



Opt-In Permit Application

For more information, see instructions and refer to 40 CFR 74.16

STEP 1
Identify the facility by plant name, State, ORIS code from NADB (if known), and operator's name.

Plant Name	State	ORIS Code
Operating Company Name		

STEP 2
Identify the combustion source by unique ID number and short name assigned by the operating company.

Combustion Source ID#	Short Name
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STEP 3
Enter the requested information on the location of the source.

Plant Site Address		
County	Latitude	Longitude
Plant Mailing Address		

STEP 4
Check the appropriate box.

Has the combustion source previously participated in the Opt-in Program?

Yes No

If Yes, enter the effective date of the most recent opt-in permit ----->

mm/dd/yy

STEP 5
Briefly describe the combustion source and the facility. Attach the required information.

General facility description
Combustion source description

A diagram showing the configuration of the combustion source and the facility is attached.

Date

Plant Name (from Step 1)

Combustion Source ID #

STEP 6
Indicate whether the combustion source has SO₂ controls.

Scrubber Other Controls (specify) Uncontrolled

STEP 7
Check the top box and the second or third box and attach the required information.

Two copies of a complete Monitoring Plan (as required by 40 CFR parts 74 and 75) are attached.
 A completed Certificate of Representation is attached.
 A completed Certificate of Representation has been previously submitted.

STEP 8
Specify the compliance plan for the combustion source. Check the second box to identify an additional method of compliance.

Hold allowances in accordance with 40 CFR 72.9(c)(1)
 A Thermal Energy Plan is attached. This combustion source seeks to transfer allowances to one or more replacement units for the replacement of thermal energy.

STEP 9
Provide the required information on the operating history of the combustion source. Indicate that the required documentation is attached.

Date the combustion source commenced operation -----> mm/yy

Number of hours the combustion source operated during the six months immediately preceding this application -----> Hrs

Start End (Date of Application)

Preceding six months of operation -----> mm/yy - mm/yy

Data supporting determination of operating hours are attached.

STEP 10
Identify the time period for which the baseline data is provided.

Baseline 1985 - 1987
 Alternative Baseline, beginning with -----> year

Combustion source began operation after 1985.

Combustion source was subject to natural catastrophe during 1985 - 1987. Documentation of natural catastrophe is attached.

STEP 11
Complete and attach one worksheet for each type of fuel used at the combustion source.

Number of completed worksheets attached -----> worksheets

Date

Plant Name (from Step 1)

Combustion Source ID #

STEP 12
For each fuel type used at the combustion source, indicate that a worksheet is attached, enter the total 1985 (or first year) fuel consumption from the bottom row of the worksheet, and enter the average of the total fuel consumption for the three operating years from the bottom row of the worksheet. Enter the SO₂ emissions for the first operating year from each worksheet.

Fuel Type	Total 1985 (or first year) Fuel Consumption	Average Annual Fuel Consumption	SO ₂ Emissions for 1985 (or first year)
<input type="checkbox"/> Bituminous Coal	mmBtu	mmBtu	lbs
<input type="checkbox"/> Subbituminous Coal	mmBtu	mmBtu	lbs
<input type="checkbox"/> Lignite Coal	mmBtu	mmBtu	lbs
<input type="checkbox"/> Distillate Oil	mmBtu	mmBtu	lbs
<input type="checkbox"/> Residual Oil	mmBtu	mmBtu	lbs
<input type="checkbox"/> Natural Gas	mmBtu	mmBtu	lbs
<input type="checkbox"/> Other (describe):	mmBtu	mmBtu	lbs
<input type="checkbox"/> Other (describe):	mmBtu	mmBtu	lbs

STEP 13
Enter the total 1985 (or first year) fuel consumption, the total average annual fuel consumption, and the total 1985 (or first year) actual SO₂ emissions for all fuels used.

(a) Total 1985 (or first year) Fuel Consumption	(b) Total Average Annual Fuel Consumption (Baseline)	(c) Total SO ₂ Emissions for 1985 (or first year)
mmBtu	mmBtu	lbs

STEP 14
Calculate the actual 1985 (or first year) SO₂ emissions rate.

Total SO ₂ Emissions for 1985 (or first year)		Total 1985 (or first year) Fuel Consumption		Actual 1985 (or first year) SO ₂ Emissions Rate
mmBtu	÷	mmBtu	=	lbs/mmBtu

Date

Plant Name (from Step 1)	Combustion Source ID #
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STEP 15
 Enter information for the 1985 (or first year) allowable SO₂ emissions rate.

