

Center Hill Major Hydropower Rehabilitation Update to Team Cumberland

Loren McDonald, P.E., PMP
Project Manager

6 April 2016



US Army Corps of Engineers
BUILDING STRONG[®]



Center Hill Major Hydropower Rehabilitation

- Complete rehabilitation of 3 generation units
- \$47.2M contract awarded to Voith Hydro 25 June 2014
- Project completion in 2019 – On Schedule and On Budget



BUILDING STRONG®

Center Hill Major Hydropower Rehabilitation

Past Activities – Off-Site

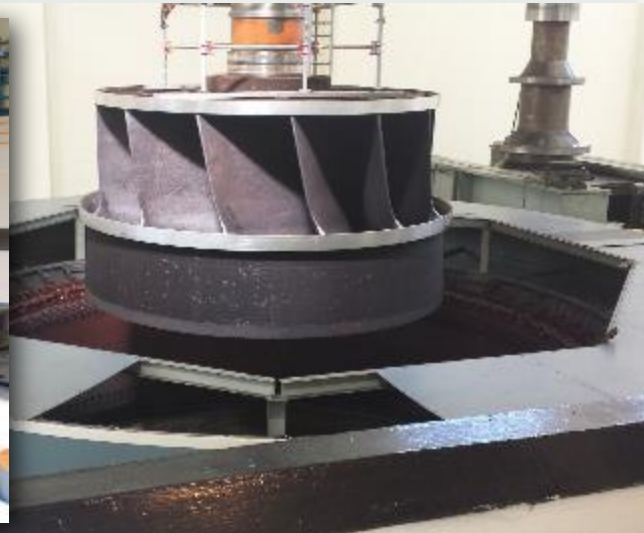
- Contract award –
 - Voith Hydro June 2014
- Vendor engineering and submittals
- Turbine model test
- Stator coils and lamination production
- Turbine runner parts and wicket gates casting production
- Testing casting coupons



Center Hill Major Hydropower Rehabilitation

Past Activities On-Site

- Voith Mobilization - 265 days without injury or first aid
- Continue component manufacturing
- Unit #2 disassembly



BUILDING STRONG®

Center Hill Major Hydropower Rehabilitation

Past Activities On-Site

- Unit #2 Asbestos Abatement including rotor poles
- Machining of embedded parts



Center Hill Major Hydropower Rehabilitation

Past Activities On-Site

- Stator core removal and lead based paint abatement
- Cleaning and repairing rotor spider



BUILDING STRONG®

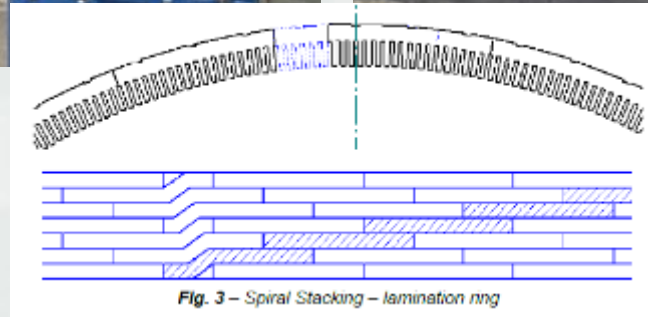
Center Hill Turbine-Generator Rehab Aerating Turbine Runner



Center Hill Major Hydropower Rehabilitation

Current Activities

- Modifying stator frame and preparing for restacking of core
- Stator coil discussions



Center Hill Major Hydropower Rehabilitation

Schedule – Remainder of Voith Contract

- | | |
|--------------------------|----------|
| • Reassemble Unit #2 | Ongoing |
| • Complete Unit #2 | Aug 2016 |
| • Commissioning Unit #2 | Sep 2016 |
| • Commissioning Unit #1 | Jul 2017 |
| • Commissioning Unit #3 | Jun 2018 |
| • Substantially Complete | Sep 2018 |
| • Contract POP | Feb 2019 |



Center Hill Major Hydropower Rehabilitation

Budget

- \$10M moved to Old Hickory Unit #4 Rehabilitation (Ballot #7)
- \$830K in Contract Modifications
- CPI = 1.0, SPI = 1.08

	Original	Current
Total Amount Set Aside for Project	\$75,676,000	\$65,676,000
Voith Contract	\$47,257,431	\$47,941,471
Asbestos Remediation Contract	\$818,247	\$964,704
Contingency	\$18,720,487	\$7,889,990





Questions?