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Validity 05.03.2018 to 04.03.2020 Last Amended on --

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CHEMICAL TESTING

| I. | FOOD & AGRICULTURAL PRODUCTS | | | |
|----|------------------------------------------------------------------------------------|-------------------------|--------------------------------------------------------------------------------------------------------------|-----------------------------------------------------|
| 1. | Dairy & Dairy Products (Raw & Processed | Moisture | FSSAI Manual-Milk and Milk Product-2016.10.2 pp 86-87 | 0.5 g/100g to 95 g/100g |
| | Milk, Curd, Paneer, Cheese, Dairy Based confectioneries Evaporated / Condensed | Total Ash | AOAC Chapter 33 945.46/IS:1165 (Gravimetric Method)/ FSSAI Manual-Milk and Milk Product.10.7 pp 90-91 | 0.2 g/100g to 10 g/100g |
| | Butter, Ice cream and other dairy products, Infant | Ash insoluble in DilHCl | FSSAI Manual-Milk and Milk Product.10.8 pp 91-92 | 0.1 g/100g to 5 g/100g |
| | milk food) | Protein Fat | AOAC Chapter 33 -991.20. IS:11721 (Gravimetric Method)/ FSSAI Manual-Milk and Milk Product. 1.3.4.2 pp 41-43 | 0.5 g/100g to 80 g/100g 0.5 g/100g to 100 g/100g |
| | | Titrable Acidity | FSSAI Manual-Milk and Milk Product. 10.4 pp 88- 89 | 0.1 g/100g to 40 g/100g |
| | | PH | IS: 3507 (Potentiometric Method). | 1 unit to 14 unit |
| 2. | Fruits and vegetable products - (Fresh and thermally processed fruit and vegetable | Moisture | AOAC Chapter 42 - 984.25./FSSAI Manual- Fruits and Vegetable Products-2016. 4.1 pp 34-35 | 0.5 g/100g to 95 g/100g |

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| | product, canned fruit, fruit concentrate, | Total Ash | FSSAI Manual-Fruits and Vegetable Products- 2016.11.3 pp 41-42 | 0.5 g/100g to 15 g/100g |
| | pulps, purees, Beverages, Tomato ketchup, | Ash insoluble in DilHCl | FSSAI Manual-Fruits and Vegetable Products. 5.3 pp 35-36 | 0.1 g/100g to 5 g/100g |
| | Sauce, Culinary Paste, Carbonated fruit Beverages, Drink, Pickles, Jam, Jelly) | Acidity as acetic acid | IS:2860 (Titration method)/ FSSAI Manual-Fruits and Vegetable Products. 2.4 pp 12-14 | 0.1 g/100g to 5 g/100g |
| | | Protein | AOAC Chapter 37 - 920.152/ FSSAI Manual- Fruits and Vegetable Products-2016. 14.9 pp 46-48 | 0.5 g/100g to 20 g/100g |
| 3. | Meat and Meat Products & Fish and Fish | Moisture | FSSAI Manual-Meat & Meat and Fish & Fish Product . 2.2 p 61 | 0.5 g/100g to 75 g/100g |
| | Products (Frozen Meat, Canned meat, Canned Luncheon, Canned cooked | Protein | IS:5960 (Part 1)1996 (Titration method)/ AOAC Chapter 39 - 928.08/ FSSAI Manual- Meat & Meat and Fish & Fish Product. 2.2 pp 39-40 | 0.5 g/100g to 85 g/100g |
| | ham, Canned chopped meat, canned chicken, canned mutton, goat meat ,Fish and other marine products/Shrimps /Frozen Fish) | Total Fat | AOAC Chapter 39 - 960.39/ FSSAI Manual-Meat & Meat and Fish & Fish Product- 2016. 2.1 p 39 | 0.5 g/100g to 65 g/100g |

