Q. What percentage loss in thickness of the penstock and surge tank is considered significant (Thickness Measurements, Appendix C of Appendix B, Volume II)?

A. A 10% loss in steel thickness is considered significant. If there are only isolated areas which exceed a 10% loss of the original metal thickness then it is generally recommended to weld over or patch these particular areas. If the 10% loss exists across an extensive area of the structure then replacement is recommended.

As outlined on Page 2-7 of the SGE Acres report located in Appendix B of Volume II, the external riser is "corroded over the entire length". Very few thickness measurements could be taken of the external riser due to surface roughness. Measurements that were taken indicate that 50% of the measurements were above a 10% loss. Based on these results, the external riser should be replaced.

The thickness measurements for the surge tank shell, internal riser, and steel portion of the penstock indicate that there are isolated areas that exceed the 10% loss but this does not occur over the entire length of either of the structures. New coating systems will be installed on all of theses surfaces to prevent any further pitting or corrosion and extend the life of these components.