## F.No.15018/01/2013-CPW Government of India Ministry of Environment, Forest and Climate Change (CP Division)

Agni-233, Indira Paryavaran Bhavan, Jor Bagh Road, New Delhi – 110 003. Dated, the 26 March, 2019

To

M/s Metamorphosis Laboratory Private Limited "Prakruti Bhavan", #200

1st & 2nd Floor, 1st Cross 40th Main
Behind Central Silk Board, BTM Layout II Stage
Bengaluru-560068, Karnataka

Subject: - Recognition of M/s Metamorphosis Laboratory Private Limited, Prakruti Bhavan, #200, 1st & 2nd Floor, 1st Cross 40th Main Behind Central Silk Board, BTM Layout II Stage, Bengaluru-560068, Karnataka, as Environmental Laboratory under the Environment (Protection)Act. 1986.

Sir.

I am directed to refer to your application dated: 17.07.2017 for recognition of your laboratory under Environment (Protection) Act, 1986. Based on the recommendations of the Expert Committee for Recognition of Environmental Laboratories in its 57<sup>th</sup> meeting held on 27<sup>th</sup> February, 2019 and your acceptance of the revised terms and conditions at Annexure-III & IV of the Guidelines for recognition of Environmental Laboratories, this Ministry approves the recognition of M/s Metamorphosis Laboratory Private Limited, Prakruti Bhavan, #200, 1st & 2<sup>nd</sup> Floor, 1st Cross 40<sup>th</sup> Main Behind Central Silk Board, BTM Layout II Stage, Bengaluru-560068, Karnataka for five years, as shall be notified in the Gazette of India.

2. As sought in your aforementioned application M/s M/s Metamorphosis Laboratory Private Limited, Bengaluru may undertake the following tests:

- Physical Tests: Conductivity, Colour, pH, Fixed & volatile solids, Total solids, Total dissolved solids, Total suspended solids, Turbidity, Temperature, Velocity & discharge measurement of industrial effluent stream, Flocculation Test (Jar Test), Odour, Salinity and Settleable solids.
- Inorganic (General & Non-metallic): Acidity, Alkalinity, Ammonical nitrogen, Chloride, Chlorine residual, Dissolved oxygen, Fluoride, Total hardness, Total kjehldal nitrogen (TKN), Nitrite nitrogen, Nitrate nitrogen, Phosphate, Sulphate, Carbon dioxide, Chlorine, Iodine, Sulphite, Silica, Cyanide and Sulphide.
- iii. Inorganic (Trace metals): Boron, Cadmium, Calcium, Chromium Total, Chromium Hexavalent, Copper, Iron, Lead, Magnesium, Mercury, Nickel, Potassium, Sodium, Sodium absorption ratio, Zinc, Arsenic, Aluminium, Beryllium, Barium, Lithium, Manganese, Selenium, Silver, Strontium, Tin, Antimony and Cobalt.
- iv. Organics (General) and Trace Organics: Bio-chemical oxygen demand (BOD), Chemical oxygen demand (COD), Oil & grease, Phenol, Pesticide ((Organo-chlorine, Organo nitrogen-phosphorous), Total organic carbon(TOC), Tannin & lignin, Poly-chlorinated biphenyl (PCB's), Polynuclear aromatic hydrocarbon (PAH) each and Organic Carbon (in Solid).
- Microbiological: Total coliform, Faecal Coliform, Faecal streptococci, E. coli and Total Plate Count.
- vi. Toxicological Tests: Bioassay method for evaluation of toxicity using fish after 96 hrs and Measurement of toxicity using Daphnia, Measurement of toxicity factor using Zebra fish.
- vii. Biological Tests: Macrophytic identification, Chlorophyll and Primary productivity.
  - Soil/ Sludge/ Sediment and Solid Waste: Boron, Cation Exchange Capacity (CEC), Electrical Conductivity, Nitrogen available, Organic carbon/ matter (chemical method), pH, Phosphorous (available), Phosphate (ortho), Phosphate (total), Potassium, SAR in soil extract, Sodium, Soil moisture, TKN, Ammonia, Bicarbonate, Calcium, Calcium carbonate, Chloride, Colour, Exchangeable sodium percentage(ESP), Gypsum requirement, H. Acid, Heavy metal, Magnesium,

0/o Director (PJW)

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Date \$\frac{1}{26} \frac{1}{26} \frac{1}{2

- Nitrate, Nitrite, PAH, Pesticide, Potash (available), Sulphate, Sulphur, TOC, Total water soluble salt and Water holding capacity.
- ix. Ambient Air/ Fugitive Emissions: Nitrogen dioxide as NO2, Sulphur dioxide (SO2), Total suspended particulate matter, Respirable suspended particulate matter, Ammonia, Carbon monoxide, Non methane hydrocarbon, Lead, Methane, Ozone, Benzene Toluene Xylene (BTX), Polycyclic aromatic hydrocarbon (PAH) Benzo-a-pyrine & others, PM2.5, Volatile Organic Carbon.
- x. Stack Gases/ Source Emission: Particulate matter, Sulphur dioxide, Velocity & flow, Carbon dioxide, Carbon monoxide, Temperature, Oxygen, Oxides of nitrogen, Acid mist, Ammonia, Chlorine, Hydro-chloric acid, Total Hydro carbon, Hydrogen Sulphide and Mercaptan.
- xi. Noise Level: Noise level measurement (20 to 140 dba) and Ambient noise & source specific noise.
- xii. **Meteorological:** Ambient temperature, Wind direction, Wind speed, Relative Humidity, Solar radiation and Rain fall.
- 3. Further, the following analysts have been approved for recognition as Government Analysts.
  - (i) Dr. Shanth A Thimmaiah
  - (ii) Mr. Sreekantan Nair. P
  - (iii) Mr. Suresh Babu H.S
- 4. The laboratory shall compulsorily participate in the Analytical Quality Control (AQC) exercise conducted by the Central Pollution Control Board (CPCB) at least once a year to ascertain the capability of the laboratory and analyses carried out and shall submit quarterly progress reports to this Ministry.
- 5. Periodic surveillance of the recognized environmental laboratory will be undertaken by this Ministry/CPCB to assess its proper functioning, systematic operation and reliability of data generated at the laboratory.
- 6. It is also mandatory for the laboratory to have requisite accreditations of the NABL/ ISO 9001 and OHSAS and its renewal as per accreditation rules. Permission in para 2 above is subject to such accreditations and renewal, as applicable.
- 7. The laboratory should compulsorily follow the accepted Terms & Conditions. In case of serious non-compliance of any of the Terms and Conditions, the laboratory may be black-listed for a minimum period of two years and civil/ criminal proceedings, as applicable, may be initiated for performing functions on behalf of the Government in an unauthorized manner.

Yours faithfully,

(Dr. Susan George K.) Scientist 'D'

Scientist 'D' Tel. No. 011-24695327

Email: susan.george@nic.in

Copy to:

- Member Secretary, Central Pollution Control Board, Parivesh Bhawan, East Arjun Nagar, New Delhi – 110032.
- 2. Member Secretary, Karnataka State Pollution Control Board "Parisara Bhavan", #49,4th & 5th Floor, Church Street, Bangalore-560001
- Additional Principal Chief Conservator of Forests (C), Ministry of Environment, Forest and Climate Change, Regional Office (SZ), Kendriya Sadan, 4<sup>th</sup> Floor, E&F Wings, 17<sup>th</sup> Main Road, Koramangala II Block, Bangalore – 560034
- 4 Director, IT Division, MoEF&CC, New Delhi-110003: for uploading on MoEF&CC website