

Air Pollution Control Board

Brian P. Bilbray District 1

Dianne Jacob District 2
Pamela Slater District 3

Leon L. Williams District 4
John MacDonald District 5

Air Pollution Control Officer R. J. Sommerville

DATE:

August 3, 1993

TO:

Air Pollution Control Board

SUBJECT:

Amendment of New Source Performance Standard Subpart Db - Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units

#### **SUMMARY:**

The proposed amendments to Subpart Db of New Source Performance Standards (NSPS) were recently adopted by the Environmental Protection Agency and apply throughout the United States. Local adoption is necessary to maintain the District's NSPS program current with that of the Environmental Protection Agency (EPA) in order to retain the authority to implement and enforce the regulation. Adoption of these amendments is consistent with Board direction of February 2, 1993, regarding implementation of new or revised regulations because Subpart Db does not require a socioeconomic impact assessment and is specifically required by EPA.

Subpart Db applies to steam generating units with a heat input capacity of greater than 100 million BTU per hour for which construction, modification, or reconstruction commenced after June 19, 1984. The proposed amendments incorporate the current industry standard for low-sulfur oil (maximum 0.5 weight percent of sulfur), and delete the particulate matter emission limit for units using this oil. In addition, the amendments will reduce monitoring, recordkeeping and reporting requirements for low usage steam generating units fired on natural gas or oil containing less than 30 percent of nitrogen. Presently, there are no steam generating units in San Diego County which will be affected by these amendments.

#### Issue

Should the Board adopt amendments to Subpart Db - Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units to make this subpart consistent with the current EPA standard?

#### Recommendation

#### AIR POLLUTION CONTROL OFFICER:

- 1. Set September 21, 1993 at 2:00 p.m., as the date and time for public hearing to consider the resolution adopting amended Subpart Db into the Rules and Regulations of the San Diego County Air Pollution Control District.
- 2. Direct the Clerk of the Board to notice the Hearing pursuant to Section 40725 of the State Health and Safety Code.
- 3. Following the hearing: (a) adopt the resolution amending Subpart Db and (b) make appropriate findings:

SUBJECT: Amendment of New Source Performance Standard Subpart Db - Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units

- (i) of necessity, authority, clarity, consistency, non-duplication and reference, as required by Section 40727 of the State Health and Safety Code;
- (ii) that the amendments will not affect air quality or emissions limitations, and an assessment of socioeconomic impacts is not required (Section 40728.5 of the State Health and Safety Code); and
- that the adoption of amendments is categorically exempt from the provisions of the California Environmental Quality Act pursuant to California Code of Regulations, Title 14, Sections 15300 and 15308, as an action taken to assure the maintenance or protection of the environment, where the regulatory process involves procedures for protection of the environment and where the impact on air quality or emission limitations is insignificant.

#### **Advisory Statement**

The Air Pollution Control District Advisory Committee recommended adoption of proposed amendments to Subpart Db at its May 26, 1993 meeting.

#### Fiscal Impact

Adopting the proposed amendments to Subpart Db will have no fiscal impact on the District.

#### Alternatives

Not adopt amendments to Subpart Db. This would make District Regulation X inconsistent with the requirements of the Environmental Protection Agency's New Source Performance Standards program. As a result, the Environmental Protection Agency will not continue to delegate authority to implement and enforce this Subpart to the District and will reduce the District's federal grant accordingly. The Environmental Protection Agency would then implement and enforce amended Subpart Db locally. In addition, businesses in San Diego County would have to get NSPS permits directly from EPA.

#### **BACKGROUND:**

The federal NSPS program applies throughout the United States. The Air Pollution Control District has been delegated authority to implement and enforce Subpart Db, Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units by the Environmental Protection Agency (EPA). The EPA recently amended this Subpart. To retain EPA delegation, the amendments must be adopted by the District. Failure to adopt them would also result in a corresponding reduction in the District's EPA 105 Grant. In addition, businesses in San Diego County would have to get NSPS permits directly from EPA.

Subpart Db applies to steam generating units with a heat input capacity of greater than 100 million BTU per hour (29 Megawatt) which operate on solid, liquid and/or gaseous fuel and for which construction, modification, or reconstruction commenced after June 19, 1984. These units are subject to standards for sulfur dioxide, particulate matter, and nitrogen oxides emissions. The proposed amendments revise the definition of "Very Low Sulfur Oil" to use the current industry standard of 0.5 maximum weight percent of sulfur, and delete the particulate matter emission limit for units using such

SUBJECT: Amendment of New Source Performance Standard Subpart Db - Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units

oil. Compliance with sulfur dioxide standards for units using low sulfur oil may be demonstrated by having the oil tested, or by maintaining oil receipts with the necessary certification from the fuel supplier. The proposed amendments also reduce monitoring requirements for all units operating on natural gas, or oil containing less than 30 weight percent of nitrogen, and having an annual capacity factor of 10 percent or less. Such units with heat input capacity less than 250 million BTU per hour will also be exempt from the nitrogen oxide emission limits and the nitrogen oxide performance testing and monitoring requirements. In addition to the changes made by EPA, the term "Very Low Sulfur Oil" was replaced by "Low Sulfur Oil" to provide statewide consistency.

Presently, there are no steam generating units in San Diego County affected by these amendments. Therefore, there will be no additional emission reductions, and no effect on air quality or emission limitations.

Section 40728.5 of the state Health and Safety Code requires the District to perform a socioeconomic impact assessment for rules and regulations that will significantly affect air quality or emission limitations. County Counsel has opined that since federal regulations are already applicable nationwide, adopting or amending the regulation by the District for the sole purpose of facilitating local implementation would not significantly affect air quality or emission limitations. Therefore, it is not necessary to perform a socioeconomic impact assessment for adopting amended Subpart Db.

On February 2, 1993, the Air Pollution Control Board directed that, with the exception of a Regulation requested by business or Regulation for which a socioeconomic impact assessment is not required, no new or revised regulation shall be implemented during the 1993 calendar year, unless specifically ordered by Federal or State law. Amendments to Subpart Db do not require a socioeconomic impact assessment and are specifically required by the federal EPA. Therefore, adoption of amendments to Subpart Db is consistent with Board policy.

Finally, the California Environmental Quality Act requires an environmental review for certain actions. The adoption of the proposed amendments will not have a significant effect on the environment and is categorically exempt from the provision of the California Environmental Quality Act pursuant to California Code of Regulations, Title 14, Sections 15300 and 15308, as an action taken to assure the maintenance or protection of the environment where the regulatory process involves procedures for protection of the environment.

A public workshop on proposed amended Subpart Db was held on April 15, 1993. The workshop report is attached.

Concurrence:

Respectfully submitted,

DAVID E. JANSSEN Chief Administrative Officer

R. J. SOMMERVILLE Air Pollution Control Officer

#### AIR POLLUTION CONTROL BOARD AGENDA ITEM INFORMATION SHEET

SUBJECT:	Amendment of N Performance for	ew Source Perform Industrial-Commerc	cial-Institutional	Steam Gene	Standards of rating Units
SUPV DIST.:	All			hol93	
COUNTY COURT [] Standard For	m []	L: Form and Leg Ordinance	gality [X] Yes [X] Resolution	[] N/A	
AUDITOR APP	ROVAL: [X]	N/A [] Yes	4 VOTES:	[] Yes	[X] No
FINANCIAL MA	ANAGEMENT RI	EVIEW: [] Ye	es [X] No		
CONTRACT RE	VIEW PANEL:	[] Approved	*		[X] N/A
CONTRACT N	UMBER(S): N	'A			
PREVIOUS REI	LEVANT BOARD	ACTION: Mar	ch 14, 1989 Ite	m #8	
BOARD POLIC	IES APPLICABL	E: N/A			
CITIZEN COM	MITTEE STATEN	Committe	ollution Control e recommended nts to Subpart D	adoption of	the proposed
CONCURRENC	ES: N/A				
ORIGINATING	DEPARTMENT:	Air Pollution Co	ontrol District		
CONTACT PER	SON: Richard	J. Smith, Deputy Di	irector 7.	50-3303	MS: 0-176
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1	R. J. SOMMERVII	LE		AUGUST 3	1003

MEETING DATE

DEPARTMENT AUTHORIZED REPRESENTATIVE

# FINDINGS OF THE SAN DIEGO COUNTY AIR POLLUTION CONTROL BOARD IN RESPECT TO ADOPTION OF AMENDMENTS TO REGULATION X SUBPART Db - STANDARDS OF PERFORMANCE FOR INDUSTRIAL-COMMERCIAL-INSTITUTIONAL STEAM GENERATING UNITS

- A. Pursuant to section 40727 of the Health and Safety Code, the Air Pollution Control Board of the San Diego County Air Pollution Control District makes the following findings:
  - 1. (Necessity) The adoption of the proposed amendments to Regulation X, Subpart Db is necessary for the APCD to retain delegation from the United States Environmental Protection Agency (EPA) to implement and enforce the identical provisions of federal law. If the proposed amendments are not adopted, the EPA would implement and enforce Subpart Db locally.
  - 2. (Authority) Adoption of the proposed APCD rule amendments is authorized by California Health and Safety Code sections 40001 and 40702. Authority to implement and enforce the federal rule amendments from which the proposed rule amendments derive, has been delegated to the APCD by the United States Environmental Protection Agency, pursuant to section 111(c)(1) of the federal Clean Air Act, 42 U.S.C. section 7411(c)(1).
  - 3. (Clarity) The proposed amendments are written so that their meaning can be easily understood by persons directly affected by them.
  - 4. (Consistency) The proposed amendments are in harmony with, and not in conflict with or contrary to, existing statutes, court decisions, and State law and Federal regulations.
  - 5. (Nonduplication) The proposed amendments are necessary and proper to execute the powers and duties granted to and imposed upon the District, including the duties to enforce all applicable provisions of state and federal law and to achieve and maintain the state and federal ambient air quality standards in all areas affected by emission sources under its jurisdiction.
  - 6. (Reference) The proposed amendments implement 40 Code of Federal Regulations Part 60, Subpart Db, a regulation which sets performance standards applicable to major new and modified sources of air pollution, adopted by the federal Environmental Protection Agency.
- B. The Air Pollution Control Board further finds that the adoption of the proposed rule amendments does not require the District to perform an assessment of socioeconomic impacts pursuant to Health and Safety Code section 40728.5 because the rule amendments will not significantly affect air quality or emissions limitations.
- C. The Air Pollution Control Board further finds that the adoption of the proposed amendments is categorically exempt from the provisions of the California Environmental Quality Act pursuant to California Code of Regulations, title 14, sections 15300 and 15308, as an action taken to assure the protection of the environment which will not have a significant effect on the environment and where the regulatory process involves procedures for protection of the environment.
- D. The Air Pollution Control Board further finds in accordance with Health and Safety Code section 40001 that the adoption of the proposed rule amendments alleviates a problem in that it will allow the District rather than the EPA to implement and enforce Subpart Db locally, and that the proposed amendments will promote the attainment of state and federal ambient air quality standards.

