OHIO CHEMICAL MANUFACTURING PLANT FIRE

Case Study

Incident

When a product inside a heated high pressure manufacturing machine caught fire in an Ohio chemical plant, smoke and soot contaminated surrounding equipment. The production floor, which houses state-of-the-art mixing, blending and packaging equipment, was also exposed to water when the fire suppression sprinkler heads activated. In order for the facility to meet its production deadlines, AREPA was immediately dispatched for expedited equipment decontamination.

▲ Kneader extruder before decontamination

▲ Kneader extruder after decontamination

Challenges & Logistics

AREPA specialists examined the equipment and noted that in addition to smoke, soot and water exposure, the equipment exhibited production byproduct and environmental debris. In order to safely power on the machinery for testing, all of the observed contaminants had to be removed. Water from the sprinklers penetrated open motors and gearboxes, requiring those items to be completely disassembled and dried.

Engineers that were retained to assist with the project scope determined that a portion of electrical panels required replacement, while others were eligible for professional decontamination. Once a cost and replacement lead time analysis was complete, it was determined that the condemned panels were extremely costly and would take six months

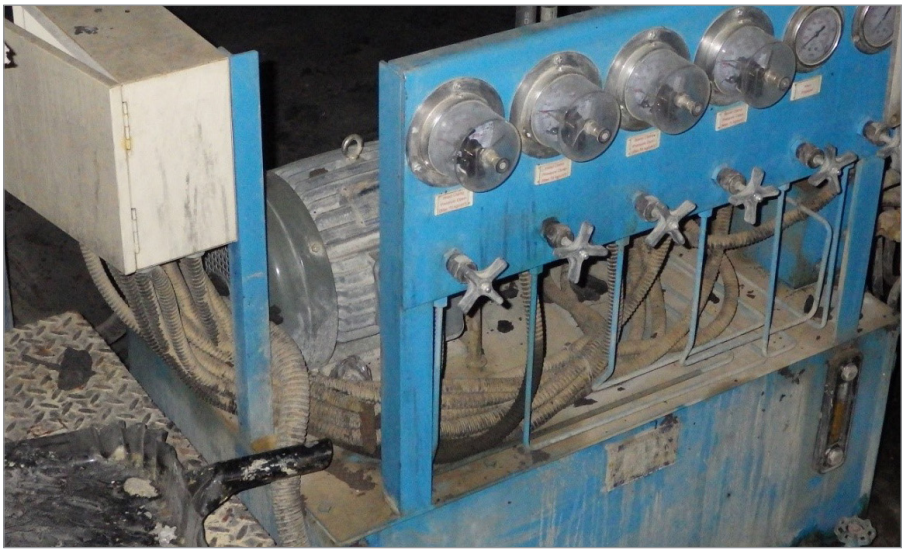
Highlights

- **Product inside a heated high pressure manufacturing machine caught fire in an Ohio chemical plant. Smoke and soot contaminated surrounding equipment. The production floor, which houses state-of-the-art mixing, blending and packaging equipment, was also exposed to water when the fire suppression sprinkler heads activated.**
- **AREPA was immediately engaged for expedited equipment decontamination.**
- **AREPA specialists examined the equipment and noted that in addition to smoke, soot and water exposure, the equipment exhibited production byproduct and environmental debris.**
- **Water from the sprinklers penetrated open motors and gearboxes which required those items to be completely disassembled and dried before functional testing could take place.**
- **AREPA successfully decontaminated the equipment and reconditioned the condemned control panels. The facility resumed production within weeks as opposed to the engineers estimated six months.**

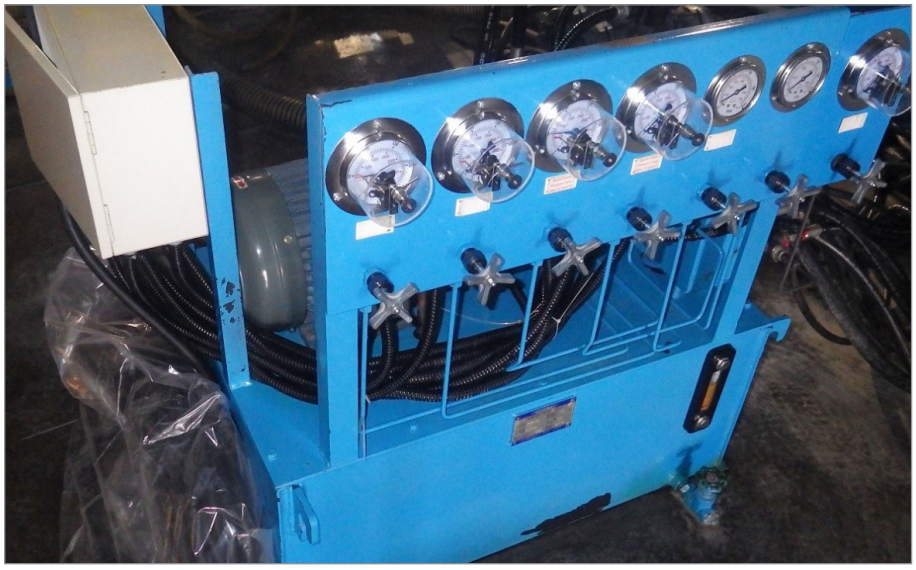
to build. The replacement route would severely disrupt the facility's ability to meet customer orders and increase business interruption costs. AREPA provided technical reconditioning options for the condemned panels, which the client used to formulate a business recovery plan. The client decided to recondition the condemned panels and only replace the need parts within them, significantly mitigating production down time.

Outcome

AREPA successfully decontaminated the equipment and reconditioned the condemned control panels. The facility resumed production within weeks as opposed to the engineers estimated six months.



▲ Hydraulic power supply before decontamination



▲ Hydraulic power supply after decontamination

AREPA In Action

◀ Kneader motor drive control panel before decontamination

Kneader motor drive control panel after decontamination ▶