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REGULATIONS COMPILER

1 ENERGY AND ENVIRONMENT CABINET

2 Department for Environmental Protection

3 Division for Air Quality

4 (Amended After Comments)

5 401 KAR 61:015. Existing indirect heat exchangers.

6 RELATES TO: KRS Chapter 224, 40 C.F.R. Part 60, Subpart D, Da, Db, Dc, Part 63,
7 Subparts DDDDD, UUUUU, JJJJJ

8 STATUTORY AUTHORITY: KRS 224.10-100

9 NECESSITY, FUNCTION, AND CONFORMITY: KRS 224.10-100(5) requires the
10 ~~[Environmental and Public Protection]~~ cabinet to promulgate~~[prescribe]~~ administrative regulations
11 for the prevention, abatement, and control of air pollution. This administrative regulation establishes
12 requirements~~[provides]~~ for the control of emissions from existing indirect heat exchangers.

13 Section 1. ~~[Applicability. The provisions of this administrative regulation shall apply to each~~
14 ~~affected facility commenced before the applicable classification date defined below.~~

15 ~~Section 2.]~~ Definitions. As used in this administrative regulation, all terms not defined in this
16 section~~[herein]~~ shall have the meaning given them in 401 KAR 50:010 and 401 KAR 50:025.

17 (1) "Affected facility" means an indirect heat exchanger having a heat input capacity of more
18 than one (1) MMBTU/hr~~[million BTU per hour]~~.

19 (2) ~~["Indirect heat exchanger" means any piece of equipment, apparatus, or contrivance used~~
20 ~~for the combustion of fuel in which the energy produced is transferred to its point of usage through~~
21 ~~a medium that does not come in contact with or add to the products of combustion.~~

1 (3) "Classification date" means:

2 (a) August 17, 1971, for affected facilities with a capacity of more than 250
3 MMBTU/hr[million BTU per hour] heat input; or

4 (b) April 9, 1972, for affected facilities with a capacity of 250 MMBTU/hr[million BTU per
5 hour] heat input or less.

6 (3) "Fuel" means any material combusted for the purpose of creating useful heat.

7 (4) "GCV" means gross calorific value.

8 (5) "Indirect heat exchanger" means a piece of equipment, apparatus, or contrivance used
9 for the combustion of fuel in which the energy produced is transferred to its point of usage through
10 a medium that does not come in contact with or add to the products of combustion.

11 (6) "Shutdown period" means [the period]:

12 (a) For a source subject to 40 C.F.R. Part 63, Subpart DDDDD, UUUUU, or JJJJJ,
13 the period defined as "shutdown" in:

14 1. 40 C.F.R. 63.7575;

15 2. 40 C.F.R. 63.10042; or

16 3. 40 C.F.R. 63.11237; or

17 (b) For a source not subject to 40 C.F.R. Part 63, Subpart DDDDD, UUUUU, or
18 JJJJJ, the period[Beginning when, whichever occurs first]:

19 1. Beginning when whichever occurs first:

20 a. The affected facility no longer supplies useful thermal energy for heating, cooling,
21 process purposes, or generation of electricity; or

22 b.[2:] Fuel is not being combusted in the affected facility; and

23 2.[(b)] Ending when:

1 a.~~1.~~ The affected facility no longer supplies useful thermal energy for heating, cooling,
2 process purposes, or generation of electricity; and

3 b.~~2.~~ Fuel is not being combusted in the affected facility.

4 (7) “Startup period~~periods~~” means:

5 (a) For a source subject to 40 C.F.R. Part 63, Subpart DDDDD, UUUUU, or JJJJJ,
6 the period defined as “startup” in:

7 1. 40 C.F.R. 63.7575;

8 2. 40 C.F.R. 63.10042; or

9 3. 40 C.F.R. 63.11237; or

10 (b) For a source not subject to 40 C.F.R. Part 63, Subpart DDDDD, UUUUU, or
11 JJJJJ, the period~~Beginning with either~~:

12 1. Beginning with either:

13 a. The combustion of any fuel in an affected facility for the purpose of supplying useful
14 thermal energy for heating, cooling, process purposes, or generation of electricity; or

15 b.~~2.~~ The combustion of fuel in an affected facility for any purpose after a shutdown event;

16 and

17 2.~~(b)~~ Ending after the longest manufacturer-recommended time required to engage all
18 control devices utilized by the affected facility applicable to the pollutant, not to exceed (4) four
19 hours after any of the useful thermal energy from the affected facility is supplied for any purpose.

20 (8) “Useful thermal energy” means energy that meets the minimum operating temperature,
21 flow, or pressure required by any energy use system that uses energy provided by the affected
22 facility.

1 Section 2. Applicability. The provisions of this administrative regulation shall apply to each
2 affected facility commenced before the applicable classification date.

3 Section 3. Method for Determining Allowable Emission Rates. (1) Except as
4 established[provided] in subsection (3) of this section, the total rated heat input capacity of all
5 affected facilities at a source, commenced before the applicable classification date within a source,
6 shall be used as established[specified] in Sections 4 and 5 of this administrative regulation to
7 determine the allowable emission rate in terms of lb/MMBTU~~[pounds of effluent per million BTU]~~
8 heat input.

9 (2) The permitted allowable emission rate of an affected facility shall not be changed due to
10 inclusion or shutdown of another affected facility at the source~~[At such time as any affected facility~~
11 ~~is assigned an allowable emission rate by the cabinet, at no time thereafter shall that rate be changed~~
12 ~~due to inclusion or shutdown of any affected facility at the source]~~.

13 (3) A source may submit a request to the cabinet for approval of an allowable emission rate
14 apportioned independent from individual heat input pursuant to this subsection.

15 (a) The following equation shall be used to determine the allowable emissions rate:

16 ~~[(a) A source may petition the cabinet to establish an allowable emission rate which may be~~
17 ~~apportioned without regard to individual affected facility heat input provided that the conditions~~
18 ~~specified in paragraphs (b), (c), (d), and (e) of this subsection are met. Such allowable emission rate~~
19 ~~shall be determined according to the following equation:]~~

$$F = (AB + DE)/C$$

21 Where:

22 1. A = the allowable emission rate (in lb/MMBTU/hr heat~~[pounds per million BTU]~~ input),
23 as determined according to 401 KAR 59:015, Section 3(1);

1 2. B = the total rated heat input (in MMBTU/hr~~[millions of BTU per hour]~~) of all affected
2 facilities commenced on or after the applicable classification date within a source, including those
3 for which an application to construct, modify, or reconstruct has been submitted to the cabinet;

4 3. C = the total rated heat input (in MMBTU/hr~~[millions of BTU per hour]~~) of all affected
5 facilities within a source, including those for which an application to construct, modify, or
6 reconstruct has been submitted to the cabinet;

7 4. D = the total emission rate (in lb/MMBTU~~[pounds per million BTU]~~ input) as determined
8 according to subsection (1) of this section;

9 5. E = the total rated heat input (in MMBTU/hr~~[millions of BTU per hour]~~) of all affected
10 facilities commenced before the applicable classification date; and

11 6. F = the alternate allowable emission rate (in lb/MMBTU~~[pounds per actual million BTU]~~
12 input).

