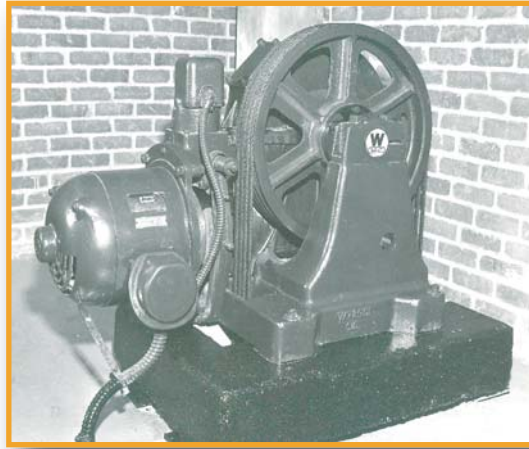


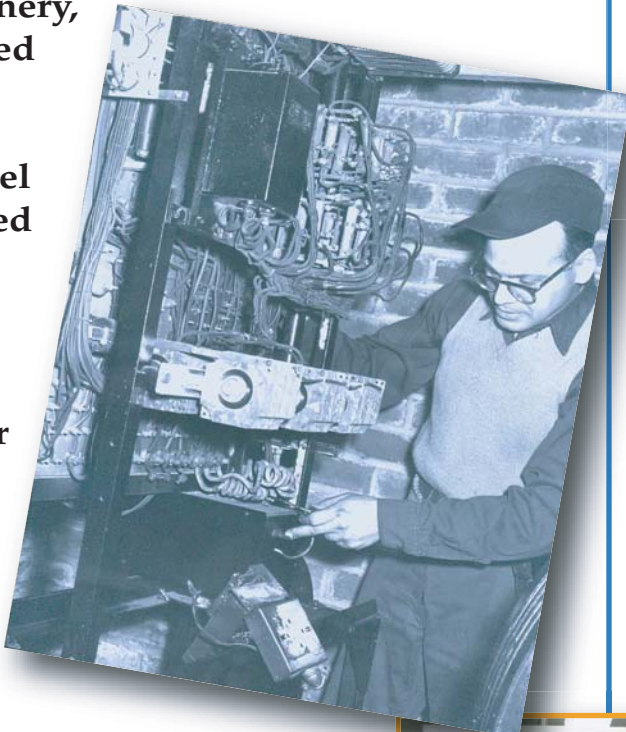
ELEVATORS

In 1939, the first NYCHA development to be built using elevators was Red Hook Houses in Brooklyn.



In 1997 computerized elevator controls improved service and reduced the number of control board failures.

Elevators, complex electro-mechanical devices, used basic elevator controls (relay logic) back in 1939. Control boards consisted of several large contactors and directional relays, which sent power to the elevator hoist machinery, which, in turn, moved the elevator up and down the shaft by means of several steel hoist cables connected to the cab, and counterweights.



As the Housing Authority built taller buildings, relay logic continued to be used. However, the taller the building, the larger the control board needed to be.

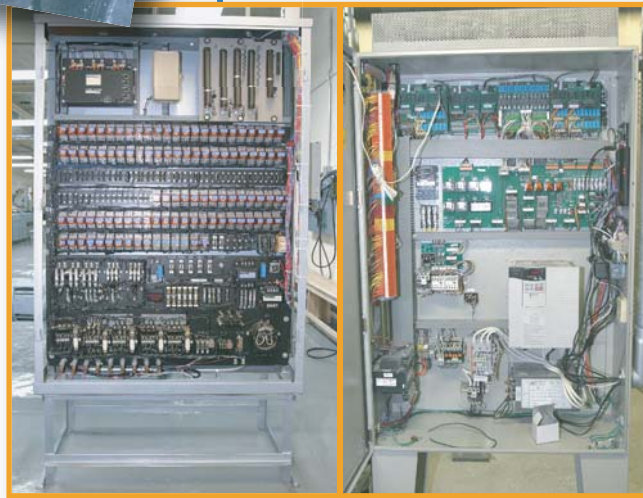


Approximately one third of NYCHA's elevators are equipped with computerized elevator controls, which also give NYCHA the ability to monitor elevator operations remotely.

The Authority is developing and installing remote monitoring features on all newly installed elevator control boards.



Control boards also became more sophisticated to address the new code requirements - Americans with Disabilities Act, leveling accuracy, smoother acceleration and deceleration speeds, and firefighter service. Elevator hoist motors also improved, allowing elevators to approach the floor landings smoothly and level properly at the floor.



Today, the New York City Housing Authority maintains, services and repairs 3,317 elevators throughout the five boroughs.

NYCHA has built a "State of the Art" training facility at the Long Island City complex. The facility is equipped with various types of elevator control systems (relay logic and computerized systems), hoist machines, cab enclosures,

motor generators, etc. The control systems have built-in simulators, which allow training supervisors to replicate field conditions thus allowing staff to be trained on simulated field problems.

