F. No. Q-15018/41/2017-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 9th March, 2020

То

M/s The Research Institute of Material Sciences Plot No. 22 & 23, Ranaji Enclave, Nangli Sakrawati, Near Dwarka Morh New Delhi-110043

Subject: -Recognition of M/s The Research Institute of Material Sciences, Plot No. 22 & 23, Ranaji enclave, Nangli, Sakrawati, Near Dwarka Morh, New Delhi-110043 as Environmental Laboratory under the Environment (Protection) Act. 1986.

Sir,

I am directed to refer to your application dated:01.08.2017 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 61st meeting held on 03.12.2019 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 renewal of recognition of M/s The Research Institute of Material Sciences, Plot No. 22 & 23, Ranaji enclave, Nangli, Sakrawati, Near Dwarka Morh, New Delhi-110043, as shall be notified in the Gazette of India. Considering the current validity of mandatory accreditations/certifications of the laboratory, this renewal shall be valid up to 10.12.2021.

2. As sought in your aforementioned application M/s The Research Institute of Material Sciences, New Delhi, 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, Settleable solids and Sludge volume index (SVI).
 - 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.
 - Inorganic (Trace metals): Boron, Cadmium, Calcium, Chromium Total, Chromium Hexavalent, Copper, Iron, Lead, Magnesium, Mercury, Nickel, Potassium, Sodium, Sodium absorption ratio, Zinc, Arsenic, Aluminium, Lithium, Manganese, Selenium, Silver, Tin and Vanadium.
 - **Organics (General) and Trace Organics:** Bio-chemical oxygen demand (BOD), Chemical oxygen demand (COD), Oil & grease, Phenol, Pesticide ((Organo-chlorine, Organo nitrogen-phosphorous), Surfactants, Tannin & lignin, Polynuclear aromatic hydrocarbon (PAH) each, Organic Carbon (in solid) and Carbon/Nitrogen ratio.
 - Microbiological Tests: Total Coliform, Faecal Coliform, Faecal streptococci, E. coli, Total Plate count and Enterococcus.
- I. **Toxicological Tests:** Bioassay method for evaluation of toxicity using fish and Measurement of toxicity factor using zebra fish.
- VII. **Biological Tests:** Benthic organism identification and count, Macrophytic identification, Planktonic identification count, Measurement of various diversity index and Chlorophyll.
- VIII. **Hazardous Waste:** Preparation of Leachate (TCLP extract/water extract), Corrosivity, Ignibility (Flash point), Reactivity, 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

en cent ٧I.

(available), Phosphate (ortho), Phosphate (total), Potassium, SAR in soil extract, Sodium, Soil moisture, TKN, Calorific value, Ammonia, Bicarbonate, Calcium, Calcium carbonate, Chloride, Colour, Heavy metal, Magnesium, Mechanical Soil Analysis, Nitrate, Nitrite, PAH, Pesticide, Potash (availbale), Sulphate, Sulpher, TOC, Total water soluble salt and Water holding capacity.

- X. Ambient Air/ Fugitive Emissions: Nitrogen dioxide (NO₂), Sulphur dioxide (SO₂), Total Suspended particulate matter, Respirable suspended particulate matter (PM₁₀), Ammonia, Carbon monoxide, Chlorine, Fluoride, Non methane hydrocarbon, Lead, Methane, Ozone, Benzene Toluene Xylene (BTX), Polycyclic aromatic hydrocarbon (PAH) Benzopyrine & other, PM_{2.5}.
- 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,
- XII. Noise Level: Noise level measurement (20 to 140 dba)), Ambient Noise & Source-specific Noise.
- XIII. Meteorological Monitoring: Ambient Temperature, Wind direction, Wind speed, Relative Humidity and Rain Fall.
- 3. Further, the following analysts have been approved for recognition as Government Analysts.
 - (i) Mr. Umashanker Sain
 - (ii) Mr. Ajay Kumar
 - (iii) Mr. Sumit Kumar

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. This recognition is subject to such accreditations and renewal, as applicable. The laboratory may approach this Ministry for further extension of validity of recognition after renewal of the mandatory accreditations/ certification concerned. Such application for extension of validity may be submitted to this Ministry in due advance, preferably before 6 months.

7. The laboratory should compulsorily follow the accepted Terms & Conditions. In case of serious noncompliance 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' 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, Delhi Pollution Control Board, 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