



**Battery Backup Controls Application Questionnaire:**

1. What type of control system do you have?
  - a. AC Contactor
  - b. AC VFD
  - c. Solid state Variable Speed DC
  - d. DC Constant Potential
  - e. AC Static Stepless
  - f. Other \_\_\_\_\_
2. Operator control station
  - a. Cab
  - b. Radio
  - c. Both
  - d. Other \_\_\_\_\_
3. What is the nominal supply voltage / frequency?
4. What motions are to be control by battery backup? List all that apply.
  - a. Main Hoist
  - b. Aux Hoist
  - c. Bridge
  - d. Trolley
  - e. Magnet
  - f. Other \_\_\_\_\_
5. What type of brake is on each of the motions: use separate sheet to describe if needed.
  - a. AC Thruster
  - b. DC magnet – Must provide rectifier voltage – Is there an economizer time delay?
  - c. Disc brake – AC solenoid
  - d. Other \_\_\_\_\_
6. Does the hoist have an eddy current brake?
7. What is the total current rating of the control system required to operate under battery power?  
i.e. motors, brakes, control transformers, etc.
8. What is the duration the back-up will be required to run the system?
9. A control system schematic of the existing controls to be retrofitted is required
10. How should the changeover to battery occur?
  - a. Automatic
  - b. Manual
11. Is there administrative procedure for notifying personnel of power failure and that the crane is operating in battery backup mode?
  - a. Is there a horn, light, warning device?
  - b. What equipment needs to be interfaced with in order to properly notify personnel?
12. What is the ambient temperature?
13. What NEMA rating is required for the control enclosure?
14. Explain the expected operation of the crane while on battery power?