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| | | Total Ash | AOAC Chapter 39 - 920.153. | 1 g/100g to 20 g/100g |
| 4. | Nut and Nut products | Moisture | IS:4684 (Air-Oven method). | 0.5 g/100g to 50 g/100g |
| | (Edible Nuts) | Ash | IS:4684 (Gravimetric Method). | 0.1 g/100g to 10 g/100g |
| | | Protein | AOAC Chapter 40 -950.48. | 1 g/100g to 50 g/100g |
| | | Fat | AOAC Chapter 40 - 948.22. | 1 g/100g to 70 g/100g |
| 5. | Cereal & Cereal Products (Including Oil Cakes/ Poultry Feed/ Shrimp Feed/ Fish Feed) | Moisture | IS:7874 (Part-1) (Air-Oven method)/ AOAC Chapter 4 - 925.04;930.15/ FSSAI Manual -Cereals and Cereal Products. 2.0 p 8 | 1 g/100g to 20 g/100g |
| | | Acid insoluble Ash | IS:7874 (Part-1) (Gravimetric Method)/ FSSAI Manual–Cereals and Cereal Products. 8.3 pp 16-17 | 0.05 g/100g to 10 g/100g |
| | | Total Ash | IS:7874 (Part 1) (Gravimetric Method)/ AOAC Chapter 4 - 942.05/ FSSAI Manual -Cereals and Cereal Products.8.2 pp 14-15 | 0.5 g/100g to 10 g/100g |
| | | Protein | IS:7874 (Part 1) (Titration method)/ AOAC Chapter 4 - 954.01)/FSSAI Manual - Cereals and Cereal Products. 8.7 pp 19-21 | 0.2 g/100g to 90 g/100g |

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| | | Fat | IS:7874 (Part 1) (Gravimetric Method)/ AOAC 20 th Edn 2016 Chapter 4 - 920.39. | 0.5 g/100g to 20 g/100g |
| 6. | Spices and Condiments (Whole and Ground or mixed Chilly/ Turmeric/ | Moisture | IS:1797 (Dean and Stark)/ AOAC Chapter 43 - 941.11/ FSSAI Manual- Spices and Condiments. 3.0 pp2-5 | 1.0% to 50% |
| | Curry powder/ Cardamom/Curry Masala/Poppy seeds/Caraway/ Cassia/ Coriander/Cloves/ | Total Ash | IS:1797 (Gravimetric Method)/ AOAC Chapter 43 - 941.12/ FSSAI Manual- Spices and Condiments. 4.0 pp 12-13 | 0.5 g/100g to 20 g/100g |
| | Cumin/Ginger/ Fenugreek/Mixed masala curry/ powdered dehydrated onion) | Ash Insoluble in DilHCl | IS:1797 (Gravimetric Method)/ AOAC Chapter 43 Annex B of 941.12/FSSAI Manual- Spices and Condiments. 5.0 p 14 | 0.1 g/100g to 5 g/100g |
| | | Total Nitrogen | AOAC Chapter 43 920.173. | 1 g/100g to 30 g/100g |
| 7. | Oils And Fats (Edible Oils, Fats. Hydrogenated | Moisture | IS:548 (Part-1) (Air-Oven method)/ FSSAI Manual-Oils and Fats. 3.0 pp 5-6 | 0.01% to 5% |
| | Vegetable Oils, Soya bean Oil) | Iodine Value | IS:548 (Part-1) (Wiji solution method)/ AOAC Chapter 41- 920.159/ FSSAI Manual- Oils and Fats. 12.0 pp 26-30 | 5 to 250 |

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| | | Saponification Value | IS:548 (Part 1) (Reflux condenser method)/ AOAC Chapter 41-920.160/ FSSAI Manual-Oils and Fats. 9.0 pp 18-20 | 50 to 400 |
| | | Unsaponifiable Matter | IS: 548 (Part 1)1964 (RA:2015) (Reflux condenser method)/ AOAC 20 th Edn 2016 Chapter 41-933.08/ FSSAI Manual-Oils and Fats -2016. 10.0 pp 20-22 | 0.5% to 25% |
| | | Acid Value | IS:548 (Part 1) (Titration method)/ AOAC Chapter 41-940.28/ FSSAI Manual-Oils and Fats 11.0 pp 23-24 | 0.50 to 100 |
| | | Peroxide Value | IS:548 (Part 1) (Titration method)/ AOAC Chapter 41-965.33 | 1 meq/Kg to 100 meq/Kg |
| | | Specific gravity | IS:548 (Part 1) (Pyknometer). | 0.5 to 1.5 |
| II. | WATER | | | |
| 1. | Potable ground water/ Drinking water | Temperature | IS:3025 (Part 9) (Thermometer Method)/ APHA 2550 B. | 15°C to 50°C |
| | | Color | IS:3025 (Part 4) (Platinum Cobalt-Visual Comparison Method). | 2 Hazen to 500 Hazen |

