

## **U.S. Energy Information Administration**

**Office of Energy Statistics** 

Office of Petroleum and Biofuels Statistics

# **Supporting Statement for Survey Clearance**

**Petroleum Supply Reporting System** 

OMB No. 1905-0165

**Statistical Methodology** 

Part B

Appendix A

Original Date: November 2012

# Petroleum Supply Reporting System Supporting Statement, Part B

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#### **B. STATISTICAL METHODS**

## 1. Respondent Universe

#### Monthly and Annual PSRS Survey Frames

Monthly and annual Petroleum Supply Reporting System (PSRS) surveys are used to collect data on the primary petroleum supply system in the United States including U.S. territories and possessions, where applicable. Primary petroleum supply system activities covered by PSRS surveys include refineries, imports, pipelines, large storage facilities and those connected to bulk transportation modes (i.e. pipelines and waterborne transport of crude oil, petroleum products, and biofuels), natural gas processing, oxygenate production, biodiesel production and bulk transportation (i.e. transport by pipeline, tanker, and barge) between Petroleum Administration for Defense Districts (PADDs). Data on other primary petroleum supply activities, including field production of crude oil and exports, are obtained from other sources including state and federal agencies.

Each monthly and annual PSRS survey is a complete census of the subject activity. Therefore, there is no sampling error in monthly and annual PSRS surveys. However, in order to be considered as in-scope for monthly survey reporting, each reporting unit must have reportable quantities (usually this means at least 500 barrels of a reportable product) or satisfy other criteria such as minimum storage capacity requirements for petroleum products terminals. Facilities that fall below minimum reporting requirements are considered to be outside of the primary petroleum supply system and, therefore, out of scope for monthly and annual PSRS reporting.

The following are descriptions of the survey frame for each survey:

**Form EIA-810, "Monthly Refinery Report":** Form EIA-810 must be completed by operators of all operating and idle petroleum refineries located in the 50 States, District of Columbia, Puerto Rico, the Virgin Islands, Guam, and other U.S. possessions. Data are reported by refinery site. Refineries are installations that manufacture finished petroleum products from crude oil, unfinished oils, natural gas liquids, other hydrocarbons, biofuels, and oxygenates. Refiners report distillation capacity, crude oil quality, inventory, receipts, input, production, shipments, and fuel use and loss. Refiners report storage capacity for the months of March and September.

**Form EIA-812, "Monthly Product Pipeline Report":** Form EIA-812 must be completed by every product pipeline operator in the 50 states and District of Columbia. Data are reported by company and PADD. Product pipelines are used for transportation of petroleum products as well as selected biofuels and oxygenates. Product pipeline operators report stocks held in pipelines and associated tanks and inter-PADD movements. Pipeline operators report storage capacity of tanks and underground storage associated with product pipelines for the months of March and September.

**Form EIA-813 "Monthly Crude Oil Report":** Form EIA-813 must be completed by operators of facilities, and for activities, located in the 50 states and District of Columbia that carry (transport) or store at least 1 thousand barrels of crude oil. Data are reported by company and PADD. Facilities and activities reported on Form EIA-813 include:

- crude oil production sites where lease stocks are held
- crude oil storage terminals and tank farms
- crude oil pipelines
- Alaskan crude oil in transit by water from Alaska to the 50 states and District of Columbia.

Reporting on Form EIA-813 includes stocks held on producing leases, as well as stocks in pipelines, tanks, and underground caverns. Pipeline operators report inter-PADD movements. Shippers of Alaskan crude oil by water report barrels in transit between Alaska and the 50 states and District of Columbia. Operators of storage terminals and tank farms report storage capacity for the months of March and September.

