

**Advance Contract Award Notice – Sample Processing of Air Organic Pollutants from the Arctic, including Data Quality Assurance and Quality Control**

**1. Advance Contract Award Notice (ACAN)**

An ACAN is a public notice indicating to the supplier community that a department or agency intends to award a contract for goods, services or construction to a pre-identified supplier, thereby allowing other suppliers to signal their interest in bidding, by submitting a statement of capabilities. If no supplier submits a statement of capabilities that meets the requirements set out in the ACAN, on or before the closing date stated in the ACAN, the contracting officer may then proceed with the award to the pre-identified supplier.

**2. Definition of the requirement**

Environment and Climate Change Canada (ECCC) intends on entering into a contract with *Airzone One Ltd.* for sample processing of air organic pollutants from the arctic, including data quality assurance and quality control as applied to the Northern Contaminants Program at the Canadian High Arctic station of Alert, Nunavut.

Background:

The Air Quality Processes Research Section (ARQP) of Environment and Climate Change Canada (ECCC) has undertaken the air monitoring of organic pollutants in air at the Canadian High Arctic Station of Alert, Nunavut, under the Northern Contaminants Program (NCP) (Indigenous and Northern Affairs Canada) and ECCC's Chemicals Management Plan (CMP). This location is dedicated to the sampling of Persistence Organic Pollutants (POPs) which include organochlorines, polycyclic aromatic hydrocarbons as well as new and emerging chemicals of concern. Experience working in Arctic field stations is mandatory to allow for the assemble of the sampling system suitable for the High Arctic, to prepare and extract sample media and to oversee data quality assurance/quality control (QA/QC) as applied to the NCP's set protocol.

This project has been operating at Alert since 1992 and supports the Arctic Council's Arctic Monitoring and Assessment Programme (AMAP), the United Nations Environment Program (UNEP) Stockholm Convention on Persistent Organic Pollutants (POPs) and the United Nations Economic Commission for Europe (UNECE) Convention on Long-range Transboundary Air Pollution POPs Protocol.

Objective:

ECCC has a requirement for a supplier to assist in the continued and ongoing operation of the Northern Contaminants Program at the Canadian High Arctic station of Alert, specifically to supply and prepare sample media suitable for air sampling of northern contaminants in the High Arctic including sample pre-cleaning, extraction and analysis of air organic pollutants in an accredited laboratory.

In addition, the supplier must also ensure consistency in the operation and the resulting dataset that has been collected since 1992, to maintain the long-term time trends of target contaminants at this site.

Scope of Work:

The scope of work is to ensure that all aspects of air sampling for northern contaminants are completed in accordance with set standard operating procedures (SOPs). This work includes all aspects of sample collection, analysis, data quality assurance/quality control (QA/QC) and reporting as applied to the NCP set protocols. The scope also includes the assurance of consistency in the operation and resulting dataset collected since 1992 to maintain long-term time trends of target contaminants at the site, as well as updating the corresponding field SOPs.

Tasks:

The work involves the following tasks:

Task 1: To track and document all samples to and from Alert

- (i) Track and document all samples delivered to and received from Alert collected using a custom-made super high volume air sampler (superHi-Vol).
- (ii) Track and document all samples delivered to and received from Alert collected with a separate high volume active air sampler (PS-1 Hi-Vol) for the measurement of new and emerging chemicals of concern.

Ensure proper operation of the superHi-Vol and PS-1 Hi-Vol at Alert by reviewing and updating the corresponding field standard operating procedures (SOPs) for the two samplers and documentation of sample tracking, deployment and sampler calibration through communication with ECCC’s coordinator and Alert site operator. Train site operator on sampler operation, maintenance and calibration.

Task 2: Preparation and Shipping of Sampling Materials for the superHi-Vol and PS-1 Hi-Vol

- (iii) Preclean and extract one-year supply of polyurethane foam plugs (PUFs) and glass fiber filters (GFFs) for routine sampling at Alert using the superHi-Vol.

