आजादी का अमृत महोत्सव

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CSIR - NATIONAL PHYSICAL LABORATORY
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The Innovation Engine of India

Ref: NPL/TSP- 230832/CER

Dated: 01.09.2025

TO WHOMSOEVER IT MAY CONCERN

This is to certify that we have completed a project (Code: TSP-230832), titled: "**Testing of a High-Flow Air Purifier**", project duration: September 25, 2023 to March 19, 2025 from **M/s Siddhivinayak Tradelinks, 5B/8, Good Earth CHS Ltd., Sindhi Society, Chembur, Mumbai Suburban, Maharashtra-400071** successfully, and submitted the project report recently. Under this project, the performance of a high-flow air purification system (filter less technology) named as '**AUFERO**' has been assessed by measuring the Clean Air Delivery Rate, calculating efficiency of $PM_{2.5}$ and PM_{10} removal, finding out the formation of ozone and nitrogen dioxide, performance consistency of the system in a long-duration run, biological particle removal, and energy consumption by the system. The details of the experimental setup, observations, and findings are recorded in the "Testing of a High-Flow Air Purifier" report by CSIR-NPL.

In summary, the system demonstrated a high Clean Air Delivery Rate (CADR) up to 2,200 m^3/h (approx.) for PM_{10}. The Single-Pass Efficiency (SPE) tests showed consistent removal rates of ~25% for $PM_{2.5}$ and ~34% for PM_{10} across different real-world dust samples. Continuous monitoring over 72 hours confirmed that the air purification system does not generate any significant ozone or nitrogen dioxide, with concentrations remaining well within National Ambient Air Quality Standards (NAAQS). A seven-day continuous operation test confirmed stable performance of the air purification system. Alao, the system demonstrated ~25% Bacterial Filtration Efficiency (BFE). The electricity consumption was also estimated to be ~0.342 kWh, i.e. the system offers a high CADR-to-power ratio.

Sincerely,

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