

ELECTRONIC APPLICATION OF BIG RIVERS ELECTRIC CORPORATION FOR APPROVAL OF ITS 2020 ENVIRONMENTAL COMPLIANCE PLAN, AUTHORITY TO RECOVER COSTS THROUGH A REVISED ENVIRONMENTAL SURCHARGE AND TARIFF, THE ISSUANCE OF A CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY FOR CERTAIN PROJECTS, AND APPROPRIATE ACCOUNTING AND OTHER RELIEF

Case No. 2019-00435

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Project 12 Wilson Station FGD Replacement and Upgrade

Filed pursuant to Ordering Paragraph No. 18 of Commission's August 6, 2020 Order

FILED: April 23, 2021



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Wilson Station FGD Replacement and Upgrade

Scope of Work Issued for Construction

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Appendix 1 – Coleman Deconstruction General Arrangements

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Appendix 2 – Coleman Process and Instrumentation Diagrams

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Appendix 3 – Approximate Project Boundaries

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Appendix 4A – Coleman General Arrangements

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Appendix 4B – Coleman Structural Drawings

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Appendix 5 – Absorber Area Piping Sections

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Project 12 Wilson Station FGD Replacement and Upgrade

Appendix 6 – FRP Pipes Handling Guide

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FGD Retrofit Project K.C. Coleman Station, Hawesville, KY / D.B. Wilson Station, Centertown, KY

Demolition and Relocation Package

Phase 1 – Equipment & Motors

Appendix 6 FRP Handling Guide



Handling, Unloading, Storage and Inspection

General

Care must be taken when unloading and handling FRP pipes. Severe impact with the ground, forklift tips, or other objects can cause damage to the pipe.

Safety

Use extreme caution while handling pipes to avoid dropping or rolling on an unsuspecting person.

Equipment and Materials

Forklift Crane Front End Loader Cherry Picker Nylon Strap Chock

Note: Do not use chains or wire cables to handle or move FRP pipes



Handling

1. Severe impact with the ground or other objects can damage the pipe.

2. Never use chains or wire cables to handle FRP pipes. Use a fabric strap or carefully use a forklift.

3. Avoid letting the weight of the pipe rest on the coupling or bell end.



4. Avoid setting pipes on rocks or very uneven ground. A point load with a hard object can damage the pipe.

5. Be aware of the location of pipe ends while moving. An end or coupling can be easily damaged by an impact.

Unloading

1. After the shipping straps have been removed, use a cherry picker or crane with a nylon strap or a fork lift to remove the top pipes one at a time.

2. Take care that fork tips do not strike other pipes.

3. Pipe sections can be lifted with one support point (using a strap), although two support points may increase control.

4. A leaning or off-center load is extremely dangerous.

When unloading, tie the ends of the pipe dunnage to the trailer to prevent them from flipping over. Remove the uphill pipe first. Be careful that the second pipe does not roll.



5. It is up to the installer

to determine the best and safest method to unload special pieces (fittings, manholes, etc.). Use special caution to avoid damaging joint ends. Avoid picking up the special pieces by branches. Use the main pipe.

Storage

Short-Term

If possible, lay pipe on flat level ground. Avoid setting pipe on rocks or other objects that would cause a point load.

Long-Term

1. For long term storage, it is best to store FRP pipe in the same arrangement as it arrived on the truck. To avoid damage or deformation to the bell ends, do not allow the couplings/sleeves to rest against each other.



2. Always use timbers and chocks between layers when stacking pipe.



3. It is advisable to re-inspect pipe after long term storage to assure no damage has occurred during storage or handling. If storing pipe for a prolonged period of time

(over six months) contact *Beetle* for further considerations.

4. Use the following chart to determine recommended stacking height of your pipe.

DIAMETER	# OF PIPES IN STACK	
18-20	4	
24-30	3	
36-60	2	
>60	1	

Pipes with Grout Fittings

1. Extra care should be taken in handling/unloading and storage with pipes where grout fittings are installed.

FRP grout fittings are not typically flush to the pipe OD and protrude a small amount externally. Care should be taken that this raised area does not get contacted during handling/storage or installation.

