

1     Q.     **D-62, Purchase Portable Dissolved Gas Analysis Unit, \$51,600**

2             Please explain how base line data for transformer gas levels are established and  
3             whether NLH intends to use this equipment to determine this information.

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6     A.     The ANSI/IEEE Standard C57.104 – “Standard for Use, Analysis & Application of  
7             Dissolved Gas in Oil Filled Transformers” defines the acceptable levels of dissolved  
8             gases for reliable and safe operation of power transformers. When a new  
9             transformer is put in service, base line oil samples are taken as part of the  
10            commissioning tests. Then, on a regular basis or when a transformer is suspected  
11            of having combustible gases, oil samples are taken for analysis. The dissolved gas  
12            analysis of these samples is compared with the recommended levels as defined in  
13            the standards. As explained in the budget proposal, the oil sample must be sent to  
14            an analysis laboratory in Montreal which can result in delays in putting the  
15            transformer back in service.

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17            This portable gas analysis unit will enable Hydro to do immediate, on site dissolved  
18            gas analysis. The results of this analysis can be immediately compared with the base  
19            line for the particular transformer and with the established standard base line levels  
20            to arrive at the correct diagnosis of the trouble.