

**INFORMATION COLLECTION REQUEST
SUPPORTING STATEMENT**

EPA ICR No. 2411.01:

**INFORMATION COLLECTION REQUEST FOR PETROLEUM REFINERY SECTOR
NEW SOURCE PERFORMANCE STANDARDS (NSPS) AND NATIONAL EMISSION
STANDARDS FOR HAZARDOUS AIR POLLUTANTS (NESHAP) RESIDUAL RISK
AND TECHNOLOGY REVIEW**

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Part B of the Supporting Statement

1. Respondent Universe

Estimates based on the EIA 2009 Refinery Capacity Report indicate that the potential respondent universe consists of 152 petroleum refineries.¹ All 152 of these refineries will be required to complete some portion of the electronic survey. However, the EIA 2009 Refinery Capacity Report indicates that some refineries do not have all of the emissions sources for which the questionnaire requests information. Therefore, not all of the 152 refineries will be required to complete every section of the questionnaire. Attachment 1 lists the various portions of the survey in detail and provides an estimated number of refineries required to complete each portion of the survey. For the emissions sources not present at every refinery, estimates of the number of refineries operating that type of emissions source are as follows:

<u>Total number of refineries with:</u>	<u>Count</u>
catalytic cracking unit	101
fluid coking unit	5
delayed coking unit	58
catalytic reforming unit	116
sulfur recovery unit	111
hydrogen plant vent	<u>54</u>

2. Selection of Units to Conduct Emissions Testing

Petroleum refinery emissions sources to be tested have been selected to provide representative emissions data from emissions sources for which EPA has little to no emissions data. The emissions testing will cover criteria pollutants and five groups of HAP that may potentially be regulated. The groups of HAP are organic HAP, dioxin/furan organic HAP, acid-gas HAP (*e.g.*, hydrogen chloride (HCl), hydrogen fluoride (HF)), mercury and other metallic

¹ Note that petroleum refineries have been identified to the best of EPA's ability for the purpose of this ICR action only. Identification of any unit for receipt of the CAA section 114 letter requiring information be submitted or testing be conducted does not constitute a final Agency applicability determination related to the rule under development. Similarly, units not receiving a CAA section 114 letter may ultimately be determined to be subject to the final rule. Specific applicability definitions will be developed during the rulemaking process and will be subject to notice and comment.

HAP, and reduced sulfur compounds. For those units required to complete stack testing, each facility is required to test after the last control device or at the stack if the last control device is not shared with one or more other units. In this way, the facility would test before any “dilution” by gases from a separately-controlled unit. Under certain circumstances, however, testing after a common control device or at the common stack will be allowed.

EPA will request testing of 88 petroleum refinery emissions sources. Sources to be tested have been selected to ensure that representative data are collected for emissions sources for which EPA has little to no existing information or for which additional information is needed in order to reevaluate emission standards for this source category. Some types of sources, such as catalytic cracking units, catalytic reforming units, and fuel gas systems, have different operational and/or control system characteristics from source to source. For these sources, three to four units were selected for each of the anticipated operational and control system characteristics. For sources for which there are little to no existing data, EPA generally selected six units to be tested. Once EPA determined the number of tests to be conducted, the specific facilities to be tested were selected from the units expected to have similar operational and/or control system characteristics considering the size of the unit and the number of tests already requested for a given facility or corporation. EPA specifically tried to minimize the testing required for small refinery operations while still collecting data for a range of unit sizes. The facilities selected for testing are listed in Table 1 by the type of emissions source to be tested.

Table 1. Listing of Facilities to be Tested by Type of Emissions Source

Emissions Source	Number of emissions sources to be tested:
Fluid catalytic cracking unit	10
Marathon – Robinson, IL	
Flint Hills – Rosemount, MI	
Motiva – Norco, LA	
Citgo – Lake Charles, LA	
Hovensa – St. Croix, USVI	
Valero – Port Arthur, TX	
Chevron – Barbers Point, HI	
BP – Whiting, IN	
ExxonMobil – Torrance, CA	
Sunoco – Philadelphia, PA	
Thermal catalytic cracking unit	1
Wyoming Refining – New Castle, WY	

