

**Coal Production and Preparation Report
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A. PURPOSE. The EIA-7A survey collects data from U.S. coal mining companies. Information on the type and status of coal operations, characteristics of coal beds mined, recoverable reserves, productive capacity and the disposition of coal mined is collected to provide Congress with basic statistics concerning coal supply, as required by the Federal Energy Administration Act of 1974 (FEAA) (P.L. 93-275), as amended. These data appear in the *Annual Coal Report*, the *Quarterly Coal Report*, the *Monthly Energy Review*, and the *Annual Energy Review*. In addition, the Energy Information Administration uses the data for coal supply analyses and in short-term modeling efforts, which produce forecasts of coal supply and prices requested by Congress. The forecast data also appear in the *Short-Term Energy Outlook* and the *Annual Energy Outlook*.

B. WHO MUST SUBMIT. All coal mining companies that owned a mining operation which produced and/or processed or prepared 10,000 or more short tons of coal during the report year must submit form EIA-7A. Standalone facilities (e.g., preparation plant/tipple/loading/dock/train loadout) that worked 5,000 or more hours must also submit this form.

C. WHEN TO SUBMIT. Form EIA-7A must be submitted by **April 1** to report data for the previous year.

D. WHERE TO SUBMIT. Respondents can submit data for this survey by Internet, mail, or facsimile. Any questions regarding the submission of this form can be directed to the Survey Manager, Patty Chou, by e-mail at patty.chou@eia.doe.gov or by phone at (202) 586-1168.

Secure Communication Methods:

By Internet: <https://signon.eia.doe.gov/ssoserver/login>

By Mail: Energy Information Administration, EI-52
CNEAF - CNRD
U.S. Department of Energy
1000 Independence Avenue, SW
Washington, DC 20585
Attn: EIA-7A

Non-secure Communication Methods:

By facsimile: (202) 287-1944
Attn: Form EIA-7A

E. SANCTIONS. The timely submission of Form EIA-7A by those required to report is mandatory under section 13(b) of the Federal Energy Administration Act (FEAA) as amended. Failure to respond may result in a civil penalty of not more than \$2,750 per day for each violation, or a fine not more than \$5,000 per day for each willful violation. Civil action may be enforced to prohibit reporting violations and may result in the granting of a temporary restraining order or a preliminary or permanent injunction without bond. In such civil action, the court may also issue mandatory injunctions commanding any person to comply with these reporting requirements.

F. DEFINITIONS:

Anthracite: The highest rank of coal; used primarily for residential and commercial space heating. It is a hard, brittle and black lustrous coal, often referred to as hard coal, containing a high percentage of fixed carbon and a low percentage of volatile matter. The moisture content of fresh-mined anthracite generally is less than 15 percent. The heat content of anthracite ranges from 22 to 28 million Btu per ton on a moist, mineral-matter-free basis. The heat content of anthracite coal consumed in the United States averages 25 million Btu per ton, on the as-received basis (i.e., containing both inherent moisture and mineral matter). Note: Since the 1980's, anthracite refuse or mine waste has been used for steam electric power generation. This fuel typically has a heat content of 15 million Btu per ton or less.

Area Mine: A type of surface mine found on relatively flat or gently rolling terrain. It recovers coal by mining long strips successively; the material excavated from the strip being mined is deposited in the strip pit previously mined.

Auger Mine: A surface mine where coal is recovered through the use of a large-diameter drill driven into a coalbed exposed by surface mining excavations or in natural sloping terrain. It usually follows contour, area, or open-pit surface mining, particularly when the overburden becomes too thick for further economical excavation.

Bituminous Coal: A dense coal, usually black, sometimes dark brown, often with well-defined bands of bright and dull material, used primarily as fuel in steam-electric power generation, with substantial quantities also used for heat and power applications in manufacturing and to make coke. Bituminous coal is the most abundant coal in active U.S. mining regions. Its moisture content usually is less than 20 percent. The heat content of bituminous coal ranges from 21 to 30 million Btu per ton on a moist, mineral-matter-free basis. The heat content of bituminous coal consumed in the United States averages 24 million Btu per ton, on the as-received basis (i.e., containing both inherent moisture and mineral matter).