Routine sampling - Pre-clean one-year supply of PUF plugs in hexane and pre-clean GFFs and shipped to Alert so as to maintain routine sampling. The total number of sampling media required for routine sampling is as follows:

	FILTERS	PUFs
ALERT purchase	64	128
ALERT pre-clean	64	128

- (iv) Preclean and extract one-year supply of PUF-XAD sandwich and GFFs to maintain routine sampling using the PS-1 Hi-Vol at Alert for new and emerging chemical sampling.

Sampling of New and Emerging Chemicals - Pre-clean PUF-XAD sandwich (Accelerated Solvent Extraction (ASE®) with hexane followed by methanol) and glass fiber filters and individually wrapped in aluminum foil. Provide and pre-pack sampler cartridges (each holds 1 glass fiber filter and 1 XAD-PUF sandwich) and shipped to Alert for the sampling of emerging chemicals. The total number of sampling media required for sampling emerging chemicals is as follows:

	FILTERS	PUF-XAD sandwich
ALERT purchase and pre-clean	27	27

Sampling media will be shipped to and from Alert by ECCC. The Contractor will deliver the supplies and collect the exposed samples from the ECCC Downsview facility (4905 Dufferin Street, Toronto, Ontario M3H 5T4) for laboratory extraction (Task 3 below).

Task 3: Sample Extraction (To be conducted at the Contractor’s laboratory after collecting the exposed samples from ECCC)

Extract samples and blanks.

	FILTERS	PUF	PUF-XAD sandwich
Routine sampling	64	128	-

Emerging chemical sampling 27 - 27

Routine sampling samples: PUF extracted with hexane and Glass Fibre Filter with dichloromethane.

Emerging chemical samples: PUF-XAD sandwich and Glass Fiber Filter extracted separately by Accelerated Solvent Extraction (ASE®) with hexane followed by methanol.

#### Task 4: Archiving samples

- (v) To archive half of each extract from samples collected using the superHi-Vol and document any sub-sampling from these archived extracts for future explorative analysis;

Archive half of the extracts from the superHi-Vol samples in tightly sealed glass vials and store at 4 °C with tracking records. All archived sample extracts are to be shipped to ECCC, and must arrive within the same day. They should be kept cool at 4 °C during transportation where they will be stored and sub-sampled for possible future exploratory studies. It is the responsibility of ECCC to document the amount sub-sampled (if any) and the remaining amount of extract in the archive.

Task 5: Package and handle one-year supply of pre-cleaned samples for both the superHi-Vol and PS-1 Hi-Vol for sealift to Alert every year (amount as given in Task 2 above)

To prepare sample transport cases and jars for annual sealift to Alert and package samples as required for shipment.

Purchase and prepare sample jars for annual sealift to Alert (usually depart early April). Package all samples in designated transport cases supplied by ECCC (ARQP) and deliver to Environment and Climate Change Canada's facility at 4905 Dufferin Street, Toronto, Ontario M3H 5T4 before sealift departure.

#### Task 6: Quality Control, Quality Assurance and Data Analysis

To oversee QA/QC of sample preparation and extraction processes, as well as QA/QC of data analysis according to the NCP set protocols;

- a. Prepare 25 spiked or deuterated QA/QC samples and include them alongside regular samples for laboratory analysis as appropriate for QA/QC purposes as laboratory blanks.
- b. Coordinate the movement of extracted samples to the National Laboratory for Environmental Testing (NLET) of Burlington, Ontario. Samples must arrive within the same day, should be kept cool at 4 °C during transportation and the Contractor must accompany the samples during transportation to NLET. Check that data are accurately entered into the ECCC Research Data Management and Quality Control System (RDMQ™) data base through coordination with ECCC's designated Data Manager.
- c. Quality control the data from field collection, sample extraction and sample splitting process and participate in publication of results in terms of details on the sample preparation, field collection, sample extraction, sample splitting, QA/QC and transportation-to-laboratory processes.
- d. Ensure consistency in the operation and the resulting dataset collected since 1992 to maintain the long-term time trends of target contaminants at Alert.

