



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 10

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OFFICE OF
AIR AND WASTE

OCT 29 2018

Ms. Barbara Trost
Air and Water Quality Division
Alaska Department of Environmental Conservation
555 Cordova Street
Anchorage, Alaska 99501-2617



Dear Ms. Trost:

The U.S. Environmental Protection Agency, Region 10 Office of Air and Waste (Region 10) evaluated the Alaska Department of Environmental Conservation's (ADEC) 2018 Annual Monitoring Network Plan (ANP) received on June 28, 2018. This approval letter documents Region 10's findings from the review of this ANP.

Based on our review of the ANP, along with consultations with ADEC, we did not identify any monitoring deficiencies for Alaska's ambient air monitoring network. Region 10 did find areas where the ANP could be improved to more clearly describe the existing Alaskan ambient air monitoring network and EPA regulatory monitoring requirements. We request that ADEC address the following in the 2019 ANP:

1. The most recent US Census population estimates should be used when assessing monitoring requirements for Metropolitan Statistical Areas. The population figures provided in Table 3-1 on page 8 the ANP appear to be based on the 2010 MSA populations and not the more representative 2017 population estimates.
2. Based on the 2017 PM_{2.5} Design Value of 32 ug/m³ and a 2017 population of 400,888 for the MSA, Anchorage is required to operate at least 1 PM_{2.5} monitor per Table D-5 of 40 CFR Part 58 Appendix D. ADEC is aware of the clarification needed on Page 9 of the ANP and has agreed to make the needed editorial changes in the 2019 ANP. ADEC currently operates a PM_{2.5} network in Anchorage that exceeds the minimum requirements specified in 40 CFR Part 58 Appendix D.
3. Table 3-5 on page 12 for PM monitoring sites should be either two separate tables to address PM₁₀ and PM_{2.5} monitoring separately, or alternatively, an additional column should be added to the existing table to make this differentiation. ADEC is aware of this issue and that the monitoring scales for PM₁₀ and PM_{2.5} can be different at the same site due to differences in area wide sources.
4. Table 3-8 and Table 3-11 have editorial errors with AQS parameter and methods codes that should be revised in 2019 ANP. Required PM_{2.5} QA collocations are currently met by ADEC using a collocated PM_{2.5} FRM Thermo 2025i collocated at the State Office Building monitoring station (AQS ID: 02-090-0010) and a MetOne PM_{2.5} FEM BAM-1020 collocated with a PM_{2.5}

FRM Thermo 2000i in Juneau, Alaska (AQS ID: 02-110-0004) The QA collocations are not reflected in the 2018 ANP due to a combination of these editorial errors as well as recently approved EPA changes to the primary and collocated FRM methods deployed in the Fairbanks MSA. Region 10 recommends having a separate Table or section in the ANP dedicated to monitor collocations.

Finally, the Region 10 notes the following observations from its review of the ANP and provides this for your consideration.

5. Region 10 recommends adding a footnote to Table 3-6 on page 13 to explain why the NO_y probe height is 4m instead of the 10m recommended by EPA guidance. ADEC has previously informed Region 10 staff that this height was selected to keep the NO_y measurements beneath the inversion layer. Region 10 agrees with ADEC's rationale for the selection of the 4m height for the NO_y converter. However, this information would be beneficial to have incorporated into the ANP.
6. Tables 3-10 and 3-11:
 - a. Region 10 also recommends that ADEC use monitoring objective definitions consistent with those identified in 40 CFR Part 58, Appendix D, 1.1.1 (a-f). The information currently provided in this column is helpful and should be retained in the ANP, but the ANP would be improved with using a different identifier for the column header other than monitoring objective.
 - b. Column "Required due to NAA or Maintenance Plan" appears at times to be a blend of monitoring required by Part 58 Appendix D and those monitors required by Nonattainment Areas or Maintenance Area requirements. Recommend changing this column to monitors required for meeting Part 58 Appendix D minimum monitoring requirement and creating a separate table for describing those monitors required for meeting regulatory decision making needs in Nonattainment and Maintenance Areas. This could also be achieved by having separate columns in the existing table for the Appendix D requirements vs Nonattainment and Maintenance Area requirements.

Region 10 approves the State of Alaska's 2018 ANP. Region 10 appreciates the timeliness and detail provided in the ANP. If you have any questions about our approval of the ANP, please contact me at (206) 553-2970 or Doug Jager at (206) 553-2961.

Sincerely,



Gina Bonifacino, Acting Manager
Air Planning Unit