

South Coast Air Quality Management District

Tesoro Wilmington Refinery 2017 Rule 1118 Quarterly Flare Emissions

Emission Target (Includes the combined totals from the <u>Carson Sulfur Recovery Plant</u> and Wilmington Refinery facilities)

| 2017 SOx | Year-to-Date | |
|--------------|---------------|--------------------------------------|
| Emissions | SOx Emissions | |
| Target (lbs) | (lbs) | |
| 36,000 | 11,935.5 | Tesoro, Wilmington Refinery |
| | 39.8 | Tesoro, Carson Sulfur Recovery Plant |
| | 11,975.3 | Total Combined Emissions |

Quarter 1 (January 1, 2017 - March 31, 2017):

| Flare ID | Total Gas Flow | Emissions (lbs) | | | | | |
|----------|----------------|-----------------|-------|-------|-------|---------|--|
| Flare ID | (scf) | PM-10 | NOx | ROG | CO | SOx | |
| LAR | 5,270,379 | 52.7 | 639.6 | 105.3 | 592.1 | 2,937.1 | |
| Total | 5,270,379 | 52.7 | 639.6 | 105.3 | 592.1 | 2,937.1 | |

Quarter II (April 1, 2017 - June 30, 2017):

| Flare ID | Total Gas Flow | Emissions (lbs) | | | | |
|----------|----------------|-----------------|---------|-------|---------|---------|
| Flate ID | (scf) | PM-10 | NOx | ROG | CO | SOx |
| LAR | 8,613,489 | 87.1 | 1,097.7 | 230.6 | 1,308.7 | 7,251.4 |
| Total | 8,613,489 | 87.1 | 1,097.7 | 230.6 | 1,308.7 | 7,251.4 |

Quarter Ill (July 1, 2017 - September 30, 2017):

| Flare ID | Total Gas Flow | Emissions (lbs) | | | | | |
|----------|----------------|-----------------|---------|-------|-------|-------|--|
| Flate ID | (scf) | PM-10 | NOx | ROG | CO | SOx | |
| LAR | 15,121,700 | 120.0 | 1,924.6 | 122.7 | 631.2 | 114.1 | |
| Total | 15,121,700 | 120.0 | 1,924.6 | 122.7 | 631.2 | 114.1 | |

Quarter IV (October 1, 2017 - December 31, 2017):

| Flare ID | Total Gas Flow | Emissions (lbs) | | | | |
|----------|----------------|-----------------|---------|-------|-------|---------|
| Flate ID | (scf) | PM-10 | NOx | ROG | CO | SOx |
| LAR | 14,853,600 | 125.8 | 1,851.9 | 148.4 | 785.4 | 1,632.9 |
| Total | 14,853,600 | 125.8 | 1,851.9 | 148.4 | 785.4 | 1,632.9 |