13 **(b) In determining an alternative allowable emission rate for sulfur dioxide, the formula**
14 **established in paragraph (a) of this subsection shall utilize values for allowable emissions rates for**
15 **affected facilities stated in terms of total rated heat input capacity based on the use of the same**
16 **fuel category (solid, liquid, or gaseous fuel), which shall be determined by utilizing the formulas**
17 **established in Section 5 of this administrative regulation.**

18 **(c) The total emissions in lb/hr from all affected facilities at the source subject to this**
19 **administrative regulation divided by the total actual heat input expressed in MMBTU/hr of the**
20 **affected facilities shall not exceed the alternate allowable emission rate as determined in paragraph**
21 **(a) of this subsection.**

22 ~~(d)(b) At no time shall the owner or operator of the source allow the total emissions (in~~
23 ~~pounds per hour) from all affected facilities within the source divided by the total actual heat input~~

1 ~~(in millions of BTU per hour) of all affected facilities within the source to exceed the alternate~~
2 ~~allowable emission rate as determined by paragraph (a) of this subsection.]~~

3 (e) At no time shall the owner or operator of any source subject to federal new source
4 performance standards allow the emissions from any affected facility commenced on or after the
5 applicable classification date to exceed the allowable emission rate determined by use of that affected
6 facility's rated heat input (instead of the heat input as determined by subsection (1) of this section)
7 as established~~[specified]~~ in 401 KAR 59:015, Sections 4 and 5.

8 (e)1. The source shall demonstrate compliance with this subsection by conducting a
9 performance test pursuant to 401 KAR 50:45 for each affected facility subject to this administrative
10 regulation.

11 2. The source shall demonstrate that compliance with this subsection shall be maintained on
12 a continuous basis.~~(d) The owner or operator of the source must demonstrate compliance with this~~
13 ~~subsection by conducting a performance test according to 401 KAR 50:045 on each affected facility~~
14 ~~under such conditions as may be specified by the cabinet.~~

15 ~~(e) Upon petition, the cabinet will establish an alternate emission rate in accordance with this~~
16 ~~subsection if the owner or operator demonstrates to the cabinet's satisfaction that the source will~~
17 ~~maintain compliance with this subsection on a continual basis.]~~

18 Section 4. Standard for Particulate Matter. (1) Except as established~~[provided for]~~ in
19 Sections~~[Section]~~ 3(3) and 9 of this administrative regulation, an affected facility subject to this
20 administrative regulation shall not cause emissions of particulate matter in excess of~~[no owner or~~
21 ~~operator of an affected facility subject to the provisions of this administrative regulation shall cause~~
22 ~~to be discharged into the atmosphere from that affected facility]:~~

1 ~~(a)[(1) Particulate matter in excess of]~~ That established~~[specified]~~ in Appendix A of this
2 administrative regulation;

3 ~~(b)[(2) Emissions which exhibit]~~ Greater than twenty (20) percent opacity in regions
4 classified as Priority I, pursuant to Appendix A of this administrative regulation, with respect to
5 particulate matter, except that, for:

6 ~~1.[(a) That, for]~~ Cyclone or pulverized fired indirect heat exchangers, a maximum of forty
7 (40) percent opacity shall be permissible for not more than one (1) six (6) minute period in any sixty
8 (60) consecutive minutes;

9 ~~2.[(b) That, for]~~ Stoker fired indirect heat exchangers, a maximum of forty (40) percent
10 opacity shall be permissible for not more than six (6) consecutive minutes in any sixty (60)
11 consecutive minutes during cleaning the fire box or blowing soot and, for indirect heat exchangers
12 with stationary grates, a maximum of forty (40) percent opacity shall be permissible during cleaning
13 of the grates for not more than three (3) consecutive minutes in any sixty (60) consecutive minutes
14 for each section of grates that are cleaned; and

15 ~~3.[(c) For]~~ Emissions from an indirect heat exchanger during building a new fire for the
16 period required to bring the boiler up to operating conditions if~~[provided]~~ the method used is that
17 recommended by the manufacturer and the time does not exceed the manufacturer's
18 recommendations;[-]

19 ~~(c)[(3) Emissions which exhibit]~~ Greater than forty (40) percent opacity in regions classified
20 as Priority II or III with respect to particulate matter except that, for:

21 ~~1.[(a) That, for]~~ Cyclone or pulverized fired indirect heat exchangers, a maximum of sixty
22 (60) percent opacity shall be permissible for not more than one (1) six (6) minute period in any sixty
23 (60) consecutive minutes;

1 2.~~(b) That, for~~ Stoker fired indirect heat exchangers, a maximum of sixty (60) percent
2 opacity shall be permissible for not more than six (6) consecutive minutes in any sixty (60)
3 consecutive minutes during cleaning the fire box or blowing soot and, for indirect heat exchangers
4 with stationary grates, a maximum of sixty (60) percent opacity shall be permissible during cleaning
5 of the grates for not more than three (3) consecutive minutes in any sixty (60) consecutive minutes
6 for each section of grates that are cleaned; and

7 3.~~(e) For~~ Emissions from an indirect heat exchanger during building a new fire for the
8 period required to bring the boiler up to operating conditions if provided the method used is that
9 recommended by the manufacturer and the time does not exceed the manufacturer's
10 recommendations.

11 (2)~~(4)~~ The emission limitations established~~contained~~ in subsection (1)~~either~~
12 ~~subsections~~ of this section shall not apply to any affected facility (with more than 250
13 MMBTU/hr~~million BTU per hour~~ heat input capacity, which was in being or under construction
14 before August 17, 1971, or any affected facility with 250 MMBTU/hr~~million BTU per hour~~
15 capacity or less, which was in being or under construction prior to April 9, 1972) if that affected
16 facility was in compliance prior to April 9, 1972, with, or has a valid permit to operate within the
17 provisions of the previous Kentucky Air Pollution Control Commission Regulation No. 7 [entitled
18 "]Prevention and Control of Emissions of Particulate Matter from Combustion of Fuel in Indirect
19 Heat Exchangers."] These affected facilities shall comply with the emission limitations in that
20 administrative regulation except that replacement of the particulate emissions control device
21 associated with the affected facility shall subject it to the standard established~~contained~~ in this
22 section.

1 Section 5. Standard for Sulfur Dioxide. (1) Except as established in Sections~~[provided for in~~
2 ~~Section]~~ 3(3) and 9 of this administrative regulation and subsection (5) of this section, an affected
3 facility subject to this administrative regulation shall not cause emissions of gases that~~[no owner or~~
4 ~~operator of an affected facility subject to the provisions of this administrative regulation shall cause~~
5 ~~to be discharged into the atmosphere from that affected facility, any gases which]~~ contain sulfur
6 dioxide in excess of that established~~[specified]~~ in Appendix B of this administrative regulation.

7 (2) If~~[When]~~ different fuels are burned simultaneously in any combination, the applicable
8 standard shall be determined by proration using the following formula:

9 Allowable Sulfur Dioxide Emission,

$$10 \frac{lb}{MMBTU} = \frac{[x(a) + y(b) + z(c)]}{x + y + z}$$

$$11 \left[\frac{lb}{MMBTU} = \frac{y(a) + z(b)}{(y+z)} \right]$$

12 Where:

13 (a) x is the percent of total heat input derived from liquid fuel;

14 (b) y is the percent of total heat input derived from ~~[liquid or]~~ gaseous fuel;

15 (c) z is the percent of total heat input derived from solid fuel;

16 (d) a is the allowable sulfur dioxide emission in lb/MMBTU~~[pounds per million BTU]~~ heat
17 input derived from liquid ~~[or gaseous]~~ fuel; and]

18 (e) b is the allowable sulfur dioxide emissions in lb/MMBTU~~[pounds per million BTU]~~ heat
19 input derived from gaseous~~[solid]~~ fuel; and

20 (f) c is the allowable sulfur dioxide emissions in lb/MMBTU heat input derived from solid
21 fuel.

1 (3) Compliance shall be based on the total heat input from all fuels burned, including gaseous
2 fuels.

