

180 East Pearson Generator Replacement

Project Highlights and Results

- Replaced existing 575kW generator, associated automatic transfer switches, and electrical distribution system
- Secured City of Chicago Special Permission Code Variance to install new natural gas life safety generator on the 74th floor
- Constructed new generator room to allow existing emergency system to remain intact during construction
- Eliminated need for expensive, disruptive helicopter lift of new generator; new equipment ingress via service elevator

Project Background

Owner:	The Residence at Water Tower Place Condominium Association
Location:	Chicago, IL
Team/Team Lead:	Bhupendra Tailor
Elara Role:	Electrical Engineer
Type:	Generator Replacement
Construction Cost:	\$872,000

Project Overview

Building Type:	High-Rise Mixed Use
Building Attributes:	74 Stories (42 Residential), 758,000 SF
Initial Construction:	1976
MEPPIT Systems:	500kW Natural Gas Generator on 74th Floor

Innovation

- Elara's generator replacement schematic design report determined that a turnkey solution with new distribution equipment, transfer switches, and generator offered the greatest serviceability and longevity of the building's entire life safety system.
- City of Chicago Code requires that life safety elements for buildings over 300 feet in height be connected to a diesel generator and that the generator location shall not be installed above the second floor of the building.
 - Elara successfully obtained a special permission letter from the City of Chicago to replace existing natural gas generator with a new natural gas generator on the 74th floor.
- Constructed new generator room adjacent to existing natural gas generator room on 74th floor to keep emergency life safety system fully operational during construction.
- De-assembled and utilized building's service elevator to ingress new equipment parts to eliminate need for expensive and disruptive helicopter lift; including the closure of Michigan Avenue, one of downtown Chicago's busiest streets. Re-assembled all the generator parts on the 74th floor.