#### Task 7: Field Audit and Site Maintenance

To conduct independent field audit and site maintenance once every 3 years

Travel to Alert to conduct independent field audit and site maintenance by the Contractor's Field Sampling Site Coordinator. The Field audit(s) will occur in (option year 1) 2023/24 and in (Option year 4) FY 26/27 respectively (provided each option year is exercised).

Responsibilities include observing the Site Operator perform sample change, calibration process, site

maintenance and repairs, providing direction as needed to ensure all these activities are carried out by the Site Operator as per the updated Standard Operating Procedures (SOPs).

Travel costs between Toronto and Alert on military flights and/or charter to Alert are covered by ECCC.

Deliverables and Schedule:

Work is anticipated to begin May 31, 2021 and end on March 31, 2023 for the initial two (2) year contract period with the option to exercise up to four (4) one-year option periods that would extend the contract until March 31, 2027.

During the contract period, the following deliverables must be submitted each year within the specified time:

- a. Every 12 months, review and update the SOPs as per Task 1.
- b. Every 6 months, a status report in PDF format on Tasks 1-4 which includes summary of work done and progress to date. The report must include information on the number of samples extracted and delivered. The report must note any QA/QC issues observed.
- c. On May 15 of each year beginning 2022 and thereafter, a brief progress report in PDF for Task 5. The report must include information on the sample numbers and the delivery date of the one-year supply of sampling material to ECCC.
- d. On 31 March of each year beginning 2022, a quality controlled database of network air concentration results provided in suitable spreadsheet format in accordance with Task 6.
- e. For option year 2023/24, on 31 March, 2024, and option year 2026/2027, on 31 March 2027 a site audit report for Task 7 (which includes a thorough assessment of the state of the sampling equipment and facilities, the quality of the operator's sample handling processes, and recommendations for updates and improvements).

Performance Standards, Specifications And Quality Measurement:

All precleaned samples need to be prepared, packaged, ready for shipment and delivered to 4905 Dufferin Street, Toronto, Ontario M3H 5T4 before the departure of the annual sealift to Alert, NU.

Samples must be prepared, spiked with specified QA/QC standards, extracted and archived according to the SOPs and protocols of the NCP air monitoring program.

To avoid sample contamination, the supplier must ensure that their laboratories and sample preparation areas are of low background levels for POPs, flame retardants (FRs), per- and poly-fluoroalkyl substances (PFASs), current-used pesticides (CUPs), and other emerging chemicals of concern. ECCC will communicate with the supplier on any changes in the target substance list and of any new chemicals that may be added to the target list during the contract period.

Acceptance Criteria:

The laboratory continues to meet performance standards in accordance with the standard operating procedures and protocols of the NCP air monitoring program.

Location of Work:

Work will mainly be done off-site at the Contractor's premises. Only during site audit (Task 7), the Contractor will be working on Government premises, namely Canadian Forces Station Alert and the Dr. Neil Trivett Global Atmosphere Watch Observatory at Alert. The Contractor must comply with all standing orders or other regulations, instructions and directives in force on the site where the work is performed.

Meetings/correspondence between the Contractor and ECCC will occur regularly and take place by phone or email and by face-to-face meetings at 4905 Dufferin Street, Toronto, Ontario M3H 5T4 or at the

Contractor's premises, dependent on public health restrictions related to COVID-19.

The field audit and site maintenance (Task 7) will take place in Alert, Nunavut.

Applicable Documents and Glossary:

Applicable Documents:

The POP datasets collected since 1992 and the current SOPs will be provided to the Contractor upon Contract Award.

Relevant Terms, Acronyms, Glossaries:

Arctic – also known as “Arctic Region” is any area north of the Arctic Circle (66°33'N)

“Emerging chemicals of concern” are chemicals that are included in the following reference:

AMAP, 2017. AMAP Assessment 2016: Chemicals of Emerging Arctic Concern.

