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# Webbers Falls Major Rehab Update



## Southwestern Regional Hydropower Conference

11 June 2008



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# Webbers Falls Major Rehab Project Status



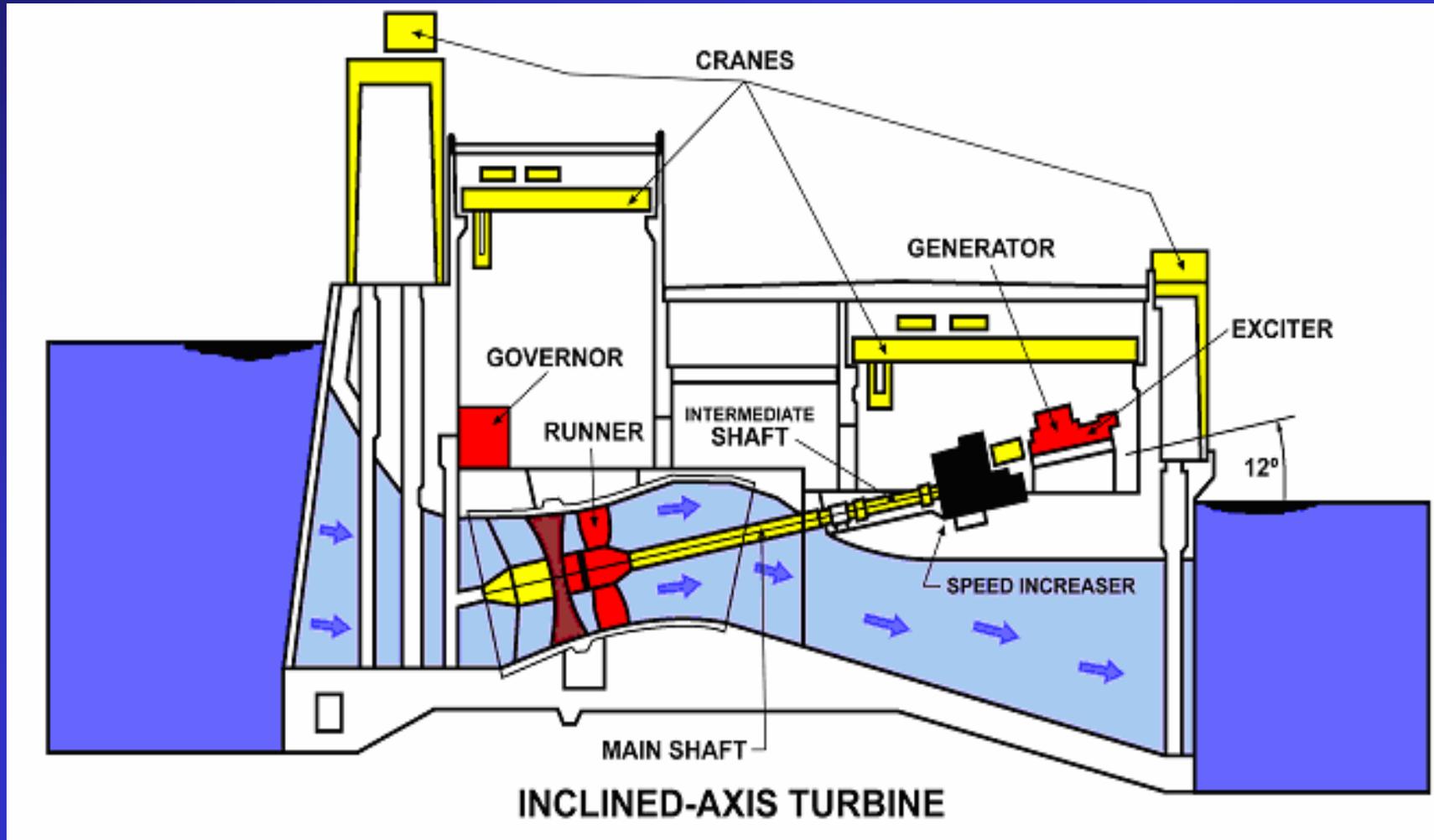
- **Webbers Falls Turbine Replacement included as a contract option under the Ozark contract.**
- **\$5 Million savings (2001) by combining Webbers Falls and Ozark turbine replacement under one contract.**
- **Current Cost Estimate: \$69.3M**
- **Current Completion Date: Dec 2012**



