

# Electrical Engineering for CRANES & HOISTS



## Crane & Hoist Expertise



H2E has proven Electrical Engineering expertise in both new crane and hoist design development as well as refurbishment upgrades. For both Government and Private sectors, H2E's electrical expertise can be customized to your specific project needs.

## Integrated Design Approach



H2E executes within a comprehensive design approach, utilizing proven technologies and design methodology to ensure quality results. Underpinned by H2E's Quality Assurance Program, design packages are developed and thoroughly verified to project specifications and performance requirements.

## Critical Design Considerations



- Experience with CMAA and NEC Article 610 requirements
- Development of Crane and Hoist Control System Packages
- Power Modeling, Arc Flash, On Crane Generation
- Main Power, Main Control and Trolley Control Panels design
- PLC, HMI and Historian Programming for Crane/Hoist operation
- Factory and Site Acceptance Testing

H2E's expertise includes Bridge, Gantry, Pivot, and Clamshell cranes up to 500 tons. Scalable design capability ranging from fully detailed crane packages per detailed specifications, to a more graded approach for more basic engineering requirements. Whether a fully custom new design or a more economical modernization, H2E has the proven expertise to perform and deliver value to your project.

Service tailored to your needs:

- Crane Upgrade Planning and Budgeting
- Specialty services such as Reliability Studies, Evaluation Support (Electrical & Automation)
- Designs for Abnormal Environmental Conditions
- Electrical Load & Arc Flash Calculations
- Control Panel Design with detailed Installation Drawings
- Standby power systems for crane operation
- VFD and DC Drive Upgrades
- Buswork and Cable Reel Systems
- Conduit plans, Conduit/Cable schedules
- Grounding/bonding
- Festoon Systems
- Construction package development
- Formalized Control Test Plan/Procedure

