

EIA-820 ANNUAL REFINERY REPORT INSTRUCTIONS

QUESTIONS

If you have any questions about Form EIA-820 after reading the instructions, please contact the Survey Manager at (202) 586-6281.

PURPOSE

The Energy Information Administration (EIA) Form EIA-820, "Annual Refinery Report," is used to collect data on current and projected capacities of all operable petroleum refineries. The data appear on EIA's website at www.eia.doe.gov and in numerous government publications.

WHO MUST SUBMIT

Form EIA-820 is mandatory pursuant to Section 13 (b) of the Federal Energy Administration Act of 1974 (Public Law 93-275) and must be completed by all operating and idle petroleum refineries (including new refineries under construction) and refineries shutdown during the previous year, located in the 50 States, the District of Columbia, Puerto Rico, the Virgin Islands, Guam, and other U.S. possessions.

WHEN TO SUBMIT

Form EIA-820 must be received by the EIA by February 16th of the designated report year.

HOW TO SUBMIT

Instructions on how to report via, facsimile, secure file transfer, or e-mail are printed on PART 2 of Form EIA-820.

- Secure File Transfer: This form may be submitted to the EIA by facsimile, e-mail, or secure file transfer. Should you choose to submit your data via e-mail or facsimile, we must advise you that e-mail and facsimile are insecure means of transmission because the data are not encrypted, and there is some possibility that your data could be compromised. You can also send your Excel files to EIA using a secure method of transmission: HTTPS. This is an industry standard method to send information over the web using secure, encrypted processes. (It is the same method that commercial companies communicate with customers when transacting business on the web.) To use this service, we recommend the use of Microsoft Internet Explorer 5.5 or later or Netscape 4.77 or later. Send your surveys using this secure method at:
<https://idc.eia.doe.gov/upload/noticeoog.jsp>.

COPIES OF SURVEY FORMS, INSTRUCTIONS AND DEFINITIONS

Copies in portable document format (PDF) and spreadsheet format (XLS) are available on EIA's website. You may access the materials by following the steps:

- Go to EIA's website at www.eia.doe.gov
- Click on *Petroleum*
- Click on *Petroleum Survey Forms* located in the *References* box on the right side of the page
- Select the materials you want.

Files must be saved to your personal computer. Data cannot be entered interactively on the website.

GENERAL INSTRUCTIONS

[Definitions](#) of petroleum products and other terms are available on our website. Please refer to these definitions before completing the survey form.

Report all quantities to the nearest whole number. See individual headings for correct units of measure. Shaded cells on the form are those in which data are not currently required to be reported. One barrel equals 42 US gallons.

PART 1. RESPONDENT IDENTIFICATION DATA

- Enter the 10-digit EIA ID Number. If you do not have a number, submit your report leaving this field blank. EIA will advise you of the number.
- If there has been a change since the last report, enter an "X" in the block provided.
- Enter the Doing Business As "DBA" name if appropriate.
- Enter the name of the reporting company.
- Enter the site name of the refinery.
- Enter the physical address of the reporting company.
- Enter the mailing address of the Contact. (Note: If the physical address and mailing address are the same, provide the information only for the physical address.)
- Enter the name, telephone number, facsimile number, and e-mail address of the person to contact concerning information shown on the report. The person listed should be the person most knowledgeable of the specific data reported.

PART 2. SUBMISSION/RESUBMISSION INFORMATION

Submission

Refer to "How to Submit" section for more details or methods for submitting data.

Resubmission

A resubmission is required whenever an error greater than 5 percent of a previously reported value is discovered by a respondent or if requested by the EIA.

Enter an "X" in the resubmission box if you are correcting information previously reported. Enter only those data cells which are affected by the changes. You are not required to file a complete form when you resubmit.

Report any unusual or substantially different aspects of your current year's operations that affect the data in the **comments** section below Parts 1 and 2. For example, note new processing units, major modifications or retirement of processing units, sale of refinery etc. Explain changes in production capacity or downstream charge capacity of greater than 5 percent from the previous year.

SPECIFIC INSTRUCTIONS

PART 3. FUEL, ELECTRICITY, AND STEAM PURCHASED AND CONSUMED AT THE REFINERY

Report purchased natural gas, coal, electricity, and steam used as a fuel at the refinery last year.

