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**OFFICE OF THE LIEUTENANT GOVERNOR
ALASKA**

MEMORANDUM

TO: Gary Mendivil
Department of Environmental Conservation

FROM: Scott Meriwether, Office of the Lieutenant Governor 
465.4081

DATE: December 14, 2017

RE: Filed Permanent Regulations: Department of Environmental Conservation

Department of Environmental Conservation regulations re: air quality, PM-2.5 (fine particulate matter), wood- and coal-fired devices, and the state air quality control plan (18 AAC 50.030; 18 AAC 50.075(e), (f); 18 AAC 50.077; 18 AAC 50.079; 18 AAC 50.990)

Attorney General File:	JU2017200219
Regulation Filed:	12/13/2017
Effective Date:	1/12/2018
Print:	225, April 2018

cc with enclosures: Linda Miller, Department of Law
Judy Herndon, LexisNexis

ORDER ADOPTING CHANGES TO
REGULATIONS OF THE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

The attached 14 pages of regulations, dealing with air quality regulations are hereby adopted and certified to be a correct copy of the regulation changes that the Department of Environmental Conservation adopts under the authority of AS 46.03 and AS 46.14 and after compliance with the Administrative Procedures Act (AS 44.62), specifically including notice under AS 44.62.190 and 44.62.200 and opportunity for public comment under AS 44.62.210.

This action is not expected to require an increased appropriation.

In considering public comments, the Department of Environmental Conservation paid special consideration to the cost to private persons of the regulatory action being taken. The Department of Environmental Conservation also gave special attention to alternate practical methods in this regulatory action, as required by AS 46.03.024.

The regulation changes adopted under this order take effect on the 30th day after they have been filed by the lieutenant governor as provided in AS 44.62.180.

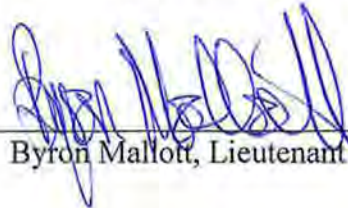
DATE: December 8, 2017
Anchorage, Alaska



Larry Hartig, Commissioner
Department of Environmental Conservation

FILING CERTIFICATION

I, Byron Mallott, Lieutenant Governor for the State of Alaska, certify that on December 13
2017, at 2:40 p.m., I filed the attached regulations according to the provisions of AS 44.62.040 –
44.62.120.



Byron Mallott, Lieutenant Governor

Effective: January 12, 2018

Register: 225, April 2018

18 AAC 50.030 is repealed and readopted to read:

18 AAC 50.030. State air quality control plan. (a) Volumes II and III of the *State Air Quality Control Plan* for implementing and enforcing the provisions of AS 46.14 and this chapter, as amended through ~~{adoption date of the regulations}~~ ^{December 3, 2017}, are adopted by reference. The plan includes the following documents that are also adopted by reference:

- (1) the department's *Alaska Air Quality Small Business Assistance Program*, April 1994;
 - (2) the Code of the City and Borough of Juneau, Alaska, Chapter 36.40, amended by the provisions of Ordinance of the City and Borough of Juneau, Alaska, Serial No. 2008-28, sec. 2;
 - (3) except as provided in 18 AAC 50.090(b), the department's *Air Quality Compliance Certification Procedures for Volatile Liquid Storage Tanks, Delivery Tanks, and Loading Racks*, as amended through December 10, 1992;
 - (4) the department's *Quality Assurance Project Plan for the State of Alaska Air Monitoring & Quality Assurance Program*, as amended through February 23, 2010;
 - (5) *Protocol for Determining the Best Performing Model*, EPA-454/R-92-025, December 1992;
 - (6) *Source Test Report Outline*, as amended through November 1984;
 - (7) the department's *Performance Audits for COMS*, revised as of August 20, 2008;
 - (8) the department's *Minor Permit Application Forms*, dated August 30, 2004.
- (b) Any sources that under the *State Air Quality Control Plan*, adopted by reference in