Captive Mine: Coal produced to satisfy the needs of the mine owner, or of a parent, subsidiary, or other affiliate of the mine owner (for example, steel companies and electricity generators), rather than for open market sale.

Coal Stocks: Coal quantities that are held in storage for future use and disposition. Note: When coal data are collected for a particular reporting period (month, quarter, or year), coal stocks are commonly measured as of the last day of this period.

Coal Transformation Plant: A plant, other than a coke plant, that is engaged in the chemical transformation of coal into a new substance.

Commercial User: A retail or wholesale business or a facility housing such a business that uses coal for heating, raising steam or generating electricity.

Contour Mine: A type of surface mine in which the mining follows the outcrop or contour of the coal bed, removing overburden by mining back into the hillside until the overburden becomes too thick. As the overburden is removed, the coal bed is mined.

Datum: The geospatial referencing system used for establishing latitude and longitude.

Drift Mine: An underground mine that opens horizontally into the coal bed or coal outcrop.

F. DEFINITIONS (CONT'D):

F.O.B (Free on Board) Mining Operation Value: The price of coal at the mining operation. Includes processing and loading costs but does not include insurance and freight or shipping costs.

Highwall Mine: A mine that uses specialized equipment to remove coal exposed at the unexcavated face of exposed overburden and coal of a contour mine or pit mine.

Independent Producer/Operator: An entity which operates a coal mining facility and is not owned or controlled by a parent firm that owns other coal mining operations and is not a contractor.

Institutional User: A private, state or federal facility such as a prison, nursing home, military base, university or hospital that uses coal for heating, raising steam or generating electricity.

Latitude and Longitude: The distance on the Earth's surface measured, respectively, north or south of the equator and east or west of the standard meridian, expressed in angular degrees, minutes, and seconds.

Lignite: The lowest rank of coal, often referred to as brown coal, used almost exclusively as fuel for steam-electric power generation. It is brownish-black and has a high inherent moisture content, sometimes as high as 45 percent. The heat content of lignite ranges from 9 to 17 million Btu per ton on a moist, mineral-matter-free basis. The heat content of lignite consumed in the United States averages 13 million Btu per ton, on the as-received basis (i.e., containing both inherent moisture and mineral matter).

Manufacturing Plant: A plant, other than a coke plant, that is engaged in the mechanical or chemical transformation of materials or substances into finished or semi-finished materials or products.

Mining Operation: One mine and/or tippie at a single physical location.

Mountaintop Removal Mine: A type of surface mine in which all of the overburden and interburden near the top of a mountain is removed and redistributed to expose one or more coal beds near the top of the mountain.

Open Market Coal: Coal sold in the open market (i.e., coal sold to companies other than the reporting company's parent company or an operating subsidiary of the parent company).

Open Pit Mine: A mine combining contour and area mining methods used to mine thick coal beds or steeply inclined coal beds. Many of the surface mines in the Powder River Basin of Wyoming, an area with thick coal beds, are open pit surface mines.

Operating Subsidiary: Company that operates a coal mining operation and is owned by another company (i.e., the parent company).

Parent Company: An affiliated company that exercises ultimate control over a business entity, either directly or indirectly, through one or more intermediaries.

Pit Inventory: Coal in place which has been surveyed or prepared for mining.

Primary Product: The type of output or merchandise of the manufacturing plant.

Punch Mine: A surface mining method in which rooms are opened off the strip mine highwall.

Report Year: The 12-month period, January 1 through December 31.

Shaft Mine: An underground mine that reaches the coal bed by means of a vertical shaft.

Silt, Culm, Refuse Bank, Slurry Dam or Dredge: A surface mine that recovers refuse or waste coal left from previous mining or coal cleaning operations. Different mining methods are applied depending upon the conditions found in the mining area.

