

EPA Particulate Emission Factors Natural Gas - Updated for 2014 emission inventory reporting

SCC	SCC_L1	SCC_L2	SCC_L3	SCC_L4	FUEL	New_PM10-FIL_Factor lb/Million_dscf	New_PM25-FIL_Factor lb/Million_dscf	New_PM10-CON_Factor lb/Million_dscf	New_PM10-FIL_Factor lb/Million_Btu	New_PM25-FIL_Factor lb/Million_Btu	New_PM10-CON_Factor lb/Million_Btu	New_PM10-FIL_Factor lb/Thousand_Gal	New_PM2.5-FIL_Factor lb/Thousand_Gal	New_PM-CON_Factor lb/Thousand_Gal
10100601	External Combustion Boilers	Electric Generation	Natural Gas	Boilers > 100 Million Btu/hr except Tangential	NG	0.2	0.11	0.32						
10100602	External Combustion Boilers	Electric Generation	Natural Gas	Boilers < 100 Million Btu/hr except Tangential	NG	0.2	0.11	0.32						
10100604	External Combustion Boilers	Electric Generation	Natural Gas	Tangentially Fired Units	NG	0.2	0.11	0.32						
10100701	External Combustion Boilers	Electric Generation	Process Gas	Boilers > 100 Million Btu/hr	PG				0.0002	0.00011	0.00031			
10100702	External Combustion Boilers	Electric Generation	Process Gas	Boilers < 100 Million Btu/hr	PG				0.0002	0.00011	0.00031			
10101001	External Combustion Boilers	Electric Generation	Liquified Petroleum Gas (LPG)	Butane	LPG							0.019	0.01	0.03
10101002	External Combustion Boilers	Electric Generation	Liquified Petroleum Gas (LPG)	Propane	LPG							0.019	0.01	0.03
10101003	External Combustion Boilers	Electric Generation	Liquified Petroleum Gas (LPG)	Butane/Propane Mixture: Specify Percent Butane in Comments	LPG							0.019	0.01	0.03
10200601	External Combustion Boilers	Industrial	Natural Gas	> 100 Million Btu/hr	NG	0.2	0.11	0.32						
10200602	External Combustion Boilers	Industrial	Natural Gas	10-100 Million Btu/hr	NG	0.2	0.11	0.32						
10200603	External Combustion Boilers	Industrial	Natural Gas	< 10 Million Btu/hr	NG	0.2	0.11	0.32						
10200604	External Combustion Boilers	Industrial	Natural Gas	Cogeneration	NG	0.2	0.11	0.32						
10200701	External Combustion Boilers	Industrial	Process Gas	Petroleum Refinery Gas	PG				0.0002	0.00011	0.00031			
10200704	External Combustion Boilers	Industrial	Process Gas	Blast Furnace Gas	PG				0.0002	0.00011	0.00031			
10200707	External Combustion Boilers	Industrial	Process Gas	Coke Oven Gas	PG				0.0002	0.00011	0.00031			
10201001	External Combustion Boilers	Industrial	Liquified Petroleum Gas (LPG)	Butane	LPG							0.019	0.01	0.03
10201002	External Combustion Boilers	Industrial	Liquified Petroleum Gas (LPG)	Propane	LPG							0.019	0.01	0.03
10201003	External Combustion Boilers	Industrial	Liquified Petroleum Gas (LPG)	Butane/Propane Mixture: Specify Percent Butane in Comments	LPG							0.019	0.01	0.03
10201401	External Combustion Boilers	Industrial	CO Boiler	Natural Gas	NG	0.2	0.11	0.32						
10201402	External Combustion Boilers	Industrial	CO Boiler	Process Gas	PG				0.0002	0.00011	0.00031			
10300601	External Combustion Boilers	Commercial/Institutional	Natural Gas	> 100 Million Btu/hr	NG	0.2	0.11	0.32						
10300602	External Combustion Boilers	Commercial/Institutional	Natural Gas	10-100 Million Btu/hr	NG	0.2	0.11	0.32						
10300603	External Combustion Boilers	Commercial/Institutional	Natural Gas	< 10 Million Btu/hr	NG	0.2	0.11	0.32						
10301001	External Combustion Boilers	Commercial/Institutional	Liquified Petroleum Gas (LPG)	Butane	LPG							0.019	0.01	0.03
10301002	External Combustion Boilers	Commercial/Institutional	Liquified Petroleum Gas (LPG)	Propane	LPG							0.019	0.01	0.03
10301003	External Combustion Boilers	Commercial/Institutional	Liquified Petroleum Gas (LPG)	Butane/Propane Mixture: Specify Percent Butane in Comments	LPG							0.019	0.01	0.03
10500106	External Combustion Boilers	Space Heaters	Industrial	Natural Gas	NG	0.2	0.11	0.32						
10500110	External Combustion Boilers	Space Heaters	Industrial	Liquified Petroleum Gas (LPG)	LPG							0.019	0.01	0.03
10500206	External Combustion Boilers	Space Heaters	Commercial/Institutional	Natural Gas	NG	0.2	0.11	0.32						
10500210	External Combustion Boilers	Space Heaters	Commercial/Institutional	Liquified Petroleum Gas (LPG)	LPG							0.019	0.01	0.03
