



# Natco Pharma Limited

Regd. Off. : 'NATCO HOUSE', Road No. 2, Banjara Hills, Hyderabad-500 034.  
Telangana, INDIA. Tel : +91 40 23547532, Fax : +91 40 23548243  
CIN : L24230TG1981PLC003201, www.natcopharma.co.in



22<sup>nd</sup> September 2021

To  
The Environmental Engineer  
T.S.P.C.B., Regional Office – Hyderabad  
IV<sup>th</sup> Floor, Hyderabad Collectorate Complex,  
Nampally Station Road,  
HYDERABAD – 500 001



Sir,

**Sub: Submission of Environmental Statement in Form-V for the Year 2020 – 21.**


We M/s. Natco Pharma Limited-Chemical Division are herewith submitting the Environmental Statement in Form-V for the year 2020 – 21 for your kind perusal.

Kindly acknowledge the receipt of the same.

Thanking you,

Yours faithfully

**For Natco Pharma Limited – Chemical Division**

  
22.09.21

**(Ch. Srinivasa Rao)**  
**General Manager – EHS**

**Copy to:**

Member Secretary, T.S.P.C.B., Paryavaran Bhavan, Sanathnagar, Hyderabad.



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Member Secretary, T.S.P.C.B., Paryavaran Bhavan, Sanathnagar, Hyderabad.





# ENVIRONMENT STATEMENT – FORM - V

For the year 2020 – 21



Submitted By



**M/s. NATCO PHARMA LIMITED  
(CHEMICAL DIVISION)**

**Mekaguda Village, Nandigama Mandal,  
Ranga Reddy District, Telangana State, India**

**PIN: 509 223**



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# PART - A



**Environmental Statement 2020 – 21**  
**Natco Pharma Limited-Chemical Division**

**FORM – V**  
**(See rule 14)**

**Environmental Statement for the year ending 31<sup>st</sup> March, 2021**

**PART – A**

|     |  |  |
|-----|--|--|
| i   | Name and address of the owner / occupier of the Industry operation or process. | Mr. P.S.R.K. Prasad<br>NATCO PHARMA LIMITED<br>"NATCO HOUSE",<br>Road No. 2, Banjara Hills,<br>Hyderabad – 500 034.  |
| ii  | Industry Category  | Red Category – Hazardous   |
| iii | Production Capacity  | At any given time a maximum of 15 products, 5 from Group–A, 5 from Group–B and 5 from Group–C shall be manufactured so that the total production capacity at any point of time shall not exceed 1782.67 kg/day (53.480 TPM)<br><br>List of products with capacities given below. |
| iv  | Year of establishment  | 1993   |
| v   | Date of the last Environmental Statement submitted                             | September – 2020   |



### List of Products with capacities

(As per CFO Expansion Order: 200522472438, 21.07.2020)

| Group | S. No. | Name of the Product             | Capacity (TPM) | Remarks   |
|-------|--------|---------------------------------|----------------|---|
| A     | 1      | Alendronate                     | 3.00           | Any 15 products (5 products from each group) on campaign products out of total 66 products at any part of time & R&D activity |
|       | 2      | Citalopram Hydrobromide         | 3.00           |   |
|       | 3      | Chloroquine Phosphate           | 5.10           |   |
|       | 4      | Clozapine                       | 3.00           |   |
|       | 5      | Deferasirox                     | 0.30           |   |
|       | 6      | ErlotinibHCl                    | 1.05           |   |
|       | 7      | Escitalopram Oxalate            | 0.51           |   |
|       | 8      | Geftinib                        | 1.05           |   |
|       | 9      | Glatiramer Acetate              | 0.21           |   |
|       | 10     | Ibandronate Sodium              | 1.05           |   |
|       | 11     | Imatinib Mesylate               | 2.10           |   |
|       | 12     | LapatinibDitosylate Monohydrate | 0.51           |   |
|       | 13     | Macitentan                      | 0.51           |   |
|       | 14     | OndansetronHCl Dihydrate        | 1.05           |   |
|       | 15     | Sertraline HCl                  | 3.00           |   |
|       | 16     | Sofosbuvir                      | 2.10           |   |
| B     | 17     | ACDMQ                           | 2.10           |   |
|       | 18     | Armodafinil                     | 0.51           |   |
|       | 19     | Benzyloxy aniline HCl           | 2.10           |   |
|       | 20     | Bosentan Monohydrate            | 1.05           |   |
|       | 21     | Dimethyl Fumarate               | 5.10           |   |
|       | 22     | Lansoprazole                    | 2.10           |   |
|       | 23     | Lanthanum Carbonate Dihydrate   | 2.10           |   |
|       | 24     | L-Biopterin                     | 0.12           |   |
|       | 25     | Ledipasvir                      | 0.51           |   |
|       | 26     | Minodronic Acid Hydrate         | 0.51           |   |
|       | 27     | Omeprazole                      | 3.00           |   |
|       | 28     | Pantoprazole Sodium Monohydrate | 2.10           |   |
|       | 29     | Pazopanib Hydrochloride         | 1.05           |   |
|       | 30     | SorafenibTosylate               | 1.05           |   |
|       | 31     | Sumatriptan Succinate           | 0.51           |   |