Slope Mine: An underground mine that reaches the coal bed by means of an inclined opening.

Strip Mine: An open cut in which the overburden is removed from a coal bed prior to the removal of coal.

Subbituminous Coal: A coal whose properties range from those of lignite to those of bituminous coal and used primarily as fuel for steam-electric power generation. It may be dull, dark brown to black, soft and crumbly, at the lower end of the range, to bright, jet black, hard and relatively strong, at the upper end. Subbituminous coal contains 20 to 30 percent inherent moisture by weight. The heat content of subbituminous coal ranges from 17 to 24 million Btu per ton on a moist, mineral-matter-free basis. The heat content of subbituminous coal consumed in the United States averages 17 to 18 million Btu per ton, on the as-received basis (i.e., containing both inherent moisture and mineral matter).

Transformed Coal: Coal that has been processed by a coal transformation plant; and coal-based fuels such as briquettes, pellets, or extrusions, which are formed by binding materials and processes that recycle material.

G. GENERAL INSTRUCTIONS. Report coal quantities in short tons (2,000 pounds) to the nearest ton. Report value in dollars to the nearest dollar. Report coal bed thickness in inches to the nearest whole inch. Report coal classification code (10 = Anthracite, 20 = Bituminous, 30 = Subbituminous, 40 = Lignite). See Table 1 below for coal classification guidelines. Report percentages to the nearest whole percent. Operating subsidiaries and contractors who are unable to provide the data requested should forward form EIA-7A immediately to the parent company or contractee for completion prior to submission to the Energy Information Administration.

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H. SPECIFIC INSTRUCTIONS.

1. When reporting Preparer Company Contact Information in Section I.C, refer to the company that owns the reported MSHA ID. The company contact person is a person who has oversight responsibility for responding to this data request and normally is not the person preparing the response.
2. When reporting the Operating Company Contact Information in Section I.F, report the contact information for the Operating Company representative who would be able to answer questions regarding the information provided in this form.
3. Instructions for estimating longitude, latitude and datum by using the methods set out in Section I.L may be found at the following Web site: <http://www.eia.doe.gov/cneaf/coal/page/surveys/datuminst.pdf>. If the readings are in decimal degrees, please convert them to degrees, minutes and seconds. For example, to convert 82.4536 degrees to degrees, minutes and seconds, do the following:
 - Retain 82 degrees;
 - Multiply 0.4536 by 60 to get 27.216 minutes;
 - Retain 27 minutes;
 - Multiply 0.216 by 60 to get 12.96 seconds;
 - The mine's location is thus 82 degrees, 27 minutes and 13 seconds.
4. For Section V, coal stocks are defined to be coal that has been mined and stored awaiting shipment or transfer to a user. Pit inventory is coal in place which has been surveyed or prepared for mining. Do not report pit inventory as part of coal stocks.

I. BURDEN. Public reporting burden for this collection of information is estimated to average 1.5 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the Energy Information Administration, Statistics and Methods Group, EI-70, Forrestal Building, 1000 Independence Ave., SW, Washington, DC 20585; and to the Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, DC 20503. Respondents are not required to file this report unless it contains a valid Office of Management and Budget (OMB) control number.

J. DISCLOSURE OF INFORMATION.

The information reported on this form will be protected and not disclosed to the public to the extent that it satisfies the criteria for exemption under the Freedom of Information Act (FOIA), 5 U.S.C. §552, the DOE regulations, 10 C.F.R. §1004.11, implementing the FOIA, and the Trade Secrets Act, 18 U.S.C. §1905.

The Federal Energy Administration Act requires the Energy Information Administration to provide company-specific data to other Federal agencies when requested for official use. The information reported on these forms may also be made available, upon request, to another component of the Department of Energy (DOE); to any Committee of Congress, the Government Accountability Office, or other Federal agencies authorized by law to receive such information. A court of competent jurisdiction may obtain this information in response to an order. The information may be used for any nonstatistical purposes such as administrative, regulatory, law enforcement, or adjudicatory purposes.

