

1 Q. Re page B-8: specify what spares are available for the existing PLC.  
2 Explain how the failure of this unit affects the supply of electricity to the grid.

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5 A. The Bay D’Espoir Powerhouse No. 1 (Units 1-6) Station Service can be  
6 supplied from 4 different sources. The Station Service has 3 control modes,  
7 Automatic, Manual and Off.

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9 The programmable logic controller (PLC) will establish the source priority, the  
10 source transfer initiation and the interlocking for the breakers when the  
11 Automatic Mode is selected. The PLC is also used in the Manual Mode to  
12 supervise the selection of the supply source, but the Operator has to close  
13 the breakers. In the Off Mode the PLC is disabled.

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15 The warehouse at Bay D’Espoir carries a spare for the PLC power supply,  
16 the processor, the input modules and the output modules. The PLC supplier  
17 is able to provide spares for the power supply and the input/output modules  
18 and the processor module is no longer available.

19

20 If the PLC fails, automatic transfer from one station service source to another  
21 will not occur. This will result in the Operator having to manually switch  
22 breakers to provide a supply. Depending on the time this takes, units could  
23 be lost which will remove generation from the grid. This could result in the  
24 loss of service to customers.