**Form EIA-814 "Monthly Imports Report:** Form EIA-814 must be completed by every importer of record (or the ultimate consignee in some situations involving imports from Canada) of crude oil, petroleum products, and biofuels. Importers and ultimate consignees are identified on the following documents filed with U.S. Customs and Border Protection (CBP) and the U.S. Department of Commerce:

- CBP Form 7501, "Entry Summary"
- CBP Form 214A, "Application for Foreign Trade Zone Admission and/or Status Designation"

Department of Commerce Form 7525-V, "Shippers Export Declaration"

Reported imports include barrels of foreign origin that enter the 50 states and District of Columbia as well as U.S. territories and possessions, including Foreign Trade Zones. In addition, imports from U.S. territories and possessions to the 50 states and District of Columbia are reported on Form EIA-814. Reporting on Form EIA-814 includes the country of origin, port of entry, type of commodity, quantity imported, sulfur and API gravity for crude oil and selected products, and processing facility for crude oil and selected unfinished products.

Form EIA-815 "Monthly Bulk Terminal and Blender Report": Form EIA-815 must be completed by every operator of a bulk terminal located in the 50 states, District of Columbia, and U.S. territories and possessions. Data are reported by bulk terminal site. Bulk terminals are storage facilities where petroleum products and biofuels are stored in tanks and/or underground caverns. Some bulk terminals are used for product blending, where unfinished and finished petroleum products and biofuels are blended in lines or in tanks to produce new or reclassified products (e.g. blending fuel ethanol with unfinished gasoline to produce finished gasoline). Bulk terminals reported on Form EIA-815 include facilities that have storage capacity of at least 50 thousand barrels and facilities with storage capacity less than 50 thousand barrels that receive or ship product by pipeline, tanker, or barge. Petroleum products storage facilities that have less than 50 thousand barrels of storage capacity and receive and ship product only by rail and truck do not report on Form EIA-815. These smaller petroleum products and biofuels storage facilities are sometimes called "bulk stations" to distinguish them from bulk terminals. Bulk stations are considered to be outside of primary petroleum supply channels and so they are excluded from reporting on Form EIA-815. Bulk terminal operators report inventory, receipts, input, production, shipments, and fuel use and loss. They report storage capacity for the months of March and September.

Form EIA-816 "Monthly Natural Gas Plant Liquids Report": Form EIA-816 must be completed by every operator of natural gas processing plants, natural gas plant liquids fractionators, and butane isomerization plants in the 50 States and the District of Columbia. Data are reported by plant. Natural gas processing plants extract natural gas liquids from a stream of natural gas. Natural gas liquids fractionators separate natural gas liquids into individual components (i.e. ethane, propane, normal butane, isobutane, and pentanes plus). Butane isomerization plants convert normal butane to isobutane. Form EIA-816 must be completed by operators of all natural gas processing plants that produce at least 500 barrels per month of at least one natural gas plant liquids component. Operators of natural gas plant liquids fractionators only report stocks and are only required to file Form EIA-816 if their plant or plants hold stocks (most fractionators do not hold stocks). Form EIA-816 must be

completed by all operators of butane isomerization plants that convert at least 500 barrels per month of normal butane to isobutane, except in cases where a butane isomerization plant is part of a refinery and butane isomerization activity is reported on Form EIA-810.

Form EIA-817 "Monthly Tanker and Barge Movements Report": Form EIA-817 must be completed by companies that move crude oil, petroleum products and biofuels by tankers and barges between Petroleum Administration for Defense Districts (PADDs) that include the 50 states and District of Columbia (i.e. PADDs 1-5). Movements that are entirely within one PADD are not reported. Reporting is by commodity, origin PADD, and destination PADD for each reporting company without regard to specific refinery, terminal, or port locations. Movements from the U.S. Gulf Coast region (PADD 3) to the U.S. East Coast Region (PADD 1) are further subdivided in terms of destination as New England (PADD 1A), Middle Atlantic (PADD 1B), and South Atlantic (PADD 1C).

Form EIA-817 must be completed by companies that have custody of crude oil, petroleum products, and biofuels transported by tanker and barge between PADDs. Reportable movements include those that originate in one PADD and are then transported to the Panama Canal and, then, proceed from the Panama Canal to another PADD. Custody is defined as physical possession of crude oil, petroleum products, or biofuels on a company-owned tanker or barge. Companies that lease vessels or contract for movement of crude oil, petroleum products, or biofuels by water between PADDs are also considered to have custody. Companies reporting on Form EIA-817 are typically refiners and/or marketers of crude oil, petroleum products, and biofuels. Form EIA-817 reporting companies are waterborne shippers rather than carriers (i.e. operators of tankers, barges, and tug boats), except in cases where refiners and marketers are also vessel operators.

