GOVERNMENT OF THE DISTRICT OF COLUMBIA
DEPARTMENT OF CONSUMER AND REGULATORY AFFAIRS
OFFICE OF THE DIRECTOR

October 17, 1997

Mr. Nelson B. Alcalde
Regional Administrator
General Services Administration
National Capital Region
Washington, D.C. 20407

Dear Mr. Alcalde:

Pursuant to the requirements of Subtitle A (Air Quality) of Title 20 of the District of Columbia Municipal Regulations (20 DCMR), approval to operate fuel-burning equipment and appurtenances thereto at the United States General Services Administration's (GSA's) Central Heating and Refrigeration Plant (CHRP) at 325 13th Street, S.W. and West Heating Plant (WHP) at 1051 29th Street, N.W., as identified in Attachment 1, which is attached and incorporated herein, per submitted specifications, plans, schedules and agreements is granted. This operating permit supersedes the permit dated September 8, 1994 previously issued to GSA.

This approval is subject to the following conditions:

1. Operation shall not result in the violation of any requirement of Subtitle A of 20 DCMR, the federal Clean Air Act, Title 40 of the Code of Federal Regulations (40 CFR), including any National Ambient Air Quality Standard (NAAQS), and these conditions of permit approval. All violations shall be immediately reported to this office by telephone and followed with a letter within five (5) working days describing the nature and duration of the violation, the actions taken to abate the violation and the measures to be taken to prevent future violations.

2. Only natural gas with a hydrogen sulfide (H_2S) content of one

(1) grain per one hundred (100) standard cubic feet (SCF) or less and a total sulfur content of twenty (20) grains/100 SCF or less shall be combusted in fuel-burning equipment at CHRP and WHP except when service is interrupted by the supplier. Only No. 2 "On Road Diesel" fuel with a maximum sulfur content of five hundredths weight percent ($0.05\%_{wt}$) shall be used as a backup fuel during periods of natural gas service interruptions. Such use shall not exceed 4,435,035 gallons per calendar year at CHRP and 3,267,921 gallons per calendar year at WHP.

3. Operation shall not result in the violation of the applicable District or federal requirements identified in Table 1 or in annual plant-wide emissions greater than the limits expressed in tons per year (TPY) on a twelve-month rolling basis identified in Table 2.

4. Unless and until a full, proper Prevention of Significant Deterioration (PSD) review has been conducted and a final PSD permit has been issued to GSA, the annual plant-wide SO_2, NO_x and TSP emissions from the CHRP and WHP shall not exceed the limits identified in Table 3 on a continuous twelve-month rolling basis. The CO and VOC emissions shall not exceed the limits listed in Table 3 on a twelve-month rolling basis unless and until the requirements of 20 DCMR §204.3 - §204.10 have been met to the satisfaction of the District.

5. To ensure compliance with the annual limits specified in Conditions 3 and 4 above, the monthly plant-wide emissions from the CHRP and WHP shall be calculated and reported on a quarterly basis to the District in accordance with Condition 14 below and Attachment 2.

6. If notified by a natural gas supplier that gas service will be interrupted, GSA shall notify this office in writing by the next business day and report the following information: date and time notified by supplier, date and time service interrupted, and estimated duration of interruption. When notified that service will be restored, GSA shall notify this office in writing by the next business day and report the following information: date and time notified by supplier, date and time service was restored, and types and amounts of fuels combusted in each boiler at CHRP and WHP during the period of interruption.

7. A continuous emissions monitoring system (CEMS) complying with the applicable performance specifications of 40 CFR 60, Appendix B shall be installed, certified, calibrated, maintained and operated for the following air pollutant