**Environmental Statement 2020 – 21**



**Natco Pharma Limited-Chemical Division**

| Group | S. No.               | Name of the Product  | Capacity (TPM) | Remarks   |
|-------|----------------------|--|----------------|---|
| C     | 32                   | (1S, 2S, 3R, 5S)-Pinatedilol-L-Phenylalanine-L-leucine boronate Hydrochloride (Intermediate of Bortezomib)   | 0.06           | Any 15 products (5 products from each group) on campaign products out of total 66 products at any part of time & R&D activity |
|       | 33                   | 5-fluoro2-oxindole (Intermediate of Sunitinib)   | 0.15           |   |
|       | 34                   | Ambrisentan  | 0.12           |   |
|       | 35                   | AmifostineTrihydrate   | 0.12           |   |
|       | 36                   | Anastrozole  | 0.12           |   |
|       | 37                   | Apixaban   | 0.12           |   |
|       | 38                   | Argatroban Monohydrate   | 0.06           |   |
|       | 39                   | BCC / NRC-2694-A   | 1.05           |   |
|       | 40                   | [(2S)-2-[[4-Methyl-2-[[[(2S)-2-[(2-morpholinoacetyl) amino]-4-phenyl-utanoyl]amino]pentanoyl] amino]-3-phenyl-propanoic acid] (Intermediate of Carfilzomib Acid) | 0.06           |   |
|       | 41                   | Dasatinib Monohydrate  | 0.30           |   |
|       | 42                   | Entecavir Monohydrate  | 0.06           |   |
|       | 43                   | Ethyl-4-[5-(Bis(2-Hydroxyethyl) amino)-1-Methyl-1H-benzo[d]imidazol-2-yl]Butanoate (Intermediate of BendamustineHCl)   | 0.30           |   |
|       | 44                   | [N-[3-Hydroxy-1,1-bis-Hydroxymethyl-3-(4-octyl-phenyl)-propyl]-acetamide] (Intermediate of Fingolimod)   | 0.12           |   |
|       | 45                   | GranisetronHCl   | 0.12           |   |
|       | 46                   | Letrozole  | 0.12           |   |
|       | 47                   | Liraglutide Acetate  | 0.01           |   |
|       | 48                   | N-(2-(diethylamino)ethyl)-5-formyl-2,4-dimethyl-1H-pyrrole-3-carboxamide (Intermediate of Sunitinib Malate)  | 0.30           |   |
|       | 49                   | Nilotinib Hydrochloride Hydrate  | 0.06           |   |
|       | 50                   | NRC/AN/019   | 0.12           |   |
|       | 51                   | Plerixafor   | 0.01           |   |
| 52    | Pomalidomide         | 0.12   |                |   |
| 53    | Ponatinib            | 0.30   |                |   |
| 54    | Regorafenib          | 0.21   |                |   |
| 55    | Rizatriptan Benzoate | 0.12   |                |   |



**Environmental Statement 2020 – 21**



**Natco Pharma Limited-Chemical Division**

| Group | S. No.                  | Name of the Product  | Capacity (TPM) | Remarks   |
|-------|-------------------------|--|----------------|---|
| C     | 56                      | SalmeterolXinafoate  | 0.12           | Any 15 products (5 products from each group) on campaign products out of total 66 products at any part of time & R&D activity |
|       | 57                      | Sapropterin.2HCl   | 0.12           |   |
|       | 58                      | Teriflunomide  | 0.12           |   |
|       | 59                      | Tigecycline  | 0.12           |   |
|       | 60                      | 1,1-Dimethylethyl(S)-4-formyl-2,2-dimethyl-3-oxazolidine-carboxylate (TRB / D-5)                 | 0.12           |   |
|       | 61                      | Ethyl-2-bromo-2-(6-(methoxymethoxy)-7-methyl benzo [D][1,3]dioxol-4-yl) acetate (TRB / TMR)      | 0.12           |   |
|       | 62                      | (S)-1-Hydroxy-3-(3-hydroxy-4-methoxy-5-methylphenyl) propan-2-aminium chloride (TRB-5 / LT-VIII) | 0.12           |   |
|       | 63                      | Tri HexyphenidylHCl  | 0.12           |   |
|       | 64                      | Zoledronic acid  | 0.06           |   |
|       | 65                      | Zolmitriptan   | 0.12           |   |
|       | 66                      | Schiff's Base  | 20.00          |   |
|       | R&D (Lab, Kilo & Pilot) |  | 0.03           |   |