Form EIA-819 "Monthly Oxygenate Report": Form EIA-819 must be completed by operators of facilities in the 50 states, District of Columbia, and U.S. territories and possessions that produce (manufacture or distill) oxygenates that have fuel applications. Data are reported by plant. Oxygenates reported include fuel ethanol, Methyl Tertiary Butyl Ether (MTBE), Ethyl Tertiary Butyl Ether (ETBE), and "other" oxygenates. Oxygenates may also be biofuels (e.g. fuel ethanol and bio-ETBE). Because the production of biofuel oxygenates is experiencing significant change and innovation, the category "other" oxygenates is used to capture data and monitor development and supply of new oxygenate products as they enter fuel markets. Reported facilities include merchant plants as well as plants associated with refineries and petrochemical facilities. Monthly reports include quantities produced and stocks. In addition, fuel ethanol producers report gasoline blending at ethanol plants and petroleum products blended with ethanol as denaturants. Fuel ethanol

producers also report nameplate capacity of their plants with their January reports and fuel ethanol storage capacity for the months of March and September.

**Form EIA-22M "Monthly Biodiesel Production Survey":** Form EIA-22M must be completed by operators of facilities in the 50 states, District of Columbia, and U.S. territories and possessions that produce biodiesel that meets ASTM D 6751-07B specifications and is used for commercial purposes. Data are reported by plant, and reported data include production capacity, stocks, production, receipts, shipments, sales, and feedstocks.

**Form EIA-820 "Annual Refinery Report":** Form EIA-820 must be completed by operators of all operating and idle petroleum refineries located in the 50 States, District of Columbia, Puerto Rico, the Virgin Islands, Guam, and other U.S. possessions. The Form EIA-820 survey frame is normally identical to the survey frame of Form EIA-810, though there are cases where differences arise, such as during periods when a refinery is in transition from operable to shut down. Data are reported on Form EIA-820 by refinery site. Refineries are installations that manufacture finished petroleum products from crude oil, unfinished oils, natural gas liquids, other hydrocarbons, biofuels, and oxygenates. Reports are filed each year in February. Refinery operators report fuel, electricity, and steam purchased and consumed, and crude oil received by method of transportation at the refinery during the prior year. Operating, idle, and total operable (sum of operating plus idle capacities) capacities of atmospheric crude oil distillation units are reported for January 1 of the current year and operable distillation capacity is projected for January 1 of the following year. Downstream charge (input) capacities are reported for selected process units as of January 1 of the current year and projected for January 1 of the following year. Production capacities of selected refinery units are reported for January 1 of the current year and projected for January 1 of the following year.

#### Weekly PSRS Survey Frames

The EIA weekly reporting system, as part of the PSRS, was designed to collect data similar to those collected monthly. The samples of companies that report weekly in the Weekly Petroleum Supply Reporting System (WPSRS) are selected from the universe of companies that report on the corresponding monthly forms. The following describes the relationships between the samples for the weekly PSRS surveys and the corresponding monthly survey, that provide the universes of companies for sampling:

**Form EIA-800 "Weekly Refinery Report":** The universe of possible reporting units is provided by Form EIA-810 for refineries and Form EIA-816 for natural gas liquids fractionators. It is important to note that Form EIA-800 collects production data from

fractionators while Form EIA-816 only collects stocks. Therefore, there are fractionators reporting on Form EIA-800 (because they have production) that do not report on Form EIA-816 (because they have no stocks).

**Form EIA-801 "Weekly Bulk Terminal Report":** Form EIA-801 will be discontinued in 2013. The current universe of possible reporting units on Form EIA-801 is provided by Form EIA-815.

**Form EIA-802 "Weekly Product Pipeline Report":** The universe of possible reporting units on Form EIA-802 is provided by Form EIA-812.