(a) of this section, are subject to RACT or are subject to BACM and BACT shall comply with RACT or with BACM and BACT as identified in the specific sections of the *State Air Quality Control Plan*. (Eff. 1/18/97, Register 141; am 6/21/98, Register 146; am 9/4/98, Register 147; am 1/1/2000, Register 152; am 12/30/2000, Register 156; am 9/21/2001, Register 159; am 1/27/2002, Register 161; am 3/27/2002, Register 161; am 5/3/2002, Register 162; am 2/20/2004, Register 169; am 6/24/2004, Register 170; am 10/1/2004, Register 171; am 12/14/2006, Register 180; am 12/30/2007, Register 184; am 5/17/2008, Register 186; am 7/25/2008, Register 187; am 11/9/2008, Register 188; am 5/6/2009, Register 190; am 11/4/2009, Register 192; am 4/1/2010, Register 193; am 10/29/2010, Register 196; am 4/13/2011, Register 198; am 9/17/2011, Register 199; am 8/1/2012, Register 203; am 5/8/2013, Register 206; am 2/5/2015, Register 213; am 4/17/2015, Register 214; am 3/2/2016, Register 217; am 11/26/2016, Register 220; am 12/29/2016, Register 220; am 1 / 12 / 2018, Register 225)

Authority: AS 46.03.020 AS 46.14.030 Sec. 30, ch. 74, SLA 1993
 AS 46.14.020 AS 46.14.140

18 AAC 50.075(e) is amended to read:

(e) The department may prohibit operation of a solid fuel-fired heating device in an area for which the department has declared a PM-2.5 air quality episode under emergency episode provisions included in a local air quality plan incorporated in the *State Air Quality Control Plan*, adopted by reference in 18 AAC 50.030, only if [(1) THE TEMPERATURE IS WARMER THAN ANY THRESHOLD TEMPERATURE IDENTIFIED IN A LOCAL AIR QUALITY PLAN INCORPORATED IN THE STATE AIR QUALITY CONTROL PLAN, ADOPTED BY

REFERENCE IN 18 AAC 50.030; AND (2)] the announcement identifies

(1) [(A)] the air quality zone affected by the prohibition; and

(2) [(B)] any exceptions as identified in the *State Air Quality Control Plan*, adopted by reference in 18 AAC 50.030.

18 AAC 50.075 is amended by adding a new subsection to read:

(f) A solid fuel-fired heating device located in an area identified in 18 AAC 50.015(b)(3) shall be operated so that the visible emissions or opacity do not exceed 20 percent opacity for more than six minutes in any one hour, except during the first 15 minutes after initial firing of the device when the opacity limit must be less than 50 percent. Visible emissions are measured as set out in (a)(2) of this section. (Eff. 1/18/97, Register 141; am 5/6/2009, Register 190; am 2/28/2015, Register 213; am 11/26/2016, Register 220; am 1 / 12 / 2018, Register 225)

Authority: AS 46.03.020 AS 46.14.020 Sec. 30, ch. 74, SLA 1993

AS 46.14.010 AS 46.14.030

18 AAC 50.077(a) is repealed and readopted to read:

(a) This section applies to a person who

(1) owns or operates a wood-fired heating device in an area identified in 18 AAC 50.015(b)(3), if the wood-fired heating device

(A) is installed on or after February 28, 2015;

(B) was installed before February 28, 2015, and the wood-fired heating device

(i) is being sold, leased, or conveyed as part of an existing building or other property; and

(ii) lacked a valid EPA certification under 40 C.F.R. 60.533 or a qualifying "white tag" under EPA's Phase 2 voluntary partnership program for hydronic heaters; or

(C) is not otherwise exempted in this section; or

(2) intends to supply, sell, lease, distribute, convey, or install a wood-fired heating device for operation in an area identified in 18 AAC 50.015(b)(3).