**Manufactured Products and Quantity**

| S. No. | Name of the Products manufactured for the year 2020 – 2021   |               |
|--------|--|---------------|
|        | Product Name   | Quantity (kg) |
| 01     | Anastrozole  | 273.320       |
| 02     | Apixaban   | 303.760       |
| 03     | Bosentan Monohydrate   | 49.480        |
| 04     | Chloroquine Phosphate  | 4161.050      |
| 05     | Citalopram Hydrobromide  | 404.500       |
| 06     | Erlotinib HCl  | 182.980       |
| 07     | Ethyl-4-[5-(Bis(2-Hydroxyethyl)amino)-1-Methyl-1H-benzo[d]imidazole-2-yl] Butanoate (EIB-Intermediate of Bendamustine HCl) | 38.730        |
| 08     | Geftinib   | 129.070       |
| 09     | Glatiramer Acetate   | 182.073       |
| 10     | Granisetron Hydrochloride  | 2.925         |
| 11     | Ibandronate Sodium   | 71.990        |
| 12     | Imatinib Mesylate  | 4112.420      |
| 13     | Lanthanum Carbonate Dihydrate  | 15681.750     |
| 14     | Lapatinib Ditosylate Monohydrate   | 595.630       |
| 15     | Letrozole  | 599.640       |
| 16     | Nilotinib Hydrochloride Monohydrate  | 13.500        |
| 17     | Ondansetron Hydrochloride  | 492.780       |
| 18     | Regorafenib  | 3.690         |
| 19     | Rizatriptan benzoate   | 393.380       |
| 20     | Salmeterol Xinafoate   | 16.660        |
| 21     | Sorafenib Tosylate   | 114.474       |
| 22     | Teriflunomide  | 0.120         |
| 23     | Zoledronic acid  | 6.779         |
| 24     | Zolmitriptan   | 69.280        |
| 25     | R&D Product  | 58.610        |



# PART - B



Environmental Statement 2020 – 21  
Natco Pharma Limited-Chemical Division

PART – B

Water and Raw Material Consumption

i. Water Consumption (m<sup>3</sup>/day):

| S. No. | Description         | Average water consumption for the year 2020 – 2021 |                                     |                             | Consented Quantity (m <sup>3</sup> /day)                                   |
|--------|---------------------|--|-------------------------------------|-----------------------------|--|
|        |                     | Fresh Water (m <sup>3</sup> /day)                  | Recycle Water (m <sup>3</sup> /day) | Total (m <sup>3</sup> /day) |  |
| 01     | Process             | 38.7   | --                                  | 38.7                        | 165.0  |
| 02     | DM Regeneration     |  |                                     |                             | 10.0   |
| 03     | Boiler              | 40.7   | 13.8                                | 54.5                        | 120.0  |
| 04     | Cooling Towers      | --   | 107.1                               | 107.1                       | 480.0  |
| 05     | Scrubbers           | 31.2   | --                                  | 31.2                        | 20.0   |
| 06     | Washings            |  |                                     |                             | 80.0   |
| 07     | QC and R&D          |  |                                     |                             | 5.0  |
| 08     | Domestic            | 36.5   | --                                  | 36.5                        | 75.0   |
| 09     | Fire Hydrant System | 1.2  | 1.7                                 | 2.9                         | 5.0  |
| 10     | Gardening           | 30.1   | --                                  | 30.1                        | 165.0  |
|        | <b>Total</b>        | <b>178.4</b>                                       | <b>122.6</b>                        | <b>301.0</b>                | <b>1125.0</b><br><b>(Fresh water :763 +</b><br><b>Recycled water: 362)</b> |



**Environmental Statement 2020 – 21**  
**Natco Pharma Limited-Chemical Division**

| S. No. | Name of the Products manufactured for the year 2020 – 2021   | Process water consumption per unit of product output.                              |  |
|--------|--|--|--|
|        |  | During the previous financial year 2019 – 2020                                     | During the current financial year 2020 – 2021                                      |
| 01     | Anastrozole  | 2.776 KL / kg of product.<br><br>Products are being manufactured on campaign basis | 2.755 KL / kg of product.<br><br>Products are being manufactured on campaign basis |
| 02     | Apixaban   |  |  |
| 03     | Bosentan Monohydrate   |  |  |
| 04     | Chloroquine Phosphate  |  |  |
| 05     | Citalopram Hydrobromide  |  |  |
| 06     | Erlotinib HCl  |  |  |
| 07     | Ethyl-4-[5-(Bis(2-Hydroxyethyl)amino)-1-Methyl-1H-benzo[d]imidazole-2-yl] Butanoate (EIB-Intermediate of Bendamustine HCl) |  |  |
| 08     | Geftinib   |  |  |
| 09     | Glatiramer Acetate   |  |  |
| 10     | Granisetron Hydrochloride  |  |  |
| 11     | Ibandronate Sodium   |  |  |
| 12     | Imatinib Mesylate  |  |  |
| 13     | Lanthanum Carbonate Dihydrate  |  |  |
| 14     | Lapatinib Ditosylate Monohydrate   |  |  |
| 15     | Letrozole  |  |  |
| 16     | Nilotinib Hydrochloride Monohydrate  |  |  |
| 17     | Ondansetron Hydrochloride  |  |  |
| 18     | Regorafenib  |  |  |
| 19     | Rizatriptan benzoate   |  |  |
| 20     | Salmeterol Xinafoate   |  |  |
| 21     | Sorafenib Tosylate   |  |  |
| 22     | Teriflunomide  |  |  |
| 23     | Zoledronic acid  |  |  |
| 24     | Zolmitriptan   |  |  |
| 25     | R&D Product  |  |  |

