

Rover Pipeline LLC
Docket No. CP15-93-000

Supplemental Response to FERC Environmental Information Request
Dated October 7, 2015

1.
 - a. *Provide more information regarding the duration of time that Rover utilized for the fugitive windblown dust emission calculations.*
 - b. *Clarify whether or not Rover used the mileage for each pipeline for the fugitive dust calculations from soil disturbance within the construction spreads that involve installation of dual pipelines.*

Response:

- a. Rover intends to limit the amount of time that the trench is open by welding the pipeline prior to excavating the trench to the maximum extent possible. Rover anticipates that this process will result in the trench being open an average of 4 days. However, as that may not always be possible, a more conservative length of 15 days was used in the Windblown Dust PM₁₀ emissions to account for the time from excavation to backfill, when excavated soils are most susceptible to wind dispersion.

The windblown factors used in the calculations were derived for the South Coast Air Quality Management District, which is located in southern California. This particular area is arid, with little to no topsoil, few windbreaks from existing vegetation/trees, and low relative humidity. The Rover construction spreads, on the other hand, will occur in areas that receive an average of 145 days per year of precipitation over 0.01 inches (for which no adjustments were made in the emission calculations), contain topsoil with high moisture rates, have high relative humidity, are mostly protected from wind by surrounding trees/crops, and contain soils exhibiting sand particulates that are naturally resistant to going airborne. Therefore, the Windblown Dust PM₁₀ emission estimates are conservative in this way as well.

In addition, other sources of fugitive dust emissions are addressed as follows:

- Table 9A-23 includes estimated emissions from open burning.
- Table 9A-25a includes estimated fugitive dust emissions from soil excavation, backfilling, and wind erosion.
- Table 9A-25b includes estimated fugitive dust emissions the movement of construction equipment on the construction site.
- Table 9A-26a includes estimated fugitive dust emissions from on-road vehicles traveling on unpaved roads.
- Table 9A-26b includes estimated fugitive dust emissions from on-road vehicles traveling on paved roads.

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- b. Rover did not include the mileages for Mainlines A and B within Table 9A-25a for Spreads 1-6. The correct mileage will be twice the amount of the previous mileage noted, except for Spreads 5 and 6, wherein Mainline A extends approximately 7 miles further than Mainline B. Mileages in cells C5-C9 should read as follows:

Spreads 1 and 2 – 79.56 miles

Spread 3 – 74.70 miles

Spread 4 – 101.92 miles

Spreads 5 and 6 – 155.67 miles

The increases in the pipeline mileage for these spreads will increase the PM₁₀ and PM_{2.5} levels for all the counties crossed by these segments, although they will not cause an exceedance of any applicability thresholds. Of particular interest, the PM_{2.5} emissions estimate for Stark County, which has an applicability threshold of 100 tpy, will increase from 12.8 to 16.8 tpy.

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2. *How were the construction acreages derived? If the data was obtained from a source, please reference the source. If it was determined using a formula, please provide the formula.*

Response:

The construction acreages were obtained from Table 8A-2, Land Use Acreage Affected by Construction and Operation, submitted to FERC in July, 2015. Rover has corrected the acreages to include the tie-in facilities along with the stand-alone meter stations and the pipeline acreages separately. For construction acres for the mainline pipelines, the total construction acres were prorated to each spread based on that spread's length over the total mainline length. This is consistent with the methodologies used in the other emissions calculations, which were allocated per county for the mainline spreads.

For example:

Total mainline pipeline construction acres = 3322.08 ac

Total mainline pipeline length = 209.59 mi

Spread 1 & 2 – Mainline Pipeline length = 39.78 mi

Spread 1 & 2 – Mainline Pipeline construction acres = $3322.08 \text{ ac} \times 39.78 \text{ mi} / 209.59 \text{ mi} = 630.53 \text{ ac}$

Below is the portion of Table 9A-25a that should be updated to accurately account for the mileage and acreage discussed in this response as well as Response 1b discussed above. These updates will populate the workbook as appropriate. As stated in Response 1b, the revisions will not cause an exceedance of any applicability thresholds.