20100201	Internal Combustion Engines	Electric Generation	Natural Gas	Turbine	NG	0.17	0.05	0.14						
20200201	Internal Combustion Engines	Industrial	Natural Gas	Turbine	NG	0.17	0.05	0.14						
20200203	Internal Combustion Engines	Industrial	Natural Gas	Turbine: Cogeneration	NG	0.17	0.05	0.14						
20300202	Internal Combustion Engines	Commercial/Institutional	Natural Gas	Turbine	NG	0.17	0.05	0.14						
20400301	Internal Combustion Engines	Engine Testing	Turbine	Natural Gas	NG	0.17	0.05	0.14						
2101006000	Stationary Source Fuel Combustion	Electric Utility	Natural Gas	Total: Boilers and IC Engines	NG	0.2	0.11	0.32						
2101006001	Stationary Source Fuel Combustion	Electric Utility	Natural Gas	All Boiler Types	NG	0.2	0.11	0.32						
2101006002	Stationary Source Fuel Combustion	Electric Utility	Natural Gas	All IC Engine Types	NG	0.17	0.05	0.14						
2101007000	Stationary Source Fuel Combustion	Electric Utility	Liquified Petroleum Gas (LPG)	Total: All Boiler Types	LPG							0.019	0.01	0.03
2102006000	Stationary Source Fuel Combustion	Industrial	Natural Gas	Total: Boilers and IC Engines	NG	0.2	0.11	0.32						
2102006001	Stationary Source Fuel Combustion	Industrial	Natural Gas	All Boiler Types	NG	0.2	0.11	0.32						
2102006002	Stationary Source Fuel Combustion	Industrial	Natural Gas	All IC Engine Types	NG	0.17	0.05	0.14						
2102007000	Stationary Source Fuel Combustion	Industrial	Liquified Petroleum Gas (LPG)	Total: All Boiler Types	LPG							0.019	0.01	0.03
2103006000	Stationary Source Fuel Combustion	Commercial/Institutional	Natural Gas	Total: Boilers and IC Engines	NG	0.2	0.11	0.32						
2103007000	Stationary Source Fuel Combustion	Commercial/Institutional	Liquified Petroleum Gas (LPG)	Total: All Combustor Types	LPG							0.019	0.01	0.03
2103007005	Stationary Source Fuel Combustion	Commercial/Institutional	Liquified Petroleum Gas (LPG)	All Boiler Types	LPG							0.019	0.01	0.03
2103007010	Stationary Source Fuel Combustion	Commercial/Institutional	Liquified Petroleum Gas (LPG)	Asphalt Kettle Heaters	LPG							0.019	0.01	0.03
2104006000	Stationary Source Fuel Combustion	Residential	Natural Gas	Total: All Combustor Types	NG	0.2	0.11	0.32						
2104006010	Stationary Source Fuel Combustion	Residential	Natural Gas	Residential Furnaces	NG	0.2	0.11	0.32						
2104007000	Stationary Source Fuel Combustion	Residential	Liquified Petroleum Gas (LPG)	Total: All Combustor Types	LPG							0.019	0.01	0.03
2199007000	Stationary Source Fuel Combustion	Total Area Source Fuel Combustion	Liquified Petroleum Gas (LPG)	Total: All Boiler Types	LPG							0.019	0.01	0.03
30290005	Industrial Processes	Food and Agriculture	Fuel Fired Equipment	Liquified Petroleum Gas (LPG): Process Heaters	LPG				0.0002	0.00011	0.00031			
30500209	Industrial Processes	Mineral Products	Asphalt Concrete	Asphalt Heater: LPG	LPG				0.0002	0.00011	0.00031			
30590005	Industrial Processes	Mineral Products	Fuel Fired Equipment	Liquified Petroleum Gas (LPG): Process Heaters	LPG				0.0002	0.00011	0.00031			
30600105	Industrial Processes	Petroleum Industry	Process Heaters	Natural Gas-fired	NG	0.2	0.11	0.32						
30600107	Industrial Processes	Petroleum Industry	Process Heaters	LPG-fired	LPG				0.0002	0.00011	0.00031			
30890004	Industrial Processes	Rubber and Miscellaneous Plastics Products	Fuel Fired Equipment	Liquified Petroleum Gas (LPG): Process Heaters	LPG				0.0002	0.00011	0.00031			
31000404	Industrial Processes	Oil and Gas Production	Process Heaters	Natural Gas	NG	0.2	0.11	0.32						
31000414	Industrial Processes	Oil and Gas Production	Process Heaters	Natural Gas: Steam Generators	NG	0.2	0.11	0.32						
39000689	Industrial Processes	In-process Fuel Use	Natural Gas	General	NG	0.2	0.11	0.32						
39901001	Industrial Processes	Miscellaneous Manufacturing Industries	Process Heater/Furnace	LPG	LPG				0.0002	0.00011	0.00031			
40201004	Petroleum and Solvent Evaporation	Surface Coating Operations	Coating Oven Heater	Liquified Petroleum Gas (LPG)	LPG							0.019	0.01	0.03