3 (4) In counties classified as VA with respect to sulfur dioxide, for a source~~[sources]~~ having
4 a total heat input greater than 1,500~~[1500]~~ MMBTU/hr~~[1,500,000,000 BTU per hour (1500 MM~~
5 ~~BTU/hr.)]~~ as determined by Section 3(1) of this administrative regulation, an~~[a]~~ owner or operator
6 shall not allow the annual average sulfur dioxide emission rate from all existing and new affected
7 facilities combined at the source to exceed six-tenths (0.60) pounds per million BTU.

8 (5) In counties classified as IA with respect to sulfur dioxide, at a source~~[sources]~~ having a
9 total rated heat input greater than 1,500~~[1500]~~ MMBTU/hr~~[1,500,000,000 BTU per hour (1500 MM~~
10 ~~BTU/hr.)]~~ as determined by Section 3(1) of this administrative regulation, the cabinet shall allow
11 one (1) affected facility, as stated~~[specified]~~ on the operating permit, to emit sulfur dioxide at a rate
12 not to exceed a twenty-four (24) hour average of eight and zero-tenths (8.0) lb/MMBTU~~[pounds~~
13 ~~per million BTU]~~, during those periods of time when the affected facility is being operated for the
14 purpose of generating high sulfur dioxide content flue gases for use in any experimental sulfur
15 dioxide removal system.

16 Section 6. Monitoring of Operations. (1) The sulfur content of solid fuels, as burned, shall be
17 determined in accordance with the methods specified by the cabinet.

18 (2) The sulfur content of liquid fuels, as burned, shall be determined in accordance with the
19 methods specified by the cabinet.

20 (3)(a) The rate of fuel burned for each fuel shall be measured daily or at shorter intervals and
21 recorded.

22 (b) The heating value and ash content of fuels shall be ascertained at least once per week and
23 recorded.

1 (c) If ~~Where~~ the indirect heat exchanger is used to generate electricity, the average electrical
2 output and the minimum and maximum hourly generation rate shall be measured and recorded daily.

3 (4) The owner or operator of ~~an~~any indirect heat exchanger of more than 250
4 ~~MMBTU/hr~~[million BTU per hour] heat input subject to the provisions of this administrative
5 regulation shall maintain a file of all measurements required by this administrative regulation and
6 summarized monthly. The record of all measurements~~[any such measurement(s)]~~ and summary shall
7 be retained for at least two (2) years following the date of ~~[such]~~ measurements and summaries.

8 (5) The cabinet may require for ~~an~~any indirect heat exchanger of less than 250 MMBTU/hr
9 ~~[million BTU per hour]~~ heat input, any or all the fuel monitoring required by this section.

10 (6) For an indirect heat exchanger that does not use a flue gas desulfurization device, a
11 continuous monitoring system as established~~[specified]~~ in 401 KAR 61:005 for measuring sulfur
12 dioxide emissions shall not be~~[is not]~~ required if the owner or operator monitors the~~[such]~~ emissions
13 by fuel sampling and analysis ~~[pursuant to Section 7(6) of 401 KAR 59:015]~~.

14 Section 7. Test Methods and Procedures. (1) Except as established~~[provided]~~ in 401 KAR
15 50:045, performance tests used to demonstrate compliance with Sections 4 and 5 of this
16 administrative regulation shall be conducted according to the following methods, incorporated
17 ~~[(filed)]~~ by reference in 401 KAR 50:015~~(3)]~~:

18 (a) Reference Method 1 for the selection of sampling site and sample traverses;

19 (b) Reference Method 3 for gas analysis to be used when applying Reference Methods 5 and
20 6~~[, 6 and 7]~~;

21 (c) Reference Method 5 for the concentration of particulate matter and the associated
22 moisture content;

23 (d) Reference Method 6 for the concentration of sulfur dioxide; and

1 (e) Reference Method 9 for visible emissions~~[Reference Method 7 for the concentration of~~
2 ~~nitrogen oxides]~~.

3 (2) For Reference Method 5:

4 (a) ~~[;]~~ Reference Method 1 shall be used to select the sampling site and the number of traverse
5 sampling points;~~[;]~~

6 (b) The sampling time for each run shall be at least sixty (60) minutes and the minimum
7 sampling volume shall be 0.85 dscm (thirty (30) dscf), except that smaller sampling times or
8 volumes, ~~if~~~~[when]~~ necessitated by process variables or other factors, may be requested by the source;
9 and~~[approved by the Cabinet]~~~~[;]~~

10 (c) The probe and filter holder heating systems in the sampling train shall be set to provide a
11 gas temperature ~~not~~~~[no]~~ greater than 160°C (320°F).

12 (3) For Reference Methods 6:~~[;]~~

13 (a) ~~[and 7;]~~ The sampling site shall be the same as that selected for Reference Method 5;~~[;]~~

14 (b) The sampling point in the duct shall be at the centroid of the cross section or at a point no
15 closer to the walls than one (1) m (3.28 ft.);~~[;]~~

16 (c) ~~[For Reference Method 6;]~~ The sample shall be extracted at a rate proportional to the gas
17 velocity at the sampling point;~~[;]~~

18 (d) ~~(4) For Reference Method 6;]~~ The minimum sampling time shall be twenty (20) minutes,
19 and the minimum sampling volume shall be 0.02 dscm (0.71 dscf) for each sample;~~[;]~~.

20 (e) The arithmetic mean of two (2) samples shall constitute one (1) run; and~~[;]~~

21 (f) Samples shall be taken at approximately thirty (30) minute intervals.

1 ~~(4)(5)(a)~~ [For Reference Method 7, each run shall consist of at least four (4) grab samples
2 taken at approximately fifteen (15) minute intervals. The arithmetic mean of the samples shall
3 constitute the run value.

4 (6) For each run using the methods established[~~specified~~] by subsection (1)[~~(c), (d), and (e)~~]
5 of this section, the emissions expressed in g/million cal (lb/MMBTU[~~lb/million BTU~~]) shall be
6 determined by the following equation:

$$E = CF \frac{20.9}{20.9 - \%O_2}$$

8 Where:

9 1. E = pollutant emission, g/million cal (lb/MMBTU[~~lb/million BTU~~]);[~~;~~]

10 2. C = pollutant concentration, g/dscm (lb[·]/dscf) determined by Reference Method 5, or
11 6[~~or 7~~][~~;~~]

12 3. F = a factor as determined in 40 C.F.R. 60.45(f); and[~~401 KAR 59:015, Section 7~~][~~;~~]

13 4. %O₂ = oxygen content by volume (expressed as percent), dry basis.

14 Percent oxygen shall be determined by using the integrated or grab sampling and analysis procedures
15 for Reference Method 3 as applicable. The sample shall be obtained as **established in paragraphs**
16 **(b) and (c) of this subsection.**[~~follows:~~]

17 **(b)**[~~(a)~~] For determination of sulfur dioxide and nitrogen oxides emissions, the oxygen
18 sample shall be obtained simultaneously at the same point for Reference Method 6 [~~and 7~~]
19 determinations[~~, respectively. For Reference Method 7, the oxygen sample shall be obtained using~~
20 ~~the grab sampling and analysis procedures for Reference Method 3].~~

21 **(c)1.**[~~(b)~~] For determination of particulate emissions, the oxygen sample shall be obtained
22 simultaneously by traversing the duct at the same sampling location used for each run of Reference
23 Method 5 **pursuant to**[~~under~~] subsection (2) of this section.

1 2. Reference Method 1 shall be used for selection of the number of traverse points except
2 that no more than twelve (12) sample points shall be~~are~~ required.

