AqueousAmmonia	1389.31	Sale
5	Sodiumsulphate	8.7	TSDf/sale
6	Sodiumbicarbonate	7.4	TSDf/sale
7	NaClSaltsfromGabapentine	3572.0	TSDf/sale
8	Gabalactum	1557.1	Internalconsu mption
<b>Total Generation Tons perAnnum</b>		<b>6622.4</b>	
1	Recoveredsolvents	68406.3	Internalconsu mption/Sale
<b>Total Generation Tons per Annum</b>		<b>75028.7</b>	



*Vijayakumar Gogi*  
(Vijayakumar Gogi)  
Member Secretary,  
SEIAA, Karnataka.

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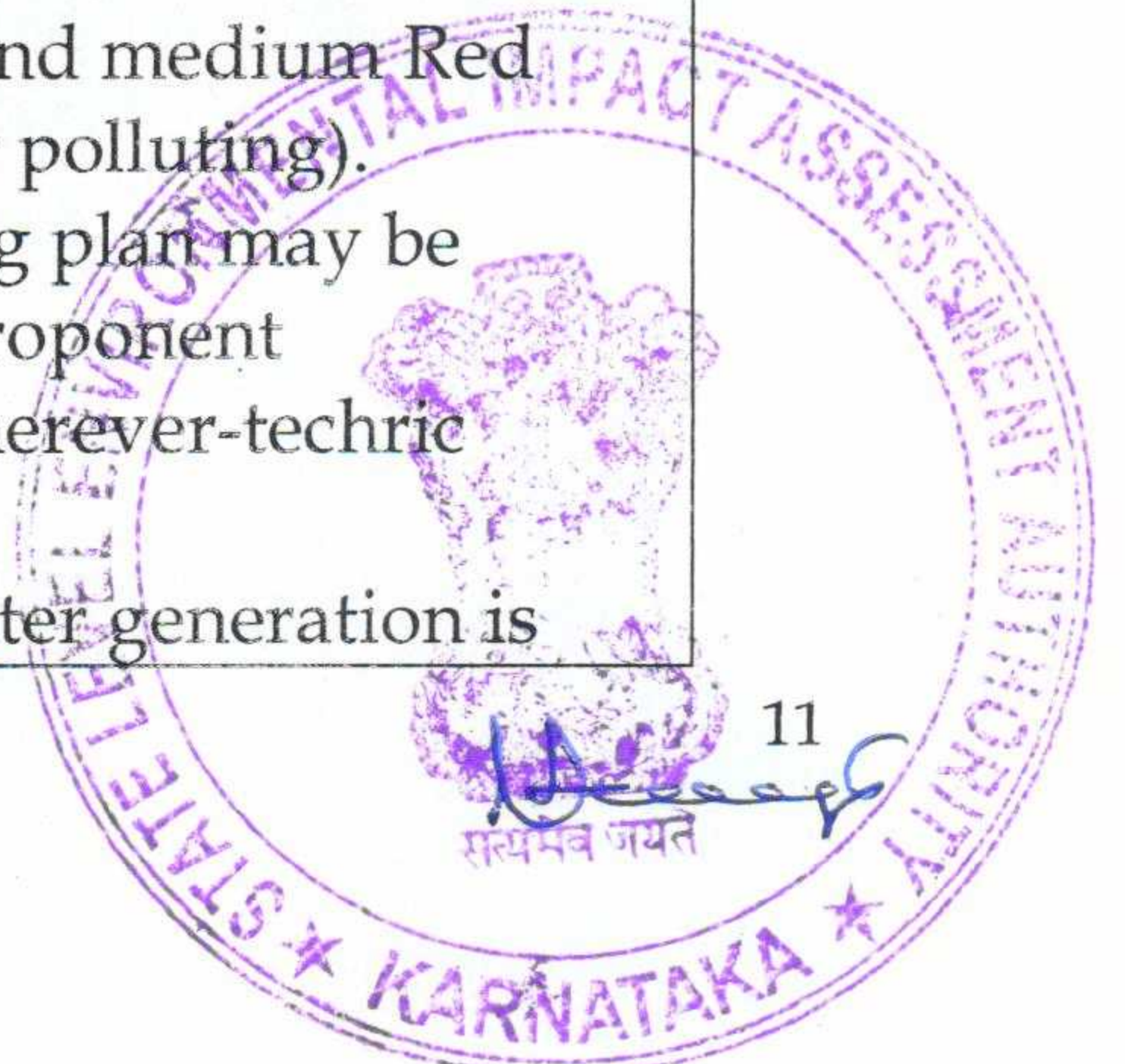
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**ANNEXURE-II**

