

1    **B-97 Battery Replacements, \$485,000**

2    Q.    Provide details to explain “this type of equipment has recorded significant  
3           numbers of failures in recent years.” Please provide supporting  
4           documentation.

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7    A.    The Staticon chargers being replaced under this program are 20 years old.  
8           The table below shows the failures that have been experienced with these  
9           chargers in the past 10 years. As older units have been taken out of service,  
10          they have been used to provide spare parts for other units still in service;  
11          however, the supply of usable components is dwindling and new parts are  
12          sometimes not available. Recent problems such as shorted wiring point to  
13          age-related deterioration of components. Replacing these units now will  
14          ensure reliable power at a location which is remote and difficult to travel to for  
15          much of the year.

Date	Problem	Resolution
Feb 1996	Control board has one relay only.	Replaced with control board with two relays for major/minor alarms.
Apr 1996	Charger 2 alarm	Adjusted float voltage and shared load between chargers.
Apr 1996	Float voltage potentiometer intermittent operation.	Charger A control card replaced
Jun 1996	Current limit no working properly.	Checked. No problem found.
Jun 1996	Charger A failure	Replaced control module.

Dec 1996	Charger turned off and failed when turned on again.	Control module replaced
Jan 1997	Charger control board failed.	Had been repaired.
Mar 1997	Charger control board failed.	Control module replaced
May 1997	Charger A stayed on equalize voltage.	Control module replaced.
Nov 1997	CEMF cell not dropping out automatically after equalize charge has finished.	Shorted M1 contact to remove CEMF cell from circuit.
Jan 1998	Relay failure	M1 relay replaced in charger.
Jan 1998	Equalize alarm not working.	Replaced burnt off wire with jumper.
Jan 1998	Intermittent Charger A alarm.	Control module replaced.
May 1998	Charger alarm	No problem found.
Feb 2000	Charger B meter not reading correctly	Control board sent for repair.
Jun 2002	Intermittent charger B alarm	Adjusted chargers A & B to share load.
Jul 2003	Charger would no go to equalize voltage	Fixed shorted wire.
Jun 2004	Lo/High volt alarm control fuse blown	Shorted wiring removed.
Jun 2005	CEMF cell is IN with charger at float voltage.	Adjusted float voltage. CEMF cell no longer comes on in float.