

Application Industry Case Study

Corrosion Prevention at Jubilant Life Science



OVERVIEW

Country : India

Location: Gajraula (UP)

Industry : Pharmaceuticals
& Life Sciences

Client Name:
Jubilant Life Science

Application area:
TG Control Room and UPS
Room

JUBILANT LIFE SCIENCE

Jubilant Life Sciences Limited (formerly Jubilant Organosys Ltd.) is an integrated pharmaceutical and life sciences company. It is the largest Custom Research and Manufacturing Services (CRAMS) player and a leading Drug Discovery and Development Solution (DDDS) provider out of India".

The Problem

Production losses due to presence of contaminants in TG Control Room and UPS Room.

The cause of the problem

Corrosive gases in the surrounding environment.

The Source of the problem

When people move in and out of the control room, or power failure occurs there is a fluctuation in temperature

and humidity. Small portions of the circuits, then fall below the dewpoint temperature.

Gaseous contaminants like Hydrogen Sulfide, elemental Sulfur, organic sulfur compounds like mercaptans, oxidised forms of sulfur like SO₂ (Sulfur Dioxide), SO₃ (Sulfur Trioxide), Nitrogen Oxides NO_x, Cl₂, Ammonia and derivatives, photochemical species etc., which are present in the Control rooms in low concentrations of PPB, condense on the metal of ICs, and other electronic and electrical parts. It forms a non conducting layer which resists current flow, leading to thermal failures or short circuits.

Corrosion of metals is caused primarily by the attack of gaseous contaminants and is accelerated by heat and moisture. The severity of damage depends on the kind of contaminant. Chlorine for example is over 200 times

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

more damaging than ammonia. Only 10 PPB of Chlorine causes similar amount of damage as 25000 PPB of ammonia.

Heat and moisture are instrumental in furthering damages due to corrosion. Above 50% RH accelerates corrosion while above 80% RH electronic corrosive damages will occur regardless whether contaminants are present or not.

Bry-Air Airengineers helped Jubilant solve the problem with EcoScrub inside

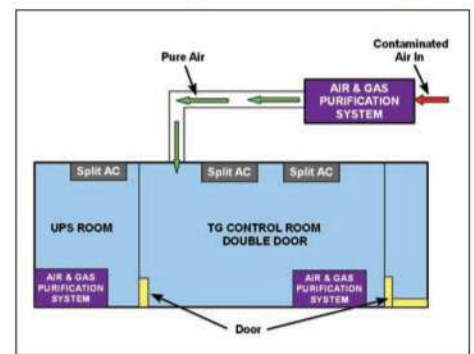
Bry-Air has installed an Air & Gas Purification System outside the control room at a distance of 25ft from control room which sucks the fresh air, removes dust and gases and pressurizes the room with pure air.

Bry-Air has also installed another two Air & Gas Purification Systems in the

UPS and TG Control Room for cleaning of room air as well, this is essential since movement in the room is 10 times/hr. With each movement contaminated air from outside moves into the room. Split AC installed in both these rooms for controlling temperature.

Bry-Air had supplied 10 units to Jubilant in the past.

Installation System Flow Diagram



Air & Gas Purification System (AGPS)
Removes Contaminated Air Most Economically

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.



Leaders in Dehumidification... Worldwide

Visit us at
www.bryair.com

Enter Bry-Air... exit moisture

BRY-AIR (ASIA) PVT. LTD.

Corporate Office:	City	Phone	E-mail	BRY-AIR (USA)	BRY-AIR (MALAYSIA)	Country	Phone	E-mail	Website
21C, Sector-18, Gurgaon 122015 Phone: +91-124-4091111 Fax: +91-124-4091100 E-mail: bryairmarketing@pawha.com	DELHI	+91-11-23906666	enquire@pawha.com	Phone: +1-740-965-2974 Fax: +1-740-965-5470 E-mail: bryair1@bry-air.com Website: www.bry-air.com	Phone: +60-3-89256622 Fax: +60-3-89259957 E-mail: bryair@bryair.com.my Website: www.bryair.com.my	BRY-AIR (UAE)	+971-6-5574622	support@bryair.ae	www.bryair.com/uae
	CHANDIGARH	+91-172-4678806/7	bryairchandigarh@pawha.com			BRY-AIR (PHILIPPINES)	+63-2-8078436	mail@bryair.com.ph	www.bryair.com/philippines
	MUMBAI	+91-22-24935155/24947475	bryairmumbai@pawha.com			BRY-AIR (INDONESIA)	+62-21-79199023	indomark@bryair.com.my	www.bryair.com/my/indonesia
	VADODARA	+91-265-2351493	bryairbaroda@pawha.com			BRY-AIR (VIETNAM)	+84-8-39956498	vietmarketing@bryair.com.my	www.bryair.com/my/vietnam
Registered Office: 20, Rajpur Road, Delhi 110054 Phone: +91-11-23906666 Fax: +91-11-23906600 E-mail: enquire@pawha.com Web: www.bryair.com CIN: U74210DL1981PTC012456	KOLKATA	+91-33-22814841/22814877	bryairkolkata@pawha.com	BRY-AIR (CHINA)	BRY-AIR (BRAZIL)	BRY-AIR (NIGERIA)	+234-8097276772	bryairmarketing@pawha.com	www.bryair.com/nigeria
	BENGALURU	+91-80-25271232	bryairbangalore@pawha.com	Phone: +86-21-51591555 Fax: +86-21-51591559 E-mail: info@bryair.com.cn Website: www.bryair.com.cn	Phone: +55-41-36982222 E-mail: contalato@bryair.com.br Website: www.bryair.com.br	BRY-AIR (INDONESIA)	+41-91-6830971	msammartini@pro-kon.ch	www.pro-kon.ch
	HYDERABAD	+91-40-27154243	bryairhyderabad@pawha.com			BRY-AIR (SWITZERLAND)			
	CHENNAI	+91-44-26163820/29/40	bryairchennai@pawha.com			BRY-AIR (BANGLADESH)	+880-1819409100	bryairbangladesh@pawha.com	www.bryair.com/bangladesh
	KOCHI	+91-484-2395940	bryairkochi@pawha.com						