TABLE 1: FEDERAL AND DISTRICT STANDARDS APPLICABLE TO CHRP & WHP

PLANT	BOILER	POLLUTANT	FUEL	EMISSION STANDARDS (LBS/MBTU OR AS NOTED)	
				DISTRICT	FEDERAL
CHRP	1 & 2	NO_x	Gas	0.20[1,2]	0.20[3]
		PM/PM_{10}		0.048	N/A
		VE[4]		$0\%_{opacity}$[5]	N/A
	3 & 4	NO_x	Gas	0.20[1,2]	0.20[3]
			Oil	0.25[2] & 0.30[1]	0.30[3]
		PM/PM_{10}	Gas	0.040	N/A
			Oil	0.040	0.10
		SO_2	Oil	$.05\%_{wt}S$[6]	0.80[3]
		VE[4]	Gas	$10\%_{opacity}$[5]	N/A
			Oil	$10\%_{opacity}$[5]	$20\%_{opacity}$[7]
	5 & 6	NO_x	Gas	0.20[1,2]	N/A
			Oil	0.25[2] & 0.30[1]	0.30[3]
		PM/PM_{10}	Gas	0.047	N/A
			Oil	0.047	0.10
		VE[4]	Gas	$0\%_{opacity}$	N/A
			Oil	$0\%_{opacity}$	$20\%_{opacity}$[7]
WHP	1, 2, & 4	NO_x	Gas	0.20[1,2]	N/A
			Oil	0.25[2] & 0.30[1]	0.10[3]
		PM/PM_{10}	Gas	0.048	N/A
			Oil	0.048	N/A
		VE[4]	Gas	$0\%_{opacity}$[5]	N/A
			Oil	$0\%_{opacity}$[5]	$20\%_{opacity}$[7]
	3 & 5	NO_x	Gas	0.20[1,2]	N/A
			Oil	0.25[2] & 0.30[1]	N/A
		PM/PM_{10}	Gas	0.047	N/A
			Oil	0.047	N/A
		SO_2	Oil	$.05\%_{wt}S$[6]	N/A
		VE[4]	Gas	$10\%_{opacity}$[5]	N/A
			Oil	$10\%_{opacity}$[5]	N/A

[1] Two (2) hour average.
[2] Twenty-four (24) hour daily average.
[3] Thirty (30) day rolling average.
[4] Visible emissions.
[5] Percent opacity. Some exemptions allowed.
[6] The sulfur content of fuel oil cannot exceed five-hundredths percent sulfur by weight ($0.05\%_{wt}S$).
[7] Six (6) minute average with exemptions.

TABLE 2: ANNUAL PLANT-WIDE EMISSION LIMITS ENSURING NAAQS COMPLIANCE

Air Pollutant	Emission Limits (TPY)		
	CHRP	WHP	Total
Sulfur Dioxides (SO_2)	17	12	29

TABLE 3: EMISSION LIMITS ENSURING NEW SOURCE REVIEW COMPLIANCE

Air Pollutant	Emission Limits (TPY)	
	CHRP	WHP
Total Suspended Particulates (TSP)	53	39
Sulfur Dioxides (SO_2)	562	638
Nitrogen Oxides (NO_x)	268	256
Volatile Organic Compounds (VOC)	2	16
Carbon Monoxide (CO)	27	147

emissions from all boilers at CHRP and WHP: sulfur dioxide (SO_2), nitrogen oxides (NO_x), oxygen (O_2) or carbon dioxide (CO_2), and opacity. All CEMS data is to be quality assured in accordance with the requirements of 40 CFR 60, Appendix F. GSA need not monitor sulfur dioxide emissions by CEMS if GSA fires: only natural gas with a maximum hydrogen sulfide (H_2S) content of one (1) grain/100 SCF and a total sulfur content of twenty (20) grains/100 SCF or less or No. 2 "On Road Diesel" oil with a maximum sulfur content of 0.05%$_{wt}$. GSA must submit fuel analyses or fuel certifications substantiating the maximum hydrogen sulfide and weight percent sulfur of the gas and oil consumed to obviate the need to monitor sulfur dioxide emissions by CEMS.

8. Emission data shall be reported to the District pursuant to 40 CFR 60 and the District of Columbia Data Reporting Requirements for Continuous Emission Monitors, which is attached and incorporated herein as Attachment 3.

9. Monthly reports submitted to the District identifying the sulfur content (weight percent) of oil burned at the CHRP and WHP must include data for at least three (3) representative samples taken during the month. The report must also provide the following data for each of the three samples taken: the API gravity, Saybolt viscosity, and Btu per gallon.

10. Ambient air quality in the vicinities of CHRP and WHP shall be monitored and reported per GSA's March 23, 1993 Ambient Air Quality Monitoring Plan--Central and West Heating Plants unless and until GSA demonstrates to the satisfaction of the District compliance with the NAAQS through an analysis of data collected.