18 AAC 50.077(b) is amended to read:

(b) Except as provided under (f), (g), or (h) of this section, a person may not operate, install, or reinstall a wood-fired hydronic heater in an area identified in 18 AAC 50.015(b)(3), and may not supply, sell, lease, distribute, or convey a wood-fired hydronic heater for operation or installation in an area identified in 18 AAC 50.015(b)(3), unless

(1) the model

(A) has been certified [RECEIVED A QUALIFYING "WHITE TAG"] under 40 C.F.R. 60.5474(a)(1) and (b)(1) (Subpart QQQQ, "Step 1" emission rates), revised as of July 1, 2017, and adopted by reference;

(B) [EPA'S PHASE 2 VOLUNTARY PARTNERSHIP PROGRAM FOR HYDRONIC HEATERS,] meets the particulate matter annual average emission limit in (2) of this subsection; [,] and

(C) has a rated size under 350,000 Btu per hour; or

(2) a laboratory with current EPA accreditation under 40 C.F.R. 60.535 has tested the model to meet an annual average emission level of 0.32 pounds per million Btu of heat output, a particulate matter annual average emission limit of 2.5 grams per hour, and a maximum individual test-run emission rate of 18.0 grams of fine particles per hour; the test results

(A) must **be** [HAVE BEEN (A)] obtained using **one of the following** test procedures applicable to the specific device; [IN EPA'S PHASE 2 VOLUNTARY PARTNERSHIP PROGRAM FOR HYDRONIC HEATERS; THOSE PROCEDURES ARE SET OUT IN]

(i) [ATTACHMENT 2 TO THE EPA HYDRONIC HEATER PROGRAM: PHASE 2 PARTNERSHIP AGREEMENT, DATED OCTOBER 12, 2011, CONSISTING OF EPA'S TEST METHOD 28 WHH FOR MEASUREMENT OF PARTICULATE EMISSIONS AND HEATING EFFICIENCY OF WOOD-FIRED HYDRONIC HEATING APPLIANCES; THE TEST METHOD IS ADOPTED BY REFERENCE;

(ii) ASTM International **E 2618-13** [E 2618-09], *Standard Test Method for Measurement of Particulate Emissions and Heating Efficiency of* [OUTDOOR] *Solid Fuel-Fired Hydronic Heating **Appliances*** [DEVICES], approved **September 1, 2013**, [FEBRUARY 15, 2009] and adopted by reference, **subject to conditions in 40 C.F.R. Part 60, Subpart OOOO, revised as of July 1, 2017, and adopted by reference;**

(ii) 40 C.F.R. Part 60, Appendix A-8, Method 28WHH-PTS, revised as of July 1, 2017, and adopted by reference;

(B) must be obtained using one of the following test procedures applicable to the specific device:

(i) [(iii)] ASTM International E 2515-11, *Standard Test Method for Determination of Particulate Matter Emissions Collected by a Dilution Tunnel*, approved November 1, 2011, and adopted by reference;

(ii) **40 C.F.R. Part 60, Appendix A, Method 5G, revised as of July 1, 2017, and adopted by reference;** and

(C) obtained under (A) and (B) of this paragraph must be [(B)] submitted to and approved by the department as described in (e) of this section, if the wood-fired hydronic heater is not already listed under (e) of this section by the department.

18 AAC 50.077(c)(2) is amended to read:

(2) a laboratory with current EPA accreditation under 40 C.F.R. 60.535 has tested the model to meet a particulate matter annual average emission limit of 2.5 grams per hour; the test results must **be** [HAVE BEEN]

(A) obtained using [THE]

(i) **the** test procedures applicable to the specific device; those procedures are set out in 40 C.F.R. Part 60, Appendix A, Methods 28, [AND] 28A, **and 28R, revised as of July 1, 2017, and** adopted by reference [IN 18 AAC 50.040]; **or** [AND]

(ii) alternative cordwood methods that have been approved by

EPA;

(B) obtained using the emission concentration measurement procedures applicable to the specific device; those procedures are set out in 40 C.F.R. Part 60, Appendix A, Methods 5G and 5H, revised as of July 1, 2017, and adopted by reference [IN 18 AAC 50.040];

(C) calculated in grams per hour; and

(D) [(B)] submitted to and approved by the department as described in (e) of this section, if the woodstove is not already listed under (e) of this section by the department.

