

CASE STUDY

Public & Commercial Building



Customer:

Indian Oil Institute of Petroleum Management

Location

India

Date:

2021

Sector:

Commercial Building



IndianOil

INDIAN OIL CORPORATION TRAINING INSTITUTE IIPM IS USING CUSTOM RANGE OF CAMFIL PRODUCTS TO COMBAT THE POOR INDOOR AIR QUALITY

INDIAN CAPITAL REGION IS WITNESSING HARMFUL LEVELS OF AIR POLLUTION THAT IS AFFECTING BOTH WORK AND LIFE. AND, IIPM HAS MANAGED TO IMPROVE THE INDOOR AMBIENT AIR QUALITY BY 90%

ABOUT THE CUSTOMER

The Indian Oil Institute of Petroleum Management (IIPM) is the flagship training institute of Indian Oil Corporation Limited, a Maharatna Company under the Government of India. The institute conducts advanced management education programs as per the highest global standards in collaboration with premier business schools and leading industry professionals. The training institute is an ISO 9001-2015 certificate learning center and has been awarded the Golden Peacock National Award for 'Innovative Training Practices' by the Institute of Directors. IIPM received the "Best Innovation in Teaching" award by the Association of Indian Management Schools and the Indian Society of Training & Development's 'Innovative Training Practices' award. In 2019, IIPM achieved LEED's & IGBC's highest Platinum rating and continues its journey to be one of the best in the world.

THE PROBLEM

Being situated near the National Capital Region of India where the AQI typically ranges between 150 and 250 during March-September, and between 400 to 500 (maximum on scale) during the months of October-February. The air quality in India's capital city, according to a WHO survey of 1,650 world cities, is the worst of any major city in the world. This can cause several ailments, ranging from premature birth to a decrease in lung immunity. Chronic headache, eye irritation, and skin irritation are common complaints due to the rising level of bad indoor quality in the capital city.

AQI: air quality index



CITY M - Individually certified H14 filters ensuring 99.995% filtration efficiency

 camfil

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NEED FOR ACTION - Business travelers started postponing meetings and events due to unacceptable air quality in NCR area highlighted by the media.

Camfil's scope included providing solutions to keep the PM2.5 levels less than 60 micrograms per cubic meter on a 24-hour mean. We carried out the site surveys detailing every air handling unit, evaluating the fresh air intake units, and return air paths. Existing non-graded local filters were replaced with **Camfil ISO 16890** rated PM2.5 filters (**Ecopleat F9**) on each of the 20 AHU's. New mainframes and universal frames were installed after dismantling the old frames. Besides, we added fresh air intake filters (**ePM10 rated Dual 10 and frames**) to check the ingress of polluted air through the fresh air inlet. The effectiveness of the reductions achieved were displayed by our **air image sensor** – one measuring the ambient air quality levels after the filtration treatment. Also, a Camfil digital screen showing the real-time AQI stats is being maintained at various parts of the building.

In addition to upgrading the air handling units and fresh air intake systems, the phase 2 part of the solutions included setting up of stand-alone air cleaners - **City M and CC 2000** at various locations including the main training hall,

the offices of executive directors, the waiting lounges and other training rooms. With the combination of AHU up-gradation with ISO 16890 rated filters and the stand-alone units, **the resultant improvement achieved is 90% in the ambient air quality readings.**

AFTER EFFECTS - This has prompted the customer to implement similar solutions at their other offices pan India.



AIR IMAGE SENSOR: The intelligent sensor system for monitoring and controlling the indoor air quality and energy consumption.



EcoPleat

- Ultra compact and ultra light
- Large surface area
- Long operating life
- Less frequent changes



Dual10 Filters

- Water resistant frame board
- Diagonal support
- Radial Pleats
- Proprietary Dual High Lofted Fibers
- Built Strong



Air Cleaners

- Healthier employees
- Sturdy, moisture & corrosion resistant
- Reduce cross contamination
- Reduce mould levels
- Reduce heating cost up to 30%