

LRN HYDROPOWER O&M MAINTENANCE UPDATE

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CENTER HILL TRUNNION PIN AND SEALS REPLACEMENT / SPILLWAY ELEC/MECH REPAIR



Scope

- Replace the trunnion pin for Spillway Gate #7.
- Replace J-Seals on all spillway gates.
- Add metal ladders to each pier to allow for inspection and maintenance of trunnion pins.
- Rehabilitation for the spillway gate machinery for each gate.



Total Project Cost

- \$7.2 million
- \$5.7 million for Spillway Gate Machinery
- \$1.5 million for Trunnion Pin / J-Seals

Progress

- All machinery work completed.
- Roadway remote control stations installed.
- Installing ladders, J-seals & trunnion pin.





BARKLEY TRASH SCREENS



Scope

- To replace the existing trash screens which have missing cross bars - forming gaps in the protective grid - allowing large debris to enter the scroll case and damage turbines.

Total Project Cost

- \$3.53 Million

Progress

- Contract for fabrication \$2.18 Million.
- All 48 Sections fabricated & delivered (on site).
- \$1.346 Million requested for FY21 for LRD Regional Light Fleet & LRN Dive Team install.
- Installation on R3F Schedule from 26 July to 19 August 2021.





BARKLEY INTAKE CRANE REPLACEMENT



Scope

- Replace existing Intake & Spillway Gantry Crane and rails with a new 165-Ton crane.

Total Project Cost

- \$15.59M estimated cost for replacement.
- \$8.09M base award in FY20 (funding pot).
- \$7.50M in additional funds have been requested for delivery, installation, new rails & removal of existing crane.

Progress

- \$8.09M contract award on 29 SEP 2020 for design and fabrication.
- Received Payment and Progress Bonds.





SCADA REPLACEMENT AT CHE/P, JPP/P, CEN/P, DAL/P, LAU/P



Scope

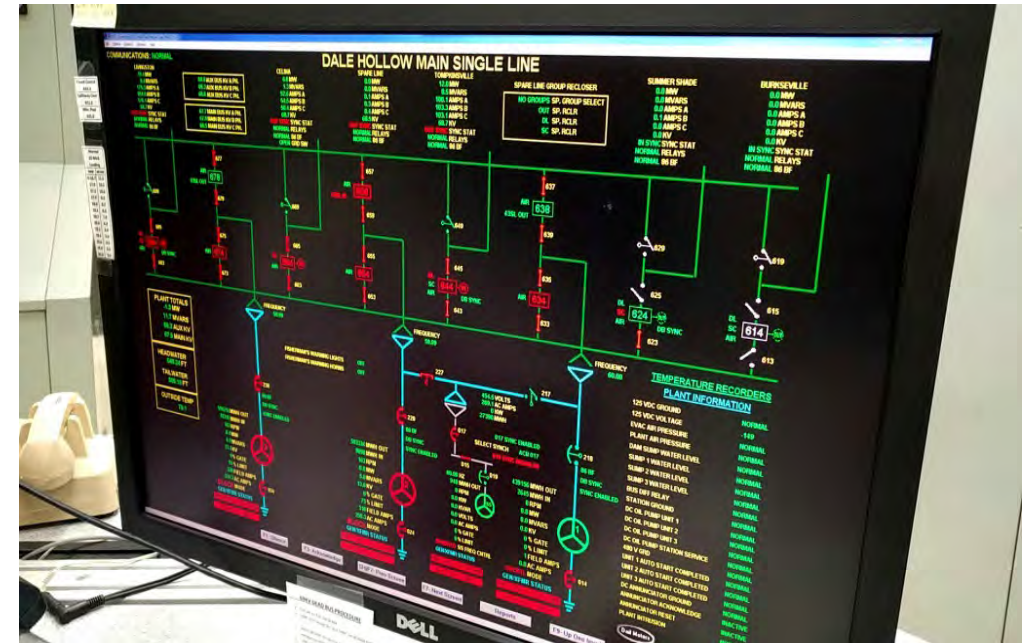
- To replace the five existing SCADA systems (Cheatham, J.P. Priest, Center Hill, Dale Hollow and Laurel) and convert Barkley to a remote capable plant.

Total Project Cost

- \$3.9M. \$2.5M for contract and \$1.4M for engineering (including design) and installation.

Progress

- Contract awarded to HSQ Technology. Installation at Old Hickory after final STIG of workstations and point clarification for Cheatham. RTU's are set in place at the plants.





CHEATHAM U1 ALIGNMENT & BRAKE RING BOLT UT



Events:

- OPS-H personnel took baseline alignment readings on Unit 1 using the Pruftechnik Inclineo system.

Communication Objectives:

- OPS-H personnel have the capability to perform shaft alignment readings without having to use plumb wires.
- Increased OPS-H utility to powerplant personnel for future work through practical hands-on experience and visibility to powerplant staff.

Activities:

- OPS-H personnel, in conjunction with powerplant staff, were able to obtain turbine blade tip clearance readings and generator shaft plumb-ness readings every 45 degrees of rotation.
- OPS-H personnel were also able to concurrently perform a UT inspection of the brake ring bolts.

Key Take-Aways:

- OPS-H personnel obtained valuable baseline alignment and plumb readings for CHE U1.
- OPS-H personnel verified that no U1 Brake Ring bolts were at risk of failure.





QUESTIONS?





BARKLEY/OLD HICKORY INTERCONNECTION



- BAR/P Report submitted on 29 July 2020 from SEPA to TVA.
- TVA responded that more information was needed on governors than was provided.
- The COE uses the PSS/E model and TVA would like it in PSLF.
- SEPA will need to resubmit along with another \$10,000 for the study once format for governor data is determined.
- NES Interconnection Report is Complete as of 29 July 20, but since TVA is still questioning the governor info on BAR/P, we are waiting until that issue is resolved before submitting. The same governor model data is in the OLD/P interconnection study.
- No recent modeling has been performed on any of LRN's governors.





QUESTIONS?