18 AAC 50.077(d) is amended to read:

(d) Except as provided under (f), (g), or (h) of this section, and if a wood-fired heating device has a rated size of 350,000 Btu or greater per hour, a person may not operate or install the wood-fired heating device in an area identified in 18 AAC 50.015(b)(3), and may not supply, sell, lease, distribute, or convey the wood-fired heating device for operation or installation in an area identified in 18 AAC 50.015(b)(3), unless a laboratory with current EPA accreditation under 40 C.F.R. 60.535 has tested the model to meet a particulate matter annual average emission limit of 2.5 grams per hour; the test results

(1) must be [HAVE BEEN (1)] obtained using one of the following test procedures applicable to the specific device; [; THOSE PROCEDURES ARE SET OUT IN]

(A) ASTM International E 2618-13 [E 2618-09], *Standard Test Method for Measurement of Particulate Emissions and Heating Efficiency of [OUTDOOR] Solid Fuel-Fired Hydronic Heating Appliances* [DEVICES], adopted by reference in (b)(2)(A)(i) [(b)(2)(A)(ii)] of this section;

(B) 40 C.F.R. Part 60, Appendix A-8, Method 28WHH, revised as of July 1, 2017, and adopted by reference;

(C) Canadian Standards Association (CSA) Method B415.1-10, Performance Testing of Solid-Fuel-Burning Heating Appliances, dated March 2010, reaffirmed 2015, and adopted by reference, as referenced in 40 C.F.R. Part 60, Subpart QQQQ, revised as of July 1, 2017, and adopted by reference;

(2) must be obtained using [(B)] ASTM International E 2515-11, *Standard Test Method for Determination of Particulate Matter Emissions Collected by a Dilution Tunnel*, adopted by reference in (b)(2)(B)(i) [(b)(2)(A)(iii)] of this section; and

(3) obtained under (1) and (2) of this subsection must be [(2)] submitted to and approved by the department as described in (e) of this section, if the wood-fired heating device is not already listed under (e) of this section by the department.

18 AAC 50.077(g) is amended to read:

(g) Subsections (b) – (d) of this section do not apply to operation of a wood-fired heating device that is located in an area that is identified in 18 AAC 50.015(b)(3), if [(1) UNDER 42 U.S.C. 7513 AND 7602, EPA HAS DESIGNATED THE AREA AS A "MODERATE" NONATTAINMENT AREA WITH RESPECT TO PM-2.5; AND (2)] the

wood-fired heating device [IS BEING SOLD, LEASED, OR CONVEYED AS PART OF AN EXISTING BUILDING OR OTHER PROPERTY AND THE DEVICE] was installed in that building or on that property before February 28, 2015.

The introductory language of 18 AAC 50.077(h) is amended to read:

(h) Subsections (b) - (d) of this section do not apply to the conveyance of a wood-fired heating device under **(a)(1)(B)** [(a)(2)(B)] of this section if the owner requests and receives a temporary waiver from the department or a local air quality program. The department or local air quality program may grant a temporary waiver after considering

...

