



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: 20.04.2022

CORRIGENDUM

The annexure mentioned in the Environmental Clearance Letter No. SEIAA 48 IND 2020 dated 04.09.2020 issued to M/s Hikal Limited Unit-I located at Plot No, 82/ A, 83-P, 83-P1 & 72 , KIADB Industrial Area, Jigani, Anekal Taluk, Bangalore Urban for 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 shall be modified and read as " Annexure-I", Annexure -II, Annexure -III & Annexure - IV inserted as follows.

Annexure-I

List of Products - M/s Hikal Limited Unit-I Manufacturing Division:

| S.No | Products | Quantity (MTA) |
|------|-----------------------|----------------|
| 01 | API's & Intermediates | 4887.8 |

List of Products and their capacity.

| S.No | Name of products | Final Products (MTA) |
|------|------------------------|----------------------|
| 1. | GABAPENTIN | 2284.4 |
| 2. | BURPROPION HCL | 350 |
| 3. | CINNARIZINE | 20 |
| 4. | ONDANSETRON HCL | 2 |
| 5. | ACEBUTALOL - HCL | 2 |
| 6. | P- BENZOXY ANILINE HCL | 5 |
| 7. | ONDANSETRON API | 2 |
| 8. | OXYPENTIFYLLINE | 40 |
| 9. | TRIPOLIDINE - HCL | 4 |
| 10. | GEMFIBROZIL | 150 |
| 11. | DECOQUINATE | 250 |
| 12. | LEVETIRACETAM | 10 |
| 13. | T-LUCINE | 5.0 |



| | | |
|-----|-----------------------------------|---------------|
| 14. | FLUNARAZINE | 12 |
| 15. | VENLAFLAXINE HCl | 150 |
| 16. | NEOTAME | 50 |
| 17. | PIRACETAM | 250 |
| 18. | ETIRACETAM FRESH | 200 |
| 19. | ETIRACETAM RACEMIC | 100 |
| 20. | TPCA.HCL | 5 |
| 21. | CMMDT | 5 |
| 22. | TRI-FLUROMETHYL CINNAMIC ACID | 5 |
| 23. | MEMANTINE HCl | 5 |
| 24. | PIPERAZINENITRO HCl | 10 |
| 25. | SEVELAMER CARBONATE | 10 |
| 26. | COLESEVALAM HYDROCHLORIDE | 10 |
| 27. | PREGABLIN | 255 |
| 28. | SITAGLIPTIN | 80 |
| 29. | VILDAGLIPTIN | 60 |
| 30. | LACOSAMIDE | 30 |
| 31. | VALOCYCLOVIR HYDROCHLORIDE | 100 |
| 32. | OLMESARTAN | 50 |
| 33. | DONEPEZIL HYDROCHLORIDE DIHYDRATE | 2 |
| 34. | QUETIAPINE FUMURATE | 100 |
| 35. | PRASUGREL (TPPO) | 2 |
| 36. | BUTRAPHANOL | 0.3 |
| 37. | METHIMAZOLE | 2 |
| 38. | FAVIPIRAVIR | 30 |
| 39. | APIXABAN | 20 |
| 40. | HBP- 918 | 50 |
| 41. | UROLITHIN | 50 |
| 42. | DAPAGLIFLOZIN | 20 |
| 43. | EMPAGLIFLOZIN | 20 |
| 44. | NIRMALTREVIR (HBP: 939) | 60 |
| 45. | CINNAMYL CHLORIDE | 20 |
| | Total Production Capacity | 4887.8 |



1-2

Annexure-II

Details of Effluent Characteristics

| S.No | Utility | Water Requirement (KLD) | Effluent Water (KLD) | | Total Effluent Generation (KLD) | Parameters (mg/L) | | Pollution Load in kgs | |
|------|-----------------------|-------------------------|----------------------|------------|---------------------------------|-------------------|-------|-----------------------|--------------|
| | | | HTDS | LTDS | | TDS | COD | TDS | COD |
| 1. | Domestic use | 45 | - | 40 | 40 | 1020 | 400 | 40.8 | 18 |
| 2. | Manufacturing process | 179.35 | 100.7 | 131 | 231.7 | 65000 | 90000 | 7200 | 9718 |
| 3. | Washing -non process | 89 | 10 | 79 | 89 | 4500 | 4000 | 400.5 | 356 |
| 4. | Other utilities | 849 | - | 137 | 137 | 3000 | 500 | 411 | 68.5 |
| | TOTAL | 1162.3 | 110.7 | 387 | 497.7 | | | 8052 | 10160 |

Annexure-III

Details of air pollution control measures

Details of Process emissions generation and its management

| Sl. No | Chimney attached to | Constituents to be controlled in the emission | Tolerance limits mg/Nms as per CFO | Air pollution Control equipment to be installed, in addition to chimney height |
|--|--|---|------------------------------------|--|
| Air pollution Sources and control equipment's | | | | |
| Additionally proposed utilities | | | | |
| 01 | 25 TPH boiler fired by briquette | SPM | - | 40 m AGL |
| 02 | DG sets capacity of 2500 KVA x 2 Nos | Nox, CO, NMHC, PM | 710 ppmv, 150, 100, 75 | 30 m AGL |
| Existing utilities | | | | |
| 03 | 2.8 TPH Boiler & 2 Lakh K. Cal Thermic Fluid Heater (Common Chimney) | SO2 and NOx | 600 & 300 (at 3% dry O2) | Common chimney of 30.5 m AGL |



