

**AIR QUALITY AUDIT
FOR
Poornima Institute of Engineering and Technology
ISI-2, RIICO Institutional Area, Goner Road,
Sitapura, Jaipur - 302022**



**Carried on
30th Jun, 2021**

Carried Out By



**ELION TECHNOLOGIES & CONSULTING PVT LTD
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1. ACKNOWLEDGEMENT

We are thankful to the management of PIET, Jaipur for giving us an opportunity to conduct Air Quality Audit.

We acknowledge with gratitude the whole hearted support and cooperation extended by all team members while carrying out the study.

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2. SITE DETAILS

Site Name	Poornima Institute of Engineering and Technology ISI-2, RIICO Institutional Area, Goner Road, Sitapura, Jaipur - 302022
Contact Person	Dr. Gautam Singh Dr. Sama Jain Mr. Ashwani Lata
Analysis Date	30 th June, 2021

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3. INTRODUCTION

Elion Technologies & Consultancy Pvt Ltd was entrusted upon the task to carry out the Air Quality Audit to study the effects of Work Place at their campus at Poornima Institute of Engineering and Technology ISI-2, RIICO Institutional Area, Goner Road, Sitapura, Jaipur - 302022. So as to ascertain the effects of Environmental factors on metal components and thereby enabling PIET, Jaipur to take the necessary precautions, if any.

The quality of indoor air inside offices, schools, and other workplaces is important not only for workers' comfort but also for their health. Poor indoor air quality (IAQ) has been tied to symptoms like headaches, fatigue, trouble concentrating, and irritation of the eyes, nose, throat and lungs. Also, some specific diseases have been linked to specific air contaminants or indoor environments, like asthma with damp indoor environments. In addition, some exposures, such as asbestos and radon, do not cause immediate symptoms but can lead to cancer after many years.

Many factors affect IAQ. These factors include poor ventilation (lack of outside air), problems controlling temperature, high or low humidity, recent remodeling, and other activities in or near a building that can affect the fresh air coming into the building. Sometimes, specific contaminants like dust from construction or renovation, mold, cleaning supplies, pesticides, or other airborne chemicals (including small amounts of chemicals released as a gas over time) may cause poor IAQ.

Air Quality examination for the various oxidants were examined as per the requirement of the client and documented in the SOW prior to start of the work. The important parameters to be monitored were identified before starting the assignment.

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4. SCOPE OF WORK & METHODOLOGY

The Air samples at the desired locations were collected through Suction Samplers using standard operating procedures and BIS 5182/APHA methods for the examination of Air Quality in ambient environment. The contaminants were adsorbed in various adsorbents and taken to the laboratory for further examination of the contaminants as identified.

The Air Quality Examination results are presented in our Analysis Report.

The results found are satisfactory and within the limits as per OSH (World health organization standard on Occupational Health and Safety), NIOSH (National Institute for Occupational Safety and Health- U.S. federal agency responsible for conducting research and making recommendations for the prevention of work-related injury and illness and SNEA (Singapore National Environmental Agency).

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5. INDOOR AIR QUALITY

Nature of Sample	- Ambient Air Campus
Sample Received on	- 30 th June 2021
Sampling Method	- BIS/APHA

PARAMETER	UNIT	RESULT	PERMISSIBLE LIMIT	STANDARDS
SPM (Suspended Particulate Matter) PM 2.5	ug/m3	58.3	60	CPCB Guidelines
SPM (Suspended Particulate Matter) PM 10	ug/m3	65.0	100	IS:5182
Sulphur Dioxide (As SO ₂)	ug/m3	5.4	80	IS:5182
Nitrogen Dioxide (As NO ₂)	ug/m3	14.2	80	IS:5182
Carbon Monoxide (As CO)	ug/m3	1145	4000	IS:5182
Lead (as Pb)	ug/m3	ND	1.0	IS:5182
Ammonia (As NH ₃)	ug/m3	8.0	400	IS:5182
Nickle (as Ni)	ug/m3	ND	0.02	IS:5182
Ozone	ug/m3	6.0	100	NAAQS
Carbon Dioxide (As CO ₂)	ug/m3	<5.0	350	NAAQS
Methane(As CH ₄)	ug/m3	ND	5	SNEA

BDL = Below Detectable Limit,

ASHRAE = American Society of Heating, Refrigerating and Air Conditioning Engineers,

OSHA = Occupational Safety and Health,

OSHA = Occupational Safety and Health Association,

NIOSH = National Institute of Safety & Health,

NAAQS=National Ambient Air Quality Standards

SNEA = Singapore National Environmental Agency

ACGIH = American Conference of Governmental Industrial Hygienists,

mg/m³ = milligram per cubic meter,

PPM = parts per million,

PPB = parts per billion,

ND = Not Detectable/Not present.

Observation:

The indoor air quality survey has revealed that indoor air parameter is within limit.


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