Written by Joseph C. Pearson and Dilip A. Pandya, United States Postal Service
Sunday, 01 May 2005 00:00

In 1999-2001, the New Jersey International & Bulk Mail Center (NJI&BMC) in Jersey City, one of the largest United States Postal Service facilities, was concerned about its eight 33-year-old motor control centers (MCCs). Events forced a decision to pursue options for replacing or refurbishing the 276 cells that provide power primarily to 58 heating, air conditioning, and ventilation air handling units (HVAC AHUs) for the 1.8-million-sq-ft facility.

The in-house maintenance project was completed in November 2004 without any plant shutdowns, injuries, or delays in mail processing operations or exceeding the allotted budget. The project improved safety and security for employees and facility equipment, extended overall life of the MCCs, enhanced skills of the craft crew and employees, and saved an estimated $1.8 million.

Background

NJI&BMC usually processes more than 1 million pieces of mail daily, on a 24 hour/7 day basis. The mail volume has increased significantly for the past 20 months because of the heavy mail volume from Iraq, and other military activities.

The largest of 21 bulk mail centers, the facility's main buildings have about 1100 conveyors, and parcel sorting and sack sorting machines, that would stretch up to 25 miles if placed end-to-end. After being sorted, mail is distributed to various postal facilities and international shipping docks on a daily basis from 305 truck bays.

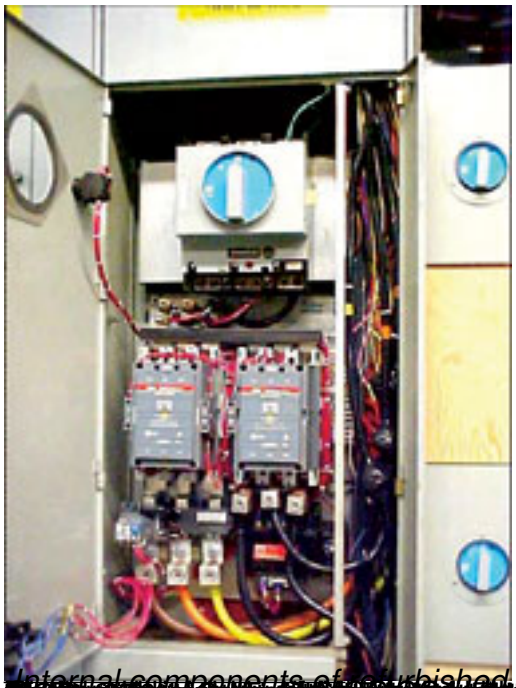
In 1999-2001, the facility experienced three incidents where aged components in various MCC cells malfunctioned, resulting in minor explosions and fire. Maintenance personnel were successful in containing the fires and preventing any additional property damage or any personnel injuries. Based on these experiences, it was decided to explore cost-effective options for replacing or refurbishing the 276 buckets.

Option one: replacement

33-year-old MCC before refurbishment

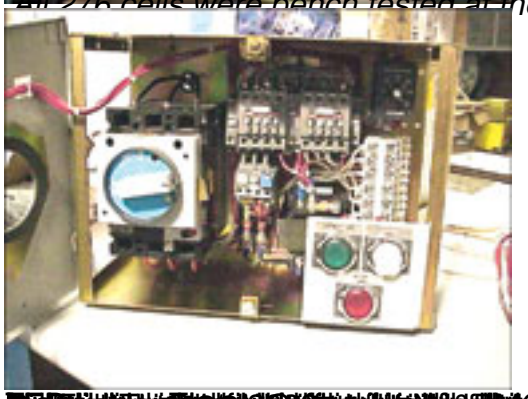
MCC at completion of project

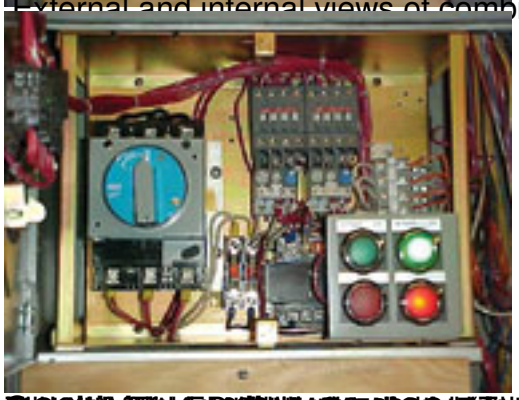
Internal components of original MCC



Internal components of refurbished MCC.

All 276 cells were bench tested at the factory to ensure workability.





External and internal views of combined small starters cells

[redacted]