Facility	Approximate Pipeline Length (mi)	Construction (acres)
Spread 1 & 2 - Mainline Pipeline	79.56	630.53
Spread 3 - Mainline Pipeline	74.7	592.01
Spread 4 - Mainline Pipeline	101.92	807.74
Spread 5 & 6 - Mainline Pipeline	155.67	1291.81
Spread 7 & 8 - Market Segment Pipeline	99.97	1730.96
Majorsville Lateral	23.7	268.30
Clarington & Cadiz Lateral	36.2	621.56
Berne Lateral	4.2	55.91
Sherwood & CGT Lateral	59.7	983.28
Burgettstown Lateral	51.7	836.52
Seneca Lateral	25.7	445.83

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Facility	Approximate Pipeline Length (mi)	Construction (acres)
Mainline CS 1 Compressor Station	0	32.49
Mainline CS 2 Compressor Station	0	21.6
Mainline CS 3 Compressor Station	0	29.02
Defiance Compressor Station	0	22.38
Stand-Alone Metering Stations and Tie-in Sites	0	47.73
Sherwood Compressor Station	0	29.97
Seneca Compressor Station	0	24.79
Clarrington Compressor Station	0	40.08
Majorsville Compressor Station	0	18.69
Cadiz Compressor Station	0	20.65
Burgettstown Compressor Station	0	19.11

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3. *Where were the operating hours for each contractor obtained?*

Response:

Response 3 in the October 15, 2015 submittal detailed how construction operating days (i.e. duration) were derived using the length of a pipeline segment and one of three variables for construction progress depending on the topography of the pipeline segment. These values were used in the Paved Roads, Unpaved Roads, and Construction Movement emission calculations (Tables 9A-25b, 9A-26a, and 9A-26b).

Separately, the number of operating hours that each piece of equipment is expected to operate was obtained from the construction contractors. These values were used in the Tailpipe Emissions calculations.

The duration (days) of construction cannot be extrapolated to the operating hours found in the Tailpipe Emission calculations due to the fact that some equipment will be operating in series, and some in parallel, and the amount of time required for each piece of equipment is different based on its specific function on the project. The day and hour values are not interchangeable and have been used to appropriately estimate different types of emissions.

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4. a. *In the open burning calculations, were the emissions estimates derived using the forested areas specific to each county, or were they calculated for the spread and then proportioned by the mileage per county?*
- b. *Provide more information about the use of the EPA Wildfire methodology instead of Prescribed Burn?*

Response:

- a. In the open burning calculations, the emission estimates were calculated for each spread (based on the total estimated forested acres of the spread), and then proportioned to each county by the mileage per county. Proportioning emissions by mileage (or aboveground facility) per county in the calculation spreadsheet is the method used to create Table 9A-22 (Rover Construction Emissions – Summary by County). To be consistent, proportioning by county was also used for the Open Burning emissions.

However, it has been determined that the forested acreages from the digitized data included the aboveground facilities as well. Rover has therefore elected to utilize the forested acreage that was included in Table 8A-2 from the July supplemental filing, which accounts for construction and operational acreage of all facilities by land use type and will be easily verifiable. The table below depicts the percentage of forested acres for each pipeline segment and county from Table 8A-2, and adds additional delineation where spreads break within a county.

Table 4A – Percentage of Forested Acreage per Pipeline Segment and County				
Pipeline Segment	County	Forested Acreage (acres)	Total Construction Acreage (acres)	Percentage of Forested Acreage (acres)
Berne Lateral	Monroe	26.50	28.87	91.79
	Noble	19.99	27.04	73.93
Burgettstown Lateral	Carroll	147.98	260.55	56.80
	Hancock	64.50	87.60	73.63
	Jefferson	181.41	328.61	55.21
	Washington	127.44	159.76	79.77
Cadiz Lateral	Harrison	22.68	60.06	37.76
CGT Lateral	Doddridge	65.58	67.95	96.51
Clarington Lateral	Belmont	198.85	428.59	46.40
	Harrison	36.80	118.16	31.14

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Table 4A – Percentage of Forested Acreage per Pipeline Segment and County				
Pipeline Segment	County	Forested Acreage (acres)	Total Construction Acreage (acres)	Percentage of Forested Acreage (acres)
	Monroe	5.15	14.75	34.92
Majorsville Lateral	Belmont	99.27	129.48	76.67
	Marshall	107.01	138.82	77.09
Seneca Lateral	Monroe	252.52	418.07	60.40
	Noble	20.32	27.76	73.20
Sherwood Lateral	Doddridge	158.77	166.62	95.29
	Monroe	247.45	314.35	78.72
	Tyler	316.36	399.50	79.19
	Wetzel	22.54	34.86	64.66
Mainline - Spreads 1 and 2	Carroll	73.67	93.16	79.08
	Harrison	184.68	287.52	64.23
	Tuscarawas	78.47	246.27	31.86
	Stark	11.43	48.31	23.66
Mainline - Spread 3	Stark	44.79	189.25	23.67
	Wayne	49.36	442.10	11.16
Mainline - Spread 4	Ashland	39.77	288.38	13.79
	Crawford	4.00	314.44	1.27
	Richland	57.92	306.17	18.92
	Wayne	3.78	33.82	11.18
Mainline - Spread 5	Hancock	0.00	99.96	0.00
	Seneca	15.30	414.48	3.69
	Wood	2.62	186.45	1.41
Mainline - Spread 6	Defiance	2.49	142.89	1.74
	Henry	2.37	328.64	0.72
	Wood	3.05	216.78	1.41
Market - Spread 7	Defiance	3.00	95.84	3.13
	Fulton	1.11	90.76	1.22
	Henry	2.58	90.76	2.84
	Lenawee	34.13	522.54	6.53
Market - Spread 8	Livingston	74.47	251.54	29.61
	Washtenaw	115.68	461.73	25.05

