

As of **February 2, 2021**

The following are issues, findings, and resolutions regarding Alaska's certification test reviews and additional data received by manufacturer's when addressing report deficiencies that were found. Detailed information regarding how ADEC will address the issues, including when and how flags in the summary review sheets are handled may be found below. Issues will be added and resolutions updated as new information becomes available.

Issue #	Issue Regarding Flagged items in summary sheets	Finding	DEC Review status	Resolution	Stays on Approved List
1	Third-party certifier (Cordwood: Lines 11, 12)(Pellet: Lines 11, 12)	Findings and certification of 3rd party review missing or incomplete, refer to Regulatory Basis document section 2.3.		For flag removal, information must be publicly posted on a webpage, and confirmed by ADEC, with this data.	Yes, but must be posted by 12/31/2020
2	Missing 1-hr value or average/emission standard (Cordwood: Line 14) (Pellet: Line 14)	Must be reported for each run, refer to Regulatory Basis document section 3.2.		If a valid test run did not record the value, the entire test will be considered incomplete. Requires a complete new certification test (complete). Move to No Determination List	No
3	Failure to report 1-hr value in grams per hour (Cordwood: Line 14) (Pellet: Line 14)	Must be reported for each run, refer to Regulatory Basis document section 3.2.		If filter pulled but data not reported, requires revised test report before ADEC can approve. If filter data not obtained during the test (see item #2), cannot approve. Move to No Determination List. (see items #20, and #21 for additional information)	No
4	Failure to report efficiency, burn rate, or other required reporting element. (Cordwood: Lines 14, 15, 17, 36, 37, 38, 49, 50, 55, 56) (Pellet: Lines 14, 15, 16, 20, 37, 45)	Must be reported, refer to Regulatory Basis document sections 3.4, 3.5, and 3.6. Cannot be approved.		Emission data must be reported. If data collected but not reported or not in posted report, device moved to No Determination List until new updated report. Flags remains until full test posted, ADEC must confirm publicly posted report in order to remove flags. ADEC must also be cc'd on email formally submitting updated report to EPA. ADEC will make a determination once EPA has approved new report and confirms manufacturer posts full test report. Device will be moved to No Determination List unless manufacturer contacted ADEC prior to removal from Approved List to adjust milestone dates.	No, unless commitment received to report information and request to move milestones dates submitted
5	Manufacturers instructions - no instructions found (Cordwood: Line 18) (Pellet: Line 18)	Must be reported, refer to Regulatory Basis document section 3.6. Cannot be approved.	EPA decision required	Flags remain until full test posted, ADEC will remove flag once posting confirmed, and ADEC is cc'd on email to EPA with updated report. ADEC makes determination once EPA approved and manufacturer posts full test report.	Yes - Pending
6	Manufacturers instructions - directed lab to owners manual	Used owners manual instructions.		Flag removed.	Yes
7	Manufacturers instructions to lab contradict owners manual operation (Cordwood: Line 18) (Pellet: Line 18)	Test Validity in question, refer to Regulatory Basis document section 5.1.	EPA decision required	Device will be moved to the no determination list. ADEC will send contradictory information to EPA for their review.	No