# Webbers Falls Major Rehab



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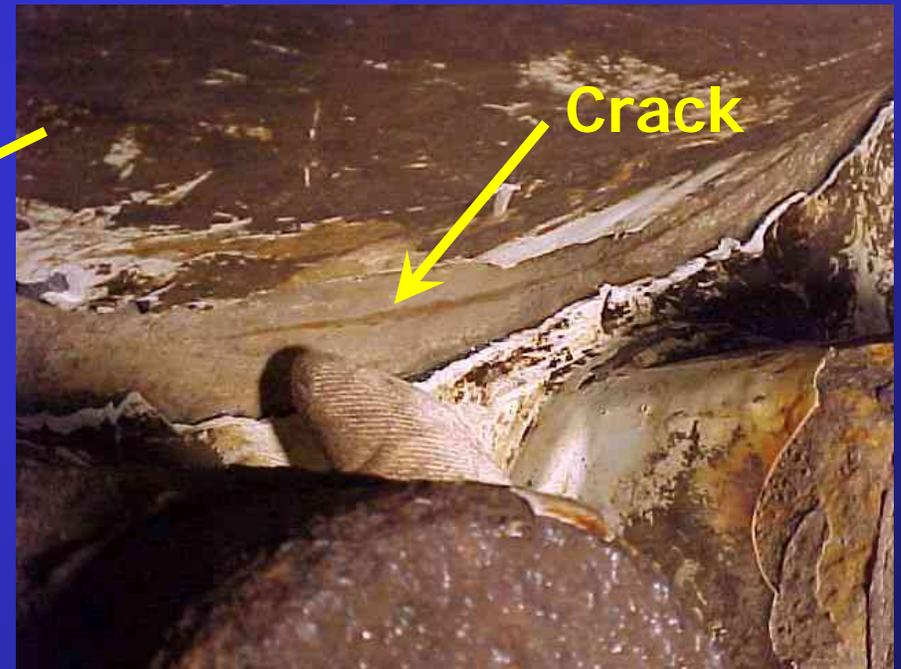
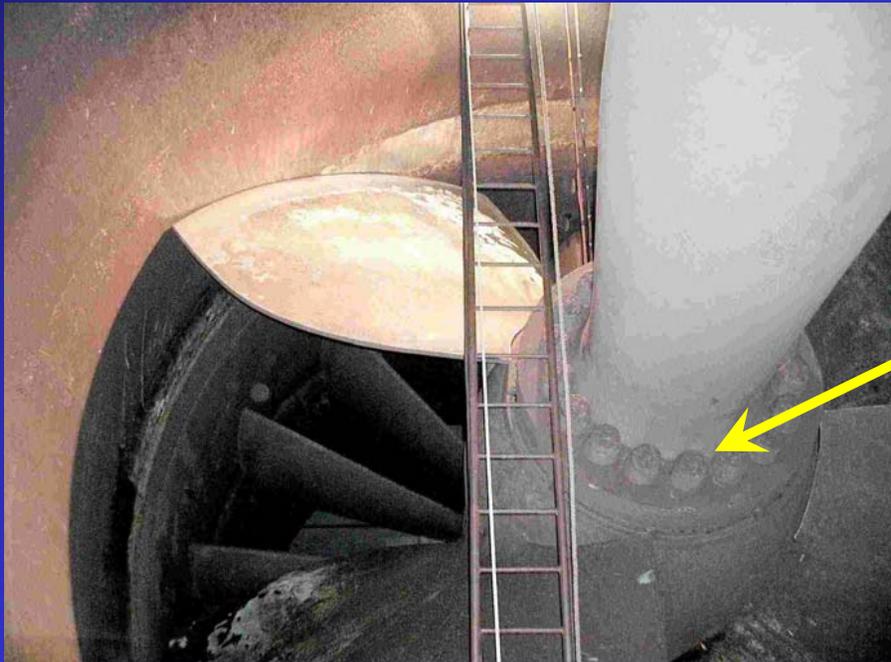
8/21/2008

