Q. In the "Prime Thermal Asset Remaining Life Assessment", May 19, 1999 (IR NP 59(a), NLH 2001 GRA) the following statement is made on page 18: *"However, as part of other activities, material samples have been removed from the Holyrood Generating Station, particularly from the boiler. These have been removed to monitor the condition of the boiler tubes and to assess the quantity of deposits on both the interior and exterior of the tubes. The condition of these components has been found to be excellent*." Please explain what would have happened since that time that would require that boiler tubes would require replacement in 2006.

A. The samples taken were representative samples only, the specific locations selected are based on operational experience and typical industry guidelines. Generally, two samples, approximately 3 feet in length, would be removed from the waterwalls for examination. A boiler at Holyrood would consist of approximately 50,000 linear feet of waterwall tubing. Those referenced in the 1999 Life Assessment were examined for deposits and were found to be in excellent condition. The 2006 waterwall failure on Unit # 2 was the result of Hydrogen damage caused by under deposit corrosion, a condition that was not detected in the 1999 tube analysis. A typical waterwall sampling program would determine deposit loading but not hydrogen damage. There has not been any significant change in boiler operation since 1999 that could be identified as the single cause of this hydrogen damage.