Emissions Source	Number of emissions sources to be tested:
Fluid coking unit	1 or 2 ¹
Valero – Benicia, CA	
PBF Energy – Delaware ¹	
Delayed coking unit	6 ²
BP – Texas City, TX	
ConocoPhillips – Westlake, LA	
BP-Husky – Toledo, OH	
ExxonMobil – Joliet, IL	
Western Refining – Yorktown, VA	
Coffeerville Refining – Coffeerville, KS	
Chevron – Pascagoula, MS	
Houston Refining – Houston, TX	
Catalytic reforming unit	12
Marathon – Catlettsburg, KY	
Sunoco – Marcus Hook, PA	
Delek Refining – Tyler, TX	
Citgo – Corpus Christi, TX	
WRB Refining – Wood River, IL	
ExxonMobil – Baton Rouge, LA	
Tesoro – Anacortes, WA	
Shell – Deer Park, TX	
Western Refining – El Paso, TX	
Houston Refining – Houston, TX	
Motiva – Convent, LA	
Frontier – El Dorado, KS	
Catalytic hydrocracking unit	3
Shell – Martinez, CA	
Chalmette Refining – Chalmette, LA	
Murphy Oil, Meraux, LA	
Hydrogen production unit	6
BP – Ferndale, WA	
WRB – Borger, TX	
National Cooperative – McPherson, KS	
Lion Oil – El Dorado, AR	
Cenex Harvest States – Laurel, MT	
Calumet – Shreveport, LA	
Asphalt blowing unit	5
Nustar Asphalt – Paulsboro, NJ	
Valero – Corpus Christi, TX	
United Refining – Warren, PA	
Trigeant Limited – Corpus Christi, TX	
Sinclair Oil (Holly Corp) – Tulsa, OK	

Emissions Source	Number of emissions sources to be tested:
Sulfur recovery unit	6
ExxonMobil – Baytown, TX	
Premcor – Port Arthur, TX	
Shell – Anacortes, WA	
ConocoPhillips – Sweeny, TX	
Marathon – Garyville, LA	
Motiva – Port Arthur, TX	
Fuel gas system	20 or 21¹
Valero – Benicia, CA	
Shell – Martinez, CA	
ExxonMobil – Billings, MT	
PBF Energy – Delaware ¹	
ExxonMobil – Baytown, TX	
Houston Refining – Houston, TX	
ExxonMobil – Baton Rouge, LA	
Citgo – Lake Charles, LA	
Chevron – El Segundo, CA	
PDV – Lemont, IL	
ConocoPhillips – Rodeo, CA	
Hovensa – St. Croix, USVI	
Sunoco (Holly Corp) – Tulsa, OK	
Sunoco – Toledo, OH	
Tesoro – Mandan, ND	
ConocoPhillips – Ferndale, WA	
ConocoPhillips – Linden, NJ	
Sunoco – Marcus Hook, PA	
Marathon – Catlettsburg, KY	
Calcasieu Refining – Lake Charles, LA	
US Oil & Refining – Tacoma, WA	
Cooling water system	11
Frontier – Cheyenne, WY	
Murphy Oil – Superior, WI	
BP – Ferndale, WA	
Holly Corp. – Woods Cross, UT	
Valero – Sunray, TX	
Pasadena Refining – Pasadena, TX	
United Refining – Warren, PA	
Wynnewood Refining – Wynnewood, OK	
Alon USA – Krotz Springs, LA	
Suncor Energy – Commerce City, CO	
Western Refining – Gallup, NM	

Emissions Source	Number of emissions sources to be tested:
Wastewater treatment system	5
Motiva – Convent, LA	
Flint Hills – Corpus Christi, TX	
ExxonMobil – Beaumont, TX	
ConocoPhillips – Belle Chasse, LA	
Valero – Memphis, TN	
Total	86 to 88¹

¹ PBF Energy – Delaware refinery is currently not operating. This refinery has a unique emission source/control device configuration for which testing is requested. However, testing of this unit may not be possible due to the operational status of the refinery.

² EPA is requesting testing of eight delayed coking units but is allowing submittal of documentation that venting lasts less than 20 minutes in lieu of testing. EPA anticipates receiving test results from six delayed coking units and documentation that the venting lasts less than 20 minutes from the other two.

3. Response Rates

Since the information will be requested pursuant to the authority of CAA section 114, EPA expects that all respondents requested to submit information will do so.