

1 Q. Re: Upgrade Burnt Dam Spillway, Bay d’Espoir, Tab 8:

2 Please detail the problems related to the reliability of the diesel generators that
3 supply power to the hydraulic structure as outlined by Hydro on page 9.

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6 A. There are three diesel generators installed at Burnt Dam, referred to as Units 1, 2,

7 and 3. Unit 1 is 60 KW, Unit 2 is 25 KW, and Unit 3 is 75 KW. Units 2 and 3 are 46

8 years old and were installed in 1966 whereas Unit 1 was replaced in 2009. Unit 1,

9 the newest generator, runs during the winter to provide power to the

10 accommodations and gate structures with the two older units serving as back-up.

11 Unit 2 is the smallest unit and runs continuously during the summer with the other

12 two units as back-up. It can meet the power requirements of the site during the

13 summer except when a gate has to be operated. When the latter is required, one of

14 the larger units has to be operated.

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16 Units 2 and 3 are old and have exceeded their service life. Unit 2 is experiencing

17 repetitive problems with its oil seal, bearings, fuel pump and injectors. Unit 3 is

18 experiencing problems with engine oil leakage, its radiator, and a drop in its

19 performance in meeting load. The probability of failure increases with aging of the

20 units.