11. The District shall be notified in writing at least thirty (30) days prior to any testing or initial startup of any boiler or air pollution control device at CHRP and WHP.

12. A test protocol shall be submitted to the District for review and approval at least two (2) weeks prior to any testing. Testing shall not begin unless and until the test protocol has been approved by the District. A copy of any reports on such tests shall be submitted to the District within fifteen (15) working days after they are available to GSA.

13. Boilers 5 and 6 at the CHRP shall not be operated more than eleven (11) months per calendar year. The one (1) month shutdown for each boiler shall occur during a thirty (30) consecutive day period between April 1st and November 1st of any given year. No later than March 1st of any given year, GSA shall notify, in writing, both the District and the United States Environmental Protection Agency (USEPA) of the thirty (30) day shutdown period which it has chosen for each boiler. GSA may change the thirty (30) day shutdown period for each boiler after initial notification to the District and USEPA provided that GSA notifies the District and USEPA in writing more than fifteen (15) days in advance of the date it has chosen to begin shutdown that it desires to change the thirty (30) day shutdown period it has chosen and provided that GSA specifies an alternate thirty (30) day shutdown period which shall occur between April 1st and November 1st of that calendar year. In the event of an emergency condition which occurs during a thirty (30) day shutdown period which GSA had previously chosen which necessitates boiler operation during that shutdown period, GSA shall notify the District and USEPA within twenty four (24) hours of the occurrence of the emergency condition the nature of the emergency and an alternative thirty (30) day shutdown period for that boiler which is to occur during that calendar year.

14. GSA shall submit to the District and USEPA quarterly reports documenting compliance with the operating requirements of Conditions 3 and 4 above. Each report is due thirty (30) days after the end of the calendar quarter and shall document for the previous calendar quarter the following:

a. The date(s) of operation of each unit at the CHRP and WHP and the number of hours of operation of each boiler on those dates;

b. The type(s) of fuel(s) burned on each day of operation of each boiler at the CHRP and WHP (if, for any boiler two different fuels are burned on the same day, specify the exact clock hours during which each fuel was combusted);

c. The operational status of the electrostatic precipitators on Boiler Nos. 3, 4, 5 and 6 at CHRP during each operating day (i.e., "on" or "off");

d. The date(s) of all interruptions of the natural gas supply and the alternative fuel(s) used on those dates;

e. The composition(s) and heat contents of the fuel(s) burned at the CHRP and WHP during the calendar quarter (a supplier's certificate of analysis for each shipment may suffice for this purpose);

f. The total quantity of each fuel burned at the CHRP and WHP during the calendar quarter, on a plant-wide basis;

g. The total number of tons of SO_2, NO_x, TSP, PM, PM_{10}, CO and VOC emitted at each Heating Plant during each calendar month of the calendar quarter, and the cumulative number of tons of each pollutant emitted, on a twelve-month rolling basis. New twelve-month cumulative emission totals shall be calculated for each calendar month. The equations and emission factors in Attachment 2 (or their allowable alternatives) shall be used to calculate the emissions.

15. GSA shall keep and maintain records of all information specified in Condition 14 in a data file, active for at least two (2) years. GSA shall make any and all of this information available to the District and USEPA upon request.

16. GSA shall make all sampling results, test results or other data generated as a result of this permit available to the District and USEPA.

17. The annual capacity factor for any coal-burning in CHRP Boiler Nos. 1 and 2, as approved subsequent to this permit, defined in 40 CFR 60.41b and calculated according to 40 CFR 60.49b(d), shall not exceed thirty percent (30%).

18. Compliance with the allowable annual emissions (tons/yr) and

annual capacity factors specified in Conditions 3, 4 and 17 above shall be determined by using the emission factors (or their allowable alternatives) and equations in Attachment 2, in conjunction with GSA's records of the annual plant-wide and per-unit fuel usage at the CHRP and WHP.

19. The quarterly reporting requirements of 40 CFR 60.49b shall be fully complied with for CHRP Boiler Nos. 1 and 2, including the requirement of 40 CFR 60.49b(k)(11) to report the annual capacity factor for each calendar month for each fuel combusted.