		Limit	Units of Measure	Averaging Period
Regulatory Limit				
Conversion Factor	X			
Converted Rate	=		lbs/mmBtu	
Annualization Factor	X			
Annualized Rate	=		lbs/mmBtu	

STEP 16
 Enter the current allowable SO₂ emissions rate.

		Limit	Units of Measure	Averaging Period
Regulatory Limit				
Conversion Factor	X			
Converted Rate	=		lbs/mmBtu	

STEP 17
 Enter the current promulgated SO₂ emissions limit, if different from the current allowable SO₂ emissions rate.

		Limit	Units of Measure	Averaging Period
Regulatory Limit				
Conversion Factor	X			
Converted Rate	=		lbs/mmBtu	

STEP 18
 Identify the regulatory citations for the SO₂ emissions limits in Steps 15-17.

Regulatory Limit	Effective Date	Regulatory Citation and Name of Permitting Authority
1985 (1st yr) Allowable (Step 15)		
Current Allowable (Step 16)		
Current Promulgated (Step 17)		

Date

Plant Name (from Step 1)

Combustion Source ID #

STEP 19
Calculate and enter the proposed allowances for the combustion source.

Baseline (Step 13(b))		Lowest of 3 SO ₂ Emission Rates		Proposed Allowances
mmBtu	X	lbs/mmBtu	÷ 2,000 =	allowances

STEP 20
Calculate and enter the proposed allowances for the combustion source, if the current promulgated SO₂ emissions limit differs from the current allowable SO₂ emissions rate.

Baseline (Step 13(b))		Lowest of 4 SO ₂ Emission Rates		Proposed Allowances
mmBtu	X	lbs/mmBtu	÷ 2,000 =	allowances

STEP 21
Read the Opt-in Program requirements and certifications, and sign and date.

Opt-in Program Requirements

Permit Requirements.

- (1) The designated representative of each combustion source under 40 CFR part 74 shall:
 - (i) Submit a complete opt-in permit application (including a compliance plan).
 - (ii) Submit in a timely manner any supplemental information that the Administrator or the permitting authority determines is necessary to review an opt-in permit application and issue or deny an opt-in permit;
- (2) The owners and operators of each combustion source under 40 CFR part 74 shall:
 - (i) Have an opt-in permit; and
 - (ii) Operate the opt-in source in compliance with the opt-in permit.

Monitoring Requirements.

- (1) The owners and operators and, to the extent applicable, the designated representative of each combustion source and each opt-in source shall comply with the monitoring requirements of 40 CFR Parts 74 and 75.
- (2) The emissions measurements recorded and reported in accordance with 40 CFR part 75 shall be used to determine compliance by the opt-in source with the Acid Rain emissions limitations and emissions reduction requirements for sulfur dioxide under the Acid Rain Program.
- (3) The requirements of 40 CFR parts 74 and 75 shall not affect the responsibility of the owners and operators to monitor emissions of other pollutants or other emissions characteristics at the opt-in source under other applicable requirements of the Act and other provisions of the operating permit for the source.

Sulfur Dioxide Requirements.

- (1) The owners and operators of each opt-in source shall:
 - (i) Hold allowances as of the allowance transfer deadline, in the opt-in source's compliance subaccount (after deductions under 40 CFR 73.34(c)) not less than the total annual emissions of sulfur dioxide for the previous calendar year from the opt-in source; and
 - (ii) Comply with the applicable Acid Rain emissions limitations for sulfur dioxide.
- (2) Each ton of sulfur dioxide emitted in excess of the Acid Rain emissions limitations for sulfur dioxide shall constitute a separate violation of the Act.
- (3) An opt-in source shall be subject to the requirements under paragraph (1) of the sulfur dioxide requirements upon the effective date of the opt-in source's opt-in permit.
- (4) Allowances shall be held in, deducted from, or transferred among Allowance Tracking System accounts in accordance with the Acid Rain Program, including 40 CFR parts 73 and 74.
- (5) An allowance shall not be deducted in order to comply with the requirements under paragraph (1) of the sulfur dioxide requirements prior to the calendar year for which the allowance was allocated.
- (6) An allowance allocated by the Administrator under the Acid Rain Program is a limited authorization to emit sulfur dioxide in accordance with the Acid Rain Program. No provision of the Acid Rain Program, the opt-in permit application, or the opt-in permit, and no provision of law shall be construed to limit the authority of the United States to terminate or limit such authorization.
- (7) An allowance allocated by the Administrator under the Acid Rain Program does not constitute a property right.