APCB Meeting 9/21/93 Agenda Item #1 Approved and/or authorized by the Board of Supervisors of the County of San Diego Date: 42/43 Minute Order No APCO / THOMAS J. PASTUSZKA

Clerk of the Board of Supervisors
By

Deputy Clerk

Re Rules and Regulations of the) Air Pollution Control District of San Diego County . . . . .

No. 93-403

TUESDAY, SEPTEMBER 21, 1993
RESOLUTION AMENDING SUBPART Db -STANDARDS OF PERFORMANCE FOR INDUSTRIAL-COMMERCIAL-INSTITUTIONAL STEAM GENERATING UNITS OF REGULATION X -STANDARD OF PERFORMANCE FOR NEW STATIONARY SOURCES (NSPS) OF THE RULES AND REGULATIONS OF THE SAN DIEGO COUNTY AIR POLLUTION CONTROL DISTRICT

On motion of Member <u>Slater</u>, seconded by Member <u>MacDonald</u> following resolution is adopted:

WHEREAS, the San Diego County Air Pollution Control Board, pursuant to Section 40702 of the Health and Safety Code, adopted Rules and Regulations of the Air Pollution Control District of San Diego County; and

WHEREAS, said Board now desires to amend said Rules and Regulations; and

WHEREAS, notice has been given and a public hearing has been had relating to the amendment of said Rules and Regulations pursuant to Section 40703 of the Health and Safety Code.

NOW THEREFORE IT IS RESOLVED AND ORDERED by the San Diego County Air Pollution Control Board that the Rules and Regulations of the Air Pollution Control District of San Diego County be and hereby are amended as follows:

Proposed amendments to Subpart Db of Regulation X: Rules 260.41b, 260.42b, 260.43b, 260.44b, 260.45b, 260.46b, 260.47b, 260.48b and 260.49b are to read as follows:

#### SUBPART Db - STANDARDS OF PERFORMANCE FOR INDUSTRIAL-COMMERCIAL-INSTITUTIONAL STEAM GENERATING UNITS

Rule 260.41b, Section (jj) is amended to read as follows:

#### DEFINITIONS RULE 260.41b.

As used in this subpart, all terms not defined herein shall have the meaning given them in the Act and in Subpart A of this Regulation.

"Low Sulfur Oil" means an oil that contains no more than 0.5 weight percent sulfur or that, when combusted without sulfur dioxide emission control, has a sulfur dioxide emission rate equal to or less than 215 nanograms per joule (0.5 lb/million BTU) heat input.

Subpart Db 7/13/93 9/21/93 (APDC1) 2. Rule 260.42b, Sections (a), (b) and (d) are amended; and Sections (e), (f) and (j) are added to read as follows:

#### RULE 260.42b. STANDARD FOR SULFUR DIOXIDE

(a) Except as provided in Sections (b), (c), (d) or (j), of this rule on and after the date on which the performance test is completed or required to be completed under Rule 260.8 of this Regulation, whichever date comes first, no owner or operator of an affected facility that combusts coal or oil shall cause to be discharged into the atmosphere any gases that contain sulfur dioxide in excess of 10 percent (0.10) of the potential sulfur dioxide emission rate (90 percent reduction) and that contain sulfur dioxide in excess of the emission limit determined according to the following formula:

$$E_S = (K_aH_a + K_bH_b)/(H_a + H_b)$$

where:

E<sub>s</sub> is the sulfur dioxide emission limit, in nanograms per joule (ng/J) or lbs/million BTU heat input,

K<sub>a</sub> is 520 ng/J (or 1.2 lbs/million BTU),

K<sub>b</sub> is 340 ng/J (or 0.80 lbs/million BTU),

H<sub>a</sub> is the heat input from the combustion of coal, in J (million BTU),

H<sub>b</sub> is the heat input from the combustion of oil, in J (million BTU).

Only the heat input supplied to the affected facility from the combustion of coal and oil is counted under this rule. No credit is provided for the heat input to the affected facility from the combustion of natural gas, wood, municipal-type solid waste, or other fuels or heat input to the affected facility from exhaust gases from another source, such as gas turbines, internal combustion engines, kilns, etc.

- (b) On and after the date on which the performance test is completed or is required to be completed under Rule 260.8 of this Regulation, whichever comes first, no owner or operator of an affected facility that combusts coal refuse alone in a fluidized bed combustion steam generating unit shall cause to be discharged into the atmosphere any gases that contain sulfur dioxide in excess of 20 percent of the potential sulfur dioxide emission rate (80 percent reduction) and that contain sulfur dioxide in excess of 520 ng/J (1.2 lbs/million BTU) heat input. If coal or oil is fired with coal refuse, the affected facility is subject to Section (a) or (d) of this rule, as applicable.
- (c) On and after the date on which the performance test is completed or is required to be completed under Rule 260.8 of this Regulation, whichever comes first, no owner or operator of an affected facility that combusts coal or oil, either alone or in combination with any other fuel, and that uses an emerging technology for the control of sulfur dioxide emissions, shall cause to be discharged into the atmosphere any gases that contain sulfur dioxide in excess of 50 percent of the potential sulfur dioxide emission rate (50 percent reduction) and that contain sulfur dioxide in excess of the emission limit determined according to the following formula:

$$E_S = (K_c H_c + K_d H_d)/(H_c + H_d)$$

where:

E<sub>s</sub> is the sulfur dioxide emission limit, expressed in ng/J (lbs/million BTU) heat input,

- K<sub>c</sub> is 260 ng/J (0.60 lbs/million BTU),
- $K_d$  is 170 ng/J (0.40 lbs/million BTU),
- H<sub>c</sub> is the heat input from the combustion of coal, J (million BTU), and
- H<sub>d</sub> is the heat input from the combustion of oil, J (million BTU).

Only the heat input supplied to the affected facility from the combustion of coal and oil is counted under this rule. No credit is provided for the heat input to the affected facility from the combustion of natural gas, wood, municipal-type solid waste, or other fuels, or from the heat input to the affected facility from exhaust gases from another source, such as gas turbines, internal combustion engines, kilns, etc.

- (d) On and after the date on which the performance test is completed or required to be completed under Rule 260.8 of this Regulation, whichever comes first, no owner or operator of an affected facility listed in Subsections (d)(1), (d)(2), or (d)(3), of this rule shall cause to be discharged into the atmosphere any gases that contain sulfur dioxide in excess of 520 ng/J (1.2 lbs/million BTU) heat input if the affected facility combusts coal, or 215 ng/J (0.50 lbs/million BTU) heat input if the affected facility combusts oil other than low sulfur oil. The following affected facilities under this section are not subject to percent reduction requirements:
  - (1) Affected facilities that have any annual capacity factor for coal and oil of 30 percent (0.30) or less and are subject to a federally enforceable permit limiting the operation of the affected facility to an annual capacity factor for coal and oil to 30 percent (0.30) or less;
    - (2) Affected facilities located in a noncontinental area; and
  - (3) Affected facilities combusting coal or oil, alone or in combination with any other fuel, in a duct burner as part of a combined cycle system where 30 percent (0.30) or less of the heat input to the steam generating unit is from combustion of coal and oil in the duct burner and 70 percent (0.70) or more of the heat input to the steam generating unit is from the exhaust gases entering the duct burner.
  - (e) Except as provided in Section (f) of this rule, compliance with the emission limits, fuel oil sulfur limits, and/or percent reduction requirements under this rule are determined on a rolling 60-minute average basis.
  - (f) Except as provided in Subsection (j)(2) of this rule, compliance with the emission limits or fuel oil sulfur limits under this rule is determined on a 24-hour average basis for affected facilities that have a federally enforceable permit limiting the annual capacity factor for oil to 10 percent or less, combust only low sulfur oil, and do not combust any other fuel.
  - (g) Except as provided in Section (i) of this rule, the sulfur dioxide emission limits and percent reduction requirements under this section apply at all times, including periods of startup, shutdown, and malfunction.
  - (h) Reductions in the potential sulfur dioxide emission rate through fuel pretreatment are not credited toward the percent reduction requirement under Section (c) of this rule unless:
    - (1) Fuel pretreatment results in a 50 percent or greater reduction in potential sulfur dioxide emissions; and

- (2) Emissions from the pretreated fuel (without combustion or post combustion sulfur dioxide control) are equal to or less than the emission limits specified in Section (c) of this rule.
- (i) An affected facility subject to Sections (a), (b), or (c) of this rule may combust low sulfur oil or natural gas when the sulfur dioxide control system is not being operated because of malfunction or maintenance of the sulfur dioxide control system.
- (j) Affected facilities combusting only low sulfur oil are not subject to the percent reduction requirements in any section of this rule. The owner or operator of an affected facility combusting low sulfur oil shall demonstrate that the oil meets the definition of low sulfur oil by:
  - (1) following the performance testing procedures as described in Rules 260.45b(c) or 260.45b(d), and following the monitoring procedures as described in Rules 260.47b(a) or 260.47b(b) to determine sulfur dioxide emission rate or fuel oil sulfur content; or
    - (2) maintaining fuel receipts as described in Rule 260:49b(r).
- 3. Rule 260.43b, Sections (b), (d) and (f) are amended to read as follows:

