

Center Hill Dam Safety



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Programs & Project Delivery



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**Roller compacted
Concrete (RCC) Berm
In Progress**

Grout Curtains Installed 2008-2010

Barrier Wall Installed 2012-2015



January 2019



March 2019



March 2019



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March 2019



March 2019



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DAM SAFETY

Main Dam Risk – Internal Erosion

Addressed by **Barrier Wall** (DSAC 1 → DSAC 2, Jan '18)

Saddle Dam Risk – Internal Erosion & Overtopping

Addressed by **Saddle Dam RCC Berm**

Post-Implementation Evaluation – Newly identified Risk

Spillway Gate Operability during large flood



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Dam Safety Modification Study – Additional Risk

Premature Fuse Plug Operation



- Large/Extreme Flood
- Main Dam Gates malfunction
- Fuse Plug operates too early



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Gate Machinery Issues

- Electrical Feeder Insulation
- Switchgear Breaker
- Control System Failures
- Electric Motor Degradation
- Holding Brake Condition



Motor



Brake



Controls



Switchgear

Study Recommendation: No Action beyond O&M

Lines, Switchgears, Rehab Machinery, add Pendant Control

with FY18 O&M Funds

Jun '18 Funds ➔ Sep '18 Award



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PATH TO NORMAL LAKE LEVELS

- **Complete Gate O&M Electrical & Mechanical Rehab** (June 2019)
- **Complete RCC Berm and conduct Post Implementation Evaluation** (likely September 2019)
- HQ Dam Safety and **Division Dam Safety Officer approval** (concurrent with RCC Berm completion)

Realize full Hydropower & Rec benefits



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DISCUSSION



Welcome to

**CENTER HILL
DAM AND
RESERVOIR**

Tennessee

DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS
NASHVILLE
DISTRICT
AUGUST 1948

U.S. ARMY

The graphic is a vertical poster for Center Hill Dam and Reservoir. It features a stylized aerial view of the dam and reservoir. The text is arranged in a classic, vintage style. At the bottom, there are two small icons of castles flanking the text "NASHVILLE DISTRICT AUGUST 1948". The U.S. Army logo is in the bottom right corner.