Webbers Falls Major Rehab



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# Webbers Falls Major Rehab Turbine Failures



8/21/2008

Webbers Falls Major Rehab



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# Webbers Falls Major Rehab Project Scope



- Rehab 3 Turbine Runners
- Rehab 2 Bridge Cranes
- Rehab 2 Gantry Cranes
- Rewind 3 Generators
- Install New 13.8KV Breakers and Bus
- Repair Misc Mechanical and Electrical Items



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# Webbers Falls Major Rehab

## Project Status Rehab Total Cost Breakdown

- 2008 Current Cost Est. - \$69.3M
- Turbine Rehab Cont. - \$45.1M
- Generator Rewind Cont - 6.0
- Intake/Draft Tube Cranes – 4.0
- Misc. Electrical Mech. - 4.0
- S&A/Contingency - 10.2
- Total - \$69.3M



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# Webbers Falls Major Rehab

## Project Status – Sub Agreements



- Sub agreement S127 Unit 3 Turbine for \$19.5M signed 15 August 2007.
- Sub agreement S131 Unit 2 Turbine for \$17.9M signed 11 January 2008.
- Sub agreement S135 Unit 1 Turbine for \$17.9M signed 21 April 2008.
- Modification Request of \$320K Sub agreement S092 Bridge Crane Rehab (Total Amount \$2.7M)



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# Webbers Falls Major Rehab

## Project Status – Sub Agreements



- **Modification Request of \$330K Sub agreement S088  
13.8 KV Breakers (Total Amount \$650K)**
- **Rewind Generators and Replace Generator Main Bus -  
\$6.0M**
- **Gantry Crane Rehab - \$4M**
- **Miscellaneous Mechanical Electrical Work - \$4M**



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# Webbers Falls Major Rehab Project Status



- **Completed Activities to Date:**
  - Excitation System Replaced
  - CO2 System Replaced
  - Generator Air Coolers Replaced
  - Cooling Water Piping



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# Webbers Falls Major Rehab Project Status



- **FY08 Awards:**
  - \$12.0M Award Turbine Unit 3 – 19 Dec 2007
  - \$11.2M Award Turbine Unit 2 – 3 Apr 2008
  - \$11.4M Award Turbine Unit 1 – 28 Apr 2008
  - \$4.5M Award Misc. Components all turbines – 28 Apr 2008
  - \$2.3M – Rehab Bridge Cranes – 6 Mar 2008



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# Webbers Falls Major Rehab Preliminary Schedule



- **Turbine 3**
  - **Runner – Apr 08 - Oct 09**
  - **Stub Shaft - Jun 08 – Sep 09**
  - **Wicket Gates - Jun 08 – Sep 09**
  - **Disassembly – Jan 08 – Sep 09**
  - **Reassembly – Nov 09- Jun 10**
  - **Testing & Acceptance – Jun 10 –Sept 10**



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# Webbers Falls Major Rehab Preliminary Schedule



- **Turbine 2**
  - **Runner – Apr 08 – Jun 10**
  - **Stub Shaft - Jun 08 – Sep 10**
  - **Wicket Gates - Jun 08 – Sep 10**
  - **Disassembly – Sep 10 – Feb 10**
  - **Reassembly – Feb 11 – Aug 11**
  - **Testing & Acceptance – Aug 11 – Oct 11**



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# Webbers Falls Major Rehab Preliminary Schedule



- **Turbine 1**
  - **Runner – Apr 08 – Apr 11**
  - **Stub Shaft - Jun 08 – Sep 11**
  - **Wicket Gates - Jun 08 – Sep 11**
  - **Disassembly – Oct 11 – Mar 12**
  - **Reassembly – Mar 12 - Sep 12**
  - **Testing & Acceptance – Sep 12 – Dec 12**



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# Webbers Falls Major Rehab



## Questions