Disclosure limitation procedures are applied to the statistical data published from survey information to ensure that the risk of disclosure of identifiable information is very small.

Upon request specific to any of the forms, the name, address, and location (state or zip code) of the responding companies will be released in the form of a full or partial list of respondents.

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Table 1. Coal Classification by Rank¹

Coal Rank / Code	Fixed Carbon Limit (Dry, mineral-matter free) ²		Volatile Matter Limit (Dry, mineral-matter free) ²		Gross Calorific Value Limit (Moist, mineral-matter free) ³		Agglomerating Character ⁴
	(In percentage terms)		(In percentage terms)		(Btu/lb)		
10. Anthracite	≥86	<98(+)	>2(-)	≤14	-	-	Non-agglomerating
20. Bituminous	≥69	<86	>14	≤31	-	-	Agglomerating
20. Bituminous	-	<69	>31	-	≥14,500 ⁵	-	Commonly Agglomerating ⁶
20. Bituminous	-	-	-	-	≥11,500 ⁵	<14,000	Commonly Agglomerating ⁶
20. Bituminous ⁷	-	-	-	-	≥10,500	<11,500	Agglomerating
30. Subbituminous ⁷	-	-	-	-	≥10,500	<11,500	Non-agglomerating
30. Subbituminous	-	-	-	-	≥8,300	<10,500	Non-agglomerating
40. Lignite	-	-	-	-	-	<8,300	Non-agglomerating

Notes:

- This classification does not apply to certain coals, principally non-banded varieties with usual properties whose fixed carbon calorific value fall within those for high-volatile bituminous and subbituminous ranks. In North America, these coals contain only small portions of vitrain and consist of attrital material; for example, cannel coal.
- The dry, mineral-matter free basis for coal analysis is calculated from the coal sample and expressed as though the total moisture and mineral matter have been removed (see formula below). Note: "Mineral matter free" is not the same as "Ash free". Mineral matter is the parent material from which ash is derived upon combustion. The minerals associated with coal are altered during combustion, resulting in a different, generally lower weight for ash than for its source minerals.
- The moist, mineral-matter free basis for coal analysis is calculated from the coal sample and expressed as though the natural inherent moisture is present but mineral matter has been removed (see formula below). Moist coal does not include visible water on the surface.
- "Agglomerating," as applied to coal, is the property of softening when heated to above approximately 400°C in a non-oxidizing atmosphere, then forming a coherent mass upon cooling to room temperature. Agglomeration is a critical property for coking coals and an authenticating characteristic for bituminous coals.
- Coals having 69 percent or more fixed carbon (dry, mineral-matter-free basis) are classified according to fixed carbon regardless of calorific value.
- There may be non-agglomerating varieties in these groups of bituminous coals, most notably in the "high volatile C bituminous" group, but all coal that agglomerate are bituminous.
- Coals with calorific values between 10,500 and 11,499 Btu/lb (moist, mineral-matter free) can be bituminous or subbituminous. The determining factor becomes their capability to agglomerate. As a rule, with the exception of the anthracites in Pennsylvania and the lignites of the Gulf Coast States, all U.S. coals east of Colorado are bituminous.

Formulas:

Dry, mineral-matter free fixed carbon percentage = $100 (FC - 0.15S) / (100 - (M + 1.08A + 0.55S))$

Dry, mineral-matter free volatile matter percentage = $100 - (\text{Dry, mineral-matter free FC})$

Moist, mineral-matter free Btu content = $100 (Btu - 50S) / (100 - (1.08A + 0.55S))$

Where,

Btu = gross calorific value per pound;

FC = fixed carbon content percentage by weight;

M = moisture content percentage by weight;

A = ash content percentage by weight; and

S = sulfur content percentage by weight.