

Application Industry Case Study

Corrosion Prevention at ABC Paper



OVERVIEW

Country : India

Location: Sailakhurd, Punjab
(108 km from Chandigarh)

Industry : Paper and Pulp

Client Name:
ABC Paper Products

Application area:
Server Room

ABC PAPER PRODUCTS

ABC Paper, a division of Amrit Banaspati Co.Ltd. Sailakhurd, Punjab, (108 km from Chandigarh) is one of the largest wood-free paper plant. It was established in the year 2004 and is a name to reckon with in manufacturing, exporting and supplying of a widespread collection of designer paper bags, kraft bags and kraft paper bags. ABC paper products are known for its environment friendliness- only agro-wastes like wheat, rice-straw, kana grass etc., are used to manufacture fine quality printing & writing paper.

The Problem

The server in the administrative block was regularly breaking down causing productive losses.

The cause of the problem

Cocktail of corrosive gases in the

Environment. The server room is located inside the premises of paper manufacturing industry and is exposed to the corrosive environment having cocktail of gases NH_3 , H_2S , SO_2 , CL_2 , NO_x .

The Source of the problem

The open tank, where the waste liquids from process was being mixed with urea to neutralize the toxic waste. This, however, resulted in Ammonia formation harmful to electronic equipment like servers.

The process itself: The process of pulping, pressing, bleaching uses a variety of corrosive chemicals like chlorine, etc. Corrosive by-products (gases) like H_2S , SO_2 , etc. are generated by the various processes. As a result the server failed every 20-27 days !!

Typical Industries requiring Air and Gas Purification:

Corrosion & Toxic Gas Control

- Paper and Pulp
- Petrochemicals
- Oil Refineries
- Cement
- Fertilizer
- Iron and Steel
- Chemical
- Textile
- Power Generation
- IT/ITES
- Media Houses

Odour Control

- Pharmaceuticals
- Leather
- Food Processing
- Sugar
- Sewage Treatment
- IT/ITES

Degradation Control

- Museums
- Libraries

Ethylene Removal

- Post Harvest Facilities



Bry-Air Airgineers helped ABC to solve the problem with EcoScrub inside

The Airgineers from Bry-Air did a thorough environment check at ABC Paper with a sophisticated ECM (Environment Control Monitor) in the server room.

ECM is a device used to determine the overall corrosive environment before control measures are implemented and which show results instantly as per the ISA standard S71.04-1985, which defines an environment as G1, G2, G3, & Gx based on corrosion severity level.

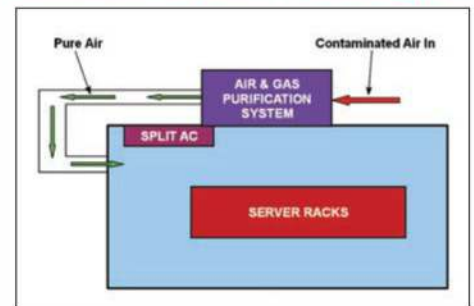
Once the corrosion level was determined, the Airgineers suggested installation of a Bry-Air EcoScrub Air & Gas Purification System (dry scrubber deep bed) outside the server room for pressurization.

The deep bed unit is installed on terrace, which suck the fresh air

remove dust and gases and supply the pure air to the room. In this way room pressurized with pure air. Volume of room is 1500 cu.ft. The server room is now pressurized with dust and corrosive gas free air. Thus, infiltration of corrosive gases like H₂S, CL₂, NH₃, SO₂, NO_x, etc. and dust is contained. This ensures that the environment is maintained as per ISA71.04 but also removes odour from the server room. The monitoring program ensures G1 level all the times as per Instrument Society of America standard 71.04.

The deep bed units are self-contained units incorporating all particulate filters, chemical filters and supply fan. The unit sucks the outside air where dust is removed with the help of particulate filters and various other gases are removed with the help of dry BrySorb special chemical filters.

Installation System Flow Diagram



Bry-Air is one the leading business houses in India offering end-to-end energy-efficient environmental control solutions. It is a globally competitive organization pioneering in the areas of Humidity Control, Dehumidification, Drying, Storage, Preservation, Air & Gas Purification and Plastics auxiliaries. Bry-Air ventured in the Air and Gas Purification sector in 2001. Since then, we have effectively maintained optimum working conditions by removing contaminant laden air; the main cause for corrosion and uncomfortable working environments.

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