

McNary Downstream Miter Gate Interim Repairs

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Walla Walla District

May 27, 2015
Columbia-Snake River Navigation System
Spring Stakeholder Meeting



US Army Corps of Engineers
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McNary Downstream Miter Gate Interim Repairs

- Two-Leaf arched miter gate
- Gate put in service in 1954
- 106 feet tall x 86 feet wide
- Cracks monitored for past several years
- New critical cracks discovered and repaired in March 2014
- Follow-up inspections performed in September 2014 to confirm structural issues that required repair in March 2015 Outage



McNary Downstream Miter Gate Interim Repairs

March 2015 Planned Work:

- Coal Tar Coating Removal from Submerged Structural Members
- Inspection of Submerged Structural Members
- Crack Repairs
- Quoin Seal Resurfacing
- Miter Seal Resurfacing
- Gudgeon Repairs
- Recoat Submerged Structural Members with Modern Vinyl Paint
- Replacement of Wood Bumpers



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McNary Downstream Miter Gate Interim Repairs

March 2015 Completed Work:

- Coal Tar Coating Removal from Submerged Structural Members
- Inspection of Submerged Structural Members
- Crack Repairs
- Quoin Seal Resurfacing
- Miter Seal Resurfacing
- Recoat Submerged Structural Members with Modern Vinyl Paint
- Replacement of Wood Bumpers
- Contract Amount = \$1,616,486.00



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McNary Downstream Miter Gate Interim Repairs



Coal tar coating on submerged areas of the gate structure



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McNary Downstream Miter Gate Interim Repairs