#### RULE 260.43b. STANDARD FOR PARTICULATE MATTER

- (b) On and after the date on which the performance test is completed or required to be completed under Rule 260.8 of this Regulation, whichever date comes first, no owner or operator of an affected facility that combusts oil (or mixtures of oil with other fuels) and uses a conventional or emerging technology to reduce sulfur dioxide emissions shall cause to be discharged into the atmosphere from that affected facility any gases that contain particulate matter in excess of 43 ng/J (0.10 lbs/million BTU) heat input.
- (d) On or after the date on which the initial performance test is completed or is required to be completed under Rule 260.8 of this Regulation, whichever date comes first, no owner or operator of an affected facility which combusts municipal-type solid wastes or mixtures of municipal-type solid waste with other fuels, shall cause to be discharged into the atmosphere from that affected facility any gases which contain particulate matter in excess of the following emission limits:
  - (1) 43 ng/J (0.10 lbs/million BTU) heat input;
- (i) If the affected facility combusts only municipal-type solid waste, or
- (ii) If the affected facility combusts municipal-type solid waste and other fuels and has an annual capacity factor for the other fuels of 10 percent (0.10) or less.
- (2) 86 ng/J (0.20 lbs/million BTU) heat input if the affected facility combusts municipal-type solid waste or municipal-type solid waste and other fuels, and
- (i) Has an annual capacity factor for municipal-type solid waste and other fuels of 30 percent (0.30) or less,
- (ii) Has a maximum heat input capacity of 73 MW (250 million BTU/hour) or less,

- (iii) Has a federally enforceable requirement limiting operation of the affected facility to an annual capacity factor of 30 percent (0.30) for municipal-type solid waste, or municipal-type solid waste and other fuels, and
- (iv) Construction of the affected facility commenced after June 19, 1984 but before November 25, 1986.
- (f) On and after the date on which the initial performance test is completed or is required to be completed under Rule 260.8 of this Regulation, whichever date comes first, no owner or operator of an affected facility that combusts coal, oil, wood, or mixtures of these fuels with any other fuels shall cause to be discharged into the atmosphere any gases which exhibit greater than 20 percent opacity (6-minute average), except for one 6-minute period per hour of not more than 27 percent opacity.
- 4. Rule 260.44b, Sections (a) and (b) are amended; and Sections (i), (j) and (k) are added to read as follows:

#### RULE 260.44b. STANDARD FOR NITROGEN OXIDES

(a) Except as provided under Section (k) of this rule, on and after the date on which the initial performance test is completed or is required to be completed under Rule 260.8 of this Regulation, whichever date comes first, no owner or operator of an affected facility subject to the provisions of this rule which combusts only coal, oil, or natural gas shall cause to be discharged into the atmosphere from that affected facility any gases which contain nitrogen oxides (expressed as NO<sub>2</sub>) in excess of the following emission limits:

(Figures in parenthesis represent lbs/million BTU heat input)

	FUEL	/STEAM GENERATIN	IG UNIT TYPE	NITROGEN OXIDES <sup>1</sup>
(1)	Natu	aral gas and distillate oil,	except (4):	
	(i)	Low heat release rate		43 (.10)
	(ii)	High heat release rate		86 (.20)
(2)	Resi	dual oil:		
	(i)	Low heat release rate		130 (.30)
	(ii)	High heat release rate		170 (.40)
(3)	Coa	1:		
	(i)	Mass-feed stoker		210 (.50)
	(ii)	Spreader stoker and flu	uidized bed combustion	260 (.60)
	(iii)	Pulverized coal		300 (.70)
	(iv)	Lignite, except (v)		260 (.60)

#### continued:

	(v)	Lignite mined in North Dakota, South Dakota, or Montana and combusted in a slag tap furnace	340 (.80)
	(vi)	Coal-derived synthetic fuels	210 (.50)
(4)	Duc	burner used in a combined cycle system:	
	(i)	Natural gas and distillate oil	86 (.20)
	(ii)	Residual Oil	170 (.40)

<sup>&</sup>lt;sup>1</sup> Emission limits ng/J (lbs/BTU) (expressed as NO<sub>2</sub>) heat input.

(b) Except as provided under Section (k) of this rule, on and after the date on which the initial performance test is completed or is required to be completed under Rule 260.8 of this Regulation, whichever date comes first, no owner or operator of an affected facility which simultaneously combusts mixtures of coal, oil, or natural gas shall cause to be discharged into the atmosphere from that affected facility any gases which contain nitrogen oxides in excess of a limit determined by use of the following formula:

$$E_n = [(EL_{go} \times H_{go}) + (EL_{ro} \times H_{ro}) + (EL_c \times H_c)]/(H_{go} + H_{ro} + H_c)$$

where:

E<sub>n</sub> is the nitrogen oxides emission limit, (calculated as NO<sub>2</sub>), ng/J (lbs/million BTU),

EL<sub>go</sub> is the appropriate emission limit from Subsection (a)(1) for combustion of natural gas or distillate oil, ng/J (lbs/million BTU),

H<sub>go</sub> is the heat input from combustion of natural gas or distillate oil,

EL<sub>ro</sub> is the appropriate emission limit from Subsection (a)(2) for combustion of residual oil,

H<sub>ro</sub> is the heat input from combustion of residual oil,

ELc is the appropriate emission limit from Subsection (a)(3) for combustion of coal, and

H<sub>c</sub> is the heat input from combustion of coal.

#### (i) [RESERVED]

- (j) Compliance with the emission limits under this rule is determined on a 24-hour average basis for the initial performance test and on a 3-hour average basis for subsequent performance tests for any affected facilities that:
  - (1) Combust, alone or in combination, only natural gas, distillate oil, or residual oil with a nitrogen content of 0.30 weight percent or less;

- (2) Have a combined annual capacity factor of 10 percent or less for natural gas, distillate oil, and residual oil with a nitrogen content of 0.30 weight percent or less; and
- (3) Are subject to a federally enforceable requirement limiting operation of the affected facility to the firing of natural gas, distillate oil, and/or residual oil with a nitrogen content of 0.30 weight percent or less and limiting operation of the affected facility to a combined annual capacity factor of 10 percent or less for natural gas, distillate oil, and residual oil and a nitrogen content of 0.30 weight percent or less.
- (k) Affected facilities that meet the criteria described in Subsections (j)(1), (2), and (3) of this rule, and that have a heat input capacity of 73 MW (250 million BTU/hour) or less, are not subject to the nitrogen oxides emission limits under this rule.
- 5. Rule 260.45b, Sections (c) and (d) are amended; and Section (j) is added to read as follows:

## RULE 260.45b. COMPLIANCE AND PERFORMANCE TEST METHODS AND PROCEDURES FOR SULFUR DIOXIDE

- (c) The owner or operator of an affected facility shall conduct performance tests to determine compliance with the percent of potential sulfur dioxide emission rate (%  $P_s$ ) and the sulfur dioxide emission rate ( $E_s$ ) pursuant to Rule 260.42b following the procedures listed below, except as provided under Section (d) of this rule.
  - (1) The initial performance test shall be conducted over the first 30 consecutive operating days of the steam generating unit. Compliance with the sulfur dioxide standards shall be determined using one-hour averages where an exceedance averaged over any hour is a violation. The first operating day included in the initial performance test shall be scheduled within 30 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup of the facility.
    - (2) If only coal or only oil is combusted, the following procedures are used:
    - (i) The procedures in Method 19 are used to determine the hourly sulfur dioxide emission rate ( $E_{ho}$ ) and the 30-day average emission rate ( $E_{ao}$ ). The hourly averages used to compute the 30-day averages are obtained from the continuous emission monitoring system of Rule 260.47b(a) or (b).
    - (ii) The percent of potential sulfur dioxide emission rate (% P<sub>s</sub>) emitted to the atmosphere is computed using the following formula:

% 
$$P_S = 100 (1 - \% R_g/100) (1 - \% R_f/100)$$

where:

- $\%\ R_g$  is the sulfur dioxide removal efficiency of the control device as determined by Method 19, in percent.
- % R<sub>f</sub> is the sulfur dioxide removal efficiency of fuel pretreatment as determined by Method 19, in percent.
- (3) If coal or oil is combusted with other fuels, the same procedures required in subsection (c)(2) of this rule are used, except as provided in the following:

(i)  $E_{ho}$ <sup>o</sup>, the adjusted hourly sulfur dioxide emission rate, is computed using the following formula:

$$E_{ho}^{o} = [E_{ho} - E_{w} (1 - X_{k})]/X_{k}$$

where:

E<sub>ho</sub>o is the adjusted hourly sulfur dioxide emission rate, ng/J (lbs/million BTU).

Eho is the hourly sulfur dioxide emission rate ng/J (lbs/million BTU).

E<sub>w</sub> is the sulfur dioxide concentration in fuels other than coal and oil combusted in the affected facility, as determined by the fuel sampling and analysis procedures in Method 19, ng/J (lbs/million BTU). The value E<sub>w</sub> for each fuel lot is used for each hourly average during the time that the lot is being combusted.

 $X_k$  is the fraction of total heat input from fuel combustion derived from coal, oil, or coal and oil, as determined by applicable procedures in Method 19.

(ii) To compute the percent of potential sulfur dioxide emission rate (%  $P_s$ ), an adjusted %  $R_g$  (%  $R_g$ °) is computed from the adjusted  $E_{ho}$ ° from Subsection (b)(3)(i) of this rule and an adjusted average sulfur dioxide inlet rate ( $E_{ai}$ °) using the following formula:

$$% R_g^o = 100 (1.0 - E_{ho}^o/E_{hi}^o)$$

The adjusted hourly sulfur dioxide inlet rate (Ehio) is computed using the following formula:

$$E_{hi}^{o} = [E_{hi} - E_{w}(1 - X_{k})]/X_{k}$$

where:

E<sub>hi</sub>o is the adjusted hourly sulfur dioxide inlet rate, ng/J (lbs/million BTU).

Ehi is the hourly sulfur dioxide inlet rate, ng/J (lbs/million BTU)

- (4) The owner or operator of an affected facility subject to Subsection (b)(3) of this rule does not have to measure parameters  $E_w$  or  $X_k$  if the owner or operator elects to assume that  $X_k = 1.0$ . Owners or operators of affected facilities who assume  $X_k = 1.0$  shall:
  - (i) Determine %  $P_s$  following the procedures in Subsection (c)(2) of this rule, and
  - (ii) Sulfur dioxide emissions (E<sub>s</sub>) are considered to be in compliance with sulfur dioxide emission limits under Rule 260.42b.
- (5) The owner or operator of an affected facility that qualifies under the provisions of Rule 260.42b(d) does not have to measure parameters  $E_w$  or  $X_k$  under Subsection (b)(3) of this rule if the owner or operator of the affected facility elects to measure sulfur dioxide emission rates of the coal or oil following the fuel sampling and analysis procedures under Method 19.