**Form EIA-803 "Weekly Crude Oil Report":** The universe of possible reporting units on Form EIA-803 is provided by Form EIA-813.

**Form EIA-804 "Weekly Imports Report":** The universe of possible reporting units on Form EIA-804 is provided by Form EIA-814.

**Form EIA-805 "Weekly Bulk Terminal and Blender Report":** The universe of possible reporting units on Form EIA-805 is provided by Form EIA-815. The sample size of companies reporting on Form EIA-805 will be expanded in 2013 to account for stocks previously reported on Form EIA-801. Information reported on Form EIA-805 prior to 2013 was limited to blending activity data.

**Form EIA-809 "Weekly Oxygenate Report":** The universe of possible reporting units on Form EIA-809 is provided by Form EIA-819.

## Monthly Frames Maintenance

All of the monthly and annual PSRS surveys have established frames that require maintenance. Survey frame maintenance is conducted on a continuous basis or periodically, as source information becomes available.

EIA obtains considerable information for continuous frame maintenance through routine contacts with survey respondents to discuss data quality issues. In general, entrance and exit of firms from capital intensive industries, such as oil refining, storage, pipeline transportation, and biofuels production, are well-covered by industry media and the general media, which are important sources of information for PSRS survey frame maintenance. Media reports are commonly supplemented by discussion with knowledgeable people in the industry who either contact EIA to discuss matters related to data, or who work with EIA on statistical issues and methodology through trade associations and other organizations. The following are additional

specific sources of frame maintenance information for PSRS surveys:

- Data files are provided to EIA by U.S. Customs and Border Protection (CBP) and the U.S. Census Bureau
  that identify importers of crude oil, petroleum products, and biofuels. These files are provided to EIA for
  the purpose of maintaining the survey frame of Form EIA-814, "Monthly Imports Report," through interagency agreements.
- The U.S. Internal Revenue Service (IRS) assigns Terminal Control Numbers (TCNs) to petroleum products storage terminals and many refineries as part of their Excise Summary Terminal Activity Reporting System (ExSTARS) program. The TCNs are posted on the following page of the IRS website <a href="http://www.irs.gov/Businesses/Small-Businesses-&-Self-Employed/Terminal-Control-Number-(TCN)-Terminal-Locations-Directory.">http://www.irs.gov/Businesses/Small-Businesses-&-Self-Employed/Terminal-Control-Number-(TCN)-Terminal-Locations-Directory.</a> EIA asks survey respondents to provide their TCN when submitting PSRS survey reports to facilitate matching with the IRS TCN list. EIA examines differences between PSRS survey frames for bulk products terminals and refineries and the IRS list of TCNs to identify potential additions or changes to EIA survey frames.
- The "LPG Almanac," published by Sulpetro (<a href="http://www.sulpetro.com/">http://www.sulpetro.com/</a>), is a valuable resource for identifying companies and facilities that handle and/or process to natural gas plant liquids and liquefied refinery gases. These facilities include natural gas processing plants, natural gas liquids fractionators, isomerization plants, refineries, pipelines, and storage facilities.
- The Renewable Fuels Association (RFA) is a trade association that provides a list of "biorefinery" plants on their website (<a href="http://www.ethanolrfa.org/bio-refinery-locations/">http://www.ethanolrfa.org/bio-refinery-locations/</a>). This list is useful to EIA for identifying fuel ethanol plants to be included on Form EIA-819, "Monthly Oxygenate Report."
- The National Biodiesel Board (NBB) is a trade association that provides a list of biodiesel plants on their website (<a href="http://www.biodiesel.org/production/plants">http://www.biodiesel.org/production/plants</a>). The NBB list of biodiesel plants is useful to EIA for identifying biodiesel producing companies and plants to be included on Form EIA-22M, "Monthly Biodiesel Production Survey."
- Federal agencies that provide information useful for PSRS frame maintenance include the U.S. Environmental Protection Agency Facility Registry System (<a href="http://www.epa.gov/enviro/html/fii/fii query java.html">http://www.epa.gov/enviro/html/fii/fii query java.html</a>) and the U.S. Department of Transportation National Pipeline Mapping System (<a href="https://www.npms.phmsa.dot.gov/">https://www.npms.phmsa.dot.gov/</a>).
- Additional frame information is obtained through industry directories including the "Petroleum Terminal Encyclopedia," published by OPIS/Stalsby, and the International Liquid Terminals Association (ILTA) "Terminal Member Directory."

