

1 **B-20 Purchase and Install UPS Battery Monitoring System, \$79,100**

2 Q. Provide a summary, including the age of batteries which have failed, of all
3 battery failures at Holyrood over the period 2001 to 2006.

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6 A. The following table contains a listing of the UPS and Station Service batteries
7 at Holyrood. This listing shows the bank installation dates, bank replacement
8 dates and dates when individual cells in the bank were replaced.

Bank	Date Installed	Bank Replaced	Cells Replaced
UPS #1	1997	2004	3 Cells - 2005
UPS #2	1999	2004	----
UPS # 3	2001	2006	-----
UPS # 4	2001	Pending	2 Cells - 2005
Stage 1 – 129V	1989	2006	----
Stage 1 – 258V	1989	1998	----
Stage 2 – 129V	1979	1996	----
Stage 2 – 258V	1979	1996	----

9 The Stage 1-129 and 258 Volt banks installed as original equipment in 1969
10 were replaced after approximately 20 years, and replaced again in the years
11 shown in the table. The units in service now serving Stage 1 are third
12 generation batteries.

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14 For Stage 2, the 129 and 258 Volt banks installed as original equipment were
15 replaced in 1996 as shown in the table. The batteries now in service serving
16 Stage 2 comprise a second generation bank.