3 ~~(5)(6) If~~~~(7) When~~ combinations of fossil fuels are fired, the heat input, expressed in cal/hr.
4 (BTU/hr.), shall be determined during each testing period by multiplying the gross calorific value of
5 each fuel fired by the rate of each fuel burned. GCV~~GVC~~~~[Gross calorific value]~~ shall be
6 determined in accordance with ASTM methods D2015-66(72) (solid fuels), D240-64(73) (liquid
7 fuels), or D1826-64(70) (gaseous fuels), as applicable (ASTM designations incorporated~~filed~~) by
8 reference in 401 KAR 50:015). The rate of fuels burned during each testing period shall be
9 determined by suitable methods and shall be confirmed by a material balance over the steam
10 generation system.

11 Section 8. Compliance Timetable. (1) An affected facility~~facilities~~ located in an area~~areas~~
12 designated as attainment for sulfur dioxide or~~and/or~~ particulate matter shall be in compliance as of
13 June 6, 1979.

14 (2)(a) In Class IA counties, the owner or operator of any affected facility in any source with
15 a~~whose~~ total rated capacity of 16,000 MMBTU/hr~~is sixteen thousand million BTU per hour~~
16 ~~(16,000-MM BTU/hr)~~ or more shall be required to ~~[complete the following]:~~

17 1. Submit a final control plan for achieving compliance with this administrative regulation
18 no later than May 1, 1978;

19 2. Award contracts for complying coal by January 1, 1979;

20 3. Initiate use of ~~sueh~~ complying coal on or before December 1, 1979; and

21 4. Demonstrate compliance by performance tests on or before October 1, 1981.

22 (b) In Class IVA counties designated as nonattainment for sulfur dioxide, the owner or
23 operator of any affected facility in any source with a total rated capacity of greater than 1,500

1 ~~MMBTU/hr~~[1,500,000,000 BTU per hour (1,500 MM BTU/hr)] but less than 21,000
2 ~~MMBTU/hr~~[~~twenty one thousand million BTU per hour (21,000 MM BTU/hr)~~] shall be required to
3 [complete the following]:

- 4 1. Submit a final control plan for achieving compliance with this administrative regulation
5 no later than May 1, 1979;
- 6 2. Award contracts for complying coal by August 1, 1979;
- 7 3. Initiate use of [~~such~~] complying coal on or before January 1, 1980; and
- 8 4. Demonstrate compliance by performance tests on or before March 1, 1980.

9 (c) In Class IVA counties designated as nonattainment for sulfur dioxide, the owner or
10 operator of any affected facility in any source with a total rated capacity of greater than 21,000
11 ~~MMBTU/hr~~[~~twenty one thousand million BTU per hour (21,000 MM BTU/hr)~~] shall be required to
12 [complete the following]:

- 13 1. Submit a control plan for flue gas desulfurization and initiate construction of a coal
14 washing plant on or before June 1, 1978;
- 15 2. Issue invitations for bids for construction and installation of flue gas desulfurization
16 equipment on or before October 1, 1978;
- 17 3. Award contract for construction and installation of flue gas desulfurization equipment on
18 or before March 1, 1979;
- 19 4. Initiate construction of flue gas desulfurization equipment on or before December 1, 1979;
- 20 5. Complete construction of coal washing plant on or before December 1, 1980;
- 21 6. Complete construction of flue gas desulfurization equipment on or before June 1, 1982;
- 22 and
- 23 7. Demonstrate compliance by performance tests on or before September 1, 1982.

1 Section 9. Standards During a Startup Period or a Shutdown Period. During a startup
2 period or a shutdown period, an owner or operator shall comply with the work practice standards
3 established in this section.

4 (1)(a) The owner or operator shall comply with 401 KAR 50:055, Section 2(5)[At all
5 times, the owner or operator of each affected facility shall operate the affected facility and
6 all applicable control devices in a manner consistent with good air pollution control practices
7 for minimizing emissions];

8 (b) The frequency and duration of startup periods or shutdown periods shall be minimized
9 by the affected facility;

10 (c) All reasonable[possible] steps shall be taken by the owner or operator to minimize the
11 impact of emissions on ambient air quality from the affected facility during startup periods and
12 shutdown periods;

13 (d) The actions, including duration of the startup period, of the owner or operator of each
14 affected facility during startup periods and shutdown periods, shall be documented by signed,
15 contemporaneous logs or other relevant evidence; and

16 (e) Startups and shutdowns shall be conducted according to either:

17 1. The manufacturer's recommended procedures; or

18 2. Recommended procedures for a unit of similar design, for which manufacturer's
19 recommended procedures are available, as approved by the cabinet based on documentation
20 provided by the owner or operator of the affected facility; or[and]

21 (2)(a) An affected facility subject to 40 C.F.R. 63.7500 shall meet the work practice
22 standards established in [Table 3 to Subpart DDDDD of] 40 C.F.R. Part 63, Table 3 to Subpart
23 DDDDD, as established in 401 KAR 63:002, Section 2(4)(iiii);

1 **(b) An affected facility subject to 40 C.F.R. 63.9991 shall meet the work practice standards**
2 **established in [~~Table 3 to Subpart UUUUU of~~] 40 C.F.R. Part 63, **Table 3 to Subpart UUUUU,****
3 **as established in 401 KAR 63:002, Section 2(4)(yyyy); or**

4 **(c) An affected facility subject to 40 C.F.R. 63.11201 shall meet the work practice**
5 **standards established in [~~Table 2 to Subpart JJJJJ of~~] 40 C.F.R. Part 63, **Table 2 to Subpart****
6 **JJJJJ, as established in 401 KAR 63:002, Section 2(4)(jjjj).**

7 **Section 10. Incorporation by Reference. (1) “Kentucky Air Pollution Control Commission**
8 **Regulation No. 7 Prevention and Control of Emissions of Particulate Matter from Combustion of**
9 **Fuel in Indirect Heat Exchangers” (November 1969), is incorporated by reference.**

10 **(2) This material may be inspected, copied, or obtained, subject to applicable copyright**
11 **law, at the Division of Air Quality, 300 Sower Boulevard, Frankfort, Kentucky 40601, Monday**
12 **through Friday, 8 a.m. to 4:30 p.m.**

APPENDIX A TO 401 KAR 61:015

ALLOWABLE PARTICULATE EMISSION RATES

For sources having a total heat input capacity (as determined by Section 3(1) of:	The standard (in pounds per million BTU actual heat input) is (based upon the Priority classification with respect to particulates of the region in which the source is located):		
(MM BTU/Hr.)	Priority I	Priority II	Priority III
10 or less	0.56	0.75	0.80
50	0.38	0.52	0.57
100	0.33	0.44	0.49
250	0.26	0.35	0.40
500	0.22	0.30	0.34
1000	0.19	0.26	0.30
2500	0.15	0.21	0.24
5000	0.13	0.18	0.21
7500	0.12	0.16	0.19
10000 or more	0.11	0.15	0.18

- 1 Interpolation of allowable emissions for intermediate heat input values not established[specified]
- 2 above may be accompanied by use of the equations shown below for the appropriate heat input range
- 3 [specified]. In all equations $X = \text{MMBTU/hr}$ [millions of BTU per hour] heat input as determined
- 4 by Section 3(1), and $Y =$ allowable particulate emissions in pounds per MMBTU [million BTU]
- 5 actual heat input.