- (d) Except as provided in Section (j) of this rule, the owner or operator of an affected facility that combusts only low sulfur oil, has an annual capacity factor for oil of 10 percent (0.10) or less, and is subject to a federally enforceable requirement limiting operation of the affected facility to an annual capacity factor for oil of 10 percent (0.10) or less shall:
  - (1) Conduct the initial performance test over 24 consecutive steam generating unit operating hours at full load;
  - (2) Determine compliance with the standards after the initial performance test based on the arithmetic average of the hourly emissions data during each steam generating unit operating day if a continuous emission measurement system (CEMS) is used, or based on a daily average if Method 6B or fuel sampling and analysis procedures under Method 19 are used.
- (j) The owner or operator of an affected facility that combusts low sulfur oil is not subject to the compliance and performance testing requirements of this rule if the owner or operator obtains fuel receipts as described in Rule 260.49b(r).
- 6. Rule 260.46b, Sections (c) and (d) are amended; and Sections (g) and (h) are added to read as follows:

## RULE 260.46b. COMPLIANCE AND PERFORMANCE METHODS AND PROCEDURES FOR PARTICULATE MATTER AND NITROGEN OXIDES

- (c) Compliance with the nitrogen oxides emission standards under Rule 260.44b shall be determined through performance testing under Sections (e) or (f) of this rule, or under Sections (g) and (h) of this rule, as applicable.
- (d) To determine compliance with the particulate matter emission limits and opacity limits under Rule 260.43b, the owner or operator of an affected facility shall conduct an initial performance test as required under Rule 260.8 using the following procedures and reference methods:
  - (1) Method 3B is used for gas analysis when applying Method 5 or Method 17.
  - (2) Method 5, Method 5B or Method 17 shall be used to measure the concentration of particulate matter as follows:
- (i) Method 5 shall be used at affected facilities without wet Flue Gas Desulfurization (FGD) systems; and
  - (ii) Method 17 may be used at facilities with or without wet scrubber systems provided that the stack gas temperature does not exceed a temperature of 160°C (320°F). The procedures of Sections 2.1 and 2.3 of Method 5B may be used in Method 17 only if it is used after a wet FGD system. Do not use Method 17 after wet FGD systems if the effluent is saturated or laden with water droplets.
    - (iii) Method 5B is to be used only after wet FGD systems.
    - (3) Method 1 is used to select the sampling site and the number of traverse sampling points. The sampling time for each run is at least 120 minutes and the minimum sampling

- volume is 1.7 dscm (60 dscf) except that smaller sampling times or volumes may be approved by the Administrator when necessitated by process variables or other factors.
- (4) For Method 5, the temperature of the sample gas in the probe and filter holder is monitored and is maintained at 160°C (320°F).
- (5) For determination of particulate emissions, the oxygen or carbon dioxide sample is obtained simultaneously with each run of Method 5, Method 5B or Method 17 by traversing the duct at the same sampling location.
- (6) For each run using Method 5, Method 5B or Method 17, the emission rate expressed in ng/J heat input is determined using:
  - (i) The oxygen or carbon dioxide measurements and particulate matter measurements obtained under this rule.
    - (ii) The dry basis F<sub>f</sub> factor, and
  - (iii) The dry basis emission rate calculation procedure contained in Method 19 (Appendix A).
  - (7) Method 9 is used for determining the opacity of stack emissions.
- (g) The owner or operator of an affected facility described in Rule 260.44b(j) or 260.44b(k) shall demonstrate the maximum heat input capacity of the steam generating unit by operating the facility at maximum capacity for 24 hours. The owner or operator of an affected facility shall determine the maximum heat input capacity using the heat loss method described in Sections 5 and 7.3 of the ASME Power Test Codes 4.1. This demonstration of maximum heat input capacity shall be made during the initial performance test for affected facilities that meet the criteria of Rule 260.44b(j). It shall be made within 60 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup of each facility, for affected facilities meeting the criteria of Rule 260.44b(k). Subsequent demonstrations maybe required by the Control Officer at any other time. If this demonstration indicates that the maximum heat input capacity of the affected facility is less than that stated by the manufacturer of the affected facility, the maximum heat input capacity determined during this demonstration shall be used to determine the capacity utilization rate for the affected facility. Otherwise, the maximum heat input capacity provided by the manufacturer is used.
- (h) The owner or operator of an affected facility described in Rule 260.44b(j) that has a heat input capacity greater than 73 MW (250 million BTU/hour) shall:
  - (1) Conduct an initial performance test as required under Rule 260.8 over a minimum of 24 consecutive steam generating unit operating hours at maximum heat input capacity to demonstrate compliance with the nitrogen oxides emission standards under Rule 260.44b using Method 7, 7A, 7E, or other approved reference methods; and
  - (2) Conduct subsequent performance tests once per calendar year or every 400 hours of operation (whichever comes first) to demonstrate compliance with the nitrogen oxides emission standards under Rule 260.44b over a minimum of 3 consecutive steam generating unit operating hours at maximum heat input capacity using Method 7, 7A, 7E, or other approved reference methods.

7. Rule 260.47b, Sections (a) and (b) are amended; and Section (f) is added to read as follows:

#### RULE 260.47b. EMISSION MONITORING FOR SULFUR DIOXIDE

- (a) Except as provided in Sections (b) and (f) of this rule, the owner or operator of an affected facility subject to the sulfur dioxide standards under Rule 260.42b shall install, calibrate, maintain, and operate continuous emission monitoring system (CEMS) for measuring sulfur dioxide concentrations and either oxygen (O<sub>2</sub>) or carbon dioxide (CO<sub>2</sub>) concentrations and shall record the output of the systems. The sulfur dioxide and either oxygen or carbon dioxide concentrations shall both be monitored at the inlet and outlet of the sulfur dioxide control device.
- (b) As an alternative to operating CEMS as required under Section (a) of this rule, an owner or operator may elect to determine the average sulfur dioxide emissions and percent reduction by:
  - (1) Collecting coal or oil samples in an as-fired condition at the inlet to the steam generating unit and analyzing them for sulfur and heat content according to Method 19. Method 19 provides procedures for converting these measurements into the format to be used in calculating the average sulfur dioxide input rate, or
  - (2) Measuring sulfur dioxide according to Method 6B at the inlet or outlet to the sulfur dioxide control system. An initial stratification test is required to verify the adequacy of the Method 6B sampling location. The stratification test shall consist of three paired runs of a suitable sulfur dioxide and carbon dioxide measurement train operated at the candidate location and a second similar train operated according to the procedures in Section 3.2 and the applicable procedures in Section 7 of Performance Specification 2. Method 6B, Method 6A, or a combination of Method 6 and 3 or 3B or Methods 6C and 3A are suitable measurement techniques. If Method 6B is used for the second train, sampling time and timer operation may be adjusted for the stratification test as long as an adequate sample volume is collected; however, both sampling trains are to be operated similarly. For the location to be adequate for Method 6B 24-hour tests, the mean of the absolute difference between the three paired runs must be less than 10 percent.
  - (3) A daily sulfur dioxide emission rate, E<sub>D</sub>, shall be determined using the procedure described in Method 6A, Section 7.6.2 (Equation 6A-8) and stated in ng/J (lbs/million BTU) heat input.

#### (4) [RESERVED]

- (f) The owner or operator of an affected facility that combusts low sulfur oil is not subject to the emission monitoring requirements of this rule if the owner or operator obtains fuel receipts as described in Rule 260.49b(r).
- 8. Rule 260.48b, Section (b) is amended; and Section (i) is added to read as follows:

## RULE 260.48b. EMISSION MONITORING FOR PARTICULATE MATTER AND NITROGEN OXIDES

(b) Except as provided in Sections (g), (h) and (i) of this rule, the owner or operator of an affected facility subject to the nitrogen oxides standard of Rule 260.44b shall install, calibrate, maintain, and operate a continuous monitoring system for measuring nitrogen oxides emissions discharged to the atmosphere and record the output of the system.

- (i) The owner or operator of an affected facility described in Rules 260.44b(j) or 260.44b(k) is not required to install or operate a continuous monitoring system for measuring nitrogen oxides emissions.
- 9. Rule 260.49b, Sections (a), (b), (e) and (g) are amended; Sections (p), (q) and (r) are added to read as follows:

#### RULE 260.49b. REPORTING AND RECORDKEEPING REQUIREMENTS

- (a) The owner or operator of each affected facility shall submit notification of the date of initial startup, as provided by Rule 260.7. This notification shall include:
  - (1) The design heat input capacity of the affected facility and identification of the fuels to be combusted in the affected facility.
  - (2) If applicable, a copy of any federally enforceable requirement that limits the annual capacity factor for any fuel or mixture of fuels under Rules 260.42b(d)(1), 260.42b(f)(1), 260.43b(a)(2), 260.43b(a)(3)(iii), 260.43b(c)(2)(ii), 260.43b(d)(2)(iii), 260.44b(c), 260.44b(d), 260.44b(e), 260.44b(i), 260.44b(j), 260.44b(k), 260.45b(d), 260.46b(g), 260.46b(h), or 260.48b(i).
  - (3) The annual capacity factor at which the owner or operator anticipates operating the facility based on all fuels fired and based on each individual fuel fired, and
  - (4) Notification that an emerging technology will be used for controlling emissions of sulfur dioxide. The Administrator will examine the description of the emerging technology and will determine whether the technology qualifies as an emerging technology. In making this determination, the Administrator may require the owner or operator of the affected facility to submit additional information concerning the control device. The affected facility is subject to the provisions of Rule 260.42b(a) unless and until this determination is made by the Administrator.
- (b) The owner or operator of each affected facility subject to the sulfur dioxide, particulate matter and nitrogen oxides emission limits under Rule 260.42b, 260.43b, and 260.44b, shall submit to the Control Officer the performance test data from the initial performance test and the performance evaluation of the CEMS using the applicable performance specifications in Appendix B. The owner or operator of each affected facility described in Rules 260.44b(j) or 260.44b(k) shall submit to the Control Officer the maximum heat input capacity data from the demonstration of the maximum heat input capacity of the affected facility.
- (e) For an affected facility that combusts residual oil and meets the criteria under Rules 260.44b(j), 260.44b(k), or 260.46b(e)(4), the owner or operator shall maintain records of the nitrogen content of the oil combusted in the affected facility and calculate the average fuel nitrogen content on a per calendar quarter basis. The nitrogen content shall be determined using ASTM Method D3431-80, Test Method for Trace Nitrogen in Liquid Petroleum Hydrocarbons, (IBR see 40 CFR Section 60.17), or fuel specification data obtained from fuel suppliers. If residual oil blends are being combusted, fuel nitrogen specifications may be prorated based on the ratio of residual oils of different nitrogen content in the fuel blend.