(Eff. 2/28/15, Register 213; am 11/26/2016, Register 220; am 1 / 12 / 2018, Register 225)

Editor's note: For the convenience of consumers, the United States Environmental Protection Agency (EPA) keeps a list of wood-fired hydronic heaters with qualifying "**white** [WHILE] tags" under EPA's Phase 2 voluntary partnership program for hydronic heaters. That list is part of EPA's *Partners - Program Participation - List of Qualified Hydronic Heaters*, and is available on the Internet at <http://www.epa.gov/burnwise/whhlist.html>. For additional information whether a heater appearing on that list is in compliance with 18 AAC 50.077, please contact the Department of Environmental Conservation at: Department of Environmental Conservation, Division of Air Quality, 410 Willoughby Avenue, Suite 303, P.O. Box 111180, Juneau, AK 99801; telephone: (907) 465-5100.

For the convenience of consumers, the United States Environmental Protection Agency (EPA) keeps a list of wood heaters certified under 40 C.F.R. 60.533. That list, entitled *List of*

EPA Certified Wood Heaters (Heaters certified as meeting the 1988 Standards of Performance for New Residential Wood Heaters), is available on the Internet at

<http://www.epa.gov/Compliance/resources/publications/monitoring/caa/woodstoves/certifiedwod.pdf>. For additional information whether a heater appearing on that list is in compliance with 18 AAC 50.077, please contact the Department of Environmental Conservation, Division of Air Quality, 410 Willoughby Avenue, Suite 303, P.O. Box 111180, Juneau, AK 99801; telephone: (907) 465-5100.

The test methods adopted by reference in 18 AAC 50.077 may be reviewed at the department's Anchorage, Fairbanks, or Juneau office. For information on how to obtain a copy of the ASTM International documents adopted by reference in 18 AAC 50.077, contact ASTM International, Publications Department, 100 Barr Harbor Drive, P.O. Box C700, West Conshohocken, Pennsylvania, 19428-2959; telephone (877) 909-2786; fax (610) 832-9555. **For information on how to obtain a copy of the Canadian Standards Association document adopted by reference in 18 AAC 50.077, contact the Canadian Standards Association (CSA), 178 Rexdale Boulevard, Etobicoke, ON, M9W 1R3, Canada; telephone (416) 747-4139; fax (416) 401-6621.**

The list of wood-fired heating devices maintained under 18 AAC 50.077(e) is available at the department's offices in Anchorage, Fairbanks, and Juneau, is available on the Internet at <http://burnwise.alaska.gov/>, or can be obtained by contacting the Department of Environmental Conservation, Division of Air Quality, 410 Willoughby Avenue, Suite 303, P.O. Box 111180, Juneau, AK 99801; telephone: (907) 465-5100.

18 AAC 50 is amended by adding a new section to read:

18 AAC 50.079. Provisions for coal-fired heating devices. (a) This section applies to a person who

(1) owns or operates a coal-fired heating device in an area identified in 18 AAC 50.015(b)(3), if the coal-fired device

(A) is installed before ^{January 12, 2018} {effective date of regulations}; and

(B) is not otherwise exempted in this section; or

(2) intends to supply, sell, lease, distribute, convey, or install a coal-fired heating device for operation in an area identified in 18 AAC 50.015(b)(3).

(b) A person may not operate, install, or reinstall a coal-fired heating device and may not supply, sell, lease, distribute, or convey a coal-fired heating device for operation or installation unless it is a listed device with the local government's air quality program or certified by EPA.

(c) Except as provided under (d) or (e) of this section, a person may not sell, lease, or convey a coal-fired heating device as part of an existing building or other property located in an area identified in 18 AAC 50.015(b)(3) unless the device is listed with the local government's air quality program or certified by EPA.

(d) Subsection (c) of this section does not apply to an installed coal-fired heating device that has undergone, during wintertime operation, an emission source test

(1) that the department has approved;

(2) that uses 40 C.F.R. Part 60, Appendix A-3, Method 5, revised as of July 1, 2017, and adopted by reference; and

(3) for which the maximum emission rate for any individual test run does not exceed 18.0 grams per hour of total particulate matter.

