



BIOGENIX

AIR AND WATER QUALITY TESTING

NAME		DESIGNATION	SIGNATURE	DATE
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AIR AND WATER QUALITY TESTING

CODE: BG/PP/INF/014

BIOGENIX

VERSION: 1.0

DATE OF EFFECTIVITY: 01/07/2020

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4 POLICY STATEMENT:

- 4.1** This policy outlines the importance and schedule for air quality and water quality testing in Biogenix Laboratory.
- 4.2** The goal of every laboratory is to produce accurate results. Purified water constitutes major components of reagents, buffers and diluents used in clinical laboratory testing. It can also become an important component of tests when it is used for washing and sanitizing instruments and laboratory ware and autoclave steam etc. Inadequate control of contamination in purified water is an important cause of laboratory error.

5 PURPOSE

- 5.1** This policy aims to provide guidelines for quality testing of indoor air and water in Biogenix laboratory.

6 SCOPE

- 6.1** The scope of this policy extends to indoor air and water quality testing of Biogenix laboratory.

7 DEFINITIONS

- 7.1** N/A.

8 ACRONYMS

- 8.1** N/A





9 RESPONSIBILITIES

- 9.1** Laboratory Director along with safety officer and infection control officer to ensure the periodic monitoring of indoor air and water quality testing and the corrective action when warranted.
- 9.2** Technical staff of the laboratory along with the biomedical engineering department should make sure that proper maintenance is performed to the water system and filters are changed in a timely manner to prevent the deterioration in the quality of the water available for testing.

10 PROCEDURE

- 10.1** Indoor air quality and water quality testing is outsourced to ISO 17025 accredited laboratory.
- 10.2** The frequency of Indoor air quality testing is yearly whereas water quality testing is biannual.
- 10.3** The testing laboratory will be contacted whenever the service required and it's the testing laboratory responsibility to collect sample from source assigned by the Biogenix Laboratory.
- 10.4** The Parameters for air quality testing should includes
 - 10.4.1 Total Suspended Particulate Matter (TSPM)
 - 10.4.2 Respirable Suspended Particulate Matter, (RSPM-PM10)
 - 10.4.3 Respirable Suspended Particulate Matter, (RSPM-PM2.5)
 - 10.4.4 Formaldehyde (CH₂O)
 - 10.4.5 Average Temperature
 - 10.4.6 Average Relative Humidity
 - 10.4.7 Lead (pb)





- 10.4.8 Oxygen (O₂)
- 10.4.9 Carbon dioxide (CO₂)
- 10.4.10 Carbon monoxide (CO)
- 10.4.11 Ozone (O₃)
- 10.4.12 Total Volatile Organic Compounds (TVOC)
- 10.4.13 Microbiological Analysis
 - 10.4.13.1 Total Bacterial Count
 - 10.4.13.2 Total Mould Count

10.5 The Parameters for water quality testing should includes

- 10.5.1 Chemical Analysis
 - 10.5.1.1 Sulphate (SO₄)
 - 10.5.1.2 Magnesium (Mg)
 - 10.5.1.3 Manganese (Mn)
 - 10.5.1.4 Calcium (Ca)
 - 10.5.1.5 Chromium (Cr)
 - 10.5.1.6 Copper (Cu)
 - 10.5.1.7 Iron (Fe)
 - 10.5.1.8 Lead (Pb)
 - 10.5.1.9 pH at 25 °C
 - 10.5.1.10 Potassium (K)
 - 10.5.1.11 Sodium (Na)
 - 10.5.1.12 Chloride (Cl)





10.5.1.13 Zinc (Zn)

10.5.1.14 Bicarbonate (HCO₃)

10.5.1.15 Electrical Conductivity at 25 °C

10.5.1.16 Total Alkalinity to pH 4.4

10.5.1.17 Total Dissolved Solids at 180°C (TDS)

10.5.1.18 Total Hardness as (CaCO₃)

10.5.1.19 Turbidity

10.5.1.20 Chlorine, Free (Cl₂)

10.5.2 Microbiological Analysis

10.5.2.1 Aerobic Colony Count

10.5.2.2 Escherichia coli

10.5.2.3 Fecal Coliforms< CFU

10.5.2.4 Fecal streptococci/Enterococci

10.5.2.5 Pseudomonas aeruginosa

10.5.2.6 Total Coliforms

10.6 The results are evaluated and reported by the testing laboratory as per the standard guidelines.

10.7 If the water tested does not meet the testing requirements, the water shall not be used until corrective action has been taken and retesting determines that the testing requirements have been met.

11 CROSS REFERENCE:

11.1 DOH Abu Dhabi Policy on Policy for Infection Control in the Health Care Facilities (PPR/HCP/P0010/07).





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11.2 HAAD EHSM Standard for Healthcare Providers - Water Quality Version .1.0

12 RELEVANT DOCUMENTS & RECORDS:

12.1 N/A