Excess Emissions Requirements.

- (1) The designated representative of an affected unit that has excess emissions in any calendar year shall submit a proposed offset plan, as required under 40 CFR part 77.
- (2) The owners and operators of an affected unit that has excess emissions in any calendar year shall:
 - (i) Pay without demand the penalty required, and pay upon demand the interest on that penalty, as required by 40 CFR part 77; and
 - (ii) Comply with the terms of an approved offset plan, as required by 40 CFR part 77.

Date

Plant Name (from Step 1)

Combustion Source ID #

Recordkeeping and Reporting Requirements.

(1) Unless otherwise provided, the owners and operators of the opt-in source shall keep on site at the opt-in source each of the following documents for a period of 5 years from the date the document is created. This period may be extended for cause, at any time prior to the end of the 5 years, in writing by the Administrator or permitting authority:

- (i) The certificate of representation for the designated representative for the opt-in source and all documents that demonstrate the truth of the statements in the certificate of representation, in accordance with 40 CFR 72.24, provided that the certificate and documents shall be retained on site at the opt-in source beyond such 5-year period until such documents are superseded because of the submission of a new certificate of representation changing the designated representative;
- (ii) All emissions monitoring information, in accordance with 40 CFR part 75;
- (iii) Copies of all reports, compliance certifications, and other submissions, and all records made or required under the Acid Rain Program; and
- (iv) Copies of all documents used to complete an opt-in permit application and any other submission under the Acid Rain Program or to demonstrate compliance with the requirements of the Acid Rain Program.

(2) The designated representative of an affected source and each affected unit at the source shall submit the reports and compliance certifications required under the Acid Rain Program, including those under 40 CFR part 72 subpart I and 40 CFR part 75

Liability.

(1) Any person who knowingly violates any requirement or prohibition of the Acid Rain Program or an opt-in permit, including any requirement for the payment of any penalty owed to the United States, shall be subject to enforcement pursuant to section 113(c) of the Act.

(2) Any person who knowingly makes a false, material statement in any record, submission, or report under the Acid Rain Program shall be subject to criminal enforcement pursuant to section 113(c) of the Act and 18 U.S.C. 1001.

(3) No permit revision shall excuse any violation of the requirements of the Acid Rain Program that occurs prior to the date that the revision takes effect.

(4) Each affected source and each affected unit shall meet the requirements of the Acid Rain Program.

(5) Any provision of the Acid Rain Program that applies to an affected source (including a provision applicable to the designated representative of an affected source) shall also apply to the owners and operators of such source and of the affected units at the source.

(6) Any provision of the Acid Rain Program that applies to an affected unit (including a provision applicable to the designated representative of an affected unit shall also apply to the owners and operators of such affected unit. Except as provided under 40 CFR 72.44 (Phase II repowering extension plans) and 40 CFR part 76 (NO_x averaging plans), and except with regard to the requirements applicable to affected units with a common stack under 40 CFR part 75 (including 40 CFR 75.16, 75.17, and 75.18), the owners and operators and the designated representative of one affected unit shall not be liable for any violation by any other affected unit of which they are not owners or operators or the designated representative and that is located at a source of which they are not owners or operators or the designated representative.

(7) Each violation of a provision of 40 CFR parts 72, 73, 74, 75, 76, 77 and 78 by an affected source or affected unit, or by an owner or operator or designated representative of such source or unit, shall be a separate violation of the Act.

Effect on Other Authorities. No provision of the Acid Rain Program, an opt-in permit application, or an opt-in permit shall be construed as:

(1) Except as expressly provided in title IV of the Act, exempting or excluding the owners and operators and, to the extent applicable, the designated representative of an affected source or affected unit from compliance with any other provision of the Act, including the provisions of title I of the Act relating to applicable National Ambient Air Quality Standards or State Implementation Plans;

(2) Limiting the number of allowances a unit can hold; *provided*, that the number of allowances held by the unit shall not affect the source's obligation to comply with any other provisions of the Act;

(3) Requiring a change of any kind in any State law regulating electric utility rates and charges, affecting any State law regarding such State regulation, or limiting such State regulation, including any prudence review requirements under such State law;

(4) Modifying the Federal Power Act or affecting the authority of the Federal Energy Regulatory Commission under the Federal Power Act; or,

(5) Interfering with or impairing any program for competitive bidding for power supply in a State in which such program is established.

