

## SBS's Recommended Testing Schedule Based on IEEE & NERC PRC-005

■ – Meets the minimum requirements of NERC PRC-005-2\*  
● or ■ – Meets IEEE Recommendations\*

Vented / Flooded Lead Acid Batteries (VLA)	Test Equipment	IEEE 450-2010			
		Monthly	Quarterly	Yearly	5 Years
Visually inspect batteries, rack, charger, room.		●	●	■	
Record battery system float voltage and current at battery terminals.	SBS-600	●	●	■	
Record charger output voltage and current. Correct if needed.	SBS-600	●	■	■	
Check electrolyte levels. Fill with distilled water to 'max' line if necessary.		●	■	■	
Record ambient/room temperature.		●	●	●	
Make sure ventilation system is operational.		●	●	●	
Inspect system for unintentional battery grounds.	SBS-600	●	■	■	
Record pilot cell(s) or block(s) voltage, electrolyte temperature and specific gravity <sup>†</sup> .	SBS-2003 and SBS-600	●			
Record voltage of ALL cells/blocks.	SBS-600, SBS-6500		●		
Record specific gravity of 10% of the cells <sup>†</sup> .	SBS-2003, SBS-2500, SBS-3500		●		
Record temperature of 10% of the cells.			●		
Record specific gravity of ALL cells <sup>†</sup> .	SBS-2003, SBS-2500, SBS-3500			●	
Record the internal resistance value of ALL cells/blocks.	SBS-6500		■	■	
Record temperature of ALL cells/blocks.	SBS-6500			●	
Record internal resistance value of ALL cell-to-cell and terminal connections.	SBS-6500			■	
Conduct load test two years after installation and then every five years. When the system's capacity falls below 90% load test annually.	SBS-8400, SBS-1230, SBS-1110				■

<sup>†</sup>Specific gravity should be temperature-corrected to 77°F.

Nickel Cadmium Batteries	Test Equipment	IEEE 1106-2005			
		Quarterly	Semi-Yearly	Yearly	5 Years
Visually inspect batteries, rack, charger, room.		●	●	■	
Record battery system float voltage and current at battery terminals.	SBS-600	●	■	■	
Record charger output voltage and current. Correct if needed.	SBS-600	■	■	■	
Check electrolyte levels. Fill with distilled water to 'max' line if necessary.		■	■	■	
Record ambient/room temperature.		●	●	●	
Make sure ventilation system is operational.		●	●	●	
Inspect system for unintentional battery grounds.	SBS-600	■	■	■	
Record voltage of ALL cells/blocks.	SBS-600, SBS-6500		●	●	
Record temperature of 10% of the cells.	SBS-6500	●	●	●	
Record the internal resistance value and temperature of ALL cells/blocks.	SBS-6500			●	
Record internal resistance value of ALL cell-to-cell and terminal connections.	SBS-6500			■	
Conduct load test two years after installation and then every five years. When excessive capacity loss is noticed load test annually.	SBS-8400				■

Valve Regulated Lead Acid Batteries (VRLA)	Test Equipment	IEEE 1188-2005			
		Monthly	Quarterly	Yearly	2 Years
Visually inspect batteries, rack, charger, room.		●	●	■	
Record battery system float voltage and current at battery terminals.	SBS-600	●	●	■	
Record charger output voltage and current. Correct if needed.	SBS-600	●	■	■	
Record ambient/room temperature.		●	●	●	
Make sure ventilation system is operational.		●	●	●	
Inspect system for unintentional battery grounds.	SBS-600	●	■	■	
Record voltage and temperature of ALL cells/blocks at the negative terminal.	SBS-6500		●	●	
Record the internal resistance value of ALL cells/blocks.	SBS-6500		■	■	
Record internal resistance value of ALL cell-to-cell and terminal connections.	SBS-6500			■	
Conduct load test after initial installation and then every two years or 25% of expected battery life.	SBS-8400				■

\*The above testing schedules are based on SBS's interpretations of both IEEE and NERC PRC-005-2. This information should be used for guidance purposes only and SBS can't be held responsible if the information is incorrect or if other parties interpret the information differently.