- (g) Except as provided under Section (p) of this rule, the owner or operator of an affected facility subject to the nitrogen oxides standards under Rule 260.44b shall maintain records of the following information for each steam generating unit operating day:
  - (1) Calendar date.
  - (2) The average hourly nitrogen oxides emission rates (expressed as NO<sub>2</sub>) (ng/J or lbs/million BTU heat input) measured or predicted.
    - (3) [RESERVED]
  - (4) Identification of the steam generating unit operating days when any calculated hourly average nitrogen oxides emission rates are in excess of the nitrogen oxides emissions standards under Rule 260.44b, with the reasons for such excess as well as a description of corrective actions taken.
  - (5) Identification of the steam generating unit operating days for which pollutant data have not been obtained, including reasons for not obtaining sufficient data and a description of corrective actions taken.
  - (6) Identification of the times when emission data have been excluded from the calculation of average emission rates and the reasons for excluding data.
  - (7) Identification of "F" factor used for calculations, method of determination, and type of fuel combusted.
  - (8) Identification of the times when the pollutant concentration exceeded full span of the continuous monitoring system.
  - (9) Description of any modifications to the continuous monitoring system that could affect the ability of the continuous monitoring system to comply with Performance Specifications 2 or 3.
  - (10) Results of daily CEMS drift tests and quarterly accuracy assessments as required under Appendix F, Procedure 1.
  - (p) The owner or operator of an affected facility described in Rules 260.44b(j) or 260.44b(k) shall maintain records of the following information for each steam generating unit operating day:
    - (1) Calendar date,
    - (2) The number of hours of operation, and
    - (3) A record of the hourly steam load.
  - (q) The owner or operator of an affected facility described in Rules 260.44b(j) or 260.44b(k) shall submit to the Control Officer on a quarterly basis:
    - (1) The annual capacity factor over the previous 12 months,
    - (2) The average fuel nitrogen content during the quarter, if residual oil was fired; and

- (3) If the affected facility meets the criteria described in Rule 260.44b(j), the results of any nitrogen oxides emission tests required during the quarter, the hours of operation during the quarter, and the hours of operation since the last nitrogen oxides emission test.
- The owner or operator of an affected facility who elects to demonstrate that the affected facility combusts only low sulfur oil under Rule 260.42b(j)(2) shall obtain and maintain at the affected facility fuel receipts from the fuel supplier which certify that the oil meets the definition of distillate oil as defined in Rule 260.41b. For the purposes of this rule, the oil need not meet the fuel nitrogen content specification in the definition of distillate oil. Quarterly reports shall be submitted to the Control Officer certifying that only low sulfur oil meeting this definition was combusted in the affected facility during the preceding quarter.

IT IS FURTHER RESOLVED AND ORDERED that the amendments to Subpart Db of Regulation X shall take effect upon adoption.

PASSED AND ADO	<b>PTED</b> by the Air Pollution	Control Board	of the San Diego County
Air Pollution Control Distri	ct, State of California, this	21st	day of
September	, 1993 by the following vote	es:	

AYES: Members Bilbray, Jacob, Slater, Williams, MacDonald

NOES: Members None ABSENT: Members None

APPROVED AS TO FORM AND LEGALITY COUNTY COUNSEL

STATE OF CALIFORNIA) SS County of San Diego)

I hereby certify that the foregoing is a full, true, and correct copy of the Original Resolution which is now on file in my office.

THOMAS J. PASTUSZKA

Clerk of the Board of Supervisors

Dora Ceseña, Deputy

Resolution No. 93-403 9/21/93 (APCD1) Subpart Db

#### CHANGE COPY

Re Rules and Regulations of the)
Air Pollution Control District
of San Diego County.....

RESOLUTION AMENDING SUBPART Db STANDARDS OF PERFORMANCE FOR
INDUSTRIAL-COMMERCIAL-INSTITUTIONAL
STEAM GENERATING UNITS OF REGULATION X STANDARD OF PERFORMANCE FOR NEW STATIONARY SOURCES (NSPS)
OF THE RULES AND REGULATIONS OF THE
SAN DIEGO COUNTY AIR POLLUTION CONTROL DISTRICT

On motion of Member	, seconded by Member		the
following resolution is adopted:	A - Madali - J	High and the state of the state	

WHEREAS, the San Diego County Air Pollution Control Board, pursuant to Section 40702 of the Health and Safety Code, adopted Rules and Regulations of the Air Pollution Control District of San Diego County; and

WHEREAS, said Board now desires to amend said Rules and Regulations; and

WHEREAS, notice has been given and a public hearing has been had relating to the amendment of said Rules and Regulations pursuant to Section 40703 of the Health and Safety Code.

NOW THEREFORE IT IS RESOLVED AND ORDERED by the San Diego County Air Pollution Control Board that the Rules and Regulations of the Air Pollution Control District of San Diego County be and hereby are amended as follows:

Proposed amendments to Subpart Db of Regulation X: Rules 260.41b, 260.42b, 260.43b, 260.44b, 260.45b, 260.46b, 260.47b, 260.48b and 260.49b are amended to read as follows:

#### SUBPART Db - STANDARDS OF PERFORMANCE FOR INDUSTRIAL-COMMERCIAL-INSTITUTIONAL STEAM GENERATING UNITS

1. Rule 260.41b, Section (jj) is amended to read as follows:

#### RULE 260.41b. DEFINITIONS

As used in this subpart, all terms not defined herein shall have the meaning given them in the Act and in Subpart A of this Regulation.

(jj) "Very Low Sulfur Oil" means distillate oil or residual oil that when combusted without post combustion SO<sub>2</sub> control has an SO<sub>2</sub> emission rate equal to or less than 130 nanograms per joule (0.30 lbs SO<sub>2</sub>/million BTU). an oil that contains no more than 0.5 weight percent

## sulfur or that, when combusted without sulfur dioxide emission control, has a sulfur dioxide emission rate equal to or less than 215 nanograms per joule (0.5 lb/million BTU) heat input.

2. Rule 260.42b, Sections (a), (b) and (d) are amended; and Sections (e), (f) and (j) are added to read as follows:

#### RULE 260.42b. STANDARD FOR SULFUR DIOXIDE

(a) Except as provided in Sections (b), (c), or (d) or (i), of this rule on and after the date on which the performance test is completed or required to be completed under Rule 260.8 of this Regulation, whichever date comes first, no owner or operator of an affected facility that combusts coal or oil shall cause to be discharged into the atmosphere any gases that contain sulfur dioxide in excess of 10 percent (0.10) of the potential sulfur dioxide emission rate (90 percent reduction) and that contain sulfur dioxide in excess of the emission limit determined according to the following formula:

$$E_s = (K_a H_a + K_b H_b)/(H_a + H_b)$$

where:

E<sub>s</sub> is the sulfur dioxide emission limit, in nanograms per joule (ng/J) or lbs/million BTU heat input,

K<sub>a</sub> is 520 ng/J (or 1.2 lbs/million BTU),

K<sub>b</sub> is 340 ng/J (or 0.80 lbs/million BTU),

H<sub>a</sub> is the heat input from the combustion of coal, in J (million BTU),

H<sub>b</sub> is the heat input from the combustion of oil, in J (million BTU).

Only the heat input supplied to the affected facility from the combustion of coal and oil is counted under this rule. No credit is provided for the heat input to the affected facility from the combustion of natural gas, wood, municipal-type solid waste, or other fuels or heat input to the affected facility from exhaust gases from another source, such as gas turbines, internal combustion engines, kilns, etc.

- (b) On and after the date on which the performance test is completed or is required to be completed under Rule 260.8 of this Regulation, whichever comes first, no owner or operator of an affected facility that combusts coal refuse alone in a fluidized bed combustion steam generating unit shall cause to be discharged into the atmosphere any gases that contain sulfur dioxide in excess of 20 percent of the potential sulfur dioxide emission rate (80 percent reduction) and that contain sulfur dioxide in excess of 520 ng/J (1.2 lbs/million BTU) heat input. If coal or oil is fired with coal refuse, the affected facility is subject to Section (a) or (d) of this rule, as applicable.
- (c) On and after the date on which the performance test is completed or is required to be completed under Rule 260.8 of this Regulation, whichever comes first, no owner or operator of an affected facility that combusts coal or oil, either alone or in combination with any other fuel, and that uses an emerging technology for the control of sulfur dioxide emissions, shall cause to be discharged into the atmosphere any gases that contain sulfur dioxide in excess of 50 percent of the potential sulfur dioxide emission rate (50 percent reduction) and that contain sulfur dioxide in excess of the emission limit determined according to the following formula:

 $E_s = (K_c H_c + K_d H_d)/(H_c + H_d)$ 

where:

Es is the sulfur dioxide emission limit, expressed in ng/J (lbs/million BTU) heat input,

K<sub>c</sub> is 260 ng/J (0.60 lbs/million BTU),

 $K_d$  is 170 ng/J (0.40 lbs/million BTU),

H<sub>c</sub> is the heat input from the combustion of coal, J (million BTU), and

H<sub>d</sub> is the heat input from the combustion of oil, J (million BTU).

Only the heat input supplied to the affected facility from the combustion of coal and oil is counted under this rule. No credit is provided for the heat input to the affected facility from the combustion of natural gas, wood, municipal-type solid waste, or other fuels, or from the heat input to the affected facility from exhaust gases from another source, such as gas turbines, internal combustion engines, kilns, etc.