Arctic Monitoring and Assessment Programme (AMAP), Oslo, Norway. Xvi+353pp. This reference is publicly available via this weblink: <https://www.amap.no/documents/doc/amap-assessment-2016-chemicals-of-emerging-arctic-concern/1624>

ASE® - Accelerated Solvent Extraction®

CMP – Chemicals Management Plan

ECCC – Environment and Climate Change Canada

GFF – glass fiber filters

NLET- National Laboratory for Environmental Testing

POPs – persistent organic pollutants

PS-1 Hi-Vol – high-volume active air sampler

PUFs - polyurethane foam plugs

RDMQ™ – Research Management and Quality Assurance System™

SOPs – standard operating procedures

SuperHi-Vol – super high-volume active air sampler

**3. Criteria for assessment of the Statement of Capabilities (Minimum Essential Requirements):**

Any interested supplier must demonstrate by way of a statement of capabilities that it meets the following requirements:

- 3.1 Demonstrate the ability to provide the following three resources that can meet the required experience(s) noted below in Subsections 3.1.1, 3.1.2 and 3.1.3 (a supplier must not propose the same resource more than once in their statement of capabilities):
  - Project Manager
  - Laboratory Analyst
  - Field Sampling Site Coordinator
- 3.1.1 Demonstrate that the proposed resource as Project Manager has a minimum of three (3) years of experience within the past ten (10) years managing air monitoring project(s) conducted at Arctic field station(s).
- 3.1.2 Demonstrate that the proposed resource as Laboratory Analyst has a minimum of five (5) years of experience in the past ten (10) years:
  - i) Analysing air samples for trace Persistent Organics Pollutants (POPs) and emerging chemicals of concern;

- ii) Performing field and laboratory data Quality Assurance/Quality Control for trace POPs and emerging chemicals of concern measurements in air; and
- iii) Using the Research Data Management and Quality Control System (RDMQ™) data base.

3.1.3 Demonstrate that the proposed resource as Field Sampling Site Coordinator has a minimum of five (5) years of experience in the past ten (10) years coordinating the collection of air samples for trace POPs and emerging chemicals of concern.

3.2 Demonstrate supplier experience in delivering services of similar size and scope to the requirement defined in Section 2 for at least two (2) previous projects carried out in full in the past fifteen (15) years.

3.3 Demonstrate the ability to adequately perform each aspect of the work by providing a Work Plan and Methodology with an approach that should meet the Objectives, Scope of Work, Tasks and Deliverables identified in Section 2.

#### **4. Applicability of the trade agreement(s) to the procurement**

This procurement is subject to the following trade agreements:

Canada-Chile Free Trade Agreement (CCFTA)

Canada-Columbia Free Trade Agreement

Canada-European Union Comprehensive Economic and Trade Agreement (CETA)

Canada-Honduras Free Trade Agreement

Canada-Korea Free Trade Agreement

Canada-Panama Free Trade Agreement

Canada-Peru Free Trade Agreement (CPFTA)

Canada-Ukraine Free Trade Agreement (CUFTA)

Canadian Free Trade Agreement (CFTA)

Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP)

World Trade Organization Agreement on Government Procurement (WTO-AGP)

#### **5. Applicability of Comprehensive Land Claims Agreement(s) to the procurement**

This procurement is subject to the following Comprehensive Land Claims Agreement:

[Nunavut Land Claims Agreement](#) (1993) - Agreement between the Inuit of the Nunavut Settlement Area and Her Majesty the Queen in Right of Canada.

#### **6. Justification for the Pre-Identified Supplier**

*Airzone One Ltd.* (*Airzone*) staff (in current and predecessor companies) was involved in the development of the monitoring instrumentation for the Northern Contaminants Program (NCP) network, and subsequently in all related monitoring activities since the network's inception in 1992. *Airzone's* experience in the Arctic, specifically in measuring airborne POPs and emerging chemicals of concern, is quite extensive based on the large number of monitoring projects performed over the past 30 years in countries that claimed sovereign territory within the Arctic Circle.

Based on *Airzone's* knowledge and experience in measuring, analysing and understanding airborne POPs in the cold and extreme conditions of the Arctic Region, coupled with the fact that no other supplier has shown any interest or capabilities in performing the work from the multiple solicitations issued over the past 10 years, *Airzone One Ltd.* is considered the only pre-identified supplier capable of performing the work.