Region Classification with respect to Particulate Matter	Range (MM BTU/Hr.)	Allowable (Lb.s/MM BTU)
Priority I	10 to 10,000	$Y = 0.9634 X^{-0.2356}$
Priority II	10 to 10,000	$Y = 1.2825 X^{-0.2330}$
Priority III	10 to 10,000	$Y = 1.3152 X^{-0.2159}$

1

APPENDIX B TO 401 KAR 61:015

All standards shall be [are] twenty-four (24) hour averages

The standard (in pounds per million BTU actual heat input) shall be [is]

(based upon the classification with respect to sulfur dioxide of the county in which the source is located):

	CLASS I		CLASS IA		CLASS II		CLASS III		CLASS IV		CLASS IVA		CLASS V		CLASS VA	
	Liquid/ Gaseous Fuel	Solid Fuel	Liquid/ Gaseous Fuel	Solid Fuel	Liquid/ Gaseous Fuel	Solid Fuel	Liquid/ Gaseous Fuel	Solid Fuel	Liquid/ Gaseous Fuel	Solid Fuel	Liquid/ Gaseous Fuel	Solid Fuel	Liquid/ Gaseous Fuel	Solid Fuel	Liquid/ Gaseous Fuel	
For sources having a total heat input (as determined by Section 3(1) of: (MMBTU/hr)																
10 or less	3.0	5.0	3.0	5.0	4.0	6.0	4.6	7.0	5.4	8.0	5.4	8.0	6.0	9.0	6.0	9.0
50	1.5	2.4	1.5	3.9	2.4	3.7	3.2	4.8	4.3	6.4	4.3	6.4	4.9	7.3	4.9	7.3
100	1.2	1.8	1.2	3.6	2.0	3.0	2.7	4.1	4.0	5.9	4.0	5.9	4.5	6.7	4.5	6.7
150	1.0	1.5	1.0	3.3	1.8	2.7	2.5	3.7	3.7	5.6	3.7	5.6	4.3	6.4	4.3	6.4
200	0.9	1.3	0.9	3.2	1.6	2.5	2.3	3.5	3.6	5.4	3.6	5.4	4.1	6.2	4.1	6.2
250-1,500	0.8	1.2	0.8	3.1	1.5	2.3	2.2	3.3	3.5	5.2	3.5	5.2	4.0	6.0	4.0	6.0
Greater than 1,500 but less than 21,000	0.8	1.2	0.8	1.2	1.5	2.3	2.2	3.3	3.5	5.2	2.3	3.5	4.0	6.0	1.1	1.1

21,000 or more	0.8	1.2	0.8	1.2	1.5	2.3	2.2	3.3	3.5	5.2	2.1	3.1	4.0	6.0	1.1	1.1
----------------	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

1 Interpolation of allowable emissions for rated capacity values between 10 and 250 million BTU heat input may be accomplished by use of the

2 equations shown below for the appropriate fuel [specified]. In all equations, Y = allowable sulfur dioxide emission in pounds per million BTU

3 actual heat input, X = millions of BTU per hour heat input capacity rating as determined by Section 3(1).

COUNTY CLASS	FUEL	ALLOWABLE (POUNDS/MMBTU)
I	Liquid/Gaseous	$Y = 7.7223 X^{-0.4106}$
	Solid	$Y = 13.8781 X^{-0.4434}$
IA	Liquid/Gaseous	$Y = 7.7223 X^{-0.4106}$
	Solid	$Y = 7.0382 X^{-0.1485}$
II	Liquid/Gaseous	$Y = 8.0681 X^{-0.3047}$
	Solid	$Y = 11.9134 X^{-0.2979}$
III	Liquid/Gaseous	$Y = 7.7966 X^{-0.2291}$
	Solid	$Y = 11.9872 X^{-0.2336}$
IV	Liquid/Gaseous	$Y = 7.3639 X^{-0.1347}$
	Solid	$Y = 10.8875 X^{-0.1338}$
IVA	Liquid/Gaseous	$Y = 7.3639 X^{-0.1347}$
	Solid	$Y = 10.8875 X^{-0.1338}$

V		Liquid/Gaseous	Y = 8.0189	$X^{-0.1260}$
		Solid	Y = 12.0284	$X^{-0.1260}$
VA		Liquid/Gaseous	Y = 8.0189	$X^{-0.1260}$
		Solid	Y = 12.0284	$X^{-0.1260}$

401 KAR 61:015 approved for filing.

12/12/2017
Date

Charles G. Snavelly
Charles G. Snavelly, Secretary
Energy and Environment Cabinet

REGULATORY IMPACT ANALYSIS AND TIERING STATEMENT

Administrative Regulation: 401 KAR 61:015

Contact person: Cassandra Jobe

Phone: (502) 782-6670

E-mail: Cassandra.Jobes@ky.gov

- (1) Provide a brief summary of:
 - (a) What this administrative regulation does: This administrative regulation provides for the control of emissions of criteria pollutants from existing indirect heat exchangers.
 - (b) The necessity of this administrative regulation: This administrative regulation is necessary to control the air emissions of criteria pollutants from existing indirect heat exchangers. This administrative regulation is necessary for the Energy and Environment Cabinet (Cabinet) to protect human health and the environment by establishing emission limits for criteria pollutants for existing indirect heat exchangers.
 - (c) How this administrative regulation conforms to the content of the authorizing statutes: KRS 224.10-100(5) authorizes the Cabinet to promulgate administrative regulations for the prevention, abatement, and control of air pollution. This administrative regulation provides for the control of emissions from existing indirect heat exchangers. This administrative regulation is part of the Kentucky State Implementation Plan (SIP).
 - (d) How this administrative regulation currently assists or will assist in the effective administration of the statutes: This administrative regulation will enable the Cabinet to continue to implement and enforce the control of emissions from existing indirect heat exchangers, resulting in the protection of human health and the environment and attainment of the National Ambient Air Quality Standards (NAAQS).
- (2) If this is an amendment to an existing administrative regulation, provide a brief summary of:
 - (a) How the amendment will change this existing administrative regulation: This amendment clarifies the definitions of startup period and shutdown period to be consistent with federal definitions. This amendment also clarifies the requirements for work practice standards.
 - (b) The necessity of the amendment to this administrative regulation: This amendment is necessary to clarify definitions for consistency with federal regulations. The amendment also clarifies the requirements for work practice standards.

- (c) How the amendment conforms to the content of the authorizing statutes: The amendment conforms to the content of the authorizing statute by providing clarity and consistency with federal regulations.
 - (d) How the amendment will assist in the effective administration of statutes: The amendment clarifies the work practice standards for existing indirect heat exchangers.
- (3) List the type and number of individuals, businesses, organizations, or state and local governments affected by this administrative regulation.
Owners and operators of existing indirect heat exchangers will be affected by this administrative regulation.
- (4) Provide an analysis of how the entities identified in question (3) will be impacted by either the implementation of this administrative regulation, if new, or by the change, if it is an amendment, including:
 - (a) List the actions that each of the regulated entities identified in question (3) will have to take to comply with this administrative regulation or amendment: Regulated entities will have clarification in definitions and the work practice standards.
 - (b) In complying with this administrative regulation or amendment, how much will it cost each of the entities identified in question (3): There is no additional cost to the regulated entities to comply with this amendment. This amendment clarifies how regulated entities comply with the work practice standards.
 - (c) As a result of compliance, what benefits will accrue to the entities identified in question (3): As a result of compliance, the sources will have clarity on how to meet the work practice standards.
- (5) Provide an estimate of how much it will cost to implement this administrative regulation:
 - (a) Initially: The Division for Air Quality will not incur any additional costs for the implementation of this administrative regulation initially.
 - (b) On a continuing basis: The Division for Air Quality will not incur any additional costs for the implementation of this administrative regulation on a continual basis.
- (6) What is the source of the funding to be used for the implementation and enforcement of this administrative regulation: The Division for Air Quality's current operating budget will be used for the implementation and enforcement of the amendment to this administrative regulation.
- (7) Provide an assessment of whether an increase in fees or funding will be necessary to implement this administrative regulation, if new, or by the change if it is an amendment. No increase in fees or funding is necessary to implement this administrative regulation.