- (d) On and after the date on which the performance test is completed or required to be completed under Rule 260.8 of this Regulation, whichever comes first, no owner or operator of an affected facility listed in Subsections (d)(1), (d)(2), or (d)(3), or (4) of this rule shall cause to be discharged into the atmosphere any gases that contain sulfur dioxide in excess of 520 ng/J (1.2 lbs/million BTU) heat input if the affected facility combusts coal, or 130 215 ng/J (0.30 0.50 lbs/million BTU) heat input if the affected facility combusts oil other than low sulfur oil. The following affected facilities under this section are not subject to P percent reduction requirements: are not applicable to affected facilities under this section
  - (1) Affected facilities that have any annual capacity factor for coal and oil of 30 percent (0.30) or less and are subject to a federally enforceable permit limiting the operation of the affected facility to an annual capacity factor for coal and oil to 30 percent (0.30) or less;
    - (2) Affected facilities located in a noncontinental area; and
  - (3) Affected facilities combusting coal or oil, alone or in combination with any other fuel, in a duct burner as part of a combined cycle system where 30 percent (0.30) or less of the heat input to the steam generating unit is from combustion of coal and oil in the duct burner and 70 percent (0.70) or more of the heat input to the steam generating unit is from the exhaust gases entering the duct burner; or,
    - (4) Affected facilities combusting very low sulfur oil.
- (e) Except as provided in Section (f) of this rule, compliance with the emission limits, fuel oil sulfur limits, and/or percent reduction requirements under this rule are determined on a rolling 60-minute average basis. Compliance with the sulfur dioxide emission limit(s) and percent reduction requirements under this rule are determined on a rolling 60 minute average basis.
- (f) [RESERVED] Except as provided in Subsection (j)(2) of this rule, compliance with the emission limits or fuel oil sulfur limits under this rule is determined on a 24-hour average basis for affected facilities that have a federally enforceable permit limiting the annual capacity factor for oil to 10 percent or less, combust only low sulfur oil, and do not combust any other fuel,

- (g) Except as provided in Section (i) of this rule, the sulfur dioxide emission limits and percent reduction requirements under this section apply at all times, including periods of startup, shutdown, and malfunction.
- (h) Reductions in the potential sulfur dioxide emission rate through fuel pretreatment are not credited toward the percent reduction requirement under Section (c) of this rule unless:
  - (1) Fuel pretreatment results in a 50 percent or greater reduction in potential sulfur dioxide emissions; and
  - (2) Emissions from the pretreated fuel (without combustion or post combustion sulfur dioxide control) are equal to or less than the emission limits specified in Section (c) of this rule.
- (i) An affected facility subject to Sections (a), (b), or (c) of this rule may combust very low sulfur oil or natural gas when the sulfur dioxide control system is not being operated because of malfunction or maintenance of the sulfur dioxide control system.
- (i) Affected facilities combusting only low sulfur oil are not subject to the percent reduction requirements in any section of this rule. The owner or operator of an affected facility combusting low sulfur oil shall demonstrate that the oil meets the definition of low sulfur oil by:
  - (1) following the performance testing procedures as described in Rules 260.45b(c) or 260.45b(d), and following the monitoring procedures as described in Rules 260.47b(a) or 260.47b(b) to determine sulfur dioxide emission rate or fuel oil sulfur content; or
    - (2) maintaining fuel receipts as described in Rule 260.49b(r).
- 3. Rule 260.43b, Sections (b), (d) and (f) are amended to read as follows:

#### RULE 260.43b. STANDARD FOR PARTICULATE MATTER

- (b) On and after the date on which the performance test is completed or required to be completed under Rule 260.8 of this Regulation, whichever date comes first, no owner or operator of an affected facility that combusts oil (or that combusts mixtures of oil with other fuels) and uses a conventional or emerging technology to reduce sulfur dioxide emissions shall cause to be discharged into the atmosphere from that affected facility any gases that contain particulate matter in excess of 43 ng/J (0.10 lbs/million BTU) heat input.
- (d) On or after the date <u>on</u> which the initial performance test is completed or is required to be completed under Rule 260.8 of this Regulation, whichever date comes first, no owner or operator of an affected facility which combusts municipal-type solid wastes or mixtures of municipal-type solid waste with other fuels, shall cause to be discharged into the atmosphere from that affected facility any gases which contain particulate matter in excess of the following emission limits:
  - (1) 43 ng/J (0.10 lbs/million BTU) heat input;
    - (i) If the affected facility combusts only municipal-type solid waste, or
  - (ii) If the affected facility combusts municipal-type solid waste and other fuels and has an annual capacity factor for the other fuels of 10 percent (0.10) or less.

- (2) 86 ng/J (0.20 lbs/million BTU) heat input if the affected facility combusts municipal-type solid waste or municipal-type solid waste and other fuels, and
  - (i) Has an annual capacity factor for municipal-type solid waste and other fuels of 30 percent (0.30) or less,
  - (ii) Has a maximum heat input capacity of 73 MW (250 million BTU/hour) or less,
  - (iii) Has a federally enforceable requirement limiting operation of the affected facility to an annual capacity factor of 30 percent (0.30) for municipal-type solid waste, or municipal-type solid waste and other fuels, and
  - (iv) Construction of the affected facility commenced after June 19, 1984 but before November 25, 1986.
- (f) On and after the date on which the initial performance test is completed or is required to be completed under Rule 260.8 of this Regulation, whichever date comes first, no owner or operator of an affected facility that combusts coal, oil, wood, or mixtures of these fuels with any other fuels subject to the particulate matter emission limits under Sections (a), (b) or (c) of this rule shall cause to be discharged into the atmosphere any gases which exhibit greater than 20 percent opacity (6-minute average), except for one 6-minute period per hour of not more than 27 percent opacity.
- 4. Rule 260.44b, Sections (a) and (b) are amended; and Sections (i), (j) and (k) are added to read as follows:

#### RULE 260.44b. STANDARD FOR NITROGEN OXIDES

(a) Except as provided under Section (k) of this rule, on On and after the date on which the initial performance test is completed or is required to be completed under Rule 260.8 of this Regulation, whichever date comes first, no owner or operator of an affected facility subject to the provisions of this rule which combusts only coal, oil, or natural gas shall cause to be discharged into the atmosphere from that affected facility any gases which contain nitrogen oxides (expressed as NO<sub>2</sub>) in excess of the following emission limits:

(Figures in parenthesis represent lbs/million BTU heat input)

To the	FUEL/STEAM GENERATING UNIT TYPE	NITROGEN OXIDES <sup>1</sup>
(1)	Natural gas and distillate oil, except (4):	
	(i) Low heat release rate	43 (.10)
	(ii) High heat release rate	86 (.20)
(2)	Residual oil:	
	(i) Low heat release rate	130 (.30)
	(ii) High heat release rate	170 (.40)

#### continued:

#### (3) Coal:

	(i)	Mass-feed stoker	210 (.50)
	(ii)	Spreader stoker and fluidized bed combustion	260 (.60)
	(iii)	Pulverized coal	300 (.70)
80	(iv)	Lignite, except (v)	260 (.60)
	(v)	Lignite mined in North Dakota, South Dakota, or Montana and combusted in a slag tap furnace	340 (.80)
	(vi)	Coal-derived synthetic fuels	210 (.50)
(4)	Duct	burner used in a combined cycle system:	
	(i)	Natural gas and distillate oil	86 (.20)
	(ii)	Residual Oil	170 (.40)

<sup>&</sup>lt;sup>1</sup> Emission limits ng/J (lbs/BTU) (expressed as NO<sub>2</sub>) heat input.

(b) Except as provided under Section (k) of this rule, on On and after the date on which the initial performance test is completed or is required to be completed under Rule 260.8 of this Regulation, whichever date comes first, no owner or operator of an affected facility which simultaneously combusts mixtures of coal, oil, or natural gas shall cause to be discharged into the atmosphere from that affected facility any gases which contain nitrogen oxides in excess of a limit determined by use of the following formula:

$$E_n = [(EL_{go} \times H_{go}) + (EL_{ro} \times H_{ro}) + (EL_c \times H_c)]/(H_{go} + H_{ro} + H_c)$$

where:

E<sub>n</sub> is the nitrogen oxides emission limit, (calculated as NO<sub>2</sub>), ng/J (lbs/million BTU),

EL<sub>go</sub> is the appropriate emission limit from Subsection (a)(1) for combustion of natural gas or distillate oil, ng/J (lbs/million BTU),

Hgo is the heat input from combustion of natural gas or distillate oil,

EL<sub>ro</sub> is the appropriate emission limit from Subsection (a)(2) for combustion of residual oil,

H<sub>ro</sub> is the heat input from combustion of residual oil,

ELc is the appropriate emission limit from Subsection (a)(3) for combustion of coal, and

H<sub>c</sub> is the heat input from combustion of coal.

#### (i) [RESERVED]

- (i) Compliance with the emission limits under this rule is determined on a 24-hour average basis for the initial performance test and on a 3-hour average basis for subsequent performance tests for any affected facilities that:
  - (1) Combust, alone or in combination, only natural gas, distillate oil, or residual oil with a nitrogen content of 0.30 weight percent or less;
  - (2) Have a combined annual capacity factor of 10 percent or less for natural gas, distillate oil, and residual oil with a nitrogen content of 0.30 weight percent or less; and
  - (3) Are subject to a federally enforceable requirement limiting operation of the affected facility to the firing of natural gas, distillate oil, and/or residual oil with a nitrogen content of 0.30 weight percent or less and limiting operation of the affected facility to a combined annual capacity factor of 10 percent or less for natural gas, distillate oil, and residual oil and a nitrogen content of 0.30 weight percent or less.
- (k) Affected facilities that meet the criteria described in Subsections (j)(1), (2), and (3) of this rule, and that have a heat input capacity of 73 MW (250 million BTU/hour) or less, are not subject to the nitrogen oxides emission limits under this rule.
- 5. Rule 260.45b, Sections (c) and (d) are amended; and Section (j) is added to read as follows:

## RULE 260.45b. COMPLIANCE AND PERFORMANCE TEST METHODS AND PROCEDURES FOR SULFUR DIOXIDE

- (c) The owner or operator of an affected facility shall conduct performance tests to determine compliance with the percent of potential sulfur dioxide emission rate (% P<sub>S</sub>) and the sulfur dioxide emission rate (E<sub>S</sub>) pursuant to Rule 260.42b following the procedures listed below, except as provided under Section (d) of this rule.
  - (1) The initial performance test shall be conducted over the first 30 consecutive operating days of the steam generating unit. Compliance with the sulfur dioxide standards shall be determined using one-hour averages where an exceedance averaged over any hour is a violation. The first operating day included in the initial performance test shall be scheduled within 30 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup of the facility.
    - (2) If only coal or only oil is combusted, the following procedures are used:
    - (i) The procedures in Method 19 are used to determine the hourly sulfur dioxide emission rate  $(E_{ho})$  and the 30-day average emission rate  $(E_{ao})$ . The hourly averages used to compute the 30-day averages are obtained from the continuous emission monitoring system of Rule 260.47b(a) or (b).
    - (ii) The percent of potential sulfur dioxide emission rate (% P<sub>s</sub>) emitted to the atmosphere is computed using the following formula:

% 
$$P_s = 100 (1 - \% R_g/100) (1 - \% R_f/100)$$

#### where:

- % R<sub>g</sub> is the sulfur dioxide removal efficiency of the control device as determined by Method 19, in percent.
- % R<sub>f</sub> is the sulfur dioxide removal efficiency of fuel pretreatment as determined by Method 19, in percent.
- (3) If coal or oil is combusted with other fuels, the same procedures required in subsection (c)(2) of this rule are used, except as provided in the following:
  - (i)  $E_{ho}^{0}$ , the adjusted hourly sulfur dioxide emission rate, is computed using the following formula:

$$E_{ho}^{o} = [E_{ho} - E_{w} (1 - X_{k})]/X_{k}$$

where:

E<sub>ho</sub>o is the adjusted hourly sulfur dioxide emission rate, ng/J (lbs/million BTU).

