Q. B-25, Replace Emergency Diesel Generator, \$611,400

If the 200 kW diesel unit is too small to supply station service can it be assumed that all other generating units would be off line at that time?

A. There are two scenarios related to the seven hydro generators whereby the diesel unit will be called upon to start and provide power to the station service panel.

Depending on the scenario the other hydro generating units may or may not be on line. In each case, the distribution line serving the powerhouse would have to be either out of service or de-energized.

Under one scenario, if units 1 and 3 trip offline the diesel will start to provide power to the station service panel which in turn will provide power to run the auxiliary equipment related to the other five generating units depending on how many are online at the time. However, because of the small size of the 200 kW genset, full station service requirements for the other five units will not be able to be provided. As a result, the other five generating units will start to shut down. The generating capacity of the Bay d'Espoir plant will be reduced greatly. To restore full plant generating capability from those units available for generation, unit 1 or 3 will first need to be brought online so sufficient station service power can be restored to operate the other five units. However, much of the station power available from the 200 kW diesel will need to be diverted from the other five units to start up unit 1 or 3. This increases the potential for some or all of the other five units that may be running to start shutting down.

The second scenario is if the plant is in a black plant condition whereby a situation has arisen leaving all seven hydro generating units off line. The diesel genset then

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- becomes the only source to provide station service power to start up either units 1
- or 3, which will be required to provide sufficient power to start up all other units.