Exclude consumption by petrochemical facilities associated with the refinery.

Report the volume of dry natural gas purchased and used as a fuel at the refinery (Code 105) to the **nearest whole number of million cubic feet**. Exclude natural gas used as feed to hydrogen production. Natural gas used as feed for hydrogen production is reported using code 107.

Report the volume of dry natural gas purchased and used for the production of hydrogen at the refinery last year (Code 107) to the **nearest whole number of million cubic feet**. Report purchased quantities only and exclude natural gas used as a fuel. Natural gas used as fuel is reported using code 105.

Report the volume of coal purchased and used as a fuel at the refinery (Code 109) to the nearest whole number of **thousand short tons**. Include coke from coal, but exclude coke derived from petroleum.

Report purchased electricity (Code 114) to the nearest whole number of **million kilowatt-hours**.

Exclude electricity produced at the refinery, including cogeneration.

Report purchased steam (Code 113) to the nearest whole number of **million pounds**.

PART 4. REFINERY RECEIPTS OF CRUDE OIL BY METHOD OF TRANSPORTATION

Report last year's receipts of crude oil by method of transportation in **thousand barrels** using the following criteria:

Report the last method of transportation used if the distance traveled via this mode is equal to or greater than 100 miles.

Examples:

- If the refinery received crude oil that first traveled 5,000 miles by tanker and then traveled 105 miles by pipeline to the refinery, report *pipeline* as the method of transportation.
- If the refinery received crude oil that first traveled 3,000 miles by tanker, then 500 miles by barge, then 50 miles by pipeline, and finally traveled 75 miles to the refinery by truck, report *barge* as the method of transportation.

Report the method which represents the greatest distance traveled if several methods of transportation are used and no single method is equal to or greater than 100 miles.

Example:

- If the refinery received crude oil that first traveled 75 miles by tank car, then 70 miles by barge and finally travels 55 miles by truck to the refinery, report tank car as the method of transportation.

Total domestic crude oil receipts reported on the annual Form EIA-820 must equal the sum of last year's monthly submissions of Domestic Crude Oil Receipts (Code 010) reported on the Form EIA-810, "Monthly Refinery Report." Alaskan crude is domestic.

Total foreign crude oil receipts reported on the annual Form EIA-820 must equal the sum of last year's monthly submissions of Foreign Crude Oil Receipts (Code 020) reported on the Form EIA-810, "Monthly Refinery Report."

PART 5. ATMOSPHERIC CRUDE OIL DISTILLATION CAPACITY AS OF JANUARY 1

Current Year:

Report operable capacity as of **January 1, 2010** (Code 401) for atmospheric crude oil distillation units in **both barrels per calendar day** and **barrels per stream day**. Processing equipment upstream of the atmospheric distillation tower/furnace, such as preflash drums/towers, prefractionators and outboard flash towers, should be considered part of the atmospheric distillation unit for capacity reporting purposes.

NOTE: The barrels per calendar day capacity for atmospheric crude oil distillation reported on the annual Form EIA-820 and the monthly Form EIA-810, "Monthly Refinery Report" for January 1, 2010 **must match**.

Barrels per Calendar Day - This is your total rated capacity and is the amount of input that your distillation units can process under usual operating conditions during a year. The amount is expressed in terms of capacity during a 24-hour period and should be reduced to account for the following limitations that may delay, interrupt, or limit optimal productive performance during a year:

- the annualized reduction of stream day capacity to account for scheduled downtime due to such conditions as routine inspection, maintenance, repairs and turnaround, and for unscheduled downtime due to such conditions as mechanical problems, repairs, and slowdowns. These factors may only happen once over a period of years and should not be counted only in the year of occurrence.
- the capability of downstream processing units to absorb the output of crude oil processing facilities of a given refinery. No reduction is necessary for intermediate streams that are distributed to other than downstream facilities as part of a refinery's normal operation.
- the types and grades of inputs to be processed.
- the types and grades of products expected to be manufactured.
- the environmental constraints associated with refinery operations.

