SECTION 16630

BATTERY POWER SYSTEMS

PART 1  GENERAL

1.01  SUMMARY

A.  Section Includes:
   1.  Emergency battery power supply.

B.  Related Sections:
   1.  Section 16620 - Standby Power Generation Systems

1.02  REFERENCES

A.  Where appropriate, refer to current ANSI and NEMA standards for material ratings.

B.  Specify Underwriters Laboratories (UL) listed equipment, assemblies and materials.


1.03  SYSTEM DESCRIPTION

A.  Although these are viable systems, they are usually more expensive than other systems. Accordingly these still only be used with University approval.

B.  Specify a forward transfer type emergency power supply consisting of rectifier/charger unit, storage battery and mechanical transfer switch. NOTE: If HID luminaires are to be supplied from this system, specify a static transfer switch.

1.04  SUBMITTALS

A.  Require submittals under the provisions of Section 16010 - Basic Electrical Requirements and 01300 - Submittals

1.05  WARRANTY

A.  Require a ten year warranty on batteries. Prorate warranty after first year on straight line basis.

PART 2  PRODUCTS

2.01  MANUFACTURERS

A.  Emergency Battery Power Supply:
1. Exide
2. Chloride
3. Siltron

2.02 EQUIPMENT

A. Emergency Power Supply:

1. Input Voltage:
   a. 120V or 277V, 1Ø, 60 Hz
2. Output Power:
   a. As required at .8 power factor.
3. Battery Operating Time:
   a. 1.5 hours at full load and output voltage
4. Output Voltage:
   a. 120V or 277V, 1Ø, 60 Hz, plus or minus 5%.
5. Efficiency:
   a. 90% minimum
6. Maximum Recharge Time:
   a. Twelve hours following 1.5 hour discharge.
7. Total Harmonic Distortion:
   a. Less than 10% at full resistive load.
8. Transfer Time
   a. 50 milliseconds (continuous output power if serving HID luminaires).
9. Batteries:
   a. Lead calcium.
10. Exercising Clock:
    a. Simulate power interruption for a fifteen minute duration every thirty days.
11. Accessories:
    a. Remote battery alarm.

B. Remote Trouble Monitor:

1. Common audible signal for system disarray.

PART 3 EXECUTION

3.01 INSTALLATION

A. Require installation per manufacturer’s recommendations.

B. Locate unit in area not subject to unusual temperature extremes.

C. Require factory authorized technician to test and start up system.

END OF SECTION 16630