

June 7, 2018

File No(s). 2017 – 022A / 066A

Ms. Nadine Blaney
Executive Director
Fort Air Partnership
P.O. Box 3051
Ft. Saskatchewan, Alta T8L 2T1

Ms. Blaney:

Subject: May / June 2018 FAP Ambient Air Monitoring Network Audit Results

Between the dates of May 22nd and June 1st, 2018, Alberta Environment and Parks conducted an audit of the Fort Air Partnerships (FAP) ambient air monitoring stations. All gas pollutant analyzers audited met audit criteria. Most of the met sensors met audit criteria except where noted.

The following is a station by station breakdown of the audit findings/observations requiring attention.

Fort Saskatchewan Station – The Sharp 5030 Nephelometer zero was outside the tolerance specified by the manufacturer. The ambient temperature sensor was outside the specified tolerance based on audit criteria.

Ross Creek Station – The site documentation requires a minor update to section (iii) greatest angle of elevation. Document read: Needs to be checked yet.

Bon Accord Station – The Air Conditioner was not operational and the station temperature rose to 29.0 C during the audit.

Gibbons Station – The Sharp 5030 Nephelometer zero was outside the tolerance specified by the manufacturer.

Redwater Station – The site documentation requires a minor update to (i); The equipment list states a Sharp 5030 in service for PM2.5 but the station contains a Grimm sampler.

RR220 Station – The ambient temperature sensor was outside the specified tolerance based on audit criteria.

Bruderheim Station – The low Ozone zero response could be attributed to the zero reference scrubber being depleted possibly due to recent smoke events in the region. AEP suggests

replacing the zero scrubber. The NOx and Ozone inlet filter holders have stripped threads on the inlet side of the holder and presents a serious leak potential.

Lamont Station – Observed excessive bending of the sample lines with pinch points from the manifold to the inlet filter holders.


Elk Island Station – The ambient temperature sensor was outside the specified tolerance based on audit criteria. The Sharp 5030 PM2.5 sampler did not meet the Mass Foil Audit as specified by the manufacturer. AEP verified the foils used at this location and other sites are within specifications when compared to other AEP foils on the same type of PM2.5 sampler. FAP and it's contractor will be required to assess if a major shift occurred during a foil calibration and how much data has been affected.

As per the AMD Chapter 7; Section 10 Assessment and Corrective Action; Clause CAL-10A ...measurements are deemed invalid, the person responsible shall flag ambient measurements back to the most recent point in time where such measurements are known to be valid.

Please note that the Sharp 5030i PM2.5 samplers were not audited at this time. The AEP SOP is still under development. The BTEX analyzer was not audited due to no valid audit gas available at the time of the audit.

FAP will be required to provide a response by July 6, 2018 that meets AMD Chapter 8 section 5.3 for all items noted in this audit cover letter. If you have any questions or comments, please contact the undersigned at 780-427-7888.

Regards,



Al Clark
Monitoring Systems Auditor

Attachments:

Station Audit Reports
Audit Summary Report

cc: John Collins – Regional Compliance Manger, AEP
Mohammad Habib – Regional Approvals Manager, AEP
Marty Collins - Air Quality Manager, AEP
Marilyn Albert - Air Quality Data Supervisor, AEP
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