F.No.15018/29/2018-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 7th June,2019

To

M/s Shriram Institute for Industrial Research
(A unit of Shriram Scientific and Industrial Research Foundation)
19 University Road
Delhi-110007

Subject: - Recognition of M/s Shriram Institute for Industrial Research (A Unit of Shriram Scientific and Industrial Research Foundation), 19 University Road, Delhi-110007 as Environmental Laboratory under the Environment (Protection)Act. 1986.

Sir,

I am directed to refer to your application dated: 29.03.2018 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 59th meeting held on 22th April, 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 Shriram Institute for Industrial Research (A Unit of Shriram Scientific and Industrial Research Foundation), 19 University Road, Delhi-110007 for five years, as shall be notified in the Gazette of India.

2. As sought in your aforementioned application M/s Shriram Institute for Industrial Research, Delhi may undertake the following tests:

i. **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, Settleable solids and Sludge volume index(SVI).

ii. **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, Bromide, Carbon dioxide, Chlorine demand, 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, Cobalt and Vanadium.

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, Adsorbable organic halide, Surfactants, Tannin & lignin, Poly-chlorinated biphenyl (PCB's) each, Polynuclear aromatic hydrocarbon (PAH) each, Organic Carbon (in Solid) and Carbon/Nitrogen ratio.

v. **Microbiological:** Total coliform, Faecal Coliform, Faecal streptococci, E. coli, Total Plate Count, Enterococcus and Coliphage.

vi. **Toxicological Tests:** Bioassay method for evaluation of toxicity using fish after 96 hrs., Bio-accumulation, bio magnification and bio-transformation studies, Estimation of the effect at tissue level, Measurement of toxicity using Daphnia or other organism and Measurement of toxicity factor using zebra fish.

vii. **Biological Tests:** Benthic organism identification and count, Macrophytic identificatiton, Planktonic identification count, Measurement of various diversity index, Saprobity index, Chlorophyll, Primary productivity and P/R Ratio.

viii. **Hazardous Waste:** Preparation of Leachate (TCLP extract/water extract), Corrosivity, Ignibility (Flash Point), Ractivity, Toxicity and Measurement of heavy metals/pesticides in the waste/ leachate.

ix. **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, Calorific value,

Ammonia, Bicarbonate, Calcium, Calcium carbonate, Chloride, Colour, Exchangeable sodium percentage, Gypsum requirement, H.Acid, Heavy metal, Magnesium, Mechanical soil analysis, Nitrate, Nitrite, PAH, Pesticide, Potash (available), Sulphate, Sulphur, TOC, Total water soluble salt and Water holding capacity.

x. **Ambient Air/ Fugitive Emissions:** Nitrogen dioxide as NO2, Sulphur dioxide (SO2), Total suspended particulate matter, Respirable suspended particulate matter, Ammonia, Carbon monoxide, Chlorine, Fluoride, Non methane hydrocarbon, Lead, Methane, Ozone, Benzene Toluene Xylene (BTX), Polycyclic aromatic hydrocarbon (PAH) Benzo-a-pyrine & others, $PM_{2.5}$ and Volatile organics Carbon .

xi. **Stack Gases/ Source Emission:** Particulate matter, Sulphur dioxide, Velocity & flow, Carbon dioxide, Carbon monoxide, Temperature, Oxygen, Oxides of nitrogen, Acid mist, Ammonia, Chlorine, Fluoride (Particulate), Fluoride(Gaseous), Hydro-chloric acid, Total Hydro Carbon, Hydrogen Sulphide , Carbon disulphide and Mercapton.

xii. **Noise Level:** Noise level measurement (20 to 140 dba) and Ambient noise & source specific noise.

xiii. **Meteorological:** Ambient temperature, Wind direction, Wind speed, Relative Humidity, Solar radiation and Rain fall.

xiv. **Vehicular Emission Monitoring:** Carbon monoxide, Smoke Density, Hydrocarbon and Oxides of Nitrogen.

3. Further, the following analysts have been approved for recognition as Government Analysts.
   (i) Dr. V.K. Verma
   (ii)) Dr. Jagdish Kumar
   (iii) Dr. Mukesh Garg

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,

Susan

(Dr. Susan George K.)
Scientist 'D'
Tel. No. 011-24695327
Email: susan.george@nic.in

Copy to:

1. Member Secretary, Central Pollution Control Board, Parivesh Bhawan, East Arjun Nagar, New Delhi – 110032.
2. Member Secretary, Delhi Pollution Control Committee, 4th & 5th Floor, ISBT Building, Kashmere Gate, New Delhi, Delhi 110006.
3. Additional Principal Conservator of Forests (C), Ministry of Environment, Forest and Climate Change, Regional Office (CZ), Kendriya Bhawan, 5th Floor, Sector H, Aliganj, Lucknow-226020.
4. Director, IT Division, MoEF&CC, New Delhi-110003: for uploading on MoEF&CC website