Additional conditions as per the Mechanism evolved by MoEF & CC as compliance to the orders of Hon'ble NGT dated 19-8-2019 in O A No. 1038 of 2018

Environment	Mitigation Measure
Air	<p><u>Stipulation of conditions such as:</u></p> <ol style="list-style-type: none"><li>Stack emission levels should be stringent than the existing standards in terms of the identified critical pollutants.</li><li>CEMS may be installed in all large/medium red category industries (air polluting) and connected to SPCB and CPCB server.</li><li>Effective fugitive emission control measures should be imposed in the process, transportation, packing etc.</li><li>Transportation of materials by rail/ conveyor belt, wherever feasible.</li><li>Encourage use of cleaner fuels (pet coke/ furnace oil/ I,SHS may be avoided).</li><li>Best Available Technology may be used. For example; usage of EAF/SAF/ IF in place of Cupola furnace. Usage of Supercritical technology in place of sub-critical technology.</li><li>Increase of green belt cover by 40% of the total land area beyond the permissible requirement of 33%, wherever feasible.</li><li>Stipulation of greenbelt outside the project premises such as avenue plantation, plantation in vacant areas, social forestry, etc.</li><li>Assessment of carrying capacity of transportation load on roads inside the industrial premises. If the roads required to be widened, shall be prescribed as a conditions</li></ol>
Water	<p><u>Stipulation of conditions such as:</u></p> <ol style="list-style-type: none"><li>Reuse/recycle of treated wastewater, wherever feasible.</li><li>Continuous monitoring of effluent quality/quantity in large and medium Red Category Industries (water polluting).</li><li>A detailed water harvesting plan may be submitted by the project proponent</li><li>-Zero- liquid-discharge-wherever-technically feasible.</li><li>In case, domestic waste water generation is</li></ol>

