

Electric Power Annual 2010

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Table A3. Carbon Dioxide Uncontrolled Emission Factors

(Pounds of CO₂ per Million Btu)

| Fuel, Code, Source, and Emission Factor | | |
|---|---|--|
| Fuel And EIA Fuel Code | Source and Tables (As appropriate) | Factor (Pounds of CO ₂ Per Million Btu) ^{***} |
| Bituminous Coal (BIT) | Source: 1 | 205.3 |
| Distillate Fuel Oil (DFO) | Source: 1 | 161.386 |
| Geothermal (GEO) | Estimate from EIA, Office of Integrated Analysis and Forecasting | 16.59983 |
| Jet Fuel (JF) | Source: 1 | 156.258 |
| Kerosene (KER) | Source: 1 | 159.535 |
| Lignite Coal (LIG) | Source: 1 | 215.4 |
| Municipal Solid Waste (MSW) | Source: 1 (including footnote 2 within source) | 91.9 |
| Natural Gas (NG) | Source: 1 | 117.08 |
| Petroleum Coke (PC) | Source: 1 | 225.13 |
| Propane Gas (PG) | Source: 1 | 139.178 |
| Residual Fuel Oil (RFO) | Source: 1 | 173.906 |
| Synthetic Coal (SC) | Assumed to have emissions similar to Bituminous Coal. | 205.3 |
| Subbituminous Coal (SUB) | Source: 1 | 212.7 |
| Tire-Derived Fuel (TDF) | Source: 1 | 189.538 |
| Waste Coal (WC) | Assumed to have emissions similar to Bituminous Coal. | 205.3 |
| Waste Oil (WO) | Source: 2, Table 1.11-3 (assumes typical heat content of 4.4 MMBtus per barrel) | 210 |

Note: ^{***} CO₂ factors do not vary by combustion system type or boiler firing configuration.

Sources: Energy Information Administration, Office of Integrated Analysis and Forecasting, Voluntary Reporting of Greenhouse Gases Program, *Table of Fuel and Energy Source: Codes and Emission Coefficients*; available at: <http://www.eia.doe.gov/oiaf/1605/coefficients.html>; and U.S. Environmental Protection Agency, *AP 42, Fifth Edition (Compilation of Air Pollutant Emission Factors, Volume 1: Stationary Point and Area Sources)*; available at: <http://www.epa.gov/ttn/chief/ap42/>.

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 (Pounds of CO₂ per Million Btu)

| Fuel, Code, Source, and Emission Factor | | |
|---|---|--|
| Fuel And EIA Fuel Code | Source and Tables (As appropriate) | Factor (Pounds of CO ₂ Per Million Btu)*** |
| Bituminous Coal (BIT) | Source: 3 | 205.573 |
| Distillate Fuel Oil (DFO) | Source: 1 | 161.386 |
| Geothermal (GEO) | Estimate from EIA, Office of Integrated Analysis and Forecasting | 16.59983 |
| Jet Fuel (JF) | Source: 1 | 156.258 |
| Kerosene (KER) | Source: 1 | 159.535 |
| Lignite Coal (LIG) | Source: 3 | 215.07 |
| Municipal Solid Waste (MSW) | Source: 1 (including footnote 2 within source) | 91.9 |
| Natural Gas (NG) | Source: 1 | 117.08 |
| Petroleum Coke (PC) | Source: 1 | 225.13 |
| Propane Gas (PG) | Source: 1 | 139.178 |
| Residual Fuel Oil (RFO) | Source: 1 | 173.906 |
| Synthetic Coal (SC) | Assumed to have emissions similar to Bituminous Coal. | 205.573 |
| Subbituminous Coal (SUB) | Source: 3 | 214.212 |
| Tire-Derived Fuel (TDF) | Source: 1 | 189.538 |
| Waste Coal (WC) | Assumed to have emissions similar to Bituminous Coal. | 205.573 |
| Waste Oil (WO) | Source: 2, Table 1.11-3 (assumes typical heat content of 4.4 MMBtus per barrel) | 210 |

Note: *** CO₂ factors do not vary by combustion system type or boiler firing configuration.

Sources: Energy Information Administration, Office of Integrated Analysis and Forecasting, Voluntary Reporting of Greenhouse Gases Program, *Table of Fuel and Energy Sources*

Source: *Codes and Emission Coefficients* ; available at: <http://www.eia.doe.gov/oiaf/1605/coefficients.html>; and U.S. Environmental Protection Agency, *AP 42, Fifth E*