- (8) State whether or not this administrative regulation establishes any fees or directly or indirectly increases any fees. This administrative regulation does not establish any fees, nor does it directly or indirectly increase any fees.
- (9) TIERING: Is tiering applied? (Explain why or why not) Yes. Emission limits for affected facilities apply based on the capacity of the existing indirect heat exchanger.

FISCAL NOTE ON STATE AND LOCAL GOVERNMENT

Administrative Regulation: 401 KAR 61:015

Contact person: Cassandra Jobe

Phone Number: (502) 782-6670

E-mail: Cassandra.Job@ky.gov

1. What units, parts or divisions of state or local government (including cities, counties, fire departments, or school districts) will be impacted by this administrative regulation?
This administrative regulation has the potential to affect any unit, part, or division of state or local government operating an existing indirect heat exchanger. The Division for Air Quality will continue to permit sources in accordance with this administrative regulation.
2. Identify each state or federal statute or federal regulation that requires or authorizes action taken by the administrative regulation.
KRS 224.10-100(5), 224.20-120, 42 U.S.C. 7410, 7411, and 40 C.F.R. Part 60
3. Estimate the effect of this administrative regulation on the expenditures and revenues of a state or local government agency (including cities, counties, fire departments, or school districts) for the first full year the regulation is to be in effect.
 - (a) How much revenue will this administrative regulation generate for the state or local government (including cities, counties, fire departments, or school districts) for the first year?
The proposed administrative regulation will not generate revenue in the first year.
 - (b) How much revenue will this administrative regulation generate for the state or local government (including cities, counties, fire departments, or school districts) for subsequent years?
The proposed administrative regulation will not generate revenue in subsequent years.
 - (c) How much will it cost to administer this program for the first year?
The Division for Air Quality's current operating budget will be used to administer this program for the first year.
 - (d) How much will it cost to administer this program for subsequent years?
The Division for Air Quality's operating budget will be used to administer this program for subsequent years.

Note: If specific dollar estimates cannot be determined, provide a brief narrative to explain the fiscal impacts of the administrative regulation.

Revenues (+/-): There is no known effect on current revenues.

Expenditures (+/-): There is no known effect on current expenditures.

Other Explanation: There is no further explanation.

FEDERAL MANDATE ANALYSIS COMPARISON

Administrative Regulation: 401 KAR 61:015

Contact person: Cassandra Jobe

Phone: (502) 782-6670

E-mail: Cassandra.Job@ky.gov

1. Federal statute or regulation constituting the federal mandate.
The federal mandate for this administrative regulation is in 40 C.F.R. Part 60 and 42 U.S.C. 7411.
2. State compliance standards.
This administrative regulation provides for the control of emissions from existing indirect heat exchangers.
3. Minimum or uniform standards contained in the federal mandate.
42 U.S.C. 7411 requires that the U.S. EPA promulgate emission standards for existing stationary sources.
4. Will this administrative regulation impose stricter requirements, or additional or different responsibilities or requirements, than those required by the federal mandate?
Yes. This administrative regulation establishes work practice standards that are not part of the federal mandate.
5. Justification for the imposition of the stricter standard, or additional or different responsibilities or requirements.
The work practice standards were requested as an alternative way to address emissions, particularly during periods of startup and shutdown.

SUMMARY OF MATERIAL INCORPORATED BY REFERENCE

401 KAR 61:015

(1) Kentucky Air Pollution Control Commission Regulation No. 7 Prevention and Control of Emissions of Particulate Matter from Combustion of Fuel in Indirect Heat Exchangers is a regulation that became effective on November 27, 1969. This regulation was in effect prior to the current regulation and is used as a way for sources to comply with a requirement in order for the regulation not to apply retroactively.

This document consists of 4 pages.

**STATEMENT OF CONSIDERATION RELATING TO
401 KAR 59:015 and 401 KAR 61:015
Amended After Comments**

Energy and Environment Cabinet
Department for Environmental Protection
Division for Air Quality

I. The public hearing on 401 KAR 59:015 and 61:015 scheduled for October 30, 2017 at 10:00 a.m. in Conference Room 111 at 300 Sower Boulevard, Frankfort, Kentucky, 40601 was cancelled in accordance with KRS 13A.270(7). However, written comments were received during the public comment period.

II. The following individuals submitted written comments:

<u>Name and Title</u>	<u>Affiliation</u>
Brenda E. Brickhouse, Vice President, Environment and Energy Policy	Tennessee Valley Authority (TVA)
Jerry Purvis, Vice President, Environmental Affairs	East Kentucky Power Cooperative (EKPC)
Carolyn Brown, Counsel	Utility Information Exchange of Kentucky (UIEK)

III. The following individuals responded to comments:

<u>Name and Title</u>	<u>Affiliation</u>
Sean Alteri, Director	Division for Air Quality
Cassandra Jobe*, Supervisor, PPA	Division for Air Quality

*Cabinet representative

IV. **Summary of Comments and Responses**

401 KAR 59:015 and 401 KAR 61:015

(1) **Subject Matter: Work practice standards**

(a) **Comment: Carolyn Brown, UIEK; Brenda E. Brickhouse, TVA; Jerry Purvis, EKPC**

We support the proposed adoption of the EPA Mercury and Air Toxics Rule work practice standards for coal and oil-fired electric generating units in lieu of numeric limits, during startup and shutdown periods.

- (b) **Response:**
The Cabinet acknowledges these comments.
- (2) **Subject Matter: Support for Comments**
- (a) **Comment: Brenda E. Brickhouse, TVA; Jerry Purvis, EKPC**
We support the comments provided to the Cabinet by the Utility Information Exchange of Kentucky (UIEK).
- (b) **Response:**
The Cabinet acknowledges these comments.
- (3) **Subject Matter: Separate Definitions of Startup Period**
- (a) **Comment: Carolyn Brown, UIEK; Brenda E. Brickhouse, TVA; Jerry Purvis, EKPC**
The definition for startup period should reference the specific subpart of the applicable 40 C.F.R. Part 63 regulation.
- (b) **Response:**
The Cabinet concurs and amends the proposed administrative regulations to include a reference to the applicable 40 C.F.R. Part 63 regulatory definitions.
- (4) **Subject Matter: Definition of Startup Period**
- (a) **Comment: Carolyn Brown, UIEK; Brenda E. Brickhouse, TVA**
The general startup definition should be retained for sources not subject to requirements under 40 C.F.R. Part 63. The imposition of a 4-hour time limit is inappropriate and should be deleted.
- (b) **Response:**
The Cabinet concurs in part. The Cabinet agrees that the general definition of startup is necessary for sources not subject to requirements under 40 C.F.R. Part 63. The language in the general definition of startup period for these sources is consistent with the startup definitions from 40 C.F.R. Part 63 regulations.
- Regarding the 4-hour time limit for startup period, the general definition only applies to a subset of area sources, which are not covered by the 40 C.F.R. Part 63 regulations. The startup periods for these area sources are typically shorter in duration than the 4-hour time limit. Therefore, the Cabinet retains the 4-hour limit to be consistent with startup requirements in federal regulations.
- (5) **Subject Matter: Definition of Startup Period**
- (a) **Comment: Carolyn Brown, UIEK**
The general startup definition should be retained for sources not subject to requirements under 40 C.F.R. Part 63. The language "applicable to the pollutant" is not needed and should be deleted.