**ii. Raw Material Consumption**

The industry has obtained consent for operation to manufacture 66 products in three groups A, B and C. Any given time a maximum of 15 products will be manufactured groups A, B and C. The details of raw materials consumed for the production during the year 2020-21 presented in **Annexure-1**.





# PART - C



**Environmental Statement 2020 – 21**  
**Natco Pharma Limited-Chemical Division**

**PART – C**

**(a) Pollution Discharged to environment / per unit of out put**  
**(Parameters as specified in the Consent issued)**

| <b>Pollutant</b>                           | <b>Average quantity of pollutants discharged mass / day (Recycled)</b> | <b>Concentrations of pollutants in discharges mass / volume (Recycled)</b> | <b>Percentage of variation from prescribed standards With reasons</b>   |
|--|--|--|---|
| <b>a) Water</b>                            | <b>Zero Liquid Discharge system</b>                                    |  |   |
| pH   | --   | 7.55   | <p>The unit adopts Zero Liquid Discharge concept for wastewater treatment and Recycling. All the parameters are with in the acceptable limits for recycling.</p> <p>Reports enclosed as <b>Annexure-2</b></p> |
| Total Dissolved Solids (TDS)               | 29.55 kgs  | 241.0 mg/L   |   |
| Total Suspended Solids (TSS)               | 0.34 kgs   | 2.8 mg/L   |   |
| Chemical Oxygen Demand (COD)               | 9.12 kgs   | 74.4 mg/L  |   |
| Biochemical Oxygen Demand (BOD@27°C)       | 1.83 kgs   | 14.9 mg/L  |   |
| Chlorides                                  | 8.04 kgs   | 65.6 mg/L  |   |
| Sulphates                                  | 2.84 kgs   | 23.2 mg/L  |   |
| Ammonical Nitrogen as NH <sub>3</sub> -N   | 2.78 kgs   | 22.7 mg/L  |   |
| Oil & Grease                               | 0.01 kgs   | 0.1 mg/L   |   |
| Hexavalent Chromium (as Cr <sup>+6</sup> ) | 0.004 kgs  | 0.03 mg/L  |   |
| Total Chromium as Cr                       | 0.01 kgs   | 0.1 mg/L   |   |
| Lead as Pb                                 | 0.01 kgs   | 0.1 mg/L   |   |
| Nickel as Ni                               | 0.01 kgs   | 0.1 mg/L   |   |
| Zinc as Zn                                 | 0.01 kgs   | 0.1 mg/L   |   |
| Cyanide as CN                              | 0.02 kgs   | 0.2 mg/L   |   |
| Arsenic as As                              | 0.02 kgs   | 0.2 mg/L   |   |
| Mercury as Hg                              | 0.01 kgs   | 0.1 mg/L   |   |
| Silica as SiO <sub>2</sub>                 | 0.17 kgs   | 1.4 mg/L   |   |
| Total Hardness as CaCO <sub>3</sub>        | 4.63 kgs   | 37.8 mg/L  |   |



| Pollutant   | Average concentrations of pollutants in discharges mass / volume | Percentage of variation from prescribed standards With reasons                               |
|---|--|--|
| <b>b) Air</b>   |  |  |
| <b>AAQ</b>  |  |  |
| Particulate Matter (PM-10) $\mu\text{g}/\text{m}^3$                       | 58.2 $\mu\text{g}/\text{m}^3$                                    | All parametrs are within the permissible Limits<br><br>Reports enclosed as <b>Annexure-2</b> |
| Particulate Matter (PM-2.5) $\mu\text{g}/\text{m}^3$                      | 25.4 $\mu\text{g}/\text{m}^3$                                    |  |
| Sulphur Dioxide ( $\text{SO}_2$ ) $\mu\text{g}/\text{m}^3$                | 10.5 $\mu\text{g}/\text{m}^3$                                    |  |
| Oxides of Nitrogen ( $\text{NO}_2$ ) $\mu\text{g}/\text{m}^3$             | 20.4 $\mu\text{g}/\text{m}^3$                                    |  |
| Ammonia ( $\text{NH}_3$ ) $\mu\text{g}/\text{m}^3$                        | 7.3  |  |
| Carbon Monoxide (CO) $\mu\text{g}/\text{m}^3$                             | 0.9  |  |
| Ozone ( $\text{O}_3$ ) $\mu\text{g}/\text{m}^3$                           | 13.0   |  |
| Lead (pb) $\mu\text{g}/\text{m}^3$  | 0.8  |  |
| Nickel (Ni) $\text{ng}/\text{m}^3$  | 5.0  |  |
| Arsenic (As) $\text{ng}/\text{m}^3$                                       | 5.2  |  |
| Benzo (a) pyrene (BaP)-particulate phase only- ( $\text{ng}/\text{m}^3$ ) | 0.8  |  |
| Benzene ( $\text{C}_6\text{H}_6$ ) $\mu\text{g}/\text{m}^3$               | 4.2  |  |