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Below is the portion of Table 9A-23 that should be updated to accurately account for the forested acreage discussed in this response. These updates will populate the workbook as appropriate and the revisions will not cause an exceedance of any applicability thresholds.

Site	Forested (acres)⁴
Spread 1 & 2 - Mainline Pipeline	348.3
Spread 3 - Mainline Pipeline	94.2
Spread 4 - Mainline Pipeline	105.5
Spread 5 & 6 - Mainline Pipeline	25.8
Spread 7 & 8 - Market Segment Pipeline	231.0
Majorsville Lateral	206.3
Clarrington & Cadiz Lateral	263.5
Berne Lateral	46.5
Sherwood & CGT Lateral	810.7
Burgettstown Lateral	521.3
Seneca Lateral	272.8
Mainline CS 1 Compressor Station	4
Mainline CS 2 Compressor Station	0
Mainline CS 3 Compressor Station	0
Defiance Compressor Station	0
Stand-Alone Metering Stations	10.0
Sherwood Compressor Station	19.8
Seneca Compressor Station	22.8
Clarrington Compressor Station	21.7
Majorsville Compressor Station	14.8
Cadiz Compressor Station	0.0
Burgettstown Compressor Station	15.3

- b. AP-42 Section 13.1 is applicable to Wildfires and Prescribed Burns. Open Burning emission estimates for Rover were based upon the estimated average fuel loading (Table 13.1-1) and emission factors (Table 13.1-2) for Wildfires. These are the typical methods and values used for estimating Open Burning emissions from construction projects, and have been used in multiple other recent filings (e.g. CP14-68, CP14-554, CP15-17, CP14-119-000, CP14-120-000, and CP14-122-000).

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5. *Below please find an updated Table 4-1 from the submittal on October 15, 2015 summarizing the revised emission estimates given the proposed changes described above.*

TABLE 4-1 Comparison of Emissions Subject to General Conformity Review to Applicability Thresholds				
Nonattainment or Maintenance Areas	County, State	Pollutant/	Applicability Threshold (tpy)	Nonexempt Emissions (tpy)
<i>Steubenville-Weirton-Wheeling Interstate AQCR</i>				
Wheeling, WV-OH	Belmont Co, OH Marshall Co, WV	NO _x	100	56.0
		VOC	100	75.4
		PM _{2.5}	100	64.9
		SO ₂	100	2.1
Steubenville-Weirton, OH-WV	Jefferson Co, OH Hancock Co, WV	NO _x	100	40.8
		VOC	100	48.8
		PM _{2.5}	100	36.9
		PM ₁₀	100	92.2
		SO ₂	100	1.9
<i>Greater Metropolitan Cleveland Intrastate AQCR</i>				
Canton-Massillon, OH	Stark Co, OH	NO _x	100	30.0
		VOC	100	17.2
		PM _{2.5}	100	16.9
		SO ₂	100	0.3
<i>Metropolitan Toledo Interstate Air Quality Control Region</i>				
Toledo, OH	Wood Co, OH	NO _x	100	9.4
		VOC	100	6.0
<i>Southwest Pennsylvania Intrastate AQCR</i>				
Pittsburgh-Beaver Valley, PA	Washington Co, PA	NO _x	100	24.2
		VOC	50	24.4
		PM _{2.5}	100	19.8
		SO ₂	100	1.6

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TABLE 4-1 Comparison of Emissions Subject to General Conformity Review to Applicability Thresholds				
Nonattainment or Maintenance Areas	County, State	Pollutant/	Applicability Threshold (tpy)	Nonexempt Emissions (tpy)
<i>South Central Michigan Intrastate AQCR</i>				
Detroit-Ann Arbor, MI	Lenawee Co, MI Washtenaw Co, MI Livingston Co, MI	NO _x	100	21.0
		VOC	100	33.1
		PM _{2.5}	100	27.4 ¹
		SO ₂	100	0.6
¹ Washtenaw and Livingston only for PM _{2.5}				