(b) Response:

The Cabinet concurs in part. The Cabinet agrees that the general definition of startup is necessary for sources not subject to requirements under 40 C.F.R. Part 63. The language in the general definition of startup period for these sources is consistent with the startup definitions from 40 C.F.R. Part 63 regulations.

To clarify, control devices are pollutant specific, and the time necessary to fully engage a control device based on manufacturer's specifications varies. Therefore, the Cabinet retains the language "applicable to the pollutant" as part of the general startup period definition.

(6) Subject Matter: Definition of Shutdown Period

(a) Comment: Carolyn Brown, UIEK; Jerry Purvis, EKPC

In order for the revised provisions of 401 KAR 59:015 and 401 KAR 61:015 to work seamlessly with 40 C.F.R. Part 63 regulations, the definition of shutdown should be revised to reference the applicable 40 C.F.R. Part 63 regulations.

(b) Response:

The Cabinet concurs and amends the proposed administrative regulations to include a reference to the 40 C.F.R. Part 63 regulatory definitions.

(7) Subject Matter: Standards During Startup and Shutdown

(a) Comment: Carolyn Brown, UIEK; Brenda E. Brickhouse, TVA

Section 7 of 401 KAR 59:015 and Section 9 of 401 KAR 61:015 also include troubling general language that could be the basis for assertion that compliance with the specific NEHSAP work practice standards and manufacturers recommended procedures is 'not enough' in some cases. It should be clarified that Section 7(1) of 401 KAR 59:015 and Section 9(1) of 401 KAR 61:015 apply to non-NESHAP sources and that Section 7(2) of 401 KAR 59:015 and Section 9(2) of 401 KAR 61:015 apply to NESHAP sources.

(b) Response:

The Cabinet amends the proposed administrative regulations to clarify that sources are expected to comply with either subsection (1) or subsection (2). This clarifies that subsection (1) is for sources not subject to requirements under 40 C.F.R. Part 63, and subsection (2) is for sources subject to requirements under 40 C.F.R. Part 63.

(8) Subject Matter: Standards During Startup and Shutdown for Non-NESHAP Sources

(a) Comment: Carolyn Brown, UIEK

"Additionally, for indirect heat exchangers that are not subject to one of the identified NESHAP subparts, Section 7(1)(a) of 401 KAR 59:015 and Section 9(1)(a) of 61:015 are duplicative of 401 KAR 50:055 Section 2(5) and therefore should be deleted."

(b) **Response:**
The Cabinet concurs the language is duplicative. Therefore, the Cabinet amends Sections 7(1)(a) and 9(1)(a) to reference 401 KAR 50:055, Section 2(5).

(9) **Subject Matter: Work practice standards general language**

(a) **Comment: Carolyn Brown, UIEK; Brenda E. Brickhouse, TVA**

“Similarly, Section 7(1)(c) of 401 KAR 59:015 and Section 9(1)(c) of 401 KAR 61:015 use the term ‘all possible steps’ which is vague and provides little direction to the regulated community. Therefore, for indirect heat exchangers that will be subject to these general provisions, UIEK requests that the Division revise the language to simply state that ‘steps shall be taken...’.”

(b) **Response:**

The Cabinet concurs in part with the comment. To be consistent with language in 401 KAR 50:055, Section 1(4), the Cabinet amends the proposed administrative regulations to “All reasonable steps....”.

401 KAR 59:015 Only

(10) **Subject Matter: Applicability of 401 KAR 59:015**

(a) **Comment: Carolyn Brown, UIEK**

“UIEK does not object to revising this section to provide that the exemption is limited to Sections 3-6 of 401 KAR 59:015, provided that any revision to permits to reflect this change would not occur until the first renewal following approval of these changes into the State Implementation Plan (SIP). UIEK requests confirmation that amendment of the regulation as proposed would not trigger reopening or revision of existing permits by the Division under 401 KAR 52:020 prior to renewal as noted above.”

(b) **Response:**

The Cabinet concurs in part. Once the administrative regulation becomes effective, the Cabinet does not intend to ‘reopen’ permits pursuant to 401 KAR 52:020, Section 19. However, the Cabinet will incorporate these requirements into permits as the cabinet processes applications for modifications, renewals, reconstruction, or new sources prior to EPA’s final approval into the Kentucky State Implementation Plan.

V. Summary of Action Taken by Promulgating Agency

401 KAR 59:015: Comments were considered and the following amendments are proposed:

Page 1

RELATES TO

Lines 6 and 7

After “Appendices A”, insert a comma.

Delete “and”.

Page 1

NECESSITY, FUNCTION, AND CONFORMITY

Line 11

After "This administrative regulation", insert "establishes requirements".
Delete "provides".

Page 2

Section 1(6)

Line 12

After "means" delete "the period".

Line 13

After "(a)", insert:

For a source subject to 40 C.F.R. Part 63, Subpart DDDDD, UUUUU, or JJJJJ, the period defined as "shutdown" in:

1. 40 C.F.R. 63.7575;

2. 40 C.F.R. 63.10042; or

3. 40 C.F.R. 63.11237; or

(b) For a source not subject to 40 C.F.R. Part 63, Subpart DDDDD, UUUUU, or JJJJJ, the period

Delete "Beginning when, whichever occurs first".

Line 14

After "1.", insert:

Beginning when whichever occurs first:

a.

Line 16

Insert, "b.", delete "2.".

Line 17

Insert, "2.", delete "(b)".

Line 18

Insert, "a.", delete "1.".

Line 20

Insert, "b.", delete "2.".

Page 2

Section 1(7)

Line 21

After "means" delete "the period".

Line 22

After "(a)", insert:

For a source subject to 40 C.F.R. Part 63, Subpart DDDDD, UUUUU, or JJJJJ, the period defined as "startup" in:

1. 40 C.F.R. 63.7575;

2. 40 C.F.R. 63.10042; or

3. 40 C.F.R. 63.11237; or

(b) For a source not subject to 40 C.F.R. Part 63, Subpart DDDDD, UUUUU, or JJJJJ, the period

Delete "Beginning with either".

Page 3

Section 1(7)

Line 1

After "1.", insert:

Beginning with either:

a.

Line 3

Insert, "b.", delete "2.".

Line 5

Insert, "2.", delete "(b)".

Page 3

Section 2(2)

Line 13

After "40 C.F.R. 60.40", insert "through".

Delete "to".

After "60.40Da", insert "through".

Delete "to".

Line 14

After "60.40b", insert "through".

Delete "to".

After "60.40c", insert "through".

Delete "to".

Page 4

Section 3(3)

Line 5

After "to this subsection, as", insert the following:

established in paragraphs (a) through (f) of this subsection.

Delete "follows:".

Page 17

Section 6(1)

Lines 5 and 6

After "administrative regulation as", insert the following:

established in paragraphs (a) through (e) of this subsection.

Delete "follows:".

Page 17

Section 6(1)(a)

Lines 7 and 8

After "and sample traverses", insert a period.

Delete the semicolon.

Page 17

Section 6(1)(b)

Lines 9 and 10

After “Methods 5 and 6”, insert a period.

Delete the semicolon.

Page 17

Section 6(1)(c)

Line 12

After “associated moisture control”, insert a period.

Delete the semicolon.

Page 17

Section 6(1)(d)

Line 13

After “of sulfur dioxide”, insert a period.

Delete the semicolon.

Page 20

Section 7(1)(a)

Line 7

After “(1)(a)”, insert

The owner or operator shall comply with 401 KAR 50:055, Section 2(5);

Delete the remainder of Section 7(1)(a) except the semicolon.