2. Extreme care should be taken when rolling pipes with installed grout fitting over flat ground to avoid point loading the grout fitting location as it rolls under. Utilization of timber runners and shipping dunnage can assist in this.

3. Grout fittings should never be used to lift pipes. Threads can easily be damaged and they are not designed to carry pipe weight. Significant damage and injury can occur if the pipe is lifted from the grout fitting.

Inspection Procedures

1. Make an overall inspection of the loaded truck. If the load is intact, ordinary inspection while unloading should be sufficient to see if the pipe has arrived undamaged.

2. If the load has shifted during transit, each pipe needs to be carefully inspected for damage. Internal inspection is necessary for any pipes that have exterior scrapes, gouges, or impact marks.

3. Check total quantities against the bill of lading.

4. Any damaged or missing items should be noted on the bill of lading. Have the carrier's representative sign your copy of the receipt. Make a prompt claim according to the carrier's instructions.

5. Do not dispose of any damaged material. The carrier will notify you of the procedure to follow.



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Appendix 7 – Recycle FRP Pipe Weights

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FGD Retrofit Project K.C. Coleman Station, Hawesville, KY / D.B. Wilson Station, Centertown, KY

Demolition and Relocation Package

Phase 1 – Equipment & Motors

Appendix 7 Recycle FRP Pipe Weights



PROJECT: 245891				
COLEMAN STA SECTION	TION - RECYCLE FRP PII			
		WEIGHT (LB)		
A-1	14'-6 X 5'-6	3575	L-SHAPE, LENGTH IS TO EXTREMITIES OF PIPE	
A-2	5'-0"	1300		
A-3	5'-0"	1300		
A-4	38'-7"	6000		
A-5	47'-8" X 9'-9"	7915		
A-6	19'-9"	3365		
B-1	6'-0" X 7'-3"	1515	T-SHAPE, LENGTH IS TO EXTREMITIES	
B-2	5'-0	1300		
B-3	5'-0"	1300		
B-4	38'-7"	6000		
B-5	42'-11"	6620		
B-6	22'-7" X 9'-9"	4415	L-SHAPE, LENGTH IS TO EXTREMITIES OF PIPE	
C-1	3'-0"	1020		
C-2	5'-0"	1300		
C-3	5'-0"	1300		
C-4	38'-7"	6000		
C-5	47'-11"	7320		
C-6	19'-5" X 9'-9"	4000	L-SHAPE, LENGTH IS TO EXTREMITIES OF PIPE	
D-1	6'-0" X 7'-3"	1515	T-SHAPE, LENGTH IS TO EXTREMITIES	
D-2	5'-0"	1300		
D-3	5'-0"	1300		
D-4	38'-7"	6000		
D-5	52'-11"	8020		
D-6	20'-10" X 9'-9"	4170	L-SHAPE, LENGTH IS TO EXTREMITIES OF PIPE	
E-1	14'-6 X 5'-6	3575	L-SHAPE, LENGTH IS TO EXTREMITIES OF PIPE	
E-2	5'-0"	1300		
E-3	5'-0"	1300		
E-4	38'-7"	6000		
E-5	52'-11"	8020		
E-6	14'-9" x 9'-9"	3330	L-SHAPE, LENGTH IS TO EXTREMITIES OF PIPE	
E-7	16'-8"	2935		

REF. DWG NUMBERS: 3906-6-100 THRU -106 DRAWINGS PACKAGED AS 245891-Coleman FRP Demo_30SEP20.pdf



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Appendix 8 – Hanger and Support Details For Demo Package

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Appendix 9 – Reference Drawings

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Appendix 10 – Wilson Site Plan

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Appendix 11 – Coleman Drone Video Capture w/ Laydown Mark-Up

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Demolition and Relocation Package Phase 1 – Equipment & Motors

Appendix 11 Coleman Drone Video Capture w/ Laydown Mark-Up





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