Certifications

I certify that, to the best of my knowledge and belief, the combustion source is not an affected unit under 40 CFR 72.6.

I certify that the data submitted under subpart C of part 74 reflects actual operations of the combustion source and has not been adjusted in any way.

I am authorized to make this submission on behalf of the owners and operators of the combustion source or opt-in sources for which the submission is made. I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment.

Name	
Signature	Date



Acid Rain Program Instructions for Opt-in Permit Application (40 CFR 74.16)

The designated representative of a combustion source that seeks to participate in the Opt-in Program is required to submit an opt-in permit application. The opt-in permit application gives EPA necessary information about the combustion source, such as its location, operating history, and emissions data.

Please type or print. The alternate designated representative may sign in lieu of the designated representative. For assistance, call the Acid Rain Hotline at (202) 233-9620. Enter the plant name from Step 1, the combustion source ID number from Step 2, and the date in the boxes provided on each page.

STEP 1 NADB is the National Allowance Data Base for the Acid Rain Program. To obtain the database on diskette, call the Acid Rain Hotline at (202) 233-9620. This data file is in dBase format for use on an IBM-compatible PC. It requires approximately 2 megabytes of hard disk space.

If the combustion source does not have an ORIS code, use the code from the Department of Energy 867 form. If no 867 form has been filed for the combustion source, leave this space blank, and EPA will assign a code.

STEP 2 The combustion source ID number and the combustion source short name are the ID number and name assigned by the operator to distinguish this combustion source from others at the facility.

STEP 3 Enter the latitude and longitude if they are known. If not, leave blank.

Enter the plant mailing address if it is different from the plant site address.

STEP 4 If the combustion source has participated in the Opt-in Program prior to submitting the current application, the combustion source may not submit a new opt-in permit application until four years after the effective date of its most recent opt-in permit. The opt-in permit's effective date is defined under 40 CFR 74.14(d)(1). This restriction does not affect participating opt-in sources when renewing their opt-in permits.

STEP 5 Briefly describe the combustion source for which the opt-in permit application is being submitted and the facility where the combustion source is located.

Example:

General Facility Description: Paper mill

Combustion Source Description: Boiler supplying steam to pulping process.

Attach a diagram showing the general layout of the facility and the location of the combustion source within the facility.

STEP 6 Check the first box if the combustion source uses a scrubber to control SO₂ emissions. If the combustion source uses other SO₂ control methods, check the second box and identify the method in the space provided. If the combustion source does not use controls for SO₂ emissions, check the third box.

STEP 7 The combustion source must submit two copies of a complete monitoring plan with the opt-in permit application.

Check the second box or the third box to indicate when the Certificate of Representation for the combustion source was submitted. The Certificate of Representation must be submitted prior to or at the same time as the opt-in permit application.

STEP 8 Each combustion source must hold sufficient allowances to cover its emissions of SO₂ as required in 40 CFR 72.9(c)(1).

If the combustion source seeks to transfer allowances to a replacement unit or units for the replacement of thermal energy under 40 CFR 74.47, check the second box and submit a Thermal Energy Plan form.