20. All submissions to the District shall be made directly to:

    Donald E. Wambsgans II, Program Manager
    Air Resources Management Division
    Environmental Regulation Administration
    D.C. Department of Consumer and Regulatory Affairs
    2100 Martin Luther King, Jr. Avenue, S.E., Suite 203
    Washington, D.C. 20020-5719

Should there be any questions regarding this permit, please contact me at (202) 727-7170 or Mr. Donald E. Wambsgans II at (202) 645-6093, extension 3067.

Sincerely,

W. David Watts
Director

Attachments

ATTACHMENT 1

BOILERS AND FUELS SUBJECT TO THIS PERMIT

PLANT	BOILER NO.	STEAM CAPACITY (LBS/HR)	FUEL
CHRP	1	180,000	Gas
	2	180,000	Gas
	3	400,000	Gas & Oil
	4	400,000	Gas & Oil
	5	220,000	Oil
	6	220,000	Gas & Oil
WHP	1	180,000	Gas & Oil
	2	180,000	Gas & Oil
	3	220,000	Gas
		180,000	Oil
	4	180,000	Gas
	5	220,000	Gas
		180,000	Oil

ATTACHMENT 2
COMPLIANCE WITH ALLOWABLE ANNUAL EMISSION LIMITS AND WITH ANNUAL CAPACITY FACTOR

I. Compliance with Allowable Annual Emissions

A. Working Equations

Equation (1) or (2) below, as applicable, shall be used to document the compliance of CHRP and WHP with the allowable annual emissions specified in Condition 4 of this permit:

(1) $$\text{Tons of Pollutant Emitted} = \frac{\text{Quantity of Fuel Burned} \times \text{Emission Factor}}{2{,}000 \text{ lbs/ton}}$$

where:

Quantity of Fuel Burned ≡ Thousands of gallons of oil or millions of cubic feet of natural gas

Emission Factor ≡ Appropriate emission factor from Table A2.1 (or allowable alternative; see below), in units of lbs pollutant/1,000 gallons of oil or lbs pollutant/million cubic feet of gas

or

(2) $$\text{Tons of Pollutant Emitted} = \frac{\text{Quantity of Fuel Burned} \times \text{GCV of Fuel} \times \text{Emission Factor}}{2{,}000 \text{ lbs/ton} \times 10^6 \text{ BTU/MBTU}}$$

where:

Quantity of Fuel Burned ≡ Gallons of oil or cubic feet of natural gas

GCV of Fuel ≡ Heating value of Fuel, BTU/gallon of oil or BTU/cubic foot of natural gas

Emission Factor ≡ Appropriate emission factor from Table A2.1 (or allowable alternative; see below), in units of lbs pollutant/MBTU

B. Calculation Method

For each calendar month, the total number of tons of SO_2,

NO_x, PM, PM_{10}, CO and VOC emitted at each Heating Plant shall be calculated using the appropriate equation above, in conjunction with GSA's records of plant-wide fuel consumption, fuel GCV and fuel composition. All calculations shall be based upon the actual fuel usage, GCV and composition, not upon estimates. In addition, the cumulative number of tons of each pollutant shall be calculated, on a continuous twelve-month rolling basis. New twelve-month cumulative emission totals shall be calculated for each calendar month.

C. Alternative Emission Factors

GSA may request from the District and USEPA to use alternative emission factors to those in Table A2.1 (e.g., recent stack test results), if the alternative factors are believed to be more representative of the actual emissions from any of the CHRP and/or WHP boilers. All such requests for permission shall be made in writing. The District and USEPA shall approve or disapprove each request on a case-by-case basis.

D. Compliance Determination

If, for any twelve-month period (calculated on a continuous twelve-month rolling basis), the cumulative numbers of tons of SO_2, NO_x, PM, PM_{10}, CO and VOC emitted from the CHRP and WHP do not exceed the limits specified in Condition 4 of this permit, this shall certify compliance with the allowable annual emissions.

