Q. **C-27, Tab 12: Additions for Load Isolated Generation Stations - Various Sites; 2013: $2,040,200; 2014: $9,357,900**

In previous information provided by Hydro to the Board it has been noted that the cost of installation of fire protection systems in its diesel plants was not cost effective. The current application is recommending a fire protection system be installed at the Hopedale plant.

Is this a change in Hydro's philosophy regarding fire protection in its diesel plants? If so, please explain the rationale for the change.

A. Yes, there is a change in Hydro's philosophy regarding fire protection in its diesel plants. In 2010, the issue of fire protection for isolated Diesel Plants was judged to be of high concern even after mitigation considerations. As a result Hydro engaged Hatch in 2011 to complete a review of available fire protection systems and as well provide a risk ranking matrix to assist in ranking each plant in terms of risk and/or consequences of a fire. This risk ranking matrix considered such things as accessibility, how weather affects accessibility, population, plant output, community fire fighting capability, and replacement cost of plant.

Hydro's current approach is to consider installation of fire protection systems over time in remote diesel plants as other generation expansion projects are completed and with consideration of the risk ranking for the plant in question. A change in philosophy was made with consideration to a number of factors:

(a) Increased Insurance Deductibles:

Based on claim statistics Hydro's insurer, FM Global, has significantly increased the deductible for claims against damages caused by fire at diesel plants. The deductible has been increased in recent years from $1 million to $2 million.

(b) Availability of More Cost Effective Fire Protection System:

In the past when considering options for fire protection systems for diesel plants, Hydro found that the only practical fire suppression system available for this application was a sprinkler system. However, sprinkler systems require a large supply of water which in most cases is not readily available at Hydro's remote diesel generation sites. A new fire protection system has become available and is approved by Hydro's insurer, FM Global. It is a water mist system that does not require a large water supply and is considered to be cost effective.

(c) Nain Fire Experience in 2008:

In late fall of 2008 a fire at the Nain plant caused a large amount of damage and greatly reduced its generating capability. The diesel plant at Nain, like all other Hydro diesel plants serving isolated communities at present, does not have an automatic fire suppression system. The resulting damage caused customers to be without power for over 35 hours until temporary repairs were made and mobile generation was transported to the site. Maintaining service during such conditions was challenging and costly.

It was fortunate in this case that the temporary equipment could be delivered before the winter season commenced and coastal shipping was closed due to sea ice. To provide emergency temporary generation to isolated communities at a time of year when road or sea transport is not available would result in

significantly longer customer outages. The generation equipment would have to be airlifted to site or be delivered by a coastal vessel escorted by an icebreaker. This would also result in much higher cost to provide the temporary generation.