Eho is the hourly sulfur dioxide emission rate ng/J (lbs/million BTU).

E<sub>w</sub> is the sulfur dioxide concentration in fuels other than coal and oil combusted in the affected facility, as determined by the fuel sampling and analysis procedures in Method 19, ng/J (lbs/million BTU). The value E<sub>w</sub> for each fuel lot is used for each hourly average during the time that the lot is being combusted.

X<sub>k</sub> is the fraction of total heat input from fuel combustion derived from coal, oil, or coal and oil, as determined by applicable procedures in Method 19.

(ii) To compute the percent of potential sulfur dioxide emission rate (%  $P_s$ ), an adjusted %  $R_g$  (%  $R_g^o$ ) is computed from the adjusted  $E_{ho}$  ( $E_{ho}^o$ ) from Subsection (b)(3)(i) of this rule and an adjusted average sulfur dioxide inlet rate ( $E_{ai}^o$ ) using the following formula:

$$\% R_g^o = 100 (1.0 - E_{ho}^o/E_{ai}^o E_{hi}^o)$$

To compute  $E_{hi}^0$ ; an The adjusted hourly sulfur dioxide inlet rate  $(E_{hi}^0)$  is used. The  $E_{hi}$  is computed using the following formula:

$$E_{hi}^{o} = [E_{hi} - E_{w}(1 - X_{k})]/X_{k}$$

where:

 $E_{hi}$  is the adjusted hourly sulfur dioxide inlet rate, ng/J (lbs/million BTU).

Ehi is the hourly sulfur dioxide inlet rate, ng/J (lbs/million BTU)

(4) The owner or operator of an affected facility subject to Subsection (b)(3) of this rule does not have to measure parameters  $E_w$  or  $X_k$  if the owner or operator elects to assume that  $X_k = 1.0$ . Owners or operators of affected facilities who assume  $X_k = 1.0$  shall:

- (i) Determine %  $P_s$  following the procedures in Subsection (c)(2) of this rule, and
- (ii) Sulfur dioxide emissions (E<sub>s</sub>) are considered to be in compliance with sulfur dioxide emission limits under Rule 260.42b.
- (5) The owner or operator of an affected facility that qualifies under the provisions of Rule 260.42b(d) does not have to measure parameters  $E_w$  or  $X_k$  under Subsection (b)(3) of this rule if the owner or operator of the affected facility elects to measure sulfur dioxide emission rates of the coal or oil following the fuel sampling and analysis procedures under Method 19.
- (d) Except as provided in Section (i) of this rule, the The owner or operator of an affected facility that combusts only low sulfur oil, emitting less than 130 ng/J (0.3 lbs/million BTU) SO<sub>2</sub>, has an annual capacity factor for oil of 10 percent (0.10) or less, and is subject to a federally enforceable requirement limiting operation of the affected facility to an annual capacity factor for oil of 10 percent (0.10) or less shall:
  - (1) Conduct the initial performance test over 24 consecutive steam generating unit operating hours at full load;
  - (2) Determine compliance with the standards after the initial performance test based on the arithmetic average of the hourly emissions data during each steam generating unit operating day if a continuous emission measurement system (CEMS) is used, or based on a daily average if Method 6B or fuel sampling and analysis procedures under Method 19 are used.
- (i) The owner or operator of an affected facility that combusts low sulfur oil is not subject to the compliance and performance testing requirements of this rule if the owner or operator obtains fuel receipts as described in Rule 260.49b(r).
- 6. Rule 260.46b, Sections (c) and (d) are amended; and Sections (g) and (h) are added to read as follows:

## RULE 260.46b. COMPLIANCE AND PERFORMANCE METHODS AND PROCEDURES FOR PARTICULATE MATTER AND NITROGEN OXIDES

- (c) Compliance with the nitrogen oxides emission standards under Rule 260.44b shall be determined through performance testing described in under Sections (e) or (f) of this rule, or under Sections (g) and (h) of this rule, as applicable.
- (d) To determine compliance with the particulate matter emission limits and opacity limits under Rule 260.43b, the owner or operator of an affected facility shall conduct an initial performance test as required under Rule 260.8 using the following procedures and reference methods:

  The following procedures and reference methods are used to determine compliance with the standards for particulate matter emissions under Rule 260.43b.
  - (1) Method 3B is used for gas analysis when applying Method 5 or Method 17.

- (2) Method 5, Method 5B or Method 17 shall be used to measure the concentration of particulate matter as follows:
  - (i) Method 5 shall be used at affected facilities without wet Flue Gas Desulfurization (FGD) systems; and
  - (ii) Method 17 may be used at facilities with or without wet scrubber systems provided that the stack gas temperature does not exceed a temperature of 160°C (320°F). The procedures of Sections 2.1 and 2.3 of Method 5B may be used in Method 17 only if it is used after a wet FGD system. Do not use Method 17 after wet FGD systems if the effluent is saturated or laden with water droplets.
    - (iii) Method 5B is to be used only after wet FGD systems.
- (3) Method 1 is used to select the sampling site and the number of traverse sampling points. The sampling time for each run is at least 120 minutes and the minimum sampling volume is 1.7 dscm (60 dscf) except that smaller sampling times or volumes may be approved by the Administrator when necessitated by process variables or other factors.
  - (4) For Method 5, the temperature of the sample gas in the probe and filter holder is monitored and is maintained at 160°C (320°F).
  - (5) For determination of particulate emissions, the oxygen or carbon dioxide sample is obtained simultaneously with each run of Method 5, Method 5B or Method 17 by traversing the duct at the same sampling location.
    - (6) For each run using Method 5, Method 5B or Method 17, the emission rate expressed in ng/J heat input is determined using:
      - (i) The oxygen or carbon dioxide measurements and particulate matter measurements obtained under this rule.
        - (ii) The dry basis Ff factor, and
      - (iii) The dry basis emission rate calculation procedure contained in Method 19 (Appendix A).
      - (7) Method 9 is used for determining the opacity of stack emissions.
- (g) The owner or operator of an affected facility described in Rule 260.44b(j) or 260.44b(k) shall demonstrate the maximum heat input capacity of the steam generating unit by operating the facility at maximum capacity for 24 hours. The owner or operator of an affected facility shall determine the maximum heat input capacity using the heat loss method described in Sections 5 and 7.3 of the ASME Power Test Codes 4.1. This demonstration of maximum heat input capacity shall be made during the initial performance test for affected facilities that meet the criteria of Rule 260.44b(j). It shall be made within 60 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup of each facility, for affected facilities meeting the criteria of Rule 260.44b(k). Subsequent demonstrations maybe required by the Control Officer at any other time. If this demonstration indicates that the maximum heat input capacity of the affected facility is less than that stated by the manufacturer of the affected facility, the maximum heat input capacity determined during this demonstration shall be used to determine the capacity utilization rate for the affected facility. Otherwise, the maximum heat input capacity provided by the manufacturer is used.

- (h) The owner or operator of an affected facility described in Rule 260,44b(j) that has a heat input capacity greater than 73 MW (250 million BTU/hour) shall:
  - (1) Conduct an initial performance test as required under Rule 260.8 over a minimum of 24 consecutive steam generating unit operating hours at maximum heat input capacity to demonstrate compliance with the nitrogen oxides emission standards under Rule 260.44b using Method 7, 7A, 7E, or other approved reference methods; and
  - (2) Conduct subsequent performance tests once per calendar year or every 400 hours of operation (whichever comes first) to demonstrate compliance with the nitrogen oxides emission standards under Rule 260.44b over a minimum of 3 consecutive steam generating unit operating hours at maximum heat input capacity using Method 7, 7A, 7E, or other approved reference methods.
- 7. Rule 260.47b, Sections (a) and (b) are amended; and Section (f) is added to read as follows:

#### RULE 260.47b. EMISSION MONITORING FOR SULFUR DIOXIDE

- (a) Except as provided in Sections (b) and (f) of this rule, the owner or operator of an affected facility subject to the sulfur dioxide standards under Rule 260.42b shall install, calibrate, maintain, and operate continuous emission monitoring system (CEMS) for measuring sulfur dioxide concentrations and either oxygen (O<sub>2</sub>) or carbon dioxide (CO<sub>2</sub>) concentrations and shall record the output of the systems. The sulfur dioxide and either oxygen or carbon dioxide concentrations shall both be monitored at the inlet and outlet of the sulfur dioxide control device.
- (b) As an alternative to operating CEMS as required under Section (a) of this rule, an owner or operator may elect to determine the average sulfur dioxide emissions and percent reduction by:
  - (1) Collecting coal or oil samples in an as-fired condition at the inlet to the steam generating unit and analyzing them for sulfur and heat content according to Method 19. Method 19 provides procedures for converting these measurements into the format to be used in calculating the average sulfur dioxide input rate, or
  - (2) Measuring sulfur dioxide according to Method 6B at the inlet or outlet to the sulfur dioxide control system. An initial stratification test is required to verify the adequacy of the Method 6B sampling location. The stratification test shall consist of three paired runs of a suitable sulfur dioxide and carbon dioxide measurement train operated at the candidate location and a second similar train operated according to the procedures in Section 3.2 and the applicable procedures in Section 7 of Performance Specification 2. Method 6B, Method 6A, or a combination of Method 6 and 3 or 3B or Methods 6C and 3A are suitable measurement techniques. If Method 6B is used for the second train, sampling time and timer operation may be adjusted for the stratification test as long as an adequate sample volume is collected; however, both sampling trains are to be operated similarly. For the location to be adequate for Method 6B 24-hour tests, the mean of the absolute difference between the three paired runs must be less than 10 percent.
  - (3) A daily sulfur dioxide emission rate, E<sub>D</sub>, shall be determined using the procedure described in Method 6A, Section 7.6.2 (Equation 6A-8) and stated in ng/J (lbs/million BTU) heat input.
    - (4) [RESERVED]