8	Firebox dimensions and calculations - missing. (Cordwood: Lines 19, 20, 21) (Pellet: N/A)	Must be reported, refer to Regulatory Basis document sections 3.7, 3.8, and 3.9. Cannot be approved. Note longest dimensions determine length appropriateness, please make sure largest firebox dimension is listed in cell 19F, and cell 19G is firebox dimension. NOTE: while dimensions may be present, report must include calculations, ADEC will not develop calculations.	EPA decision required	Missing firebox dimensions and calculations means ADEC cannot confirm correct length and volume of wood used. Flags remain until full test posted, ADEC will remove flag when posting is confirmed. ADEC must be cc'd on email to EPA where updated report is submitted. ADEC will make its final determination once EPA approved and manufacturer posts full test report.	Yes - Pending
9	Firebox volume (M28) - inaccurate measurement	Measurements excluded area that based on M28 definitions is reasonable for use, refer to Regulatory Basis document section 3.7. Determination that firebox volume used for fueling was not correct.	EPA decision required	Test validity uncertain, as is emission certification. Report will be referred to EPA. Manufacturer can submit justification to ADEC and EPA, review committee to make final determination. If incorrect volume used, moved to no determination list until EPA finding. Option to re-test in lieu of waiting for EPA finding. Please contact DEC prior to any re-testing.	No
10	Firebox volume - manufacturer materials contradict test report. (Cordwood: Line 19) (Pellet: N/A)	Measurements excluded area that based on M28 definitions is reasonable for use, refer to Regulatory Basis document section 3.7. Determination that firebox volume used for fueling was not correct.	EPA decision required	Manufacturer can submit justification with an updated report, ADEC will address issue once EPA makes a finding. If incorrect volume used, stays on approved list - pending/awaiting EPA finding.	Yes - Pending
11	Stove conditioning data - data completeness (Cordwood: Lines 25, 26) (Pellet: Lines 22, 23)	Data provided is incomplete and cannot determine if aging was completed correctly, refer to Regulatory Basis document section 3.14.		Incomplete report, flag remains until data submitted to ADEC, updated report posted and posting confirmed, and ADEC cc'd on email submitting revised report to EPA.	Yes
12	Stove conditioning data - requirements for burn rate	Based on data provided, conditioning does not meet burn rate test method requirements, refer to Regulatory Basis document section 3.14.	EPA decision required	Test validity uncertain. Refer to EPA. Remain on Alaska list, flag remains.	Yes - Pending
13	Stove conditioning - requirements for # of hours	Based on data provided conditioning did not meet the # of hours required by the method, refer to Regulatory Basis document section 3.14.	EPA decision required	Test validity uncertain. Refer to EPA. Remain on Alaska list, flag remains.	Yes - Pending
14	Summary narrative - test (run) summary not included in test report (Cordwood: Lines 28, 29, 30) (Pellet: Lines 25, 26, 27)	Summary tables are present but no narrative for the run by run details summarized.		Flag remains in place unless report revised to include narrative. Flag will be cleared when data submitted to ADEC, updated report posted and posting confirmed, and ADEC is cc'd on email submitting revised report to EPA.	Yes
15	Summary narrative - doesn't address negative values, proportionality, or train precision deviations.	Summary narrative does not provide information summarizing deviations. But the information was found in report. Refer to Regulatory Basis document section 3.18.		Flag remains in place unless report revised. Flag will be cleared when data submitted to ADEC, updated report posted and posting confirmed, and ADEC is cc'd on email submitting revised report to EPA.	Yes
16	Photo documentation (Cordwood: Line 32) (Pellet: N/A)	Used ASTM 3053 or M28R - no photographs provided, refer to Regulatory Basis document sections 3.20, 5.7, 5.8, and 5.9.	EPA decision required	Flag remains. Photographs are required, at the time of the test, to ensure proper loading configuration and representativeness. ADEC unable to determine compliance with emission requirements.	Yes - Pending

17	Photo documentation (Cordwood: Lines 32, 52) (Pellet: N/A)	Used ASTM 3053 or M28R - some photographs provided but not all pictures provided, loading configuration can be determined. Refer to regulatory basis document sections 3.20, 5.7, 5.8, and 5.9.		Flag remains because not all photos were submitted but enough to determine loading configuration.	Yes
18	Photo documentation (Cordwood: Lines 32, 52) (Pellet: N/A)	Used ASTM 3053 or M28R - photographs provided but loading configuration cannot be determined. Refer to Regulatory Basis document sections 3.20, 5.7, 5.8, and 5.9.	EPA decision required	Original lab notes were reviewed for written description. If this is not presented, the unit did not follow the method and loading configuration and representativeness could not be determined. Device moved to No Determination List. After the fact written descriptions cannot be confirmed. Report will be referred to EPA for a finding.	No
19	New test data provided but it's not in the posted report.	Reports must match, and be submitted to EPA approval. Refer to Regulatory Basis document section 7.3.		Flags remains until full test posted and ADEC has confirmed public access and has been cc'd on email of report submittal to EPA. Please contact DEC prior to any re-test.	Yes
20	Run not used and not reported (Cordwood: Lines 34 - 38) (Pellet: Lines 30 - 37)	Per federal regulation this element is a required reporting element, refer to Regulatory Basis document section 7.2.	EPA decision required	If a run was not used and/or not reported, without documentation where EPA has confirmed (in writing) the run is invalid and does not need to be reported, then ADEC is treating this issue similar to Issues #2/#3, missing or failure to report a 1-hr filter run. Report will be forwarded to EPA for review on run issue and how it should be resolved. In the mean time, device will be moved to no determination list. A re-certification test is an option in lieu of waiting for an EPA finding. Please contact ADEC prior to conducting any re-testing.	No
21a	Filter plugged during test run after 60-minute (Cordwood: Lines 34 - 38) (Pellet: Lines 30 - 37)	Filters should have been monitored and changed. Refer to Regulatory Basis document section 4.2.	EPA decision required	If run data submitted, including 1-hr filter pull, and the 1-hr filter is below Alaska standard, flag for filter plugged but device may be on approved list if no other issues and if evidence is provided that a filter change was not feasible to complete the test run. EPA must make decision of run validity for overall test validity. Flag will remain pending EPA decision.	Yes
21b	Filter plugged during test run after 60-minute (Cordwood: Lines 34 - 38) (Pellet: Lines 30 - 37)	Filters should have been monitored and changed. Refer to Regulatory Basis document section 4.2.	EPA decision required	If run data not submitted which could have included a 1-hr filter pull due to filter plug after 60 minutes, see issue #20. Device removed from Approved List pending EPA decision on run and overall test validity.	No
22	Filter plugged during test run (Cordwood: Lines 34 - 38) (Pellet: Lines 30 - 37)	Filters should have been monitored and changed. Refer to Regulatory Basis document section 4.2.	EPA decision required	Filter plugged within the first 60 minutes. Concern that there may be a practice to let filters plug in lieu of finishing run and then making a determination of valid or invalid run.	Yes - Pending
23	Negative 1-hr filter value (Cordwood: Line 38) (Pellet: Line 36)	Invalid data = invalid test, refer to Regulatory Basis document sections 4.13 and 4.14.	EPA decision required	Manufacturer can submit justification, review committee to make final determination. If incorrect volume used, moved to no determination list or require retesting. Please contact DEC prior to any re-test.	No
24	Filter data (Cordwood: Line 39) (Pellet: Line 38)	Must be reported. Cannot be approved. Refer to Regulatory Basis document section 4.11.		Flag remains until full test posted, ADEC removes flag when posted. ADEC makes determination once EPA approved and manufacturer posts full test report.	No, unless commitment received to report information and request to move milestones dates submitted

