

VirtECS[®] CONTINGENCY PLANNING

Enabling Rapid Response to Emergencies and Unfamiliar Changes to Market Conditions

CHALLENGE = OPPORTUNITY

There is a popular saying, “The only constant in business is change”. Previous changes that businesses encounter can provide a precedent for how to respond quickly and effectively. However, some unknowns of a business or facility have no guide for developing a response when they occur. The COVID-19 pandemic is a recent example of an unprecedented change that affected businesses worldwide. VirtECS equips companies with a virtual plant model that provides the ability to rapidly test many scenarios including crises. In times of great change, VirtECS is an unparalleled resource to find the quickest, most effective response. No matter the current state of business, VirtECS pays for itself many times over, and during times of unknown change can be the difference between a success and being offline.

CASE STUDY: HURRICANE KATRINA

The massive Folgers Coffee facility in New Orleans is a wonder to behold and produces much of the coffee that America drinks every day. The site's VirtECS plant scheduler had attended a training session at the Advanced Process Combinatorics, Inc. (APCI) offices and no sooner



landed back in New Orleans when Hurricane Katrina struck. Fortunately, the plant is a few feet above sea level, so it avoided the full force of the hurricane. The surrounding neighborhoods were not so lucky and found themselves underwater which also prevented any trucking shipments from arriving to the facility. Given the importance of the Folgers plant to America's morning there was an enormous need to bring the facility back online as soon as possible.



Coincidentally, President George W. Bush was looking to visit an operational facility in New Orleans about a week after the disaster, and he was likely to tour the Folgers facility since it was above water and of national interest. Before the President visited the plant, Folgers personnel contacted APCI for advice on this unique contingency planning scenario. In particular, they wanted to use the VirtECS plant model to determine how to maximize coffee production given the National Guard

could only arrange to transport a limited number of employees and fresh production water until the flooding receded. Plant personnel had no experience operating under these unique conditions.

Using VirtECS, Folgers personnel created a series of feasible production schedules that were within the personnel, water, and operational equipment constraints which spanned from days after the hurricane hit until the plant was back in full operation a few weeks later. According to plant personnel, a short period of time after Hurricane Katrina, VirtECS paid for itself many times over with the increased coffee production.

VirtECS TECHNOLOGY IS UNIQUE FOR CONTINGENCY PLANNING

VirtECS is ideal for routine what-if scenario analysis, scheduling, and production optimization, but VirtECS is unique in its ability to respond to emergencies and sudden process changes. VirtECS is a modern tool in which the users can quickly reconfigure virtual plant models using the VirtECS Model Editor to provide answers without any programming training or knowledge. This feature allows VirtECS to provide a low cost of ownership as plants evolve within normal business conditions, and provide critical responses in emergency situations, like the Folgers plant after Hurricane Katrina.

Contingency Planning with VirtECS

- Raw material supply shocks
- Loss of equipment/process capability
- Labor disruption
- Rapid and responsive capacity expansion
- Sudden change in product slate
- Emergency product introduction

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