

Preliminary Analysis - Refinery Coke Calciner

Fac ID	Source Type	Device ID	Device	2011 Emissions (lbs)	2011 Emissions at 2005 BARCT (tpd) note 1	2011 Emissions at 2014 BARCT (tpd) note 2	Emission Reductions Beyond 2005 BARCT (tpd)	Vendor 1		Vendor 2	
								PWV with 1.5 Contingency Factor (\$)	CE (\$/ton) note 3, 5	PWV with 1.5 Contingency Factor (\$)	CE (\$/ton) note 4, 5
2	Major	C67	AFTERBURNER	390,625	0.25	0.017	0.24	22,127,949	10,214	50,614,347	10,711
2	Major	D20	KILN, ROTARY	11,403							

Note

- 1) 2011 emissions at 2005 BARCT of 30 ppmv = 2011 Emissions * (30ppmv / 64.95 ppmv)
- 2) 2011 emissions at 2014 BARCT of 2 ppmv = 2011 Emissions * (2 ppmv / 64.95 ppmv)
- 3) Cost effectiveness LCF Method = (CE DCF Method * 1.67). CE LCF Method = 17,057 \$ per ton
- 4) Vendor 2 system is a multipollutant control system. Emission reduction for SOx at 10 ppmv or 90% control = 0.28 tpd. CE = 50 million/(0.24 tpd NOx + 0.28 tpd SOx) = \$10,711 per ton DCF, or \$ 17,887 per ton LCF
- 5) Cost effectiveness threshold for not cost effective = \$50,000 per ton