| Pollutant  | Average concentrations of pollutants in discharges mass / volume   | Percentage of variation from prescribed standards With reasons              |
|--|--|---|
| <b><u>Incinerator Stack Emissions</u></b>                |  |   |
| Particulate Matter (PM) mg/Nm <sup>3</sup>               | As a part of environmentally sound engineering practice, Incinerable organic wastes sendig to cement industry for coprocessing and AFRF fallowed by Co processing at GEPIL & TSDF Ramky. Hence onsite incinerator not using for disposal of incinerable hazardous wastes (Incienrator is in working codition. Can be operational at any point of time as and when required). | --  |
| Sulphur Dioxide (SO <sub>2</sub> ) mg/Nm <sup>3</sup>    |  |   |
| Oxides of Nitrogen (NO <sub>x</sub> ) mg/Nm <sup>3</sup> |  |   |
| Carbon Monoxide (CO) mg/Nm <sup>3</sup>                  |  |   |
| HCl mg/Nm <sup>3</sup>                                   |  |   |
| Total Organic Compound (TOC) mg/Nm <sup>3</sup>          |  |   |
| HF mg/Nm <sup>3</sup>                                    |  |   |
| Carbon Dioxide (CO <sub>2</sub> ) mg/Nm <sup>3</sup>     |  |   |
| <b><u>Boiler Stack Emissions</u></b>                     |  |   |
| Particulate Matter (PM)                                  | 49.6 mg/Nm <sup>3</sup>  | Within the permissible limitss<br><br>Reports enclosed as <b>Annexure-2</b> |
| Sulphur Dioxide (SO <sub>2</sub> )                       | 168.1 mg/Nm <sup>3</sup>   |   |
| Oxides of Nitrogen (NO <sub>x</sub> )                    | 154.2 mg/Nm <sup>3</sup>   |   |
| <b><u>D.G. Sets Stack Emissions</u></b>                  |  |   |
| Particulate Matter (PM)                                  | 44.5 mg/Nm <sup>3</sup>  | Within the permissible limits<br><br>Reports enclosed as <b>Annexure-2</b>  |
| Sulphur Dioxide (SO <sub>2</sub> )                       | 110.6 mg/Nm <sup>3</sup>   |   |
| Oxides of Nitrogen (NO <sub>x</sub> )                    | 139.9 mg/Nm <sup>3</sup>   |   |
| Non Methane Hydrocarbons                                 | 13.8 mg/Nm <sup>3</sup>  |   |
| Carbon Monoxide (CO)                                     | 42.0 mg/Nm <sup>3</sup>  |   |



# PART - D





**Environmental Statement 2020 – 21**  
**Natco Pharma Limited-Chemical Division**

**PART – D**  
**Hazardous Wastes**

[As specified under Hazardous and Other Wastes (Management, Handling and Transboundary Movement) Rules, 2016 and amendments thereof]

