

1 Q. **Re Replace and Purchase of Stator Windings, page B- 4**

2 At page 4 of the report (Volume II, Tab 2) supporting this project electrical test
3 results are reported for Unit 2. Were electrical tests performed on the other Units
4 and, if so, explain how the results differed from those reported Unit 2?

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7 A. Electrical testing is conducted on each unit approximately every five years during a
8 planned major outage of the unit. Electrical tests involve applying a test voltage to
9 the stator winding while monitoring the current flow in the winding insulation.
10 Initially, a test voltage of 3 kV is applied to the windings, and gradually the voltage is
11 increased, while the current flow is monitored. Under ideal conditions for a
12 winding with good insulation, the test voltage of 28 kV can be applied with no
13 increase in the current flow through the insulation. This indicates a strong
14 insulation. In the case of Unit 2, as the test voltage was being applied (as low as 13
15 kV), the current flow increased. This indicated a weak insulation, and the unit failed
16 the test. As for the other units, Unit 4 began to show a rapid increase in current
17 flow at approximately 21 kV when tested in October 2006, Unit 1 began to show a
18 rapid increase in current flow at approximately 23 kV when tested in July 2007, and
19 Unit 3, when tested in June of 2009, showed a minimal increase in current flow.

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21 Electrical testing failure is an indication that there is cracking insulation and seeping
22 asphalt. The insulation is deteriorated to the point that failure is expected in the
23 near future. Electrical testing is used to confirm which stator winding is closest to
24 failure.