[Handwritten signature]

| | | | | |
|----|--|-------------------|------------------------------|---|
| 04 | 6.3 TPH Boiler & 2 Lakh K. Cal Thermic Fluid Heater(Comon Chimney) | SO2 and NOx | 600 & 300 (at 3% dry O2) | Common chimney of 38 m AGL |
| 05 | 6.3 TPH Boiler | SO2 and NOx | 600 & 300 (at 3% dry O2) | 38 m AGL |
| 06 | Process emissions from all the reactors- 7 Nos. | Acid Mist & SO2 | 35 - | Individual chimneys of 38 m AGL |
| 07 | DG Set – 750 KVA. | SO2 | - | C16 m AC with Acoustic Enclosures |
| 08 | DG Set – 1500KVA. | Nox, CO, NMHC, PM | 710 ppmv150100 75 | 30 m AGL with Acoustic Enclosures |
| 09 | DG Set-275 KVA. | SO2 | - | 6 m ARL with Acoustic Enclosures |
| 10 | Boiler-14 MT/Hr (Briquette fired) | SPM | 100 | 35 in AGL with ESP |
| 11 | Process emissions from all the reactors- 8 Nos. | Acid Mist , SO2 | 35 - | Individual chimneys of 5 m ARL connected with Scrubbers |
| 12 | DG Set – 2000KVA | Nox, CO, NMHC, PM | 710 ppmv, 150, 100 75 | 30 m AGL with Acoustic Enclosures |
| 13 | DG Set – 2000KVA | Nox, CO, NMHC, PM | 710 ppmv 150 100 75 | 30 m AGL with Acoustic Enclosures |

Details of process emission generation and its management

| S.No | Name of the Gas | Quantity in Kg/day Existing as per the granted EC products | Quantity in Kg/day Proposed amendment | Treatment Method |
|------|-----------------|--|---------------------------------------|-------------------------------|
| 1 | Carbon Dioxide | 205 | 190 | Dispersed into the atmosphere |



| | | | | |
|---|-------------------|------|------|--|
| 2 | Hydrogen | 2.0 | 2.0 | Diffused by using through flame arrestor |
| 3 | Ammonia | 25 | 25 | Scrubbed by using chilled water media |
| 4 | Hydrogen chloride | 80 | 80 | Scrubbed by using C. S. Lye Solution |
| 5 | Acid mist | 5 | 4.5 | Scrubbed by using C. S. Lye Solution |
| 6 | VOC | 1800 | 1600 | Scrubbed by using C. S. Lye Solution (Note: all products) |

Annexure-IV

HAZARDOUS WASTE DETAILS.

| Sl. No. | Type | Category | Total quantity | Disposal Method |
|---------|---|----------|----------------------|---|
| 1 | Used oil | 5.1 | 7 KLA | Shall be collected in a leak proof containers & disposed only to KSPCB registered authorized re-processors provided the oil meets the standards as per schedule-5 part A of the rules |
| 2 | Oil soaked cotton waste Oil filters | 5.2 | 4.0 MTA 100 Nos/A | Shall be store in a secured manner & handed over to KSPCB authorized incinerators / co-processing in cement kiln |
| 3 | Spent carbon, hyflo mixtures, & carbon soot | 28.2 | 218.5 MTA | shall be store in a secured manner & handed over to KSPCB authorized incinerators / co-processing in cement kiln |
| 4 | Spent solvent & Mixed solvents from process | 28.6 | 7869 MTA | Shall be store in a secured manner and reprocessed back using environmental sound technology / KSPCB authorized recyclers / End users. |
| 4a | Process residue | 28.1 | 1920 MTA | Shall be store in a secured manner & handed over to KSPCB authorized incinerators / co-processing in cement kiln |



| Sl. No. | Type | Category | Total quantity | Disposal Method |
|---------|---|----------|---------------------|--|
| 5 | Discarded containers | 33.3 | 120 MTA | Shall be store in a secured manner and handed over to KSPCB authorized recyclers after wash only |
| 6 | ETP sludge, Multiple effect evaporator salt | 34.3 | 600 MTA 5144 MTA | Shall be store in a secured manner and handed over to TSDF/ co-processing in cement kiln |
| 7 | Distillation residue from contaminated organic solvents | 36.4 | 733 MTA | Shall be store in a secured manner & handed over to KSPCB authorized incinerators / co-processing in cement kiln |
| 8 | RO resins (membrane) and chemical resins (MB plant) | - | 1.5 MTA | Shall be store in a secured manner & handed over to KSPCB authorized incinerators / Co-processing in cement kiln |
| 9 | Expired and Off specific drugs / Chemicals | - | 40 MTA | Shall be store in a secured manner & handed over to KSPCB authorized incinerators / Co-processing in cement kiln |

NON-HAZARDOUS WASTE DETAILS.

| Sl. No | Type of waste | Total Quantity | Method of handling/disposal |
|--------|------------------------------------|-----------------------|---|
| 1 | General office waste | 18 MTA | Shall be stored in accordance to KSPCB Guidelines and disposed to authorized scrap dealers. |
| 2 | Non-contaminated carboys & glasses | 14000 No/A 2.5 MTA | |
| 3 | Wood Packings | 70 MTA | |
| 4 | Sludge from STP | 15 MTA | |
| 5 | Non contaminated plastic waste | 50 MTA | |
| 6 | Aprons -Cloth waste | 12 MTA | |
| 7 | Glasswares | 2.5 MTA | |



| | | | |
|---|----------------------|----------|---|
| 8 | Briquette Boiler Ash | 4500 MTA | Shall be stored in accordance to KSPCB guidelines and disposed to Bricks & Compost manufacturers. |
|---|----------------------|----------|---|

Rest of the contents and the conditions of the Environmental Clearance letter No. SEIAA 48 IND 2020 dated 04.09.2020 remains unchanged.



(Vijay Mohan Raj V)
Member Secretary,
SEIAA, Karnataka.

04/04/22

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, 17th Main Road, Koramangala II Block, Bangalore - 560 034.
- 4) Guard File.