| Hazardous Waste  | Total Quantity (Tons)                        |   |  |
|--|--|---|--|
|  | During the Previous Financial year 2019-2020 | During the current Financial year 2020-2021 | Consent quantity as per CFO Order No. 200522472438, dated 21.07.2020 |
| <b>Generation</b>  |  |   |  |
| <b>a) From Process</b>   |  |   |  |
| Spent Carbon   | 16.221                                       | 22.634                                      | 216.000  |
| Process Organic Residue  | 37.328                                       | 45.543                                      | 2062.800   |
| Distillation Residues  | 91.812                                       | 97.612                                      | 180.000  |
| Inorganic & Evaporation Salts (Process & Non-Process)  | 693.881                                      | 924.217                                     | 5158.800   |
| Spent Hydrobromic Acid   | 26.470                                       | 9.372                                       | 428.400  |
| Spent Succinamide  | --   | 22.811                                      | 126.000  |
| Gypsum   | --   | 144.570                                     | 455.000  |
| Spent Solvents   | 5735.418                                     | 6850.779                                    | 66600.000 KL   |
| Recovered Spent Solvents   | 5291.012                                     | 6271.008                                    | 63000.000 KL   |
| Spent Mixed Solvents   | 346.410                                      | 451.286                                     | 2880.000 KL  |
| Waste Oils & Grease  | 1.535 KL<br>(With moisture content)          | 2.680 KL<br>(With moisture content)         | 10.000 KL  |
| Rejects (Off specification / date expired / rejected raw materials / chemicals / intermediates / APIs) | --   | 0.125                                       | 72.000   |
| Detoxified Containers / Liner drums, HDPE Carboys, Fiber drums and PP Bags                             | 474 Nos.                                     | 623 Nos.<br>(1.240 Tons)                    | 18000 Nos.   |
| Used Insulation waste  | --   | 11.380                                      | 25.200   |
| Used Thermo Cole waste   | --   | 0.530                                       | 7.200  |
| HDPE & PP Scrap  | --   | 13.135                                      | 72.000   |
| <b>b) From Pollution Control Facilities</b>  |  |   |  |
| ETP Sludge   | 306.100                                      | 188.575                                     | 1800.000   |
| <b>c) Others</b>   |  |   |  |
| <b>Bio-Medical waste</b>   |  |   |  |
| 1. Yellow Category – MBL waste   | --   | 3147.0 kgs.                                 | 7200.000 kgs.  |
| 2. White Category – Occupational Health Center waste   | --   | 172.295 kgs.                                | 36.000 kgs.  |
| 3. Yellow Category – Occupational Health Center waste  | --   | 235.055                                     | 108.000 kgs.   |
| E-Waste  | 2.520  | 0.709                                       | 3.600  |



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| Hazardous Waste  | Total Quantity (Tons)                        |   |  |
|--|--|---|--|
|  | During the Previous Financial year 2019-2020 | During the current Financial year 2020-2021 | Consent quantity as per CFO Order No. 200522472438, dated 21.07.2020 |
| <b>Disposal</b>  |  |   |  |
| <b>a) From Process</b>   |  |   |  |
| Spent carbon (Cement Industry).  | 19.415                                       | 10.050                                      |  |
| Spent carbon (AFRF-HWMP).  | --   | 11.750                                      |  |
| Spent carbon (In-house WHRU).  | --   | 5.000                                       |  |
| Process Organic Residue (Cement Industry)  | 60.365                                       | 25.870                                      |  |
| Process Organic Residue (AFRF-HWMP)  | --   | 9.820                                       |  |
| Process Organic Residue (In-house WHRU)  | --   | 2.000                                       |  |
| Distillation Residues (Cement Industry).   | 55.655                                       | 118.080                                     |  |
| Distillation Residues (AFRF-HWMP)  | Nil  | 5.000                                       |  |
| Inorganic & Evaporation Salts (Process & Non-Process) to TSDF  | 697.965                                      | 909.380                                     |  |
| Spent Hydrobromic Acid (Recyclers)   | 27.885                                       | 6.040                                       |  |
| Spent Succinamide (Manufacturer)   | --   | 21.006                                      |  |
| Gypsum (Cement Industry)   | --   | 138.750                                     |  |
| Recovered Spent Solvents (Recyclers)   | 2914.905                                     | 3582.216                                    |  |
| Recovered Spent Solvents (re-used in process)  | 2365.639                                     | 2615.668                                    | --   |
| Spent Mixed Solvents (Cement Industry).  | 405.125                                      | 445.160                                     |  |
| Spent Mixed Solvents (In-house WHRU)   | --   | 15.000                                      |  |
| Spent Solvents (Taken for Recovery at SRP)   | 5735.418                                     | 6850.779                                    |  |
| Waste Oils & Grease  | 1.130 KL                                     | 3.095 KL                                    |  |
| Rejects (Off specification / date expired / rejected raw materials / chemicals / intermediates / APIs) | --   | 124.923 kgs.                                |  |
| Detoxified Containers / Liner drums, HDPE Carboys, Fiber drums and PP Bags                             | 426 Nos.                                     | 368 Nos.<br>(0.710 Tons)                    |  |
| Used Insulation waste to TSDF (TSDF)   |  | 11.380                                      |  |
| Used Thermo Cole waste (AFRF)  |  | 0.350                                       |  |
| HDPE & PP Scrap (AFRF)   | --   | 8.815                                       |  |
| PP Bags (Used for evaporation packing)   | --   | 0.380                                       |  |
| Spent Raney Nickel Catalyst  | 2.230  | --  |  |
| Spent Aluminium Chloride   | 34.835                                       | --  |  |