- STEP 9** Enter the month and year that the combustion source commenced operation.
- Enter the number of hours that the combustion source operated during the six months preceding the application, the dates for this six month period, and indicate that data supporting the determination of the number of operating hours are attached. You may submit this data in ASCII format on a 3 1/2 inch high density floppy disk. If so, provide the file name and a complete description of the data layout of the file.
- STEP 10** If the combustion source began operating before January 1, 1985, use data from 1985, 1986 and 1987 to determine the baseline utilization. Check the top box.
- If the combustion sources began operating after January 1, 1985, or if the data required for determining the baseline utilization of the combustion source are not available due solely to a natural catastrophe, use data from the first three consecutive calendar years after December 31, 1985, when the combustion source operated. Check the appropriate box and enter the first year for which data are used.
- STEP 11** For each type of fuel used at the combustion source, complete and attach one Opt-in Permit Application Worksheet. Enter the number of worksheets attached in the box in Step 11.
- STEP 12** Check the box next to each type of fuel combusted by the combustion source to indicate that a worksheet for that fuel is attached. If a fuel type used at the combustion source is not listed, check the "Other" box at the bottom of the table, and identify the fuel in the space provided.
- Enter the total 1985 (or first year) fuel consumption, average annual fuel consumption, and SO₂ emissions for 1985 (or first year) from the bottom of the worksheet for each fuel type.
- STEP 13** Total the 1985 (or first year) fuel consumption amounts listed in Step 12, and enter the result in box (a).
- Total the average annual fuel consumption amounts listed in Step 12, and enter the result in box (b). This is the baseline utilization.
- Total the SO₂ emissions for 1985 (or first year) listed in Step 12, and enter the result in box (c).
- STEP 14** Enter the total SO₂ emissions for 1985 (or first year) from box (c) of Step 13. Divide it by the total 1985 (or first year) fuel consumption from box (a) of Step 13. The result is the actual 1985 (or first year) SO₂ emissions rate.
- STEPS 15, 16 and 17** In Steps 15, 16 and 17, enter the three federally enforceable SO₂ emissions limits used to calculate the allowance allocation. These limits are (1) the 1985 allowable SO₂ emissions rate; (2) the current allowable SO₂ emissions rate; and (3) the current promulgated SO₂ emissions limit. Please refer to 40 CFR 72.2, 74.23, 74.24 and 74.25 for additional descriptions of these limits.

If the regulatory limit is not measured in lbs/mmBtu, use the appropriate conversion factor from the table below.

Unit of Measurement	Conversion Factors			
	Bituminous Coal	Subbituminous Coal	Lignite Coal	Oil
lbs Sulfur/mmBtu	2.0	2.0	2.0	2.0
% Sulfur in fuel	1.66	2.22	2.86	1.07
ppm SO ₂	0.00287	0.00384	--	0.00167
ppm Sulfur in fuel	--	--	--	0.00334
Tons SO ₂ /hour	$2 \times 8760 / (\text{annual fuel consumption for specified year}^1 \times 10^3)$			
lbs SO ₂ /hour	$8760 / (\text{annual fuel consumption for specified year}^1 \times 10^6)$			

¹ Annual fuel consumption is defined in 40 CFR 74.20; specified calendar year is defined in 40 CFR 74.23(a)(2).

For Step 15, enter the appropriate annualization factor from the table below.

Type of Combustion Source	Annualization Factors	
	Scrubbed Unit	Unscrubbed Unit
Unit Combusting Oil, Gas, or Some Combination	1.00	1.00
Coal Unit with Averaging Time ≤ 1 day	0.93	0.89
Coal Unit with Averaging Time = 1 week	0.97	0.92
Coal Unit with Averaging Time = 30 days	1.00	0.96
Coal Unit with Averaging Time = 90 days	1.00	1.00
Coal Unit with Averaging Time = 1 year	1.00	1.00
Coal Unit with Federal limit, but Averaging Time Not Specified	0.93	0.89

Example: In 1985, a commercial boiler fueled by residual oil, with a rated capacity of 245 mmBtu per hour, was subject to a SIP standard prohibiting the use of fuel oil with greater than 2.0% sulfur, with a three month weighted average of fuel sulfur content. This combustion source would calculate its 1985 allowable emissions rate in Step 15 as follows:

	Limit	Units of Measure	Averaging Period
Regulatory Limit	2.0	%S	3 mos.
Conversion Factor	X	1.07	
Converted Rate	=	2.14	lbs/mmBtu
Annualization Factor	X	1.0	
Annualized Rate	=	2.14	lbs/mmBtu

STEP 18 Enter the effective date of each SO₂ emissions limit in Steps 15, 16 and 17. Provide the regulatory citation for each of these emissions limits, and identify the permitting authority under which the emissions limit was established or through which it is enforced.

STEP 19 Enter the baseline utilization from Step 13(b) in the first box. Enter the lowest of the three rates in Steps 14, 15 and 16 in the second box. Divide the product by 2,000 to determine the proposed allowances for the combustion source.

STEP 20 If the combustion source does not have a current promulgated SO₂ emissions limit, skip to Step 21. Otherwise, complete both Step 19 and Step 20. In Step 20, enter the baseline utilization from Step 13(b) in the first box. Enter the lowest of the four limits in Steps 14, 15, 16 and 17. Divide the product by 2,000 to determine the proposed allowances for the combustion source for when the current promulgated SO₂ emissions limit becomes effective.

