



BID BULLETIN NO. EMB-CAR-2021-07-03


This Bid Bulletin No. EMB-CAR-2021-07-03 is issued to amend details in the Terms of Reference (TOR) and Request for Expression of Interest (REI) for Bid Document ID No. 7818812 and Solicitation No. EMB CAR-2021-7-49 specified on sections of the said documents for the project, *Consultancy Services in the Conduct of Source Apportionment Studies for DENR EMB-CAR Air Quality Monitoring Stations* which was advertised on July 6, 2021.

PARTICULAR	POSTED	AS CORRECTED
<p><i>Terms of Reference, Part I. <u>Rationale</u>, Paragraph 1</i></p>	<p>Source Apportionment is a collection of techniques to provide information regarding how much a source contributes to the overall pollutant concentration at a receptor (usually a monitoring site). It can be both qualitative and quantitative that can be used for various pollutants.</p>	<p>Source Apportionment is ...<i>on</i> how much a source contributes to the overall pollutant concentration at a receptor (usually a monitoring site)...various pollutants <i>and as a tool for decision making in order to select the appropriate control strategy in a particular air pollution.</i></p>
<p><i>Terms of Reference, Part I. <u>Rationale</u>, (a) and (b)</i></p>	<p><i>Note: Content variations and the addition of part (c).</i></p>	<p>Examples of <i>techniques/tools utilized under</i> source apportionment <i>studies</i> are:</p> <p>a. Qualitative techniques <i>for receptor studies such as</i> wind/pollution roses <i>using wind roses</i> and wind trajectories (HYSPLIT);</p> <p>b. Quantitative techniques for <i>source apportionment such as</i> Chemical Mass Balance (CMB), Factor Analytic Technique (Positive Matrix Factorization, PMF or Unmix), <i>and</i> non-parametric regression (Kernel Smoothing),</p> <p>c. <i>Source tagging tools such as using deterministic models such as Community Multi-scale Air Quality Modeling System (CMAQ).</i></p>
<p><i>Terms of Reference, Part I. <u>Rationale</u>, Paragraph 3</i></p>	<p><i>Note: Insertion of one (1) additional paragraph and clause.</i></p>	<p><i>On the policy perspective, it is desired to have a decision-making tool that provides the most accurate source contribution estimates but the available monitoring data has to be specifically tailored to obtain the desired information on the source and</i></p>

		<p><i>receptor that are particular to the site of interest.</i></p> <p><i>The advantages of having a monitoring region with identified and apportioned sources is that the information can be used as weight of evidence in source permitting and community complaints and in addressing high ambient concentrations.</i></p>
<p><i>Terms of Reference, Part I. Rationale, Paragraph 5</i></p>	<p>However, it is difficult to determine contributions of source subcategories like diesel or vegetative burning if there is not enough information in the ambient measurement data or source profiles to distinguish very similar sources. It can lead to uncertainties associated with the results of source apportionment techniques as well as the overall generality of those results which make it difficult for policy makers to target specific sources solely on the basis of statistical source apportionment tools.</p>	<p>However, <i>in order to determine, the contributions of source subcategories like diesel or biomass burning, chemical fingerprints as source profiles of these sources must be available. Without these source profiles, source apportionment can lead to uncertainties on the overall generality of those results which make it difficult for policy makers to target specific sources solely on the basis of statistical source apportionment tools.</i></p>
<p><i>Terms of Reference, Part II. Objectives, (a), (b) and (c)</i></p>	<p>a. be able to monitor specific pollutants from different air pollution sources – stationary, mobile, area among others; b. develop source profile using Chemical Mass Balance (CMB); c. focus on the receptor located in an area mostly influenced by agricultural and mobile sources; and</p>	<p>a. <i>Be able to utilize the monitoring data and monitoring samples as input to source apportionment studies;</i> b. <i>Identify the factor profile using Positive Matrix Factorization (PMF) technique;</i> c. <i>Focus on the receptor located in an area mostly influenced by agricultural and mobile sources...</i></p>
<p><i>Request for Expression of Interest, Item No. 2</i></p>	<p>The <i>EMB-CAR</i> now calls for the submission of eligibility documents ... Eligibility documents of interested consultants must be duly received by the BAC Secretariat on or before <i>July 29, 2021 at 10:00 AM</i> at <i>EMB-CAR, DENR Compound, Gibraltar Road, Baguio City.</i></p>	<p>The <i>EMB-CAR</i> now calls for the submission of eligibility documents ... Eligibility documents of interested consultants must be duly received by the BAC Secretariat, <i>or through online or electronic submission as indicated below</i> on or before <i>July 29, 2021 at 10:00 AM</i> at <i>EMB-CAR, DENR Compound, Gibraltar Road, Baguio City.</i></p>

<p><i>Request for Expression of Interest</i></p>	<p><i>Note: Additional provision, Item No. 10</i></p>	<p>10. The electronic submission of Eligibility Documents and Bidding Documents along with the remote participation in the Pre-bid Conference and Opening of Bids may be opted by interested bidders/suppliers, and are to fill out the Pre-Registration form. Still, manual submissions are accommodated subject to the deadline specified.</p> <p><i>Bid submission must be uploaded to a cloud-based provider e.g. Google Drive, OneDrive or the like and the link shall then be shared to the procuring entity either via email or text message.</i></p> <p>For the Pre-registration form for Bidders, please click/ use the following link:</p> <p>https://tinyurl.com/ebiddingcar</p> <p>Attached also is the Internal Rules on E-Bidding for ready reference.</p>
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For guidance and information of all concerned.


ENGR. RAUL G. CUBANGAY
 BAC Chairperson