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| <b>b) From Pollution Control Facilities</b>           |         |               |  |
|---|---------|---------------|--|
| ETP sludge (TSDf)                                     | 232.390 | 297.970       |  |
| <b>c) Others</b>                                      |         |               |  |
| <b>Bio-Medical waste</b>                              |         |               |  |
| 1. Yellow Category – MBL waste                        | --      | 3136.000 kgs. |  |
| 2. White Category – Occupational Health Center waste  | --      | 172.025 kgs.  |  |
| 3. Yellow Category – Occupational Health Center waste | --      | 234.795 kgs.  |  |
| E-Waste   | 1.630   | 2.310         |  |



# **PART - E**



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**Natco Pharma Limited-Chemical Division**

**PART – E**

**Solid Wastes**

| Source of solid waste  | During the Previous Financial year 2019-2020 | During the current Financial year 2020-2021 | Consent quantity as per CFO Order No. 200522472438, dated 21.07.2020 |
|--|--|---|--|
|  | <b>Quantity (Tons)</b>                       |   |  |
| <b>a) From process</b>   |  |   |  |
| Spent Carbon   | 16.221                                       | 22.634                                      | 216.000  |
| Process Organic Residue  | 37.328                                       | 45.543                                      | 2062.800   |
| Inorganic & Evaporation Salts (Process & Non-Process)  | 693.881                                      | 924.217                                     | 5158.800   |
| Spent Succinamide  | --   | 22.811                                      | 126.000  |
| Gypsum   | --   | 144.570                                     | 455.000  |
| Rejects (Off specification / date expired / rejected raw materials / chemicals / intermediates / APIs) | --   | 0.125                                       | 72.000   |
| Detoxified Containers / Liner drums, HDPE Carboys, Fiber drums and PP Bags                             | 474 Nos.                                     | 623 Nos.<br>(1.240 Tons)                    | 18000 Nos.   |
| Used Insulation waste  | --   | 11.380                                      | 25.200   |
| Used Thermo Cole waste   | --   | 0.530                                       | 7.200  |
| HDPE & PP Scrap  | --   | 13.135                                      | 72.000   |
| <b>b) Form pollution control facility</b>  |  |   |  |
| ETP sludge   | 306.100                                      | 188.575                                     | 1800.00  |
| <b>Others</b>  |  |   |  |
| <b>Bio-Medical waste</b>   |  |   |  |
| 4. Yellow Category – MBL waste   | --   | 3147.0 kgs.                                 | 7200.000 kgs.  |
| 5. White Category – Occupational Health Center waste   | --   | 172.295 kgs.                                | 36.000 kgs.  |
| 6. Yellow Category – Occupational Health-Center waste  | --   | 235.055                                     | 108.000 kgs.   |
| E-Waste  | 2.520  | 0.709                                       | 3.600  |



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|    |   |          |                          |  |
|----|---|----------|--------------------------|--|
| c) | 1) Quantity recycled or re – utilized within the unit.  | Nil      | Nil                      |  |
|    | 2) Sold   | Nil      | Nil                      |  |
|    | <b>3) Disposed</b>  |          |                          |  |
|    | Spent carbon (Cement Industry).   | 19.415   | 10.050                   |  |
|    | Spent carbon (AFRF-HWMP)  | --       | 11.750                   |  |
|    | Spent carbon (In-house WHRU)  | --       | 5.000                    |  |
|    | Process Organic Residue (Cement Industry)   | 60.365   | 25.870                   |  |
|    | Process Organic Residue (AFRF-HWMP)   | --       | 9.820                    |  |
|    | Process Organic Residue (In-house WHRU)   | --       | 2.000                    |  |
|    | Inorganic & Evaporation Salts(Process & Non-Process)  | 697.965  | 909.380                  |  |
|    | Spent Succinamide (Manufacturer)  | --       | 21.006                   |  |
|    | ETP sludge  | 232.390  | 297.970                  |  |
|    | Gypsum (Cement Industry)  | --       | 138.750                  |  |
|    | Rejects (Off specification / date expired / rejected raw materials / chemicals / intermeiates / APIs) | --       | 124.923 kgs.             |  |
|    | Detoxified Containers / Liner drums, HDPE Carboys, Fiber drums and PP Bags                            | 426 Nos. | 368 Nos.<br>(0.710 Tons) |  |
|    | Used Insulation waste to TSDF (TSDF)  |          | 11.380                   |  |
|    | Used Thermo Cole waste (AFRF)   |          | 0.350                    |  |
|    | HDPE & PP Scrap (AFRF)  | --       | 8.815                    |  |
|    | PP Bags (Used for evaporation packing)  | --       | 0.380                    |  |
|    | Spent Raney Nickel Catalyst   | 2.230    | --                       |  |
|    | <b>Bio-Medical waste</b>  |          |                          |  |
|    | 4. Yellow Category – MBL waste  | --       | 3136.000 kgs.            |  |
|    | 5. White Category – Occupational Health Center waste  | --       | 172.025 kgs.             |  |
|    | 6. Yellow Category – Occupational Health Center waste   | --       | 234.795 kgs.             |  |
|    | E-Waste   | 1.630    | 2.310                    |  |



# **PART – F**



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## Natco Pharma Limited-Chemical Division

### PART – F

Please specify the characterizations (in terms of composition of quantum) of hazardous as well as solid wastes and indicate disposal practice adopted for both these categories of wastes.