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| | | Odour | IS:3025 (Part 5)/ APHA 2120 B. | Agreeable/ Disagreeable/ Objectionable /Unobjectionable |
| | | pH @ 25°C | IS:3025 (Part 11) (Electrometric Method)/ APHA 4500 H+ B. | 1 to 14 |
| | | Turbidity | IS:3025 (Part 10) (Nephelometric Method)/ APHA 2130 B. | 0.5 NTU to 400 NTU |
| | | Electrical Conductivity @ 25°C | IS:3025 (Part 14)/ APHA 2510 B. | 1 μS/cm to 10000 μS/cm |
| | | Total Solids | IS:3025 (Part15) (Gravimetric Method)/ APHA 2540 B. | 1 mg/L to 10000 mg/L |
| | | Total Suspended Solids | IS:3025 (Part 17) (Gravimetric Method)/ APHA 2540 D. | 1 mg/L to 100 mg/L |
| | | Total Dissolved Solids | IS:3025 (Part 16) (Gravimetric Method)/ APHA2540 C. | 1 mg/L to 10000 mg/L |
| | | Total Hardness as CaCO ₃ | IS:3025 (Part 21) (EDTA Method)/ APHA 2340 C. | 1 mg/L to 5000 mg/L |
| | | Acidity as CaCO₃ | IS:3025 (Part 22) (Indicator Method)/ APHA 2310 B. | 1 mg/L to 100 mg/L |
| | | p-Alkalinity as CaCO₃ | IS:3025 (Part 23) (Indicator Method) / APHA 2320 B. | 1 mg/L to 100 mg/L |
| | | Total Alkalinity /Methyl Orange Alkalinity as CaCO ₃ | IS:3025 (Part 23) (Indicator Method)/ APHA 2320 B. | 1 mg/L to 5000 mg/L |

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| | | Sulphate as SO ₄ | APHA 4500 SO ₄ -E. | 1 mg/L to 5000 mg/L |
| | | Free Residual Chlorine | IS:3025 (Part 26) (lodometric Method). | 0.1 mg/L to 10 mg/L |
| | | Total Phosphorus as P | IS:3025 (Part 31) (Stannous Chloride Method). | 0.1 mg/L to 1000 mg/L |
| | | Chloride as Cl | IS:3025 (Part 32) (Argentometric Method). | 1 mg/L to 5000 mg/L |
| | | Free Ammonia as NH₃ | IS:3025 (Part 34) (Nesslerization Method). | 0.2 mg/L to 20 mg/L |
| | | Ammonical Nitrogen as N | IS:3025 (Part 34) (Macro-Kjeldahl Titration Method). | 1 mg/L to 500 mg/L |
| | | Total Kjeldhal Nitrogen as N | IS:3025 (Part 34) (Macro-Kjeldahl Titration Method). | 1 mg/L to 500 mg/L |
| | | Nitrate as NO₃ | APHA 4500 NO₃-B. | 1 mg/L to 1000 mg/L |
| | | Nitrite as NO ₂ | IS:3025 (Part-34) (Spectrophotometer Method). | 0.01 mg/L to 100 mg/L |
| | | Silica as SiO ₂ | IS:3025 (Part 35) (Heteropoly blue Method)/ APHA 4500 SiO ₂ -D. | 0.1 mg/L to 500 mg/L |
| | | Dissolved Oxygen | IS:3025 (Part-38) (Winkler Titrimetric Method). | 0.5 mg/L to 8 mg/L |
| | | Calcium as Ca | IS:3025 (Part 40) (EDTA Titrimetric Method)/ APHA 3500 Ca B. | 1 mg/L to 5000 mg/L |
| | | Phenolic Compound as C ₆ H ₅ OH | IS:3025 (Part-43) (4-Aminoantipyrine method) /APHA 5530 A B C. | 0.001 mg/L to 1.0 mg/L Absent/Present |