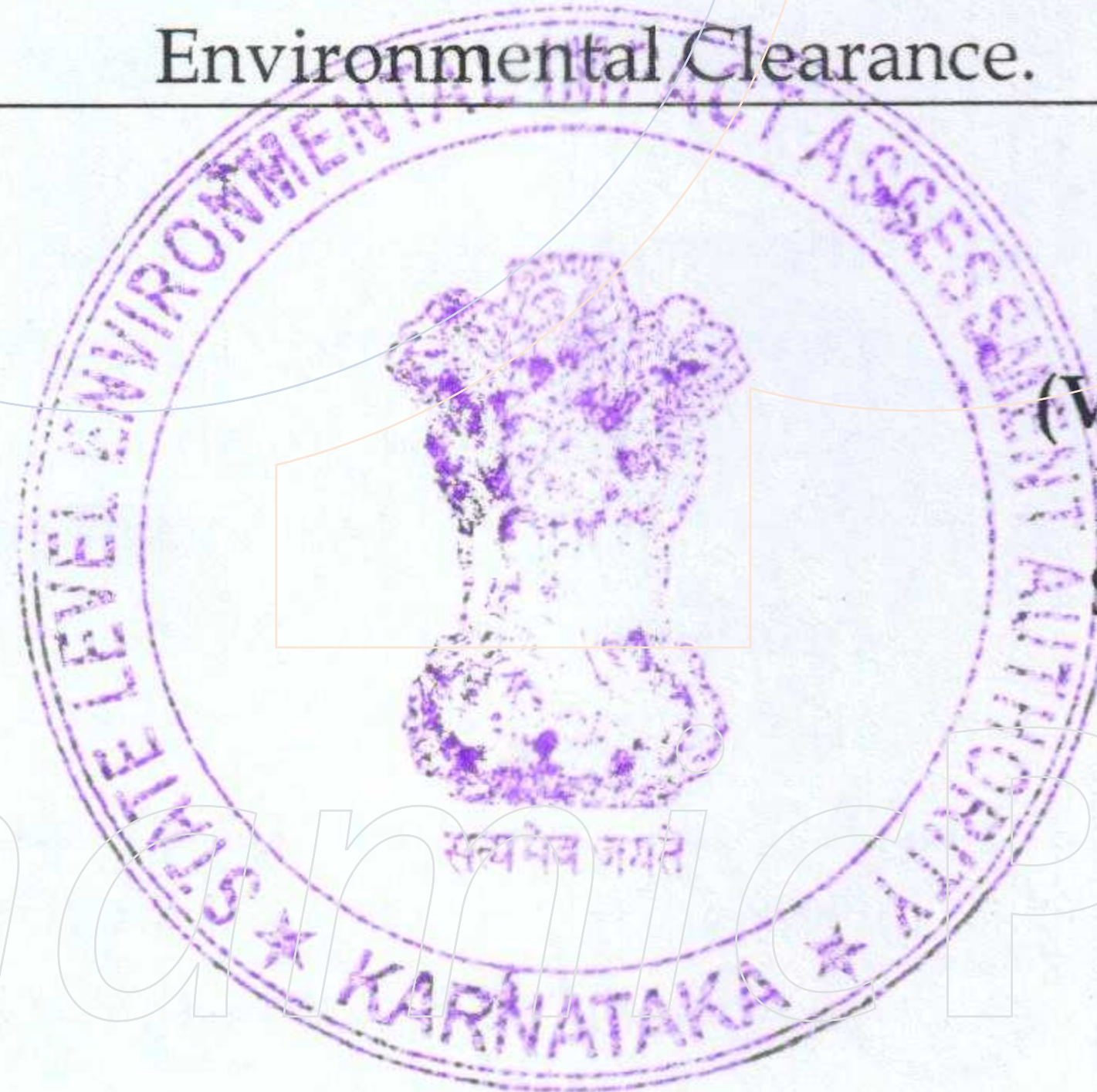



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	more than 10 KLD, the industry may install STP.
Land	<p><u>Stipulation of conditions such as:</u></p> <ol style="list-style-type: none"><li>Increase of green belt cover by 40% of the total land area beyond the permissible requirement of 33%, wherever, feasible for new projects.</li><li>Stipulation of greenbelt outside the project premises such as avenue plantation, plantation in vacant areas, social forestry, etc.</li><li>Dumping of waste (fly ash, slag, red mud, etc.) may be permitted only at designated locations approved by SPCBs/ PCCs.</li><li>iv. More stringent norms for management of hazardous waste. The waste generated should be preferably utilized in co-processing</li></ol>
Other Condition(Additional).	<ol style="list-style-type: none"><li>Monitoring of compliance of EC conditions may be submitted with third party audit every year.</li><li>ii. The % of the CER may be at least 1.5 times the slabs given in the OM dated 01.05.2018 for SPA and 2 times for CPA in case of Environmental Clearance.</li></ol>



  
(Vijayakumar Gogi)  
Member Secretary,  
SEIAA, Karnataka.

F. No. J-11011/374/2016-IA-II(I)  
Government of India  
Ministry of Environment, Forest and Climate Change  
(IA- II Section)

Indira Paryavaran Bhawan  
Jorbagh Road, New Delhi - 3

Dated: 16<sup>th</sup> February, 2018

To

M/s Hikal Limited  
Plot No. 82/A, 83-P, 83-P1 & 72  
KIADB Industrial Area, Jigani  
Anekal Taluk, **Bangalore Urban** (Karnataka)

**Sub: Expansion cum Modification of Pharmaceutical Unit by M/s Hikal Limited at Plot No. 82/A, 83-P, 83-P1 & 72, KIADB Industrial Area, Jigani, Anekal Taluk, Bangalore Urban (Karnataka) - Environmental Clearance - reg.**

Sir,

This has reference to your proposal No. IA/KA/IND2/60368/2016 dated 6<sup>th</sup> December, 2017, submitting the EIA/EMP report on the above subject matter.