II. Compliance with Annual Capacity Factor

A. Working Equation

The following equation shall be used to document the compliance of CHRP Boiler Nos. 1 and 2 with the allowable annual capacity factor of thirty percent (30%) for coal-burning, as specified in Condition 18:

$$\frac{\text{Actual Annual Coal-Fired Heat Input}}{\text{Maximum Annual Coal-Fired Heat Input}} \leq 0.30$$

where:

Actual Annual Coal-Fired Heat Input	≡	Total coal-fired heat input into the boilers during any twelve-month period, (MBTU/yr)

Maximum Annual Coal-Fired Heat Input	≡	Maximum coal-fired heat into the boilers during any twelve-month period, (MBTU/yr), based upon 8,760 hours of operation at the design-rated capacity

B. Calculation Method

The actual annual coal-fired heat input in the equation above shall be determined as follows:

$$\text{Actual Coal-Fired Heat Input (MBTU/yr)} = \frac{\text{\# Tons Coal Burned/yr} \times 2{,}000 \text{ lb/ton} \times \frac{\text{\# Btu}}{\text{lb coal}}}{10^6 \text{ Btu/MBTU}}$$

In the above equation, the # of Btu/lb of coal is the actual average gross calorific value, on a dry basis, of the coal burned during the twelve-month period, based upon the suppliers' certificates of analysis.

The maximum annual coal-fired heat input shall be the same for CHRP Boiler Nos. 1 and 2, because both boilers have the same design-rated capacity (242 MBTU/hr, based on a delivery rate of 175,000 lbs/hr of saturated steam at 250 psig an a boiler efficiency of 0.85). Therefore:

$$\text{Maximum Coal-Fired Annual Heat Input (CHRP \#1 \& \#2)} = (8{,}760 \text{ hrs/yr})(242 \text{ MBTU/hr})(2)$$

$$= 4.24 \times 10^6 \text{ MBTU/yr}$$

C. Compliance Determination

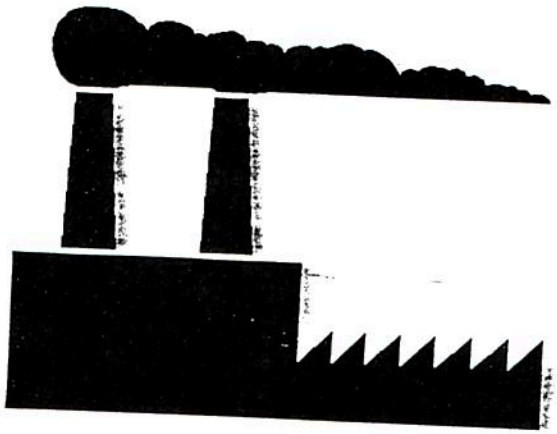
The coal-fired annual capacity factor for CHRP Boiler Nos. 1 and 2 shall be calculated and reported for each calendar month, on a continuous twelve-month "rolling" basis, in accordance with 40 CFR 60.41b and 40 CFR 60.49b(k)(11). If, for each calendar month, the ratio of the actual annual coal-fired heat input to the boilers in MBTU/yr (calculated as shown in II.B, above) to 4.24×10^6 is less than or equal to 0.30, this shall certify compliance with the thirty percent (30%) annual capacity factor.

TABLE A-2.1: AIR POLLUTANT EMISSION FACTORS FOR FUEL-BURNING AT CHRP AND WHP

FUEL	POLLUTANT	EMISSION FACTOR	
No. 2 Oil	SO_2	142(%S)	lbs/10^3 gal
	NO_x	20	lbs/10^3 gal
	PM/PM_{10}	2	lbs/10^3 gal
	CO	5	lbs/10^3 gal
	VOC	0.20	lbs/10^3 gal
Natural Gas	SO_2	0.6	lbs/10^6 ft^3
	NO_x	140	lbs/10^6 ft^3
	PM/PM_{10}	3	lbs/10^6 ft^3
	CO	40	lbs/10^6 ft^3
	VOC	2.8	lbs/10^6 ft^3

ATTACHMENT 3

District of Columbia
Data Reporting Requirements for
Continuous Emission Monitors



September 24, 1996

Compliance and Enforcement Branch
Air Resources Management Division
Environmental Regulation Administration

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Introduction

This document describes data reporting requirements for continuous emission monitors (CEMs) that operate in the District of Columbia. Many air pollution sources in the District are required to install, certify, and operate CEMs as a result of Federal or District of Columbia regulations or as a result of District of Columbia air quality permit conditions. A source may be required to monitor only one pollutant or several pollutants. Sources should refer to applicable Federal and/or District of Columbia regulations and their air quality permit to determine which pollutants they must monitor. If a source is uncertain as to which pollutants it must monitor, or has other questions concerning continuous emission monitoring requirements, it should contact the District's Air Resources Management Division. Questions should be directed to:

William G. Gillespie
Chief, Compliance and Enforcement Branch
Air Resources Management Division
Suite 203
2100 Martin Luther King, Jr. Avenue, SE
Washington, D.C. 20020

(202) 645-6093, extension 3084

Federal Requirements

All continuous emission monitors (CEMs) operated in the District of Columbia must meet the Federal requirements found in the Code of Federal Regulations (40 CFR Part 60 and its appendices). All CEM data must be quality assured in accordance with 40 CFR Part 60, Appendix F.