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| | | Sodium as Na | IS:3025 (Part 45) (Flame Photometry Method)/ APHA 3500 Na B. | 1 mg/L to 5000 mg/L |
| | | Potassium as K | IS:3025 (Part-45) (Flame Photometry Method)/ APHA 3500 K B. | 1 mg/L to 5000 mg/L |
| | | Magnesium as Mg | IS:3025 (Part-46) (EDTA Volumetric Method) / APHA 3500 Mg B. | 1 mg/L to 5000 mg/L |
| | | Carbonate Hardness as CaCO ₃ | IS:3025 (Part 21) (Calculation Method). | 1 mg/L to 5000 mg/L |
| | | Non carbonate Hardness as CaCO ₃ | IS:3025 (Part 21) (Calculation Method). | 1 mg/L to 5000 mg/L |
| | | Chromium as Cr ⁶⁺ | IS:3025 (Part 52) (Diphenylcarbazide Method). | 0.02 mg/L to 10 mg/L |
| | | Iron as Fe | IS:3025 (Part-53) (1,10 Phenanthroline Method)/ APHA 3500 Fe B. | 0.05 mg/L to 100 mg/L |
| | | Boron as B | APHA 4500 B B. | 0.1 mg/L to 50 mg/L |
| | | Fluoride as F | APHA 4500 F D. | 0.2 mg/L to 20 mg/L |
| | | Color retention of KmnO4 at 27°C | Annex-A of IS:1070-1992 (R-2013) Annexure A. | Qualitative (Retains the color/Does not retains the color) |
| 2. | Water Construction | pH Value @ 25°C | IS:3025(part 11) (Electrometric Method). | 1 to 14 |
| | purpose | Suspended Matter | IS:3025 (Part-17) (Gravimetric Method). | 1 mg/L to 5000 mg/L |
| | | Chlorides as Cl | IS:3025 (Part-32) (Argentometric Method). | 1 mg/L to 5000 mg/L |
| | | Organic solids | IS:3025 (Part-18) (Gravimetric Method). | 1 mg/L to 1000 mg/L |

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|------|---------------------------------------------------|---------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------|-------------------------------------------|
| | | Inorganic solids | IS: 3025 (Part-18) (Gravimetric Method). | 1 mg/L to 10000 mg/L |
| | | Sulphate as SO ₄ | APHA 4500 SO4-E. | 1 mg/L to 5000 mg/L |
| | | a)Acidity To neutralize 100ml of sample water using phenolphthalein as an indicator using 0.02 N NaOH | IS:3025 (Part 22) (Indicator Method). | 0.1 ml to 50 ml |
| | | b) Alkalinity To neutralize 100ml of sample water using Mixed indicator using 0.02 N H ₂ SO ₄ | IS:3025 (Part 23) (Indicator Method). | 0.1 ml to 50 ml |
| III. | POLLUTION AND E | NVIRONMENT | | |
| 1. | Industrial Water/ Raw & Treated | Particle Size 850 micron | IS:6339 | Pass the test/Shall not pass the test |
| | Liquid Effluents/ Waste Water/ Sewage Water | Temperature at the Time of Sampling | IS:3025 (Part 9) (Thermometer Method)/ APHA 2550 B. | 15°C to 50°C |
| | | Color | IS:3025 (Part 4) (Visual Comparison)/ APHA 2120 B. | Qualitative Hue(400nm to 800nm) |
| | | Turbidity | IS:3025 (Part 10) (Nephelometric Method)/ APHA 2130 B. | 0.5 NTU to 1000 NTU |
| | | pH @ 25°C | IS:3025(Part-11) (Electrometric Method)/ APHA 4500 H+ B. | 1 to 14 |
| | | Electrical Conductivity @ 25°C | IS:3025 (Part 14)/ APHA 2510 B. | 1 μS/cm to 50000 μS/cm |

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| | | Total Solids | IS:3025 (Part 15) (Gravimetric Method)/ / APHA 2540 B. | 1 mg/L to 50000 mg/L |
| | | Total Suspended Solids | IS:3025 (Part 17) (Gravimetric Method) / APHA 2540 D. | 1 mg/L to 5000 mg/L |
| | | Total Dissolved Solids | IS:3025 (Part 16) (Gravimetric Method)/ APHA 2540 C. | 1 mg/L to 50000 mg/L |
| | | Total Hardness as CaCO3 | IS:3025 (Part-21) (EDTA Method) / APHA 2340 C. | 1 mg/L to 25000 mg/L |
| | | Acidity as CaCO ₃ | IS:3025 (Part 22) (Indicator Method) / APHA 2310 B. | 1 mg/L to 100 mg/L |
| | | p-Alkalinity as CaCO ₃ | IS 3025 (Part 23) (Indicator Method) / APHA 2320 B. | 1 mg/L to 100 mg/L |
| | | Total Alkalinity /Methyl Orange Alkalinity as CaCO ₃ | IS:3025 (Part-23) (Indicator Method) / APHA 2320 B. | 1 mg/L to 5000 mg/L |
| | | Sulphate as SO ₄ Total Residual Chlorine | APHA 4500 SO ₄ -E. IS: 3025 (Part-26) (Iodometric Method). | 2 mg/L to 5000 mg/L 0.1 mg/L to 100 mg/L |
| | | Sulphide as S Phosphorus as P | APHA 4500 S ² —F. IS:3025 (Part-31) (Stannous Chloride Method). | 1 mg/L to 1000 mg/L 0.1 mg/L to 1000 mg/L |
| | | Chloride as Cl | IS:3025 (Part-32) (Argentometric Method). | 1 mg/L to 5000 mg/L |
| | | Ammonical Nitrogen as N | IS:3025 (Part-34) (Nesslerization Method). | 0.2 mg/L to 100 mg/L |
| | | | IS:3025 (Part-34) (Macro-Kjeldahl Method). | 1 mg/L to 500 mg/L |