2. The Ministry of Environment, Forest and Climate Change has examined the proposal for environmental clearance to the project for expansion cum modification of pharmaceutical unit from 1388 TPA (19 No. of products) to 4827.3 TPA (43 No. of products) by M/s Hikal Limited at Plot No. 82/A, 83-P, 83-P1 & 72, KIADB Industrial Area, Jigani, Anekal Taluk, Bangalore Urban (Karnataka).

3. The existing land area is 72,155 m<sup>2</sup> and no additional land will be required for the proposed expansion. Green belt will be developed in an area of 24130.92 m<sup>2</sup>. The estimated project cost is Rs.80 crore. Total capital cost earmarked towards environmental pollution control measures is Rs.8 crores and the recurring cost (operation and maintenance) will be about Rs.75 Lakhs per annum. Total employment will be for 700 persons as direct and indirect after expansion.

4. Banneraghatta National Park is located at 4.8 km from the Project site. V.M.Halli Lake, Haragade Lake, Hennagara Lake is located at 280 m, 1.86 km and 2 km respectively.

5. The existing and proposed products are as under:

S. No	Product	Existing (TPA)	Proposed (TPA)	Total (TPA)
1	Gabapentin	700	1300	2000
2	Burpropion HCL	50	25	75
3	Cinnarizene	5	15	20
4	Ondansetron HCL	1	--	1
5	Acebutalol - HCL	15	--	15
6	P- Benzoxo Aniline HCL	40	--	40
7	Ondansetron API	1	--	1
8	Oxypentifylline	5	70	75
9	Tripolidine - HCL	4	--	4
10	Gemfibrozil	300	(- 120)	180

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11	Decoquinatate	75	200	275
12	Levetiracetam	10	--	10
13	Verapamil	20	--	20
14	Valproic Acid	50	--	50
15	Sodium Valproate	50	--	50
16	Di-Valproex Sodium	20	--	20
17	Magnesium Valproate	20	--	10
18	Topiramate	20	--	20
19	T-Lucine	12		12
20	Flunarazine	--	12	12
21	Venlafaxine HCl	--	40	40
22	Neotame	--	50	50
23	Piracetam	--	650	650
24	Etiracetam Fresh	--	500	500
25	Etiracetam Racemic	--	150	150
26	TPCA HCL	--	10	10
27	CMMDT	--	10	10
28	Tri-Fluoromethyl Cinnamic Acid	--	10	10
29	Memantine HCl	--	10	10
30	Piperazinenitro HCl	--	50	50
31	Sevelamer Carbonate	--	100	100
32	Colesevalam Hydrochloride	--	100	100
33	Pregablin	--	100	100
34	Sitagliptin	--	10	10
35	Vildagliptin	--	10	10
36	Lacosamide	--	20	20
37	Valocyclovir Hydrochloride	--	50	50
38	Olmesartan	--	10	10
39	Donepezil Hydrochloride Dihydrate	--	2	2
40	Quetiapine Fumurate	--	40	40
41	Prasugrel (TPPO)	--	10	10
42	Butraphanoi	--	0.3	0.3
43	Methimazole	--	5	5

S. No	By Product	Quantity (TPA)
1	Spent Potassium carbonate	54.5
2	Palladium Carbon catalyst	4.6
3	Raney Nickle Catalyst	28.8
4	Aqueous Ammonia	1389.31
5	Sodium sulphate	8.7
6	Sodium bicarbonate	7.4
7	NaCl Salts from Gabapentine	3572.0
8	Gaba lactum	1557.1
9	Recovered solvents	68406.3

*SW*

6. The total water requirement is 1891 cum/day, of which fresh water requirement of 1158 cum/day will be met from KIADB supply. It is informed that permission has been obtained in this regard from the concerned regulatory authority. Total industrial High TDS effluent of 95 cum/day and Low TDS effluent of 355 cum/day shall be treated in the ETP, thus ensuring Zero Liquid Discharge.

Power requirement after expansion will be 4000 kVA and will be met from BESSCOM. The unit has DG sets of 275 kVA, 750 Kva and 1500 kVA capacity and another DG set of 2000 kVA is proposed with adequate stack height as per CPCB norms.

Existing unit has one 2.8 TPH boiler, two 6.3 TPH boiler, one 2 lakh Kcal thermic fluid heater and 14 MT/Hr briquette fired boiler. Another, 2 lakh Kcal thermic fluid heater is proposed with pollution control measures.