Barrels per Stream Day -This is your design capacity, also called the surge capacity. It represents the maximum number of barrels of input that your distillation unit(s) can process within a 24-hour period when running at full capacity without interruption under optimal crude and product slate conditions with no bottlenecks in the system or allowance for downtime. Barrels per stream day capacity must be greater than barrels per calendar day capacity.

Operable Capacity has two components, operating and idle capacity.

- **Operating Capacity** (Code 399) - the component of operable capacity in operation at the beginning of the year (January 1).
- **Idle Capacity** (Code 400) - the component of operable capacity not in operation and not under active repair, but capable of being placed in operation within 30 days; or capacity not in operation but under active repair which can be completed in 90 days.

Projections:

Projections of operable capacity for next year (Code 501) should include operating, idle, and **any additional capacities slated for completion as of January 1 of the next year.**

PART 6. DOWNSTREAM CHARGE CAPACITY AS OF JANUARY 1

This section requires reporting current and future capacities for every named type of unit in terms of barrels per stream day and also in terms of barrels per calendar day for some of the units.

Report in barrels per calendar day (see definition in Part 5), the operable charge capacity as of January 1 of this year of the following downstream processing units:

- **Fluid Coking (includes flexicoking) (Code 404)**
- **Delayed Coking (Code 405)**
- **Fresh Feed Catalytic Cracking (Code 407)**
- **Catalytic Hydrocracking:**
 - Distillate (Code 439)
 - Gas oil (Code 440)
 - Residual (Code 441)

- **Catalytic Reforming:**
 - Low Pressure (Code 430)
 - High Pressure (Code 431)

Note: Barrels per calendar day capacity must be less than barrels per stream day capacity. Charge capacity for a processing facility is measured in terms of its liquid feed adjusted for standard temperature and pressure inputs (feed) capacity. **Exclude** hydrogen gas inputs.

Report in barrels per stream day (see definition in Part 5) the operable charge capacity of the downstream processing facilities listed on the survey form as of January 1 of this year and projections of operable charge capacity, including operating, idle, and any **additional capacities slated for completion as of January 1 of the next year.** Charge capacity for a processing facility is measured in terms of its input (liquids feed) capacity.

Include gas oil in the Thermal Cracking category "Other" (Code 406).

Report capacity for the Desulfurization Units (Codes 426, 420, 421, 422, 423, 424, 413, and 425). Include capacity of all types of desulfurization technologies as well as those hydrotreating units which have functions besides desulfurization. Please include a short note in the **Comments Section** (see cover page) of the form noting the details of hydrotreating for other than desulfurization purposes.

Report capacity for the Catalytic Reforming categories (Codes 430 and 431). Report the capacity of low pressure (less than 225 pounds per square inch gauge (PSIG) measured at the outlet separator) and high pressure (equal to or greater than 225 PSIG) processing units.

Report for Fuels Solvent Deasphalting (Code 432) only units designed to remove asphalt from petroleum fractions intended for further processing into fuel-type products. Do not include lube solvent deasphalting capacity.

PART 7. PRODUCTION CAPACITY AS OF JANUARY 1

Report the **maximum** amount of product that can be produced in 24 hours from all processing facilities at the refinery for the products listed on the survey form. All products should be reported in barrels except for hydrogen and sulfur.

Projections of operable production capacity for next year should include operating, idle, and **any additional capacities slated for completion by January 1 of the next year.**

The following factors should be considered when reporting the capacities for the following products:

- **Alkylates** (Code 415) - **Report** the maximum amount of alkylates that can be produced from alkylation processes.
- **Aromatics** (Code 437) - **Report** the maximum amount of aromatics that can be produced from various separation processes after catalytic reforming.
- **Asphalt and Road Oil** (Code 931)
 - **Report** the maximum amount of asphalt and road oil that can be produced.
 - **Exclude** unfinished oils under this classification.

