

## CASE STUDY

### Corrosion Control Mindspace



## Mumbai's Mindspace relies on Purafil to protect data for its multinational corporations.

### MAJOR FINANCIAL INSTITUTIONS RELY ON PURAFIL TO REDUCE EQUIPMENT FAILURES IN THEIR DATA CENTERS.

Corrosive gases in one of India's largest commercial centers jeopardized operations and customer data at a major financial institution. Today Purafil solutions provide ongoing corrosion control at the Mindspace complex, protecting sensitive equipment and reducing costs for several financial institutions and multinational corporations.



## THE CHALLENGE

**Transforming a landfill into a busy commercial center resulted in a corrosive gas problem.**

In the 1990s, a 125-acre plot was transitioned from a landfill into what is now one of the city's largest commercial centers. The Mindspace complex is located eight miles from downtown Mumbai – the center of international business in India. The complex houses top business process outsourcing and multinational corporations including IBM, Intel, Vodaphone, Duetsche Bank, Amazon, Toyota, Oracle and GE.

Due to its previous use as a disposal field, as well as an adjacent industrial waste drain, the land at the complex emits high levels of corrosive gases that are damaging to electronic equipment.

Purafil's end-user, a major global financial institution, stores sensitive data in its facilities at the Mindspace complex. Over time, frequent electronic equipment breakdowns and failures, along with the associated maintenance requirements, threatened the continuous operation

of the facility and customer data. After researching several solutions, the financial institution chose Purafil and contacted Purafil's local representative, Thermax, Ltd. to help solve the problem.

## THE SOLUTION

**The Purafil team developed a solution to reduce installation costs, save space and achieve results that met exacting ISA standards.**

Purafil's representatives begin by measuring the levels of corrosion at the Mindspace facilities. The air quality within the complex was found to be at GX level, the most severe class of corrosion according to the relevant Standard\* of the International Society Automation (ISA). In fact, the measured reactivity rate was more than 60 times the rate specified by the Standard. Gases detected included hydrogen sulfide (H<sub>2</sub>S), nitrogen oxides (NO<sub>x</sub>), sulfur oxides (SO<sub>x</sub>), and mercaptans - all of which accelerate corrosion.

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Some of the commercial control and server rooms encompassed 100,000 sq. ft. or more. Traditional filtration systems typically require large spaces to house the units and ultimately have higher installation costs. In order to optimize the process, Purafil and its representative decided on customized Deep Bed Scrubbers (DBS), as well as Corrosive Air (CA), Systems to remove the contaminants. Both types of units provide up to 99% removal efficiency while allowing the customer to reduce installation costs and save valuable space.

## THE RESULTS

**State-of-the-art Purafil filtration, detection and monitoring products combine to protect sophisticated equipment.**

Purafil and its representative provided the technical expertise and equipment needed to operate and maintain controlled environments meet the ISA standards. The CA's, which are gas phase air recirculation units, were installed in the server rooms, while the rooftop DBS's provided clean pressurization air to the control rooms. The units were filled with Purafil® SP and Purafil® SP Blend Media. Purafil SP and SP blend dry-scrubbing media have high removal capacities for multiple contaminant gases.



Purafil also provided the award-winning OnGuard® technology to measure the atmospheric reactivity level of airborne molecular contaminants in real-time as well as the temperature and relative humidity within the Mindspace facilities.



Purafil® OnGuard 3000 Monitor (OG3)

Purafil offers a complimentary service called Media Life Analysis (MLA), to prevent gas breakthrough and unnecessary media replacement costs. Purafil's local representative takes periodic samples from the media-filled modules or from the bulk-filled units. Purafil laboratory technicians analyze the samples and provide a certificate of analysis that provides the media's projected service life.

Since 2006, the original customer has ordered more than 30 Purafil units and over 70,000 pounds of media. Other major financial institutions and multinational corporations in nearby Malad have used Purafil services to provide them with clean air solutions also. As a result, electronics failures due to corrosion, as well as the costs associated with materials replacement, maintenance and loss of services have all been reduced throughout the Mindspace commercial complex.

\*ISA Standard 71.04-1985, Environmental Conditions for Process Measurement and Control Systems Airborne Contaminants