#### **AMENDMENT TO SOLICITATION 5000019381**

### **ANNEX A**

### STATEMENT OF WORK

### 3. Air Sampling Collection Procedure:

#### Delete:

- a) Daily Contractor System Checks: Arrival between 0800-0900 Hours. On arrival at the sampling site the Contractor must:
  - i. Inspect the sample tower and mast, making sure that everything is intact;
  - ii. Visually check the sample head to determine which filter pack is being sampled as shown by the position indicator. If the indicator is not on, check to see if the source can be tracked (no power to the head, burnt out indicator, etc.).
  - iii. Check the sample line to ensure that there are no breaks or kinks in the line, or any other factors that may adversely affect the sample flow
  - iv. Observe the surrounding area to see if there are any conditions that may affect the sampling program (smoke from fires, construction nearby, vehicle activity, noticeable odour, etc.). These should be noted in the field notebook and on the sample history form.

### Insert:

- a) Weekly Contractor System Checks: Arrival post 08:00 LST, on arrival at the sampling site the Contractor must:
  - i. Inspect the sample tower and mast, making sure that everything is intact;
  - ii. Visually check the sample head to determine which filter pack is being sampled as shown by the position indicator. If the indicator is not on, check to see if the source can be tracked (no power to the head, burnt out indicator, etc.).
  - iii. Check the sample line to ensure that there are no breaks or kinks in the line, or any other factors that may adversely affect the sample flow
  - iv. Observe the surrounding area to see if there are any conditions that may affect the sampling program (smoke from fires, construction nearby, vehicle activity, noticeable odour, etc.). These should be noted in the field notebook and on the sample history form.
  - v. The sample pump is turned off and sets of filter packs are changed on a weekly basis post 08:00 LST.
  - vi. The sampling port on the sequential sampler is advanced using the data logger.
  - vii. All SHF are completed.
  - viii. All filter packs are labeled, correctly sealed and placed in the shipping container for shipment.
  - ix. Complete a Courier Bill of Lading and take, or arrange for pick up, for shipment to:

CAPMoN Air Filter Samples Environment and Climate Change Canada 4905 Dufferin Street Toronto, ON. M3H 5T4

#### 4. Ground Level Ozone Procedures:

#### Delete:

## a) Daily Requirements

- i. Complete the instrument status checks and document the readings on the ozone sample history form. This includes observing and recording ozone concentration, instrument flow rates, modem and alarm status etc.
- ii. If the ozone analyzer is in alarm mode, the Contractor must telephone the CAPMoN site contact for further instructions.
- iii. Document all events, which may affect the air quality at the sampling site (such as unusual weather, forest fires, use of motorized vehicles etc.)

#### Insert:

### a) Weekly Requirements

- i. Complete the instrument status checks and document the readings on the ozone sample history form. This includes observing and recording ozone concentration, instrument flow rates, modem and alarm status etc.
- ii. If the ozone analyzer is in alarm mode, the Contractor must telephone the CAPMoN site contact for further instructions.
- iii. Document all events, which may affect the air quality at the sampling site (such as unusual weather, forest fires, use of motorized vehicles etc.)
- iv. The inlet filter must be changed on Day 7 (Please note that Day 1 is a Wednesday and the filter is changed on Day 7, a Tuesday). Replace the inlet filter pack with the new filter pack containing a new filter.
- v. Prepare the filter pack for the next inlet change by loading a new filter in the filter pack. Seal the replacement filter pack in a whirl pack bag.
- vi. After the filter pack has been changed, the flow rate of the unit must be checked to confirm correct installation of the filter pack. The flow rate should be between 0.5 LPM and 0.8 LPM.
- vii. If the analyzer is operating correctly, no further action is required until the next visit by the Contractor.
- viii. The Contractor must mail the white and Canary copies of the Ozone Sample History Form provided by ECCC to CAPMoN weekly (pre-paid envelop or accompanying other network shipments). The pink copies are retained in a file at the site.

# 5. Dichotomous Sampling System (Filter Based PM)

#### Delete:

- a) Daily Contractor System Checks: On arrival at the sampling site the Contractor must:
  - i. Complete the instrument status checks and document the readings on the Dichotomous sample history form. This includes but is not limited to observing and recording flow rates, volumes and status codes.
  - ii. If the dichotomous sampler is in Error mode, the Contractor must telephone the CAPMoN site contact for further instructions. The CAPMoN site contact name will be provided by the Technical Authority.
  - iii. Ensure to document all events, which may affect the air quality at the sampling site (such as unusual weather, forest fires, use of motorized vehicles etc.)