#### 2. Sampling Methodology and Estimation Procedures

### 1.2. Sample Design

The sampling procedure used for all the weekly surveys is the cut-off method. In the cut-off method, companies or sites (depending on the survey) are ranked from largest to smallest on the basis of quantities of each product reported on the equivalent monthly survey for the most recently published survey month. Companies are chosen for the sample beginning with those

reporting the largest volumes on the most recently published monthly survey and adding companies until the total sample covers approximately 90 percent of the total volumes for each item and each geographic region for which monthly data has been last published.

To ensure 90-percent coverage of the total volume for each item collected and each geographic region for each weekly survey, a sample control meeting is conducted each month. This meeting focuses on changes in the current monthly frame due to sales, acquisitions, mergers, new reporters, reactivations, and reporting units that have become inactive. Companies are added or removed from the weekly samples, based on the changes.

## 1.2. Imputation and Estimation Procedures

#### Forms EIA-800 through EIA-809

In any survey, non-response can be a major concern because the effects can cause serious bias in survey results. Non-response occurs whenever requested information is not obtained from all units in a survey frame. Whenever PSRS survey responses are not received in time to be included in published statistics, the data are imputed. Although imputing for missing data may not eliminate the error associated with non-response, it can serve to reduce this error.

After responding entities' survey responses have been validated and entered into the weekly database for the Forms EIA-800 through EIA-809, individual response item values are imputed for companies that have not responded, reported incomplete data, or reported data that failed editing and could not be confirmed. The imputed values are calculated using the exponentially smoothed mean values of recent weekly reported values for a specific responding entity.

The equation for the exponential smoothing is:

$$Y_{t+1} = \alpha * y_t + (1 - \alpha) * Y_{t-1}$$

Where  $Y_{t+1}$  is the response item-level prediction for reporting week t+1 (using data through week t),

 $y_t$  is the previous week's reported value (or imputed value, if the response was imputed for week t),

Y<sub>t-1</sub> is the value that was generated by the equation for reporting week t-1, and

α is a number between 0 and 1, chosen specifically by survey/product/type

In the equation for exponential smoothing, the size of  $\alpha$  controls the importance of the previous reporting week's reported value relative to the aggregate of all prior weeks' reported values as represented by the prediction for the previous week. For example, if  $\alpha = 0.8$ , then the previous week's value is much more important in predicting this week's value than all the previous week's values, because the weight of last week is 0.8, which is greater than the weights of the previous weeks (powers of 0.2.). In general, the  $\alpha$  values are low for imports measured by the Form EIA-804 (where the previously reported week's value is much less important than history) and much higher for the other surveys which measure production, inputs and stocks.

Next, the imputed values are treated like reported values in the estimation procedure for published aggregated data. The estimation procedure uses ratio estimates of the weekly totals to produce published totals, as is described below.

First, the current reporting week's data for a given product reported (or imputed) for each entity in a geographic region are summed (weekly sum,  $W_s$ ). Next, the most recent complete reporting month's data for the product reported (or imputed) for those same respondents are summed (monthly sum,  $M_s$ .). Finally, the most recent complete reporting month's data for the product as reported by all respondents, including adjustments made in the monthly process, are summed ( $M_t$ ). The current week's ratio estimate for that product for all respondents,  $W_t$ , is given by:

$$W_t = (M_t / M_s) * W_s$$

The ratio  $(M_t / M_s)$  may be adjusted on rare occasions to account for very unusual events or industry changes not yet reflected in the lagged monthly data. For example, the hurricanes in September 2005 rendered the September data (published at the end of November 2005) unrepresentative for purposes of applying the ratio to the Weekly Petroleum Status Report in December 2005.