25	Train precision not reported (Cordwood: Line 40) (Pellet: Line 39)	Train precision is a required element of 2515, must be calculated and reported. Refer to Regulatory Basis document section 4.12.		Test method issue, flags remain, but device may remain on Approved List.	Yes
26	Negative filter weights not handled properly (Cordwood: Line 42) (Pellet: Line 41)	Per Oregon requirements, if acetone rinse not completed, values must be recalculated using zero (0) rather than negative value. Refer to Regulatory Basis document section 4.14.	EPA Applicability Determination Needed	Flag remains. Referred to EPA for an applicability determination	Yes - Pending
27	Lowest burn rate (Cordwood: Line 46) (Pellet: Line 42)	Need data to confirm - measurement from test report and ISO inspection to confirm on production models. Refer to Regulatory Basis document section 4.15.	EPA decision required	Flag remains. Two options to remove flag: For all cordwood appliances, send notice to manufacturers that they must provide measurement from testing where air stop was placed AND results from ISO audit confirming measurements. Units can go on approved list if all other flags addressed but must send within the year. For pellet appliances, auger speeds used in testing must be submitted and confirmed by ISO audit.	Yes - Pending
28	Fuel Length - Applies only to appliances tested with M28R/ASTM 2780 fuel length piece less than 5/6 longest dimension. (Cordwood: Line 50) (Pellet: N/A)	M28R/ASTM 2780 Testing deviated from method - invalid test. Refer to Regulatory Basis document sections 3.7, 3.8 and 5.5.	EPA decision required	If length is within 1" of 5/6, flag remains and device may stay on approved list pending an EPA decision. Devices that used a fuel length more than the 1" of the 5/6 requirement will be removed from the Approved List pending EPA decision.	No, unless commitment received to report information and request to move milestones dates submitted
The following six items, labeled 29 a-f, only apply to units tested with Broadly Applicable Alternative Test Method ASTM 3053. ADEC regulations requires review and approval of the test method prior to accepting units tested with those units. ADEC has determined the following six elements will be reviewed in combination to determine if ADEC can accept the testing to qualify for installation in the FNSB non-attainment area. Tests with three or more items flagged shall not be approved by ADEC.					
29	ASTM 3053 - low and medium burn rate (Cordwood: Line 36) (Pellet: N/A)	Medium and low load testing did not have air setting sufficient to create medium burn and/or med. low burn rate differential was less than 0.30 kg/hr. Concern that this is a non-representative test that impacts emission outcomes.	Nonrepresentative Testing	ADEC review of these test reports has raised significant concerns about the method's adequacy to appropriately assess device performance. The lack of specificity with regarding to the fueling protocols, representativeness of low and medium burn rates, and ability to vary firebox volume. In lieu of disapproving the method ADEC will work with EPA regarding its findings. The six items identify concerns about testing representiveness. In the interim, ADEC has identified six areas of concern within the method and the subsequent test reports. Those test reports that are generally representative may remain on the Approved List. A non-representative report is one with 3 or more flags within this area of concern. All flags will remain pending an EPA decision.	3 or more flags = No
29b	ASTM 3053 - fuel length piece less than 5/6 longest dimension. (Cordwood: Line 50) (Pellet: N/A)	ASTM 3053 may be a non-representative test. Refer to Regulatory Basis document sections 3.7, 3.8, and 5.5.	Nonrepresentative Testing		
29c	ASTM 3053 - fuel loaded in atypical direction (E/W stove loaded N/S, mixed, or raised). (Cordwood: Lines 51, 52) (Pellet: N/A)	Testing used fuel loading configurations that do not reflect expected consumer loading practices; raised concern that this is a non-representative test that impacts emission outcomes. Refer to Regulatory Basis document sections 5.6 and 5.7.	Nonrepresentative Testing		
29d	ASTM 3053 - more than 50% of the pieces were squared in shape (Cordwood: Line 53) (Pellet: N/A)	Testing used fuel where 50% or more of the pieces are square. This minimizes emissions and is considered a non-representative test per EPA memo that impacts emission outcomes. Refer to Regulatory Basis document section 5.8.	Nonrepresentative Testing		

