

HYD-41 Response

HYD-41 Information Needs:

Please provide a knowledgeable expert and make available for reference and demonstration details on construction, preoperational, and operational thermal monitoring.

Action:

Will provide documentation of equipment and sampling methodology used by Luminant to collect temperature data on surface water bodies.

Response:

A total of 6 sampling locations on Lake Granbury were selected for collection of surface water samples for water quality chemistry analysis and water quality parameters (ER Figure 2.3-20). At 4 of the 6 sampling locations, both near surface and near bottom water samples were collected for laboratory analysis. Additional information regarding the surface water quality laboratory analysis is presented in ER 2.3.3.1.2. These 6 sampling locations are in the vicinity of the existing and proposed CPNPP intakes.

Geographic coordinates were established and recorded for each of the Lake Granbury sampling locations in April 2007. During each subsequent sampling event, a hand held GPS device was utilized to insure surface water samples and water quality parameters were collected from the established sampling points. Once the sampling team arrived at the sampling location, the boat was turned upstream and its position was maintained during sample collection utilizing the boat motor, an anchor, and the GPS device. Prior to collection of the surface water samples for chemical analysis, water quality field measurements were obtained using a YSI 8260 Multi-Parameter Water Quality Monitoring Sonde with 650 Display that used 100-foot lead that was measured and marked every 3-feet for accuracy. The YSI unit was utilized to collect field measurements for temperature, conductivity, dissolved oxygen, total dissolved solids, pH, oxidation reduction potential, and turbidity. The YSI sonde was calibrated according to manufacturer specifications using a standard solution before use and at the end of each sampling day.

To facilitate the gathering of water quality field measurements, a mushroom type boat anchor was lowered to the lake bottom at each sampling location. The YSI sonde was shackled to the anchor line with carabineers and lowered to the total depth where measurements began. At each sample location, the sonde was then lifted in 3-foot increments from the bottom to 1-foot below the lake surface. Water quality measurements were obtained and recorded every 3-feet from total lake depth to the lake surface.

The same methodology was used to collect surface water quality chemistry samples and water quality parameters on SCR.

Stacy H. Burgess

4/22/2009

Signature

Date