Furthermore, as the requirement is subject to the Nunavut Land Claims Agreement (NLCA), an Inuit Benefits Plan has been incorporated into the work by *Airzone One Ltd.*

## **7. Government Contracts Regulations Exception(s):**

The following exception(s) to the *Government Contracts Regulations* is (are) invoked for this procurement under subsection 6(d) –

"only one person is capable of performing the contract"

## **8. Exclusions and/or Limited Tendering Reasons**

The following exclusion(s) and/or limited tendering reasons are invoked under the (section of the trade agreement(s) specified):

Canada-Chile Free Trade Agreement (CCFTA) – Article Kbis-09, 1(a)  
Canada-Columbia Free Trade Agreement – Article 1409, 1(a)  
Canada-European Union Comprehensive Economic and Trade Agreement (CETA) – Article 19.12, 1(a)  
Canada-Honduras Free Trade Agreement – Article 17.11, 2(a)  
Canada-Korea Free Trade Agreement – defer to WTO-AGP Article XIII, 1(a)  
Canada-Panama Free Trade Agreement – Article 16.10, 1(a)  
Canada-Peru Free Trade Agreement (CPFTA) – Article 1409, 1(a)  
Canada-Ukraine Free Trade Agreement (CUFTA) – Article 10.13, 1(a)  
Canadian Free Trade Agreement (CFTA) – Article 513(a)  
Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP) – Article 15.10, 2(a)  
World Trade Organization Agreement on Government Procurement (WTO-AGP) – Article XIII, 1(a)

## **9. Ownership of Intellectual Property**

Ownership of any Foreground Intellectual Property arising out of the proposed contract will vest in the Contractor.

## **10. Period of the proposed contract or delivery date**

### Initial Period:

The proposed contract is for the period of Contract award to March 31, 2023.

### Option Periods:

The proposed contract includes up to four (4) additional one-year option period(s) as follows:

- Option Period One – April 1, 2023 to March 31, 2024
- Option Period Two – April 1, 2024 to March 31, 2025
- Option Period Three – April 1, 2025 to March 31, 2026
- Option Period Four – April 1, 2026 to March 31, 2027

## **11. Cost estimate of the proposed contract**

### Initial Period:

The estimated value of the firm requirement is \$194,190.00, applicable taxes extra.

Optional Period:

The estimated value for the optional periods is \$400,480.00, applicable taxes extra, as follows:

- Option Period One - \$103,145.00, applicable taxes extra
- Option Period Two - \$97,095.00, applicable taxes extra
- Option Period Three - \$97,095.00, applicable taxes extra
- Option Period Four - \$103,145.00, applicable taxes extra

The estimate value of the proposed contract, including options is \$594,670.00, applicable taxes extra.

**12. Name and address of the pre-identified supplier**

AIRZONE ONE LTD.  
222 Matheson Boulevard East  
Mississauga, Ontario  
L4Z 1X1

**13. Suppliers' right to submit a statement of capabilities**

Suppliers who consider themselves fully qualified and available to provide the goods, services or construction services described in the ACAN may submit a statement of capabilities in writing to the contact person identified in this notice on or before the closing date of this notice. The statement of capabilities must clearly demonstrate how the supplier meets the advertised requirements.

**14. Closing date for a submission of a statement of capabilities**

The closing date and time for accepting statements of capabilities is May 28, 2021 at 2:00 p.m. Eastern Daylight Time (EDT)

**15. Inquiries and submission of statements of capabilities**

Inquiries and statements of capabilities are to be directed to:

Garvin Suepaul  
Procurement and Contracting  
Environment and Climate Change Canada  
Fontaine Building  
200 Boulevard Sacré Coeur  
Gatineau, Québec K1A 0H3  
Telephone: 613- 295-4823  
Email: [Garvin.Suepaul@canada.ca](mailto:Garvin.Suepaul@canada.ca)