- (f) The owner or operator of an affected facility that combusts low sulfur oil is not subject to the emission monitoring requirements of this rule if the owner or operator obtains fuel receipts as described in Rule 260.49b(r).
- 8. Rule 260.48b, Section (b) is amended; and Section (i) is added to read as follows:

## RULE 260.48b. EMISSION MONITORING FOR PARTICULATE MATTER AND NITROGEN OXIDES

- (b) Except as provided in Sections (g), and (h) and (i) of this rule, the owner or operator of an affected facility subject to the nitrogen oxides standard of Rule 260.44b(a) shall install, calibrate, maintain, and operate a continuous monitoring system for measuring nitrogen oxides emissions discharged to the atmosphere and record the output of the system.
- (i) The owner or operator of an affected facility described in Rules 260.44b(j) or 260.44b(k) is not required to install or operate a continuous monitoring system for measuring nitrogen oxides emissions.
- 9. Rule 260.49b, Sections (a), (b), (e) and (g) are amended; Sections (p), (q) and (r) are added to read as follows:

#### RULE 260.49b. REPORTING AND RECORDKEEPING REQUIREMENTS

- (a) The owner or operator of each affected facility shall submit notification of the date of initial startup, as provided by Rule 260.7. This notification shall include:
  - (1) The design heat input capacity of the affected facility and identification of the fuels to be combusted in the affected facility.
    - (2) If applicable, a copy of any federally enforceable requirement that limits the annual capacity factor for any fuel or mixture of fuels under Rules 260.42b(d)(1), 260.42b(f)(1), 260.43b(a)(2), 260.43b(a)(3)(iii), 260.43b(c)(2)(ii), 260.43b(d)(2)(iii), 260.44b(c), 260.44b(d), 260.44b(i), 260.44b(j), 260.44b(k), or 260.45b(d), 260.46b(g), 260.46b(h), or 260.48b(i).
    - (3) The annual capacity factor at which the owner or operator anticipates operating the facility based on all fuels fired and based on each individual fuel fired, and
    - (4) Notification that an emerging technology will be used for controlling emissions of sulfur dioxide. The Administrator will examine the description of the emerging technology and will determine whether the technology qualifies as an emerging technology. In making this determination, the Administrator may require the owner or operator of the affected facility to submit additional information concerning the control device. The affected facility is subject to the provisions of Rule 260.42b(a) unless and until this determination is made by the Administrator.
- (b) The owner or operator of each affected facility subject to the sulfur dioxide, particulate matter and nitrogen oxides emission limits under Rule 260.42b, 260.43b, and 260.44b, shall submit to the Control Officer the performance test data from the initial performance test and the

- performance evaluation of the CEMS using the applicable performance specifications in Appendix B. The owner or operator of each affected facility described in Rules 260.44b(j) or 260.44b(k) shall submit to the Control Officer the maximum heat input capacity data from the demonstration of the maximum heat input capacity of the affected facility.
- (e) For an affected facility that combusts residual oil and meets the criteria under Rules 260.44b(j), 260.44b(k), or 260.46b(e)(4). For affected facilities that: (1) Combust residual oil having a nitrogen content of 0.3 weight percent or less; (2) have heat input capacities of 73 MW (250 million BTU/hour) or less; and (3) monitor nitrogen emissions or steam generating unit operating conditions under Rule 260.48b(g), the owner or operator shall maintain records of the nitrogen content of the oil combusted in the affected facility and calculate the average fuel nitrogen content on a per calendar quarter basis. The nitrogen content shall be determined using ASTM Method D3431-80, Test Method for Trace Nitrogen in Liquid Petroleum Hydrocarbons, (IBR see 40 CFR Section 60.17), or fuel specification data obtained from fuel suppliers. If residual oil blends are being combusted, fuel nitrogen specifications may be prorated based on the ratio or of residual oils of different nitrogen content in the fuel blend.
- (g) Except as provided under Section (p) of this rule, the owner or operator of an affected facility subject to the nitrogen oxides standards under Rule 260.44b; For facilities subject to nitrogen oxides standards under Rule 260.44b, the owner or operator shall maintain records of the following information for each steam generating unit operating day:
  - (1) Calendar date.
  - (2) The average hourly nitrogen oxides emission rates (expressed as NO<sub>2</sub>) (ng/J or lbs/million BTU heat input) measured or predicted.

#### (3) [RESERVED]

- (4) Identification of the steam generating unit operating days when any calculated hourly average nitrogen oxides emission rates are in excess of the nitrogen oxides emissions standards under Rule 260.44b, with the reasons for such excess as well as a description of corrective actions taken.
- (5) Identification of the steam generating unit operating days for which pollutant data have not been obtained, including reasons for not obtaining sufficient data and a description of corrective actions taken.
- (6) Identification of the times when emission data have been excluded from the calculation of average emission rates and the reasons for excluding data.
- (7) Identification of "F" factor used for calculations, method of determination, and type of fuel combusted.
- (8) Identification of the times when the pollutant concentration exceeded full span of the continuous monitoring system.
- (9) Description of any modifications to the continuous monitoring system that could affect the ability of the continuous monitoring system to comply with Performance Specifications 2 or 3.
- (10) Results of daily CEMS drift tests and quarterly accuracy assessments as required under Appendix F, Procedure 1.

- (p) The owner or operator of an affected facility described in Rules 260.44b(j) or 260.44b(k) shall maintain records of the following information for each steam generating unit operating day:
  - (1) Calendar date.
  - (2) The number of hours of operation, and
  - (3) A record of the hourly steam load.
- (q) The owner or operator of an affected facility described in Rules 260,44b(j) or 260,44b(k) shall submit to the Control Officer on a quarterly basis;
  - (1) The annual capacity factor over the previous 12 months.
  - (2) The average fuel nitrogen content during the quarter, if residual oil was fired; and
  - (3) If the affected facility meets the criteria described in Rule 260.44b(j), the results of any nitrogen oxides emission tests required during the quarter, the hours of operation during the quarter, and the hours of operation since the last nitrogen oxides emission test.
- (r) The owner or operator of an affected facility who elects to demonstrate that the affected facility combusts only low sulfur oil under Rule 260.42b(j)(2) shall obtain and maintain at the affected facility fuel receipts from the fuel supplier which certify that the oil meets the definition of distillate oil as defined in Rule 260.41b. For the purposes of this rule, the oil need not meet the fuel nitrogen content specification in the definition of distillate oil. Ouarterly reports shall be submitted to the Control Officer certifying that only low sulfur oil meeting this definition was combusted in the affected facility during the preceding quarter.

IT IS FURTHER RESOLVED AND ORDERED that the amendments to Subpart Db of Regulation X shall take effect upon adoption.

Air Pollution Control District, State of Ca	lifornia this	d of the San Diego Cour day of
	following votes:	day of
, 1995 by tile	following votes:	

AYES:
NOES:
ABSENT:

#### AIR POLLUTION CONTROL DISTRICT

#### **WORKSHOP REPORT**

NEW SOURCE PERFORMANCE STANDARDS (NSPS)
Proposed Amendments of SUBPART Db Industrial-Commercial-Institutional Steam-Generating Units

A workshop notice was mailed to all companies which may be affected by this proposal. Notices were also mailed to all Chambers of Commerce in San Diego County, all Economic Development Corporations, the U.S. Environmental Protection Agency (EPA), the California Air Resources Board (ARB), and other interested parties.

The workshop was held on April 15, 1993, and was attended by four persons. The workshop comments and District responses are as follows:

#### **WORKSHOP COMMENT:**

District Rule 62 currently specifies a fuel oil sulfur content limit of 0.5% by weight, the same as in proposed amended Subpart Db. Does this mean that the required sulfur content for San Diego County will not change as a result of these amendments?

#### DISTRICT RESPONSE:

Yes. The federal version of Subpart Db defines a fuel oil with 0.5% sulfur as "Very Low Sulfur Oil". The term in this proposal has been changed to "Low Sulfur Oil" to be consistent with statewide standards.

#### **WORKSHOP COMMENT:**

Will facilities using fuel oil which meets the 0.5 percent sulfur limit need to demonstrate compliance with this standard?

#### **DISTRICT RESPONSE:**

Yes. The rule provides for compliance demonstration by testing the fuel oil, or by retention of receipts from the fuel supplier certifying that the oil meets the sulfur standard.

#### **WORKSHOP COMMENT:**

In the past, our facility has specified in fuel requisitions that sulfur content be certified in the fuel receipts, but the suppliers have not complied with this request. Will the facility be held responsible if the supplier's fuel receipts are not certified?

#### **DISTRICT RESPONSE:**

Yes. The proposal requires that the facility demonstrate through receipts or fuel testing that the sulfur requirement is met. There is a large economic incentive for the industry to do this, as certified receipts are a simple and inexpensive alternative to fuel testing. Since Subpart Db applies nationwide, it is anticipated that the industry will comply with the certification requirements.

#### **WORKSHOP COMMENT:**

If fuel oil with certified receipts were to be analyzed by the District for compliance, and found to exceed the 0.5 percent sulfur limit, would the facility be responsible?

#### **DISTRICT RESPONSE:**

No. If the facility retains the certified fuel receipts in accordance with proposed Rule 260.49b Section (r), the facility will not be held responsible for the exceedance of the standard.

#### **WORKSHOP COMMENT:**

Does Subpart Db require quarterly reports?

#### **DISTRICT RESPONSE:**

Subpart Db currently requires quarterly reporting. The proposed amendments will reduce the quarterly reporting requirements for low-capacity factor steam-generating units using certain low-nitrogen fuels, and for facilities choosing to comply with the rule by obtaining certified fuel oil receipts.

### WORKSHOP COMMENT:

Has there been a recent determination where District rules may be relaxed due to the negative impact on industry in the County?

#### **DISTRICT RESPONSE:**

No, there has been no such determination. However, a recent State law requires the District to consider socioeconomic impacts for new and amended rules which significantly affect air quality or emission limitations. This law is not applicable to New Source Performance Standards since federal regulations are already applicable nationwide.

#### EPA AND ARB COMMENTS

No comments were received from the EPA. The ARB reviewed the proposed amended Subpart Db and had no comments.