29e	ASTM 3053 - less than 50% of the pieces had no bark (Cordwood: Line 54) (Pellet: N/A)	Testing used fuel where 50% or more of the pieces didn't have bark. This minimizes emissions and is considered a non-representative test per EPA memo that impacts emission outcomes. Refer to Regulatory Basis document section 5.9.	Nonrepresentative Testing		
29f	ASTM 3053 - firebox volume (Cordwood: Line 19) (Pellet: N/A)	Manufacturers did not use full firebox volume to calculate fuel volumes. Refer to Regulatory Basis document section 5.10.	Nonrepresentative Testing		
30	Owner's manual (Cordwood: Lines 59-74) (Pellet: Lines 49-61)	Owners manual does not contain all requirements from federal regulation. Refer to Regulatory Basis document sections 6.1 through 6.16.	EPA decision required	Flag(s) remain for deficiencies. ADEC can still approve with flags remaining for Owner's manual issues.	Yes - Pending
31	30-day notice before testing and 60-day post test submission. (Cordwood: Lines 81, 84) (Pellet: Lines 68, 71)	Required element of test report per EPA definition and correspondence requirements. Refer to Regulatory Basis document section 7.6.	EPA decision required	Actual EPA form and emails must be attached to posted test report. Follows same requirements as posting new data for test report.	Yes - Pending
32	Non-consecutive days (Cordwood: Line 83) (Pellet: Line 70)	Testing was not conducted on consecutive days. Refer to Regulatory Basis document section 7.8.	EPA decision required	Flag remains in place, flagged because summary data turned in was incomplete and if non-consecutive testing was not highlighted and reason not presented. Flag is removed if report updated and posted and ADEC has confirmed posting. Revised report must also be submitted to EPA and ADEC cc'd in order for flag to be removed.	Yes - Pending
33	Time between lab receipt of stove and certification testing > one month (Cordwood: Line 80) (Pellet: Line 67)	Justification for delay should have been included in narrative. Test report incomplete. Refer to Regulatory Basis document section 7.8.	EPA decision required	Flag remains in place, flag because summary data turned in was incomplete and if non-consecutive testing was not highlighted and reason presented. Flag is removed if report updated and posted and ADEC has confirmed posting. Revised report must also be submitted to EPA and ADEC cc'd in order for flag to be removed.	Yes - Pending
34	Report not publicly available/could not find report.	ADEC unable to find report on a publicly available web page. Submitted links of reports that cannot be independently verified on a publicly available web page are also considered as 'not able to find report'.		To remove flag and move off of the Disapproved List due to this issue, report must be easily accessed via search engine.	No
35	CO Individual Run (Cordwood: Line 16) (Pellet: Line 17)	Individual run CO emissions not reported or missing. Must be reported, refer to Regulatory Basis document sections 3.4.		Flag remains. Referred to EPA for an applicability determination	No, unless commitment received to report information and request to move milestones dates submitted
36	Medium burn rate must be 50% or less than high burn. (Cordwood: N/A) (Pellet: Lines 31, 32)	Medium burn rate must be 50% or less of the high burn rate. ASTM E2779 method requirement.		Flag remains. Referred to EPA for an applicability determination	No, unless commitment received to report information and request to move milestones dates submitted

37	Pellet fuel analysis not completed. (Cordwood: N/A) (Pellet: Line 47)	Ultimate analysis must be completed on pellet fuel.	EPA decision required	Flag remains. Referred to EPA for an applicability determination	Yes - Pending
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