

How MCE Put 12-Pulse Technology in Your Hands.

*MCE News in Motion
Summer 1999*

“Next generation” technology is elusive no matter the industry. The challenge of allocating the right resources at the right time to develop the right products is daunting. Some companies have a knack for knowing what the market will embrace.

In the early 90's, **MCE** pioneered Turbo DF elevator controls with distance feedback – and gave the industry the name. By all measures the distinctive “black box” controllers were a great success for the young company.

Company executives Don Alley, Javad and Majid Rahimian have met for daily lunch since starting the company in 1983. Their discussions frequently returned to a spirited debate about “next generation” elevator control technology.

The ultimate control, they decided, would have three key elements:

- 1) It would be digital, to allow settings to be stored numerically, maximizing system stability and eliminating trimpots;
- 2) It would be characterized by unprecedented integration between the control system and drive to create an extremely tight system of feedback loops; and
- 3) It would use a revolutionary new, high-resolution drive technology to provide the smoothest elevator ride in the industry.

By 1994, **MCE** was ready to make good on the first two elements, introducing **IMC Intelligent Motion Control** for motor generators. The company found building owners

hungry for leading edge elevator control technology.

One of the first big projects was the Tower of Power at 55 Water Street in New York. This venerable 54-floor building was being modernized to maintain its competitive stature in the financial district office market on Manhattan. Seventy-seven elevators, with speeds to 1400 fpm, were modernized retaining the existing motor-generators.

The Guardian Life Building, also a big motor generator project in New York, soon followed.

By mid-1995 the development engineers at **MCE** were ready with the third leg of their strategy: the 12-Pulse elevator drive.

This new technology doubled the resolution of conventional six-pulse drives. Designed specifically for elevator applications, the integrated, digital drive cut current harmonic distortion in half while delivering an exceptional elevator ride.

IMC-SCR, with the **System 12** motor drive, was beta tested at 55 Capitol Mall near the state Capitol in Sacramento, a short commute from **MCE**'s plant. Centennial Building in Minneapolis was next.

The orders came at a steadily increasing pace. Despite limited experience with the technology or the product, building owners demanded the new technology and consultants evaluated and specified it.

During 1995, Chase Manhattan specified **IMC** controls for its world headquarters in Manhattan. The equipment quickly gained both national and international attention. Other prestige projects soon followed: electronics innovator Sony USA Headquarters in Manhattan; Ted Turner's news and entertainment headquarters CNN Center in Atlanta; Eco-Labs Headquarters in

Minneapolis.

12-Pulse technology worked and worked well. Elegant in its simplicity, the drive substantially reduces the likelihood of current harmonic distortion from elevators disturbing equipment within a building.

Obviously, this is ideal for buildings housing data centers. Others have also discovered the benefits of 12-Pulse technology – including hospitals, with their life-saving electronic devices and sensitive imaging equipment.

The University of Minnesota modernized their Med Center's tower with **System 12**. Australia's supreme court selected MCE controls for the Law Courts building in Sydney.

Since its introduction, the notable performance of **IMC** 12-Pulse controls has won many more projects, including: the 160 Federal Building in Boston; cable giant TCI's headquarters in Denver; the Northstar Hotel Crowne Plaza in Minneapolis; and telecommunications leader Pacific Bell's facility in Los Angeles.

Over 2,500 IMC-SCR System 12 units will have been delivered by the time you read this article (*though Summer 1999*). **MCE**'s 12-Pulse technology has been proven in all types of commercial applications, low, mid- and high-rise. Even the Washington Monument is now equipped with 12-Pulse elevator controls from **MCE**.

IMC elevator controls have redefined expectations for premium elevator performance.