STEP 21 Read the Opt-in Program requirements and certifications, and sign and date.

Submission Instructions

Mail the original completed opt-in permit application and the original completed worksheet for each fuel used at the combustion source, and three photocopies of the entire submission, to the permitting authority responsible for issuing the opt-in permit. Initially, the EPA region is the permitting authority. As States and, in some cases, local air pollution control agencies are authorized to issue permits under titles IV and V, they will become permitting authorities.

Paperwork Burden Estimate

The burden on the public for collecting and reporting of information under this request is estimated at 140 hours per response. Send comments regarding this collection of information, including suggestions for reducing the burden, to: Chief, Information Policy Branch (2136), Environmental Protection Agency, 401 M Street SW, Washington, D.C. 20460; and to: Paperwork Reduction Project (OMB# 2060-0258), Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, D.C. 20503. ***Do not send this form to these addresses; see the submission instructions above.***



Plant Name (from Step 1)

Opt-In Permit Application Worksheet

Combustion Source ID# (from Step 2)

For more information, see instructions and refer to 40 CFR 74.20-74.22

Type of Fuel: _____ Heat Content Units: _____ Control System Efficiency _____%

Fuel Units: _____ SO₂ Emissions Factor: _____ Fuel Pretreatment Efficiency: _____%

(a)

(b)

(c)

(d)

1985/1st Operating Year: _____

1986/2nd Operating Year: _____

1987/3rd Operating Year _____ 1985/1st Year

	Quantity	%S	Heat Content	Fuel Consumption	Quantity	% S	Heat Content	Fuel Consumption	Quantity	% S	Heat Content	Fuel Consumption	SO ₂ Emissions
Jan				mmBtu				mmBtu				mmBtu	lbs
Feb				mmBtu				mmBtu				mmBtu	lbs
Mar				mmBtu				mmBtu				mmBtu	lbs
Apr				mmBtu				mmBtu				mmBtu	lbs
May				mmBtu				mmBtu				mmBtu	lbs
June				mmBtu				mmBtu				mmBtu	lbs
July				mmBtu				mmBtu				mmBtu	lbs
Aug				mmBtu				mmBtu				mmBtu	lbs
Sep				mmBtu				mmBtu				mmBtu	lbs
Oct				mmBtu				mmBtu				mmBtu	lbs
Nov				mmBtu				mmBtu				mmBtu	lbs
Dec				mmBtu				mmBtu				mmBtu	lbs
ANNUAL				mmBtu				mmBtu				mmBtu	lbs

Total these values for each worksheet and transfer each total to Step 12 of the Opt-in Permit Application

1985/1st Operating Year
mmBtu

Average Annual Fuel
mmBtu

1985/1st yr
lbs



Acid Rain Program Instructions for Opt-in Permit Application Worksheet (40 CFR 74.20-74.22)

For each fuel used at the combustion source, the designated representative must complete a worksheet to be submitted with the opt-in permit application. The worksheet provides space for all of the information that is required for each fuel in 40 CFR 74.20-74.22. The information calculated using the worksheet is transferred to the opt-in permit application and used in determining the proposed SO₂ allowances for the combustion source.

Please type or print. For assistance, call the Acid Rain Hotline at (202) 233-9620. Enter the plant name from Step 1 and the combustion source ID number from Step 2 of the opt-in permit application in the boxes in the upper right corner. If more than one worksheet is needed, photocopy the worksheet and indicate the page order and total number of worksheets (e.g., 1 of 4, 2 of 4, etc.) in the boxes in the upper right corner of each page.

PART I - HEADING INFORMATION

Fuel Units and Heat Content Units. Specify the fuel type for which the worksheet is being completed in the first space. Select the fuel units and the heat content units for the fuel type from the chart below, and enter them in the corresponding spaces on the worksheet.

Fuel	Fuel Units	Heat Content Units
Coal	Thousands of tons	Btu per pound
Oil	Thousands of barrels	Btu per barrel
Natural Gas	Million standard cubic feet	Btu per standard cubic foot
Other	Combustion source should specify	

If the fuel type for the worksheet is not listed in the chart, the combustion source should specify the appropriate fuel units and heat content units in the space provided on the worksheet.

