



Fire at an Ice Cream Production Facility

Case Study

Incident

In February 2023, a fire broke out in the processing area of an ice cream production facility, causing extensive damage. This area on the first floor is where milk and cream are mixed during the production process. Unfortunately, the fire affected a significant amount of the processing equipment.

Challenges

To develop a plan for the equipment decontamination, AREPA had to wait a couple of months to start the decontamination process due to building decisions and the facility's need to dismantle the majority of the equipment. Unfortunately, during this time, the equipment began showing signs of deterioration and corrosion due to the incident's fire, soot, and water residue.

On April 3rd, 2023, the AREPA team arrived at the site and immediately set to work identifying all affected equipment and determining the best techniques for restoring the production equipment, which was primarily made of stainless steel. The decontamination area was located in the same processing area, and the Maintenance team was instrumental in assisting with equipment identification and transfer between locations.

The biggest challenge for the AREPA team was finding an effective technique for polishing the stainless steel without causing any damage or scratching to the surfaces. Moreover, given that the equipment was used for producing ice cream, no harsh chemicals could be used in the decontamination process.

Outcome

One of the top priorities for AREPA was to thoroughly decontaminate all the affected equipment, including packing machines, conveyors, mixers, tanks, pumps, meters, and their corresponding electrical panels—additionally, some office equipment, such as laptops, required decontamination.

All equipment was meticulously inventoried, decontaminated, and inspected. Some motors had irreversible damage, and therefore, their replacement was recommended. All equipment pieces that were broken or burnt were identified to the maintenance team.

Since this is a food processing facility, the FDA has been involved in the entire process and will conduct tests for bacteria and cleanliness before the equipment can be put back into operation.

Highlights

- In February 2023, a fire occurred in an ice cream production facility.
- Smoke and soot contaminated food-grade processing equipment.
- Deterioration and corrosion began to show on the equipment during time of building decisions and the facility's need to dismantle equipment.
- AREPA was on-site April 3, 2023 to immediately begin determining best restoration techniques for stainless steel.
- AREPA inventoried, decontaminated and inspected all equipment following FDA guidelines.

AREPA IN ACTION



▲ Before decontamination



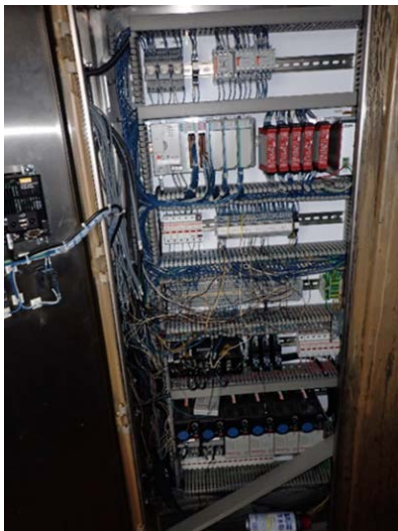
▲ After decontamination



▲ Before decontamination



▲ After decontamination



▲ Before decontamination



▲ After decontamination