- **Isobutane** (Code 615) - **Report** the maximum amount of isobutane (C₄H₁₀) that can be produced from butane isomeration units. **Include** isobutene produced at the refinery and used internally or blended into fuels.
- **C5/C6 Isomerate** (Code 438) - **Report** the maximum amount of isomerate including isopentane (C₅H₁₂) and isohexane (C₆H₁₄) that can be produced.
- **Isooctane** (Code 635) – **Report** the maximum amount of isooctane that can be produced by isooctane units (including MTBE units converted to production of isooctane). **Exclude** isooctane production capacity of alkylation units.
- **Lubricants** (Code 854) - **Report** the maximum amount of base stocks, including white oil feedstock, that can be produced at the refinery. **Exclude** associated lube plant production outside the refinery gate.

Note: capacity should include base stocks and process oils that have undergone some combination of distillation, solvent extraction, hydrocracking, severe hydrotreating, deasphalting, dewaxing or finishing.

- **Petroleum Coke-Marketable** (Code 021) –
 - **Report** the maximum amount of marketable petroleum coke that can be produced from processing and upgrading facilities.
 - **Exclude** catalyst petroleum coke.
 - **Report** in **barrels**. There are 5 barrels per short ton.
- **Hydrogen** (Code 091) –
 - **Report** the maximum amount of hydrogen that can be produced by a hydrogen generation plant on the refinery grounds, regardless of ownership.
 - **Exclude** the hydrogen that is generated by the catalytic reforming units producing reformat.
 - **Report** quantities in **million cubic feet per day (MMcfd)**.
- **Sulfur** (Code 435) –
 - **Report** the maximum total sulfur recovery capacity of the refinery.
 - **Report** quantities in **short tons per day**.

PART 8. STORAGE CAPACITY AS OF JANUARY 1

Report in **thousand barrels** both working and shell storage capacity located at the refinery for the products listed on the survey form as of January 1 of this year.

Working and Shell Storage Capacity are defined as:

Working Storage Capacity - the difference in volume between the maximum safe fill capacity and the quantity below which pump suction is ineffective (bottoms).

Shell Storage Capacity - the design capacity of a petroleum storage tank which is always greater than or equal to working storage capacity.

Aboveground and underground storage capacity must include railroad tank cars located on site.

Exclude any leased tankage at other facilities.

Gasoline Blending Components (Code 136) - Includes motor gasoline and aviation gasoline blending components.

Other Products (Code 333) - Includes ethane/ethylene, isobutane/isobutylene, pentanes plus, other hydrocarbons, hydrogen, unfinished oils, finished aviation gasoline, special naphthas, wax, petroleum coke, still gas, petrochemical feedstocks and miscellaneous products.

PROVISIONS REGARDING CONFIDENTIALITY OF INFORMATION

Information on operable atmospheric crude oil distillation capacity, downstream charge capacity, and production capacity reported on Form EIA-820 are not considered confidential and will be publicly released in identifiable form. In addition to the use of the information by EIA for statistical purposes, the information may be made available, upon request, to other Federal agencies authorized by law to receive such information for any nonstatistical purposes such as administrative, regulatory, law enforcement, or adjudicatory purposes.

All other 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 EIA to provide company-specific data to other Federal agencies when requested for official use. The information reported on this form 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.

Company specific data are also provided to other DOE offices for the purpose of examining specific petroleum operations in the context of emergency response planning and actual emergencies.

Disclosure limitation procedures are not applied to the statistical data published from this survey's information. Thus, there may be some statistics that are based on data from fewer than three respondents, or that are dominated by data from one or two large respondents. In these cases, it may be possible for a knowledgeable person to estimate the information reported by a specific respondent.

SANCTIONS

The timely submission of Form EIA-820 by those required to report is mandatory under Section 13(b) of the Federal Energy Administration Act of 1974 (Public Law 93-275), as amended. Failure to respond may result in a civil penalty of not more than \$2,750 each day for each violation, or a fine of not more than \$5,000 for each willful violation.

The government may bring a civil action to prohibit reporting violations which may result in 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.

FILING FORMS WITH THE FEDERAL GOVERNMENT AND ESTIMATED REPORTING BURDEN

Respondents are not required to file or reply to any Federal collection of information unless it has a valid OMB control number. Public reporting burden for this collection of information is estimated to average 2 hours and 40 minutes 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: Energy Information Administration, Statistics and Methods Group, EI-70, 1000 Independence Avenue, S.W., Washington, D.C. 20585; and to the Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, D.C. 20503.