District of Columbia Requirements

All CEMs operated in the District of Columbia must meet the general requirements found in Title 20, Chapter 5, Sections 500 and 501 of the District of Columbia Municipal Regulations. A copy of these regulations can be found in Appendix I. Regulations that pertain to the emission of specific pollutants are also contained in Appendix I.

Daily Emission Reports

Any data acquisition system (DAS) or reporting system that is used to record and report CEM data must provide the source and regulatory officials with sufficient data to determine whether the source was operated in compliance with regulations. To ensure this requirement

is met, data acquisition and reporting systems for CEMs at major sources in the District must generate Daily Emission Reports. These reports should concisely summarize daily emissions for each pollutant being monitored. Examples of daily emission reports for the oxides of nitrogen (NO_x), sulfur dioxide (SO_2), carbon monoxide (CO), volatile organic compounds (VOCs) and opacity are found in Appendix II. Daily Emission Reports must contain the information and data shown in these examples. Alternate formats for reporting the data shown in these examples are acceptable if approved by the Compliance and Enforcement Branch of the Air Resources Management Division.

Emission Calculations for Nitrogen Oxides and Sulfur Dioxide

Sources must use the equations found in 40 CFR Part 60, Appendix A, Method 19, Section 2 or other methods approved by the Air Resources Management Division to calculate NO_x and SO_2 emission rates. If a source chooses to use a method for calculating emissions other than those found in the CFR, the source must demonstrate to the Air Resources Management Division that the proposed method is equivalent to the method described in the CFR. Sources should exercise care in selecting the equations used to calculate emissions. Special care should be exercised in determining whether pollutant and diluent gases are measured on a wet or dry basis. Sources will be required to provide documentation supporting the equations they use to calculate emissions.

Reporting Units

Daily Emission Reports must provide hourly emission rates for NO_x, SO_2, CO, and VOCs in parts per million (ppm) and pounds per million British thermal units (lbs/mmBtu). Hourly percent oxygen or carbon dioxide data must also be reported. Hourly NO_x, SO_2, and CO emission rates and hourly percent oxygen values must be averages of at least four equally spaced measurements made during the hour. Hourly VOC emission rates should be calculated from CO emission rates. The relationship that establishes VOC emission rate as a function of CO emission rate must be developed by a method approved by the Air Resources Management Division.

Average Emission Rate Reporting

For the oxides of nitrogen (NO_x), calculate two hour and daily twenty-four hour averages in lbs/mmBtu. If a source is subject to Federal New Source Performance Standards (NSPS), also calculate the emission averages required by the NSPS.

Marking Exceedances

Six minute exceedances of the opacity standard and hourly exceedances of the NO_x emission standard must be marked with an asterisk in a Daily Emission Report. The asterisk should appear to the right of an opacity exceedance. In a similar fashion, an asterisk should be placed to the right of a hourly NO_x exceedance. Exceedances of the two hour NO_x emissions

average should also be marked with an asterisk. Examples of a Daily Opacity Report and a Daily Nitrogen Oxide Emission Report are provided in Appendix II.

Opacity Reporting

Daily Emission Reports must report opacity in percent opacity. The report must record percent opacity at least every six minutes. The percent opacity should be the average of 36 or more opacity measurements equally spaced over the six minute time period.

The Retention of Daily Emission Reports

The submission of Daily Emission Reports is not required. The source must maintain Daily Emission Reports, electronically or in paper form, for at least three years however. The Compliance and Enforcement Branch of the Air Resources Management Division or the U.S. Environmental Protection Agency may review or request submission of Daily Emission Reports during compliance audits or inspections.

Quarterly CEM Performance Reports

Each air pollution source that operates a CEM or CEM system must submit a Quarterly CEM Report. This report must summarize the operating performance of the monitor or monitors during the quarter, report excess emissions, and in some cases report source operating data.