(e) Subsection (c) of this section does not apply to the conveyance of a coal-fired heating device in an area identified in 18 AAC 50.015(b)(3) if the owner requests and receives a temporary waiver from the department or a local air quality program. The department or local air quality program may grant a temporary waiver after considering

(1) financial hardship information provided by the owner or operator;

(2) technical feasibility and device design information provided by the owner or operator; and

(3) potential impact to locations with populations sensitive to exposure to PM-2.5; locations under this paragraph include hospitals, schools, child care facilities, health clinics, long-term care facilities, assisted living homes, and senior centers. (Eff. 1 / 12 / 2018, Register 225)

Authority: AS 46.03.020 AS 46.14.020 Sec. 30, ch. 74, SLA 1993
AS 46.14.010 AS 46.14.030

18 AAC 50.990(71) is amended to read:

(71) "particulate matter"

(A) except as provided in (B) of this paragraph, means a material, except water, that is or has been airborne and exists as a liquid or solid at standard conditions;

(B) with respect to meeting emissions standards in 18 AAC 50.077,

(i) has the meaning given in 40 C.F.R. 60.531 (Subpart AAA), revised as of July 1, 2017, and adopted by reference;

(2) includes total particulate matter as defined in the definition of "particulate matter" in 40 C.F.R. 60.531;

18 AAC 50.990(138)(C) is amended to read:

(C) does not include a device that is

(i) primarily a part of an industrial process and incidentally provides usable heat for the interior of a building; or

(ii) is a cogeneration boiler that provides both steam for electrical generation and steam for a centralized heat distribution system;

18 AAC 50.990 is amended by adding new paragraphs to read:

(149) "BACM" has the meaning given the term "best available control measures (BACM)" in 40 C.F.R. 51.1000, as revised as of July 1, 2017, adopted by reference;

(150) "BACT"

(A) except as provided in (B) of this paragraph, has the meaning given the term "best available control technology" in 40 C.F.R. 52.21(b), adopted by reference in 18 AAC 50.040;

(B) with respect to a nonattainment area plan for a nonattainment area that under 42 U.S.C. 7513 and 7602 EPA has designated "serious" for PM-2.5, has the meaning given the term "best available control technology" in 40 C.F.R. 52.21(b),

adopted by reference in 18 AAC 50.040, except that BACT applies only to direct emissions of PM-2.5 and to PM-2.5 plan precursors;

(151) "RACT" has the meaning given the term "reasonably available control technology (RACT)" in 40 C.F.R. 51.100(o), as revised as of July 1, 2017, adopted by reference. (Eff. 1/18/97, Register 141; am 6/14/98, Register 146; am 6/21/98, Register 146; am 9/4/98, Register 147; am 11/4/99, Register 152; am 1/1/2000, Register 152; am 2/2/2002, Register 161; am 5/3/2002, Register 162; am 11/15/2002, Register 164; am 8/8/2003, Register 167; am 10/1/2004, Register 171; am 12/3/2005, Register 176; am 12/30/2007, Register 184; am 7/25/2008, Register 187; am 4/1/2010, Register 193; am 12/9/2010, Register 196; am 9/17/2011, Register 199; am 9/14/2012, Register 203; am 10/6/2013, Register 208; am 11/9/2014, Register 212; am 2/28/2015, Register 213; am 4/17/2015, Register 214; am 3/2/2016, Register 217; am 1 / 12 / 2018, Register 225)

Authority:	AS 44.46.025	AS 46.14.140	AS 46.14.250
	AS 46.03.020	AS 46.14.150	AS 46.14.255
	AS 46.03.710	AS 46.14.160	AS 46.14.280
	AS 46.14.010	AS 46.14.170	AS 46.14.285
	AS 46.14.020	AS 46.14.180	AS 46.14.290
	AS 46.14.030	AS 46.14.210	AS 46.14.300
	AS 46.14.120	AS 46.14.230	AS 46.14.560
	AS 46.14.130	AS 46.14.240	Sec. 30, ch. 74, SLA 1993