### Insert:

# a) As required the Contractor must:

Complete the instrument status checks and document the readings on the Dichotomous sample history form. This includes but is not limited to observing and recording flow rates, volumes and status codes.

- ii. If the dichotomous sampler is in Error mode, the Contractor must telephone the CAPMoN site contact for further instructions. The CAPMoN site contact name will be provided by the Technical Authority.
- iii. Ensure to document all events, which may affect the air quality at the sampling site (such as unusual weather, forest fires, use of motorized vehicles etc.)
- iv. Change the dichotomous filter plate every three days.
- v. Perform the leak check every third sample.
- vi. Empty the moisture trap of water.

# 7. Total Gaseous Mercury (TGM) System

### Delete:

- a) Daily Contractor System Checks: On arrival at the sampling site the Contractor must:
  - i. Complete the instrument status checks and document the readings on the TGM sample history form. This includes but is not limited to observing and recording mercury concentration, instrument flow rates, gas cylinder pressures and alarm status
  - ii. If the mercury analyzer is in alarm mode, the Contractor must telephone the CAPMoN site contact for further instructions. The CAPMoN site contact name will be provided by the Technical Authority.
  - iii. Ensure to document all events, which may affect the air quality at the sampling site (such as unusual weather, forest fires, use of motorized vehicles etc.)

#### Insert:

- Weekly Contractor System Checks: On arrival at the sampling site the Contractor must:
  - i. Complete the instrument status checks and document the readings on the TGM sample history form. This includes but is not limited to observing and recording mercury concentration, instrument flow rates, gas cylinder pressures and alarm status
  - ii. If the mercury analyzer is in alarm mode, the Contractor must telephone the CAPMoN site contact for further instructions. The CAPMoN site contact name will be provided by the Technical Authority.
  - iii. Ensure to document all events, which may affect the air quality at the sampling site (such as unusual weather, forest fires, use of motorized vehicles etc.)

## **Estimated Time Required:**

#### Delete:

Daily	Minutes	Hours
Precipitation Sample Collection & Associated Gauges x2	45	0.75
Weekly total:		5.25
Annual Sub-total:		273.0

Weekly	Minutes	Hours
Shipping	60	1.0
Air system filter change	30	0.5
Ozone filter change	15	0.25
Hg in precipitation sample change	30	0.5
IMPROVE sample change	30	0.5
CASTNet sample change	30	0.5
Weekly total:		3.25
Annual Sub-total:		169.0

Monthly	Minutes	Hours
Hood gasket change	15	0.25
Total Gaseous Mercury (TGM) filter change	15	0.25
Monthly total:		0.5
Annual Sub-total:		6.0

Quarterly	Minutes	Hours
Air system memory card change (4)	15	0.25
Quarterly total:		0.25
Annual Sub-total:		1.0

As Required	Minutes	Hours
Dichot filter change (1 every 3 days) – 121/year	15	30.25
Argon cylinder change (6/year)	20	2.0
Cleaning of building counter/floor (12)	15	3.0
Removal of snow from stairs/deck/path		10.0
Vegetation cutting around instruments (6)	30	3.0
As required total:		48.25
Annual Sub-total:		48.25

# Total of approximately 497 hours.

# Insert:

# **Estimated Time Required:**

Daily	Minutes	Hours
Precipitation Sample Collection & Associated Gauges x2	45	0.75
Weekly total:		5.25
Annual Sub-total:		273.0

Weekly	Minutes	Hours
Shipping	60	1.0
Air system filter change	30	0.5
Ozone filter change	15	0.25
Hg in precipitation sample change	30	0.5
IMPROVE sample change	30	0.5
CASTNet sample change	30	0.5
Total Gaseous Mercury (TGM) system check	15	0.25
Weekly total:		3.50
Annual Sub-total:		182.0

Monthly	Minutes	Hours
Hood gasket change	15	0.25
Total Gaseous Mercury (TGM) filter change	15	0.25
Monthly total:		0.5
Annual Sub-total:		6.0

Quarterly	Minutes	Hours
Air system memory card change (4)	15	0.25
Quarterly total:		0.25
Annual Sub-total:		1.0

As Required	Minutes	Hours
Dichot filter change (1 every 3 days) – 121/year	15	30.25
Argon cylinder change (6/year)	20	2.0
Cleaning of building counter/floor (12)	15	3.0
Removal of snow from stairs/deck/path		10.0
Vegetation cutting around instruments (6)	30	3.0
As required total:		48.25
Annual Sub-total:		48.25

Total of approximately 510 hours.