7. The project/activity is covered under Category B of item 5(f) 'Synthetic Organic Chemicals Industry' of the Schedule to the Environment Impact Assessment Notification, 2006. However, due to applicability of general condition (within 5 km of Bannerghatta National park), the project is covered under category A and requires appraisal at central level by the sectoral Expert Appraisal Committee (EAC) in the Ministry.

8. The ToR for the project was granted on 28<sup>th</sup> March, 2017, exempting public hearing as per Section 7(i), III. Stage (3), Para (i)(b) of EIA Notification, 2006.

9. The proposal for environmental clearance was considered by the EAC (Industry-2) in its meeting held on 20- 22 December, 2017. The project proponent and the accredited consultant M/s En-vision Enviro Technologies Pvt Ltd presented the EIA/EMP report as per the ToR. The committee found the EIA/EMP report satisfactory and in consonance with the ToR, and recommended the proposal for environmental clearance with certain conditions.

10. Based on the proposal submitted by the project proponent and recommendations of the EAC (Industry-2), the Ministry of Environment, Forest and Climate Change hereby accords environmental clearance to the project '**Expansion cum Modification of Pharmaceutical Unit from 1388 TPA to 4827.3 TPA**' by M/s Hikal Limited at Plot No, 82/A, 83-P, 83-P1 & 72, KIADB Industrial Area, Jigani, Anekal Taluk, Bangalore Urban (Karnataka), under the provisions of EIA Notification, 2006 and the amendments made therein, subject to the compliance of terms and conditions, as under:-

- (i) The environmental clearance is subject to obtaining prior clearance from the wildlife angle including clearance from the Standing Committee of the National Board for Wildlife as applicable. Grant of environmental clearance does not necessarily implies that Wildlife Clearance shall be granted to the project and that their proposals for Wildlife Clearance will be considered by the respective authorities on their merits and decision taken.
- (ii) Consent to Establish/Operate for the project shall be obtained from the State Pollution Control Board as required under the Air (Prevention and Control of Pollution) Act, 1981 and the Water (Prevention and Control of Pollution) Act, 1974.
- (iii) As already committed by the project proponent, Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged outside the premises.
- (iv) Necessary authorization required under the Hazardous and Other Wastes (Management and Trans-Boundary Movement) Rules, 2016, Solid Waste



Management Rules, 2016 shall be obtained and the provisions contained in the Rules shall be strictly adhered to.

- (v) To control source and the fugitive emissions, suitable pollution control devices shall be installed to meet the prescribed norms and/or the NAAQS. The gaseous emissions shall be dispersed through stack of adequate height as per CPCB/SPCB guidelines.
- (vi) Total fresh water requirement shall not exceed 1158 cum/day, to be met from KIADB water supply. Prior permission in this regard shall be obtained from the concerned regulatory authority.
- (vii) Industrial/trade effluent shall be segregated into High COD/TDS and Low COD/TDS effluent streams, as applicable. High TDS/COD shall be passed through stripper followed by MEE and ATFD (agitated thin film drier). Low TDS effluent stream shall be treated in ETP and then passed through RO system.
- (viii) Process effluent/any wastewater shall not be allowed to mix with storm water. Storm water drain shall be passed through guard pond.
- (ix) Hazardous chemicals shall be stored in tanks, tank farms, drums, carboys etc. Flame arresters shall be provided on tank farm and the solvent transfer through pumps.
- (x) Process organic residue and spent carbon, if any, shall be sent to cement industries. ETP sludge, process inorganic & evaporation salt shall be disposed off to the TSDF.
- (xi) The Company shall strictly comply with the rules and guidelines under Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989 as amended time to time. All transportation of Hazardous Chemicals shall be as per the Motor Vehicle Act (MVA), 1989.
- (xii) The company shall undertake waste minimization measures as below:-
  - (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.
- (xiii) The green belt of 5-10 m width shall be developed in more than 33% of the total project area, mainly along the plant periphery, in downward wind direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department.
- (xiv) At least 2.5% of the total project cost shall be allocated for Enterprise Social Commitment. Item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office.