Quarterly Monitor Performance Data

For each monitor at a facility, the following information must be reported.

- The hours the emission source or boiler was in service during the quarter.
- The hours the emission source or boiler was not in service during the quarter.
- The total hours in the quarter.
- The hours the monitor operated during the quarter (while the emission source or boiler was in service).
- The hours the monitor did not operate during the quarter (while the emission source or boiler was in service).

In the following example, NO_x emissions and monitor performance information are summarized for a quarter.

Quarterly NO_x Monitor Performance Summary

	Monitor #1		Monitor #2	
Total hours the emission source or boiler was in service. (a)				
Total hours the emission source or boiler was not in service. (b)				
Total hours in the quarter. (c)[1]				
Total hours the monitor operated while the emission source or boiler was in service.				
Total hours the monitor did not operate while the emission source or boiler was in service.				
	Hours (d)	Percent of total operating hours[2]	Hours (d)	Percent of total operating hours[2]
Compliance hours				
Violation hours				
Monitor downtime hours				

[1] a + b = c

[2] Hours (d) as a % of the total source operating hours

The data requested above must be reported for each pollutant and stack monitored at a source. For example, if a source has two stacks with opacity and NO_x monitors on both stacks, four monitor performance summaries must be submitted each quarter; an opacity and a NO_x monitor performance summary for each stack.

A source must explain why a monitor was out of service, while its emission source or stack was on line, for any period during the quarter. Calibrations and routine daily maintenance need not be reported. Include in the Quarterly CEM Report a description of actions taken to return a damaged or defective monitor to service. Please note that when an emission source or stack is out of service, none of its associated monitors can be reported as in service.

Quarterly Excess Emissions Reports

A source must also explain periods of excess emissions. For each excess emissions episode list: the date, the time the episode started and stopped, the maximum emission rate or opacity recorded, and the reason for the emissions. Total hours of excess emissions for each monitored pollutant should also be reported. The cause of the excess emissions should be

summarized in a few sentences. Excess emissions should be summarized for each monitor at a facility in the format shown in Appendix III.

Other Quarterly Reporting Requirements

Some air pollution sources are required to submit some or all of the information listed below in their Quarterly CEM Report.

- the type and quantity of fuel consumed,
- fuel quality analyses, and
- boiler operating data.

Type and Quantity of Fuel Information

Sources required to report the type and quantity of fuel they consume must report this information in table format. A sample table is shown below. Each cell of the table should contain the tons of coal, gallons of fuel oil and/or therms of natural gas. A table should be submitted for each emission source at a facility.

Quarterly Fuel Consumption Table

	#2 Oil (Gallons)	#4 Oil (Gallons)	#6 Oil (Gallons)	Natural Gas (Therms)	Coal (Tons)
Boiler #1					
January					
February					
March					
Boiler #2					
January					
February					
March					
Boiler #3					
January					
February					
March					
Totals					

Quality of Fuel Data

Quality of oil analyses must be performed quarterly on representative samples of oil fired at a plant. The oil analysis report must include tests results for American Petroleum Institute (API) Gravity, Saybolt viscosity, and weight percent sulfur.

Quality of coal analyses must be performed quarterly on representative samples of coal fired at a plant. The coal analyses report must include test results for percent moisture, percent ash, percent sulfur, and British thermal units (Btu) per pound. These parameters must be reported as the coal was received (as received) and on a dry basis.

Boiler Operating Data

For sources required to submit this data, boiler operations should be summarized as shown in Appendix IV.

Submitting the Quarterly CEM Report

Quarterly CEM Reports should be submitted to:

William G. Gillespie
Compliance and Enforcement Branch
Air Resources Management Division
Suite 203
2100 Martin Luther King Jr. Avenue, SE
Washington, D.C. 20020

Quarterly reports are due 30 days after the end of each quarter. Quarterly reporting periods are listed below.

January 1 through March 31
April 1 through June 30
July 1 through September 30
October 1 through December 31

Each report should include:

- Report date
- Plant name and address
- Contact person's name and telephone number
- Reporting period dates
- Certification of the accuracy of the data and report
- Signature of the certifying official.

Quarterly reports can be submitted via electronic media if approved in advance by the Compliance and Enforcement Branch of the Air Resources Management Division.