Table C-16. Tar Buildup Control Operating Parameters

Parameter[1]	Value	Units
Heat Input Capacity	5	MMBtu/hr
Natural Gas Usage	4.90E-03	MMscf/hr
Potential Operation	8,760	hr/yr

1. Operating parameters provided by Nexus PMG.

Table C-17. Tar Buildup Control Potential Criteria Pollutant and GHG Emissions

Pollutant	Natural Gas Combustion Emission Factor[1] (lb/MMscf)	Control Efficiency[2] (%)	Potential Emissions[3] (lb/hr)	(tpy)
CO	84	50%	0.21	0.90
NO_X	100	-	0.49	2.15
Filterable PM	1.9	-	0.01	0.04
Condensable PM	5.7	-	0.03	0.12
Total PM	7.6	-	0.04	0.16
Total PM_{10}[4]	7.6	-	0.04	0.16
Total $PM_{2.5}$[4]	7.6	-	0.04	0.16
SO_2	0.6	-	2.94E-03	0.01
VOC	5.5	95%	1.35E-03	5.90E-03
CH_4	2.30	-	0.01	0.05
N_2O	2.20	-	0.01	0.05
CO_2	120,000	-	588	2,576
CO_2e[5]	120,713	-	592	2,592

1. Uncontrolled emission factors for natural gas combustion from AP-42, Section 1.4 - Natural Gas Combustion, Table 1.4-1,3 (9/03).

2. The RTO is assumed to control VOC with 95% efficiency and CO with 50% efficiency.

3. Potential emissions are calculated as follows:

Potential Emissions (lb/hr) = { [Natural Gas Combustion EF (lb/MMscf) * Heat Input Capacity (MMscf/hr)] + [Wood Drying EF (lb/ODT) * Dryer Capacity (ODT/hr)] } * [100% - Control efficiency (%)]

Potential Emissions (tpy) = Potential Emissions (lb/hr) * Annual Operation (hr/yr) / 2,000 (lb/ton)

4. Emission factors for Total PM_{10} and Total $PM_{2.5}$ are the sum of the filterable and condensable components. It is conservatively assumed that filterable PM = filterable PM_{10} = filterable $PM_{2.5}$.

5. CO_2e is calculated using Global Warming Potentials (GWPs) from 40 CFR Part 98, Subpart A, Table A-1 effective January 1, 2014. GWPs used for CO_2, CH_4, and N_2O are listed below.

CO_2	1
CH_4	25
N_2O	298