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| | | Total Kjeldhal Nitrogen as N | IS:3025 (Part-34) (Macro-Kjeldahl Method). | 1 mg/L to 500 mg/L |
| | | Nitrate as NO ₃ | APHA 4500 NO₃-B. | 1 mg/L to 1000 mg/L |
| | | Nitrite as NO ₂ | IS:3025 (Part-34) (Spectrophotometer Method). | 0.02 mg/L to 100 mg/L |
| | | Dissolved Oxygen | IS:3025 (Part-38) (Winkler Titrimetric Method). | 0.5 mg/L to 8 mg/L |
| | | Silica as SiO ₂ | IS:3025 (Part 35) (Heteropoly blue Method) / APHA 4500 SiO ₂ -D. | 0.1 mg/L to 500 mg/L |
| | | Oil & Grease | IS:3025 (Part-39)1991 (RA:2014)- (Partition Gravimetric Method). | 2.0 mg/L to 1000 mg/L |
| | | Calcium as Ca | IS:3025 (Part 40) (EDTA Titrimetric Method)/ APHA 3500 Ca B. | 1 mg/L to 5000 mg/L |
| | | Phenolic Compound as C ₆ H ₅ OH | IS:3025 (Part 43) (4-Aminoantipyrine method), APHA5530 A,B C. | 0.01 mg/L to 100 mg/L |
| | | Biochemical Oxygen Demand (BOD) @27°C for 3 days | IS:3025 (Part 44) (Oxygen depletion method). | 2 mg/L to 5000 mg/L |
| | | Sodium as Na | IS:3025 (Part 45) (Flame Photometry Method), APHA 3500 Na B. | 1 mg/L to 10000 mg/L |
| | | Potassium as K | IS:3025 (Part 45) (Flame Photometry Method)/ APHA 3500 K B. | 1 mg/L to 10000 mg/L |

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| | | Magnesium as Mg | IS:3025 (Part 46) (EDTA Volumetric Method) / APHA 3500-Mg B. | 1 mg/L to 5000 mg/L |
| | | Carbonate hardness as CaCO ₃ | IS:3025 (Part 21)- (Calculation Method). | 1 mg/L to 5000 mg/L |
| | | Non-carbonate hardness as CaCO ₃ | IS:3025 (Part 21) (Calculation Method). | 1 mg/L to 5000 mg/L |
| | | Chromium as Cr ⁶⁺ | IS:3025 (Part 52) (Diphenylcarbazide Method). | 0.05 mg/L to 100 mg/L |
| | | Iron as Fe | IS:3025 (Part 53) (1,10 Phenanthroline Method)/ APHA 3500-Fe B. | 0.05 mg/L to 100 mg/L |
| | | Boron as B | APHA 4500 B B. | 0.1 mg/L to 100 mg/L |
| | | Chemical Oxygen Demand (COD) | APHA 5220 B. | 4 mg/L to 10000 mg/L |
| | | Fluoride as F | APHA 4500 F D. | 0.1 mg/L to 20 mg/L |
| | | Dissolve Phosphate as PO ₄ | IS:3025 (Part 31) (Stannous Chloride Method). | 0.3 mg/L to 1000 mg/L |
| | | Volatile solids | APHA 2540 E. | 1 mg/L to 1000 mg/L |
| | | Fixed Solids | APHA 2540 E. | 1 mg/L to 5000 mg/L |
| | | Percent Sodium | PES/EN/SOP/012 (Issue No & Dated:02/03.10.2017, Based Municipal Waste water Quality for Irrigation, Journal of Environmental Protection, 2010). | 1% to 99% |
| | | Residual Sodium Carbonate | IS: 11624 (Calculation Method). | 1 meq/l to 25 meq/l |