- (xv) The company shall make all arrangements for control of noise from the drilling activity. Acoustic enclosure shall be provided for the DG sets along with the adequate stack height as per CPCB guidelines.
- (xvi) 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 norms.
- (xvii) Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.
- (xviii) Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.
- (xix) The energy sources for lighting purposes shall preferably be LED based. A minimum of 10-20% of the total power requirement for the industrial operations shall be met from non-conventional energy resources/solar supply.

**10.1.** The grant of environmental clearance is subject to compliance of other general conditions, as under:-

- (i) The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board, Central Pollution Control Board, State Government and any other statutory authority.
- (ii) No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forest and Climate Change. 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.
- (iii) The locations of ambient air quality monitoring stations shall be decided in consultation with the State Pollution Control Board (SPCB) and it shall be ensured that at least one station each is installed in the upwind and downwind direction as well as where maximum ground level concentrations are anticipated.
- (iv) The National Ambient Air Quality Emission Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16<sup>th</sup> November, 2009 shall be followed.
- (v) 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).
- (vi) The Company shall harvest rainwater from the roof tops of the buildings and storm water drains to recharge the ground water and use the same water for the process activities of the project to conserve fresh water.
- (vii) 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.


- (viii) The company shall also comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.
- (ix) The company shall undertake all relevant measures for improving the socio-economic conditions of the surrounding area. ESC activities shall be undertaken by involving local villages and administration.
- (x) The company shall undertake eco-developmental measures including community welfare measures in the project area for the overall improvement of the environment.
- (xi) The company shall earmark sufficient funds towards capital cost and recurring cost per annum to implement the conditions stipulated by the Ministry of Environment, Forest and Climate Change as well as the State Government along with the implementation schedule for all the conditions stipulated herein. The funds so earmarked for environment management/ pollution control measures shall not be diverted for any other purpose.
- (xii) A copy of the clearance letter shall be sent by the project proponent to concerned Panchayat, Zilla Parishad/Municipal Corporation, Urban local Body and the local NGO, if any, from whom suggestions/ representations, if any, were received while processing the proposal.
- (xiii) The project proponent shall also submit six monthly reports on the status of compliance of the stipulated Environmental Clearance conditions including results of monitored data (both in hard copies as well as by e-mail) to the respective Regional Office of MoEF&CC, the respective Zonal Office of CPCB and SPCB. A copy of Environmental Clearance and six monthly compliance status report shall be posted on the website of the company.
- (xiv) The environmental statement for each financial year ending 31<sup>st</sup> March in Form-V as is mandated shall be submitted to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of environmental clearance conditions and shall also be sent to the respective Regional Offices of MoEF&CC by e-mail.
- (xv) 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/Committee and may also be seen at Website of the Ministry at <http://moef.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 concerned Regional Office of the Ministry.
- (xvi) 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.



11. The Ministry may revoke or suspend the clearance, at subsequent stages, if implementation of any of the above conditions is not satisfactory.


12. The Ministry reserves the right to stipulate additional conditions, if found necessary. The company in a time bound manner will implement these conditions.

13. The above conditions will be enforced, inter alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, Air (Prevention & Control of Water 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.

  
16/2/2018  
(S. K. Srivastava)  
Scientist E

**Copy to:-**

1. The Additional PCCF (C), MoEF&CC Regional Office (SZ), Kendriya Sadan, 4<sup>th</sup> Floor, E&F Wings, 17<sup>th</sup> Main Road, Koramangala II Block, Bangalore – 34
2. Inspector General of Forest (WL), MoEF&CC, Indira Paryavaran Bhawan, New Delhi
3. The Secretary, Department of Forest, Environment & Ecology, Government of Karnataka, Room No. 708, Gate 2, Multi Storied Building, Dr. Ambedkar Veedhi, Bangalore - 1
4. The Member Secretary, Central Pollution Control Board, Parivesh Bhawan, CBD-cum-Office Complex, East Arjun Nagar, Delhi - 32
5. The Member Secretary, Karnataka State Pollution Control Board, Parisara Bhavan, #49, 4<sup>th</sup> & 5<sup>th</sup> Floor, Church Street, Bangalore -1
6. Guard File/Monitoring File/Website/Record File

  
16/2/2018  
(S. K. Srivastava)  
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