The  $W_t$ 's are used directly to estimate total weekly inputs to refineries and production. To estimate stocks of finished products, the  $W_t$ 's are independently calculated for the establishments of refineries, bulk terminals, and pipelines. Estimates of totals are calculated by summing over the establishment types.

Weekly imports data are highly variable on a company-by-company basis or a week-to-week basis. Therefore, an exponentially smoothed ratio is used for estimating weekly imports. The estimate of total weekly imports is the product of the smoothed ratio and the sum of the weekly reported values and imputed values.

For imports, the ratios are smoothed as follows:

$$R_{t+1} = \gamma * r_t + (1 - \gamma) * R_{t-1}$$

where  $R_{t+1}$  is the smoothed ratio for reporting week t+1 (using ratios through week t),

r<sub>t</sub> is week t's ratio of the most recent complete monthly total for all respondents to the monthly total of respondents from the weekly sample,

 $R_{t-1}$  is the smoothed ratio for week t (using ratios through week t-1),

γ is a number between 0 and 1, chosen by product, and is the same for all PADDs and Respondent IDs for that product.

When  $M_s = 0$ , then  $r_t$  is not defined for the reporting week, and the smoothed ratio is not updated (i.e., the previous smoothed ratio is used as the multiplier).

#### Forms EIA-810 through 813, 814, 815, 816, 819, and 22M

Response rates for Forms EIA-810 through 813, 814, 815, 816, and 819 are generally 99 to 100 percent, necessitating less frequent data imputation. For these data collections, the data reported in the previous month can be used as imputed values for missing data, unless there is reason to believe that another value would provide a more reasonable estimate (e.g. based on weekly reporting or other information about a facility that would be likely to influence the data, such as down time at a refinery). Data are rarely imputed for the Form EIA-817 because the data at the respondent level are highly variable across weeks. The reason for this high variability is that tanker and barge movements tend to be somewhat opportunistic and highly dependent on market conditions. Hence, there is a relatively high incidence of reporting of zero or blank as legitimate values. So not imputing (i.e. leaving data cells empty for non-responses) is believed to be the best means of addressing non-response on Form EIA-817.

Non-response rates on Form EIA-22M are somewhat higher than non-response rates observed on other monthly PSRS surveys. In many cases, non-response on Form EIA-22M reflects inactivity at biodiesel plants where plant operators mistakenly believe that inactivity removes their requirement to report each month. Biodiesel producers are still relatively new to EIA reporting, and EIA is working with them to improve response rates. At present, only biodiesel production capacity is imputed for non-responding plants. EIA is examining data quality implications of non-response on Form EIA-22M, and more robust means of imputation for non-response, as well as methods for detecting errors in reporting, are being considered as part of the system transformation work being performed on the survey.

## 1.2. Imputation Resulting from Macro Level Data Analysis

## EIA-800 through 809

After the item level respondent data flagged as having failed data validation rules have been edited or validated as being accurate, preliminary tables of aggregated response data are produced and used to identify data trend anomalies at a macro level. These tables show U.S. and PADD estimates for the current reporting week and the prior 3 reporting weeks and also show year-ago data for the same calendar reporting week along with an average of the four most current reporting weeks.

Anomalies are identified by analyzing each product's aggregate volume and the individual supply-type components' volumes that comprise that product (production, inputs, imports, stocks) by identifying whether those components fall within relevant historic ranges specific to each product and supply- type for each PADD. Anomalies result in further review of respondent data at the micro level which, in turn, may result in additional flagging of data for review and further imputation of flagged responses.

## EIA-810 through 819 and 22M

After the flagged respondent data have been resolved, preliminary tables of aggregated response data are produced and used to identify anomalies. These tables are created as pivot tables in Excel and allow EIA analysts to develop various views of the data in the context of other data (e.g. examining stock changes and imports) as well as historical estimates for the U.S. and by PADD. Anomalies identified through this process result in further review of respondent item level data which, in turn, may result in identification of additional data for review and possible imputation.

