Q. **Re: Refurbishment of Marine Terminal at the Holyrood Thermal Generating Station (Tab 3)**

At Appendix B, page B-15, section 3.3, "Breasting Fender Spacing", Hatch notes that the breasting system was designed and constructed to accommodate 35,000DWT tankers that would engage 4 of the 8 gravity fenders. It also notes that the records indicate all ships docking at the facility in 2009 and 2010 were near the ideal length for the existing Jetty. For the 2009-2010 years, please outline the number of tanker dockings that were beyond the 35,000 DWT maximum that the Jetty was constructed for. Also, please provide the number of tanker dockers that were beyond the 35,000 DWT for 2011.

A. The Holyrood Thermal Generating Station Marine Terminal was originally designed to accommodate single hulled vessels of 35, 000 DWT. In July 1972, a terminal survey completed by Imperial Oil determined that the maximum tanker size acceptable was 60,000 DWT, less than 277m overall length and arriving with a displacement (weight of cargo plus ship) less than 77,000 tonnes. A subsequent terminal review in 1988 by Shawmont Newfoundland Limited increased this limit to 65,000 DWT but did not specify a maximum length. Vessels delivering fuel at the terminal averaged approximately 62,000 DWT and 223m overall length between 1988 and 2007. In April 2008 the Atlantic Pilotage Authority (APA) recommended a maximum tanker size of 55,000 DWT with 35 ft draft partially due to overall length but also for the reason that most vessels were now double hulled. Double hulled vessels are taller and wider than single hulled similarly sized vessels. The additional freeboard created during offloading would create more surface area which would result in higher wind forces on the vessel and berth.

Due to age of the terminal and degradation of the fendering system Hatch was retained to assess the terminal in 2010, provide recommendations for risk mitigation and recommendations for repair. The recommendations included a limitation of tanker size to less than 55,000 DWT and 200m which berth under controlled conditions with the assistance of a tug(s). Review of the Hatch report with the APA in 2010 resulted in a further clarification of tug requirements to two tugs for tankers without a bow thruster and one tug when the tanker is equipped with a bow thruster. These recommendations have been adhered to since 2010. Records prior to June 1988 are not readily available, however since that time there have been 163 fuel oil deliveries with only one tanker below 35,000 DWT. All tankers which docked in 2009 through 2011 were larger than the original design of 35,000 DWT single hulled tanker with seven tankers docking in 2009, six in 2010 and four through spring 2011.

Please refer to table below for all dockings from 2009 until spring 2011.

Date	Vessel	DWT	Length (m)
January 4, 2009	M/T High Performance	51303	182
February 3, 2009	M/T Kandilousa	46700	182.76
February 25, 2009	M/T Halki	46538	183.2
March 9, 2009	M/T Ravnanger	46338	182.941
March 27, 2009	M/T North Point	53095	186.41
November 11, 2009	M/T Kandilousa	46700	182.76
December 15, 2009	M/T Chang Hang Tan Suo	50900	184.95
January 14, 2010	M/T Minerva Vaso	50922	183
February 8, 2010	M/T Butterfly	47300	182.5
February 16, 2010	M/T Aris	53107	186.41
March 2, 2010	M/T Aris	53107	186.41
November 9, 2010	M/T Minerva Grace	50989	183
December 9, 2010	M/T Acor	40785	184.32
January 8, 2011	M/T Acor	40785	184.32
January 29, 2011	M/T Aris	53107	186.41
February 23, 2011	M/T Aris	53107	186.41
March 29, 2011	M/T Chang Hang Tan Suo	45709	184.95