Page 20

Section 7(1)(c)

Line 12

After “(c) All”, insert “reasonable”.

Delete “possible”.

Page 20

Section 7(1)(e)2.

Line 22

After “of the affected facility;” insert “or”.

Delete “and”.

Page 21

Section 7(2)(a)

Line 2

After “standards established in”, delete the following:

Table 3 to Subpart DDDDD of

After “40 C.F.R. Part 63,”, insert the following:

Table 3 to Subpart DDDDD.

Page 21
Section 7(2)(b)
Line 5

After "established in", delete the following:
Table 3 to Subpart UUUUU of
After "40 C.F.R. Part 63," insert the following:
Table 3 to Subpart UUUUU.

Page 21
Section 7(2)(c)
Line 8

After "standards established in", delete the following:
Table 2 to Subpart JJJJJ of
After "40 C.F.R. Part 63," insert the following:
Table 2 to Subpart JJJJJ.

401 KAR 61:015: Comments were considered and the following amendments are proposed:

Page 1
NECESSITY, FUNCTION, AND CONFORMITY
Line 11

After "This administrative regulation", insert "establishes requirements".
Delete "provides".

Page 2
Section 1(6)
Line 11

After "means" delete "the period".

Line 12

After "(a)", insert:

For a source subject to 40 C.F.R. Part 63, Subpart DDDDD, UUUUU, or JJJJJ, the period defined as "shutdown" in:

1. 40 C.F.R. 63.7575;
2. 40 C.F.R. 63.10042; or
3. 40 C.F.R. 63.11237; or

(b) For a source not subject to 40 C.F.R. Part 63, Subpart DDDDD, UUUUU, or JJJJJ, the period

Delete "Beginning when, whichever occurs first".

Line 13

After "1.", insert:

Beginning when whichever occurs first:

a.

Line 15

Insert, "b.", delete "2.".

Line 16

Insert, "2.", delete "(b)".

Line 17

Insert, "a.", delete "1."

Line 19

Insert, "b.", delete "2."

Page 2

Section 1(7)

Line 20

After "Startup", insert "period", delete "periods".

Line 21

After "(a)", insert:

For a source subject to 40 C.F.R. Part 63, Subpart DDDDD, UUUUU, or JJJJJ, the period defined as "startup" in:

1. 40 C.F.R. 63.7575;

2. 40 C.F.R. 63.10042; or

3. 40 C.F.R. 63.11237; or

(b) For a source not subject to 40 C.F.R. Part 63, Subpart DDDDD, UUUUU, or JJJJJ, the period

Delete "Beginning with either".

Line 22

After "1.", insert:

Beginning with either:

a.

Page 3

Section 1(7)

Line 1

Insert, "b.", delete "2."

Line 5

Insert, "2.", delete "(b)".

Page 5

Section 3(3)(b)

Line 1

After "or gaseous fuel)", insert a comma.

Page 7

Section 4(1)(b)3.

Line 2

After "to operating conditions", insert "if".

Delete "provided".

Page 7

Section 4(1)(c)3.

Line 17

After "to operating conditions", insert "if".

Delete “provided”.

Page 7

Section 4(2)

Line 20

After “The emission limitations”, insert “established”.

Delete “contained”.

Page 8

Section 4(2)

Lines 6 and 7

After “to the standard”, insert “established”.

Delete “contained”.

Page 9

Section 5(4)

Lines 10

After “input greater than”, insert “1,500”.

Delete “1500”.

Page 9

Section 5(5)

Line 15

After “input greater than”, insert “1,500”.

Delete “1500”.

Line 18

After “average of eight”, insert “and zero-tenths”.

Page 10

Section 6(3)

Line 3

After “(3)”, insert “(a)”.

Lines 3 and 4

After “intervals and recorded.”, insert “(b)”.

Lines 4 and 5

After “week and recorded.”, insert “(c)”.

Page 10

Section 6(5)

Line 13

After “heat input”, insert a comma.

Page 10

Section 6(6)

Line 16

After “dioxide emissions”, insert “shall not be”.

Delete “is not”.

Page 11

Section 7(1)(e)

Line 6

Capitalize the “M” in “Reference method”.

Page 11

Section 7(2)(a)

Line 10

After “sampling points”, insert a semicolon.
Delete the period.

Page 11

Section 7(2)(b)

Lines 13 and 14

After “by the source”, insert “; and”.
Delete the period.

Page 11

Section 7(3)

Line 17

After “Reference Methods 6”, insert a colon.
Delete the semicolon.

Page 11

Section 7(3)(a)

Line 18

After “Reference Method 5”, insert a semicolon.
Delete the period.

Page 11

Section 7(3)(b)

Line 20

After “(3.28 ft.)”, insert a semicolon.
Delete the period.

Page 11

Section 7(3)(c)

Line 22

After “the sampling point”, insert a semicolon.
Delete the period.

Page 12

Section 7(3)(d)

Line 1

After “twenty (20) minutes”, insert a comma.

Line 2

After “for each sample”, insert a semicolon.
Delete the period.

Page 12

Section 7(3)(e)

Line 3

After “one (1) run”, insert “; and”.
Delete the period.

Page 12

Sections 7(3)(f) and 7(4)

Lines 4 and 5

After “(30) minute intervals., insert “(4)”.
Delete “(5)”.

Page 12

Section 7(5)(a)1.

Line 13

After “(lb/MMBTU)”, insert a semicolon.
Delete the period.

Page 12

Section 7(5)(a)2.

Lines 14 and 15

After “Method 5, or 6”, insert a semicolon.
Delete the period.

Page 12

Section 7(5)(a)3.

Line 16

After “60.45(f)”, insert “; and”.
Delete the period.

Page 12

Section 7(5)(a)4.

Line 19

After “be obtained as”, insert the following:
established in paragraphs (b) and (c) of this subsection.
Delete “follows:”.

Page 13

Section 7(5)(c)

Line 1

After "(c)", insert "1".

Line 3

After "Method 5", insert "pursuant to".

Delete "under".

After "of this section.", insert "2".

Page 13

Sections 7(5)(c) and 7(6)

Lines 4 and 5

After "shall be required.", insert "(5)".

Delete "(6)".

Page 13

Section 7(6)

Line 7

After "each fuel burned", insert "GCV".

Delete "GVC".

Page 15

Section 9(1)(a)

Line 17

After "(1)(a)", insert

The owner or operator shall comply with 401 KAR 50:055, Section 2(5);

Delete the remainder of Section 7(1)(a) except the semicolon.

Page 16

Section 9(1)(c)

Line 1

After "(c) All", insert "reasonable".

Delete "possible".

Page 16

Section 9(1)(e)2.

Line 11

After "of the affected facility;" insert "or".

Delete "and".

Page 16

Section 9(2)(a)

Line 2

After "standards established in", delete the following:

Table 3 to Subpart DDDDD of

After "C.F.R. Part 63,", insert the following:

Table 3 to Subpart DDDDD,

Page 16
Section 9(2)(b)
Lines 4 and 5

After “standards established in”, delete the following:
Table 3 to Subpart UUUUU of
After “C.F.R. Part 63,”, insert the following:
Table 3 to Subpart UUUUU,

Page 16
Section 9(2)(c)
Line 8

After “standards established in”, delete the following:
Table 2 to Subpart JJJJJ of
After “C.F.R. Part 63,”, insert the following:
Table 2 to Subpart JJJJJ,

Page 19
Appendix B
Line 2

After “All standards”, insert “shall be”.
Delete “are”.

Page 19
Appendix B
Title, Row 1

After “actual heat input)”, insert “shall be”.
Delete “is”.