In addition to the above procedure, other adjustments are may be made to aggregated data. For example, unusual industry conditions, including seasonal fuel transitions, business practice shifts, or hurricane dislocations may generate reporting anomalies and require manual adjustments. Measurement error and frame deficiencies may occasionally result in inconsistencies that require adjustment when individual respondent data are aggregated to publication levels. Monthly supply data are reviewed throughout the year and certain estimates may be replaced with newly available or resubmitted respondent data when the Petroleum Supply Annual (PSA) is published.

## 1.2. Efforts to Improve Data Accuracy

The reliability of data is subject to two types of possible errors: non-sampling errors and sampling errors. Sampling errors occur for the weekly surveys because observations are made only for a subset of the population, not for the entire population. Non-sampling errors occur for all surveys and can be attributed to many sources in the collection and processing of data, such as incomplete frame coverage, a difference in interpretations of definitions or questions, mistakes in recording or coding the data from respondents. The accuracy of survey results is determined by the joint effects of sampling and non-sampling errors. Response error, or reporting error (that is the difference between the true value and the value reported on a survey form), is typically the major component of the total survey error for all surveys covered by this OMB package.

To aid in detecting and minimizing response errors, automated data validation procedures are used to check current data. These checks include verifying the current data for consistency with past data, for internal consistency (e.g. totals equal sum of parts), examining orders of magnitude, and cell position. Data elements that fail validation criteria are flagged for manual review and possible editing.

Monthly and weekly data are compared on a regular basis to rectify discrepancies in data. In addition, a comparison of PSRS data with sources outside of the Petroleum Division is performed each year. The results of this effort have been published in the feature article, "Accuracy of Petroleum Supply Data, 2009," located at <a href="http://www.eia.gov/FTPROOT/features/art0209.pdf">http://www.eia.gov/FTPROOT/features/art0209.pdf</a>

#### **Methods to Maximize Response Rate**

To maximize response rates, data collection forms are designed to be easily completed, and instructions are written to be clear, concise, and easily understood. Forms and instructions are made available on the EIA website at <a href="http://www.eia.gov/survey/">http://www.eia.gov/survey/</a>.

Respondents who do not report any data for a given survey form in a given collection period are considered "non-respondents" for the PSRS. Automated email messages are sent out to any respondent who has not reported by the relevant submission deadline. EIA staff also contact survey non-respondents by telephone to discuss the requirement to file and any problems or questions that are delaying filing. Follow-up letters regarding the failure to file may be sent by email message to respondents who show persistent problems with non-response.

Specific schedules are followed for telephone calls and letters to non-respondents for the various

PSRS surveys. Every effort is made to assist respondents in completing the survey and submitting the data in a timely manner. The response rate for weekly PSRS surveys averages above 97 percent. The response rate for monthly PSRS surveys is 99 to 100 percent.

### 3. Test Procedures

The PSRS surveys are established surveys administered on a continuing basis. Modifications to all of the existing forms were made by the EIA staff in conjunction with discussions with industry representatives and consultations through the Federal Register notice discussed earlier. These actions served as a test of the availability of data and the clarity of instructions of the survey forms, as well as the proposed modifications.1

#### 4. Statistical Consultations

For additional information concerning this data collection, please contact Sylvia Norris, at (202) 586-6106, or <a href="mailto:sylvia.norris@eia.gov">sylvia.norris@eia.gov</a>.

For information concerning this request for OMB approval, please contact the agency Forms Clearance Officer, Alethea Jennings, at (202) 586-5879, or alethea.jennings@eia.gov.

#### APPENDIX A: SAMPLE EMAIL NOTIFICATIONS TO RESPONDENTS

## Sample EIA-820 Confirmation of Contact Information email notification:

Dear < CONTACT>

Thank you for your company's participation in last year's "Annual Refinery Report" (Form EIA-820). We are sending this letter to request you verify the company Respondent Information contained in our records. Your timely response to this survey has enabled us to meet our legislative mandates to provide timely, high quality regional petroleum supply information to Federal and State agencies, and to a wide variety of customers in the private sector, including those in your company. Your continued cooperation is essential for us to continue to provide this service in the future.

