

## Outdoor Hydronic Heaters Meeting Emission Standards for the Fairbanks North Star Borough PM2.5 Nonattainment Area

These standards only apply to heating devices being **sold or installed** in the FNSB PM2.5 Nonattainment Area beginning **February 28, 2015**. Only wood-fired hydronic heaters that appear on this list and meet the emission standards may be sold or installed inside the nonattainment area beginning February 28, 2015.

DEC Standards (INSIDE FNSB PM2.5 NONATTAINMENT AREA ONLY) – 18 AAC 50.077			
Wood-Fired Heating Device Type	Particulate Matter Emission Standard		Effective Date
Hydronic Heaters <350,000 Btu/hr	EPA Phase 2 Voluntary Partnership Program “White Tag” <u>AND</u> 2.5 g/hr particulate matter annual average emission level	<u>OR</u> 0.32 lbs/MMBtu average annual emission level <u>AND</u> 2.5 g/hr particulate matter annual average emission level <u>AND</u> 18.0 g/hr individual test run cap	02/28/15

More information and a map of the FNSB PM2.5 Nonattainment area is available online at:  
<http://burnwise.alaska.gov/requirements>

Manufacturer Name	Model Name	Annual Avg Emission Level (lbs/million)	Annual Avg Emission Rate (grams/hr)	EPA Phase 2 Qualified	Individual Test Run Max (grams/hr)	Max Heat Output Rating (BTU/hr)	Fuel Type
Aqua-Therm	Kunzel PK-10	0.21	0.7	Yes	<18.0	45,506	wood pellets; continuous feed
Central Boiler	Maxim M255 P & Maxim M255 PE	0.04	0.8	Yes	<18.0	165,215	wood pellets
SteelTech	G100	0.07	1	Yes	<18.0	110,963	stick wood; batch load
Heatmor	200 SSP	0.07	1.1	Yes	<18.0	162,793	wood pellets; continuous feed
Aqua-Therm	Kunzel PK-20	0.13	1.2	Yes	<18.0	85,969	wood pellets; continuous feed
Woodmaster	Flex-Fuel 30 KW indoor/outdoor	0.04	1.3	Yes	<18.0	110,167	wood pellets; continuous feed
Woodmaster	Flex-Fuel 30 KW indoor/outdoor	0.04	1.5	Yes	<18.0	117,022	stick wood; batch load



Manufacturer Name	Model Name	Annual Avg Emission Level (lbs/million)	Annual Avg Emission Rate (grams/hr)	EPA Phase 2 Qualified	Individual Test Run Max (grams/hr)	Max Heat Output Rating (BTU/hr)	Fuel Type
Central Boiler	Maxim M250	0.06	1.6	Yes	<18.0	212,453	wood pellets; continuous feed
SteelTech	Heatmaster G200-2	0.07	1.7	Yes	<18.0	232,000	stick wood; batch load
Polar Furnace	G3	0.08	1.96	Yes	<18.0	200,645	stick wood; batch load
LEI Products	MBB-100	0.15	1.99	Yes	<18.0	91,300	wood pellets; continuous feed
Hawken Energy	GX-10	0.14	2.2	Yes	<18.0	144,870	stick wood; batch load
Woodmaster	Flex-Fuel 60 KW indoor/outdoor	0.16	2.3	Yes	<18.0	179,458	wood pellets; continuous feed
Mahoning Outdoor Furnace	Sky Series V	0.18	2.44	Yes	<18.0	101,420	stick wood; batch load
Northwest Manufacturing Inc. (Woodmaster)	AFS 900	0.24	2.49	Yes	<18.0	107,069	wood pellets; continuous feed
Pro-Fab Industries	Empyre Elite 100 & Empyre Elite XT100	0.24	2.5	Yes	<18.0	82,968	stick wood; batch load
Northland Dist. & Mfg Inc.	Pristine Series 1000	0.24	2.5	Yes	<18.0	82,968	stick wood; batch load

Source: <http://www.epa.gov/burnwise/owhlist.html>, as of February 6, 2015.  
 This list will be updated regularly.

If a wood-fired hydronic heating device <350,000 Btu/hr meets the emission standards in 18 AAC 50.077 but does not appear on this list, submit proof of compliance with the standards to DEC for review and approval.

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