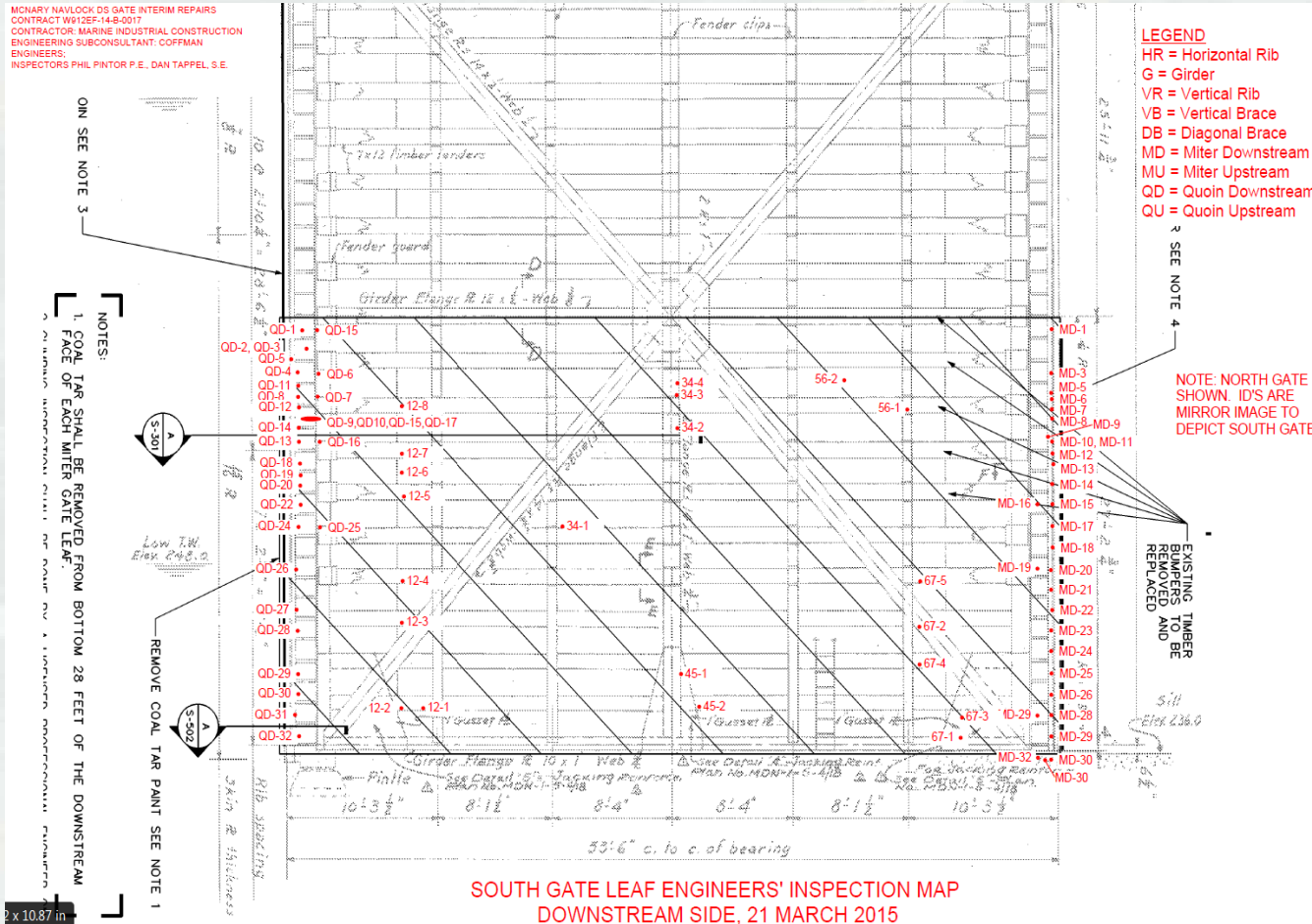


Coal Tar Removal Operations



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McNary Downstream Miter Gate Interim Repairs



Identified Areas of Structural Concern



McNary Downstream Miter Gate Interim Repairs



Cracks at Upstream Quoin Block

Cracks at Downstream Quoin Block



McNary Downstream Miter Gate Interim Repairs



Welded Stiffening Brackets
Miter Block Crack Repairs

Bolted Angles
Miter Block Crack Repairs



McNary Downstream Miter Gate Interim Repairs

Completed Crack Repairs

Stop Drill => 10

Grind Out => 12

Bolted Plates => 1

Bolted Angles => 21

Welded Stiffener Brackets => 6

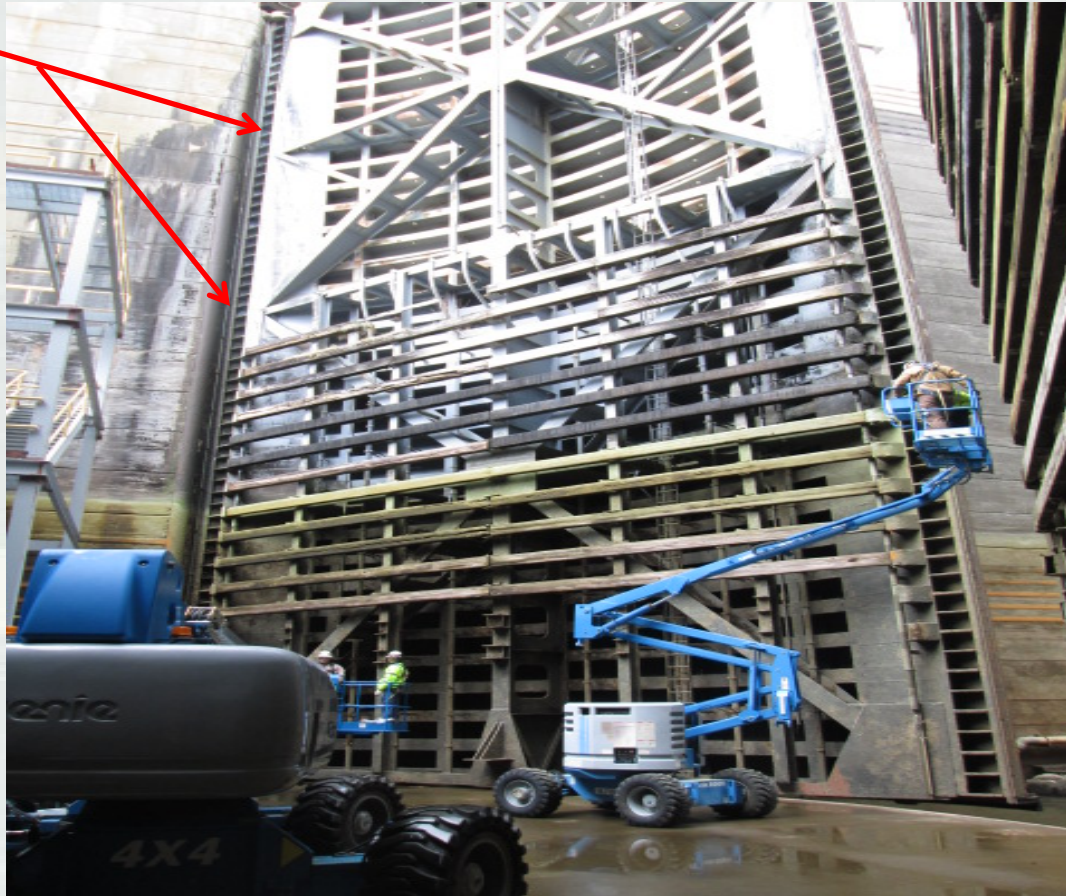
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Quoin Seal



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Miter Seal



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New Wood Bumpers and Vinyl Paint



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Questions?



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