It is now time to prepare for the Form EIA-820 for the Report Year 2014. Because the Form EIA-820 is an annual survey the Respondent Information we have in our records may have changed since last year's filing. The following is what we currently show in our records.

EIA ID Number: <ID>

Company Name: <NAME1>

Refinery/Site Name: <NAME2>

Contact Name: <CONTACT>

Phone Number: <PHONE>

Fax Number: <FAX>

Email Address: <EMAIL>

We request that you verify that the information shown above is either "CORRECT" or has changes. <u>Please reply to this email by December 10, 2013</u> in order that future correspondence concerning this year's Form EIA-820 is sent to the correct person in your company.

The due date for filing the Form EIA-820 is February 15, 2014. The person shown as the

Contact Name" (listed above) will receive an email approximately eight weeks before the due late. This email will direct them to EIA internet links to access copies of this year's EIA-820 urvey form and updated form instructions.	

If you have any questions regarding this request or the Form EIA-820 survey, please contact Julie Harris at (202) 586-6281. Thank you in advance for your continued cooperation in our data collection efforts.

Sincerely,

Michael Conner Team Leader Petroleum Supply Statistics Team Office of Petroleum and Biofuels Statistics U.S. Energy Information Administration

## **Sample EIA-820 email notification:**

#### Dear Respondent:

It's time again to complete Energy Information Administration (EIA) Form EIA-820 "Annual Refinery Report" for the U.S. refinery or refineries operated by your company. This includes refineries located in U.S. territories. We will use the data from your report(s) to compile statistics showing U.S. refinery capacity as of January 1, 2014 and projected capacity for January 1, 2015 as well as fuels consumed and crude oil receipts by method of transportation.

Refinery statistics collected using Form EIA-820 will be posted on the EIA website (<a href="http://www.eia.gov">http://www.eia.gov</a>) for use by people who make business and public policy decisions affecting your company and the refining industry as well as U.S. energy security, the economy, and the environment. Reporting on Form EIA-820 is mandatory because it is important for us to compile and present complete, accurate, and timely information.

## Your report must be completed and sent to EIA by February 15, 2014.

Our records indicate you are the person assigned by your company to complete Form EIA-820 for the following refinery or refineries. Please let me know immediately if you are not the person responsible for completing Form EIA-820 for any or all of the refineries listed so that I can contact the appropriate person.

EIA ID Number Company Name

Site Name

<DUPLICATE\_ID\_NAME1\_NAME2>

Materials needed to complete Form EIA-820 (survey form, instructions, and definitions) are available on the EIA website at the following address.

### http://www.eia.gov/survey/#eia-820

The EIA-820 survey form may be downloaded in portable document format (PDF) or as a spreadsheet (.xls) file. If you choose to use the spreadsheet file, you will first need to copy the file to your local computer. Data cannot be entered into the spreadsheet interactively on the EIA web site. You will receive a pop-up security warning regarding macros when you open the local copy of the EIA-820 spreadsheet file. You must select the option to enable macros in order to use the spreadsheet.

The following options are available for sending your completed Form EIA-820 report(s) to EIA.

• Facsimile: (202) 586-1076 or (202) 586-6323

• Email: oog.surveys@eia.gov

• Secure File Transfer: https://signon.eia.doe.gov/upload/noticeoog.jsp

Please note that facsimile and email are not secure transmission methods and there is some possibility your data could be compromised. The secure file transfer option uses an industry-standard encryption process to prevent anyone outside of EIA from viewing your data. This is the same method commonly used for conducting business transactions over the Internet. Microsoft Internet Explorer 5.5 or newer or Netscape 4.77 or newer are recommended when using secure file transfer.

Please let me know if I can be of any help as you complete the Annual Refinery Report. I can be contacted by email at <a href="mailto:julie.harris@eia.doe.gov">julie.harris@eia.doe.gov</a> or by phone at 202-586-6281.

Thank you for your cooperation in this important matter.

Sincerely,

Julie M. Harris Industry Economist Office of Petroleum and Biofuels Statistics U.S. Energy Information Administration