SO₂ Emissions Factor. Calculate the SO₂ emissions factor using the following formula:

$$SO_2 \text{ Emissions Factor} = (\text{average percent of sulfur by weight}) \times (k)$$

The value of k for several types of fuel is shown in the following chart:

Fuel Type	k
Bituminous coal or anthracite	39,000
Subbituminous coal	35,000
Lignite	30,000
Distillate (light) oil	5,964
Residual (heavy) oil	6,594
Natural gas	0.6
Other fuels	Combustion source should consult with EPA

Enter the SO₂ emissions factor and the corresponding units from the chart below in the space on the worksheet.

Fuel Type	SO ₂ Emissions Factor Units
Coal	lbs per thousand tons
Oil	lbs per thousand barrels
Natural Gas	lbs per million standard cubic feet
Other	Combustion source should consult with EPA

If the fuel type for the worksheet is not listed in the charts, the combustion source should consult with EPA to specify the constant to be used in the calculation and/or the SO₂ emissions factor units. Attach the SO₂ emissions factor calculation to the worksheet.

Control System Efficiency and Fuel Pretreatment Efficiency. These are determined in Method 19 of 40 CFR part 60. Please attach the relevant calculations.

PART II - TABLE INFORMATION

Operating Year. If the combustion source began operating before January 1, 1985, enter data from 1985, 1986 and 1987. If the combustion source began operating after January 1, 1985, or if the data required on the worksheet are not available due solely to a natural catastrophe, use data from the first three consecutive calendar years after December 31, 1985, when the combustion source operated and for which data are available. Enter the operating years for which data are used in the spaces at the top of the table.

Quantity, Sulfur Content (%S), and Heat Content. This information may be submitted on a monthly or annual basis.

Fuel Consumption. This information may be submitted on a monthly or annual basis. For each month and/or each year, determine the fuel consumption using the following formula:

$$\text{Fuel Consumption} = \left(\begin{array}{c} \text{quantity of fuel} \\ \text{consumed} \end{array} \right) \times (\text{heat content}) \times (\text{unit conversion})$$

If submitting monthly data, total the monthly fuel consumption amounts to determine the annual fuel consumption.

The unit conversion for several types of fuel is listed in the following chart:

Fuel Type	Unit Conversion
Coal	2
Oil	0.001
Natural Gas	1
Other	Combustion source must specify

If the fuel type for this worksheet is not listed, the combustion source must specify the unit conversion in the calculation. Enter the annual fuel consumption for each year in the space on the bottom row of the table, and attach to the worksheet the annual fuel consumption calculation for each of the three operating years for which data are submitted.

SO₂ Emissions for 1985 or First Operating Year. For 1985 or the first operating year for which data are submitted, determine the SO₂ emissions using the following formula:

$$\text{SO}_2 \text{ Emissions Formula} = \left(\begin{array}{c} \text{quantity of} \\ \text{fuel} \\ \text{consumed} \end{array} \right) \times \left(\begin{array}{c} \text{SO}_2 \\ \text{emissions} \\ \text{factor} \end{array} \right) \times \left(\begin{array}{c} 1- \\ \text{control} \\ \text{system} \\ \text{efficiency} \end{array} \right) \times \left(\begin{array}{c} 1- \\ \text{fuel} \\ \text{pretreatment} \\ \text{efficiency} \end{array} \right)$$

If the combustion source has submitted monthly data, determine the SO₂ emissions for each month of 1985 or the first operating year and enter the results in column (d). If the combustion source has submitted annual data, determine the SO₂ emissions for the entire year, and enter the result in the appropriate box at the bottom of the page. Attach the SO₂ emissions for 1985 or first operating year calculation to the worksheet.

PART III - SUMMARY INFORMATION

1985 or First Operating Year Fuel Consumption. Calculate the fuel consumption for 1985 or the first operating year and enter the result in the bottom row of the table and in the box at the bottom of the worksheet. Also enter this result at Step 12 of the opt-in permit application for the fuel type discussed in the worksheet.

Average Annual Fuel Consumption. Average the annual fuel consumption for the three operating years, and enter the result in the box at the bottom of the worksheet. Also enter this average at Step 12 of the opt-in permit application for the fuel type discussed in the worksheet.

SO₂ Emissions for 1985 or First Operating Year. Calculate the total SO₂ emissions for 1985 or the first operating year using the formula provided above and enter the result in the box at the bottom of the worksheet. Also enter this total at Step 12 of the opt-in permit application for the fuel type discussed in the worksheet.