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| IV. | ATMOSPHERIC PO | LLUTION | | |
| | Ambient Air | Respirable Particulate | IS:5182 (Part 23) | 1 μg/m³ to 5000 μg/m³ |
| 1. | Monitoring | Matter/Particulate Matter | (Gravimetric Method). | τ μg/πι- το 3000 μg/πι- |
| | | Particulate Matter PM 2.5 | PES/EN/SOP/013 (Issue No & Date: 02/03.10.2017 Based on CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, May 2011). | 10 μg/m³ to 5000 μg/m³ |
| | | Sulphur dioxide as SO ₂ | IS:5182 (Part 2) (Spectrophotometer Method). | 5 μg/m³ to 1000 μg/m³ |
| | | Nitrogen dioxide as NOx | IS:5182 (Part 6) (Spectrophotometer Method). | 6 μg/m³ to 750 μg/m³ |
| | | Carbon Monoxide as CO | PES/EN/SOP/016 (Issue No& Dated: 01/ 03.10.2017, Based on CO detector Analyzer Manual). | 1.15 mg/m ³ to 100 mg/m ³ |
| | | Ammonia as NH₃ | PES/EN/SOP/014 (Issue No & Dated: 02/ 03.10.2017 Based on CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, May 2011). | 20 μg/m³ to 700 μg/m³ |
| | | Ozone as O ₃ | IS:5182 (Part-9) (Spectrophotometer Method). | 20 μg/m ³ to 19620 μg/m ³ |
| 2. | Stack Emission | Stack Diameter | IS:11255 (Part 3) | 0.05 m to 5.0m |
| | Monitoring | Stack Temperature | IS:11255 (Part 3) | Ambient to 600°C |
| | | Flue Gas Velocity | IS:11255 (Part 3) | 1 m/s to 60m/s |

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| | | Flue Gas Flow Rate | IS:11255 (Part 3) | 100 Nm ³ /hr to 400000 Nm ³ /hr |
| | | Particulate Matter | IS:11255 (Part 1) (Gravimetric Method). | 1 mg/Nm ³ to 1000 mg/Nm ³ |
| | | Sulphur dioxide SO ₂ | IS:11255 (Part-2)1985 (RA:2014)- (IPA-Thorin Method). | 3 mg/Nm ³ to 1000 mg/Nm ³ |
| | | | PES/EN/SOP/015 (Issue No & dated 02/03.10.2017, Based on Flue Gas Analyzer Manual). | 7 mg/Nm³ to 1500 mg/Nm³ |
| | | Oxides of Nitrogen as NOx | IS:11255 (Part 7) (Spectrophotometer Method). | 2 mg/Nm ³ to 400 mg/Nm ³ |
| | | | PES/EN/SOP/015 (Issue No & Dated 02/03.10.2017, Based on Flue Gas Analyzer Manual). | 6 mg/Nm³ to 1000 mg/Nm³ |
| | | Carbon Monoxide as CO | IS:13270 (Orsat Analysis). | 0.2% to 2% |
| | | | PES/EN/SÓP/015 (Issue No& Dated 02/03.10.2017, Based on Flue Gas Analyzer Manual). | 0.002% to 2% |
| | | Carbon dioxide as CO ₂ | IS:13270 (Orsat Analysis). | 0.2% to 16% |
| | | | PES/EN/SOP/015 (Issue No & Dated 02/03.10.2017,Based on Flue Gas Analyzer Manual). | 0.2% to 16% |

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| | | Oxygen as O ₂ | IS:13270 | 0.2% to 21% |
| | | | (Orsat Analysis). | |
| | | | PES/EN/SOP/015 | 0.2% to 21% |
| | | | (Issue No & Dated | |
| | | | 02/03.10.2017,Based on | |
| | | | Flue Gas Analyzer | |
| | | | Manual). | |
| | | Ammonia as NH₃ | IS:11255 (Part 6) | 5 mg/Nm ³ to |
| | | | (Titration Method). | 100 mg/Nm ³ |

Accreditation Standard ISO/IEC 17025: 2005

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Validity 05.03.2018 to 04.03.2020 Last Amended on --

| SI. | Product / Material | Specific Test Performed | Test Method Specification | Range of Testing / |
|-----|--------------------|-------------------------|---------------------------|---------------------|
| | of Test | | against which tests are | Limits of Detection |
| | | | performed | |

CHEMICAL TESTING

| AT SITE | | | | |
|---------|---------------------------|-------------------------------------------|----------|--------------------------------|
| I. | ATMOSPHERIC POLLUTION | | | |
| 1. | Noise Level Monitoring | Lmin,Lmax,Leq (Equivalent Noise Level) | IS: 9989 | Min 30 to Max 130 dB(A)/Leq |

Vinay Kumar Tyagi Convenor