#### HAZARDOUS WASTE:

The total amount of hazardous waste generated during the year 2020 – 21 is 1765.729 Tons. Hazardous wastes segregated based on the characteristics of the wastes such as Spent Carbon, Distillation Residue, Process Organic Residue, Spent Solvents, Spent Mixed Solvents, ETP Sludge and Inorganic & Evaporation Salts.

Spent Carbon and Process Organic Residue collected in HDPE bags from process, stored in covered shed and then disposed to cement plants for co-processing.

Distillation Residue and Spent Mixed Solvents collected in HDPE drums, stored in covered shed and then disposed to cement plants for co-processing / GGEPIL for pre-processing followed by co-processing in cement kilns.

Evaporation Salt generated from ATFD, collected in HDPE Bags, stored in covered shed and disposed to TSDf for secured landfill.

Inorganic Salts collected in HDPE bags from production blocks, stored in covered shed and then disposed to TSDf for secured landfill.

ETP Sludge generated from effluent treatment system is collected in HDPE bags, stored in covered shed and then disposed to TSDf for secured landfill.

#### 2. SOLID WASTE (NON-HAZARDOUS):

Generation of Non-hazardous solid wastes is in the form of fly ash, packaging material, paper & paperboard waste etc. Fly ash is being disposed off to brick manufacturers. Packing materials after detoxification sent to outside agencies for recycling. The Paper and paperboard waste sent to ITC Limited through Nish Elgha Technologies Pvt.Ltd authorised agency for recycling.



# **PART - G**



## Environmental Statement 2020 – 21

### Natco Pharma Limited-Chemical Division

#### PART – G

#### **Impact of pollution abatement measures taken on conservation of natural resources and on the cost of production:**

Installed 3.25 MW solar power plant for captive consumption, which in turn will reduce the grid power consumption. Hence, the proportionate quantity of CO<sub>2</sub> emissions (generated during the generation of grid power from fossil fuels) minimized. Solar power purchase agreement made with the renewable energy generators. Achieved 39.8% of plant power demand meeting from renewable energy sources (from onsite solar power plant & through solar power purchase agreements). Rainwater harvested to the maximum possible extent. Wastewater treated in ZLD plant and recycled to reduce the freshwater consumption. Installed High-pressure RO-2 for reduce load on MEE (Multi Effect Evaporator). Spent sulphuric acid segregated and converted into gypsum and sold as a raw material to cement industries. Spent catalysts segregated and sent back to manufacturers for reprocessing. ETP sludge after dewatering (by using sludge decanter) is passed through Sludge dryer to bring down the moisture content to less than 15% there by reduces volume of sludge sent to landfills and the corresponding transportation related GHG emissions will be reduced. Enhanced the ETP – ZLD capacity and obtained the EC, CFE & CFO for the enhanced capacities (Expansion activity for enhancement of production capacity).





# PART - H



## Environmental Statement 2020 – 21

### Natco Pharma Limited-Chemical Division

#### PART – H

#### **Additional measures/investment proposal for environmental protection including abatement of pollution, prevention of pollution.**

“Eco Forest” a new afforestation project launched by Natco – Mekaguda unit using “Miyawaki concept” invented and named after Japanese botanist Akira Miyawaki a unique technique to grow multi-layered dense forests with native species.

“Eco Forest is developed in an area of about 3000sq.mts area with 7600 plants of 45 varieties of native species within the premises and another 500sq.mts area with 1800plants with 45 varieties of native species along the south side boundary towards the village and 300 plants newly planted in 2020-21 at ETP operation area.

Under this concept, number of native species planted in this area close to each other (at 60cm distance between plants). The plant growth is 10 times faster and the resulting plantation is 30 times denser than usual. This will lead to co-existence of plants and in fact each plant draws from the other vital nutrients and they grow to become strong and healthy and becomes maintenance-free after the first two years. A substantial decrease in noise and dust control and more Carbon-dioxide absorption as compared to conventional forest.



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***Photographs of the Eco-Forest (24months old)***





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Newly developed Greenbelt at Effluent treatment area in 2020-21





# **PART - I**



# Environmental Statement 2020 – 21

## Natco Pharma Limited-Chemical Division

### PART – I

#### The proposed projects for improving the quality of the Environment:

Proposed to install “MMIC based semi automation system” for close monitoring of ETP operations seamlessly.

Proposed to install water efficient fixtures at all washing areas (toilets, canteen & employees change rooms) to conserve water.

Established solvent management team to sensitize all the users in the blocks for effective usage of solvents in a safer and environmentally conscious manner.

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