

Workshop on Knowledge Sharing for VOCs Related Activities in EANET

Tuesday 14 November 2023, from 9:30 to 11:45 (UTC+8 Manila time)

Asian Development Bank (ADB) Headquarters, Manila, Philippines, and online

Questions	Answers
<p>Q1. If we want to calculate the air quality index using one of the VOC pollutants based on the level of risk to health, what VOC pollutant is used to calculate the air quality index?</p>	<p>The AQI is calculated based on criteria air pollutant. VOCs is not included.</p>
<p>Q2. Dr. Kessenee, Thank you very much for your infomative presentation and for sharing the setting up of standard values and guideline values of VOC compounds. My question is how long did you take the time to set up thoesse values and what is the most changellenge in the process on setting up standard value?</p>	<p>It took at least 1 year for data collection and 1 more year to gather data and propose the standard value to the approval committee.</p> <p>The discussion and debating among stakeholders and to get their agreement on the proposed standard number are the most challenging process.</p>
<p>Q3. Question to Dr. Yujiro Ichikawa: Out of 100 of VOC components, which VOC component/components are more prone to contribute ozone formation in the atmosphere.</p>	<p>Thank you so much for the question. Alkenes, Aldehydes and Aromatics are known to exhibit relatively high photochemical reactivity. These facts are based on EPA's basic research which are available from EPA websites too. If you have further or another questions, I am happy to answer.</p>
<p>Q4. Thanks for the interesting presentation. Maybe I missed it, but what are the major VOCs? Could you also tell me the concentration levels?</p>	<p>The major emission sources in general are evaporative emissions from stationary sources in industrial sectors. That is a major, but that situation varies with countries. Another major emission source is gasoline vehicles. But also, in some countries, the biogenic emissions (BVOC)</p>

	<p>may be important emission sources. However, it is very difficult to estimate BVOC emissions in the whole world, especially in Southeast Asia. In terms of concentration levels in atmosphere, there is less information in Southeast Asia so far. Therefore, a better understanding of this is a crucial challenge in our EANET/VOC project.</p> <p>As I already showed in the presentation, there's a pie chart that shows the industry, and the mobile source is the major source in Chengdu. Besides that, there are also paintings and other sources like birding. They are also the emissions.</p>
<p>Q5. My question is for our colleague from Thailand, Dr. Kessinee. Have you presented the proposed guideline value for VOCs to the different stakeholders? Can you share some remarkable insights and reactions from regulators? from industries? from the general public?</p>	<p>Yes. PCD proposed the draft standard value and parameters to all stakeholders in the committee and sub-committee. The industrial section is concerned about their limitation to expanding the industrial activity. The NGO and community concern about their health risk.</p>
<p>Q6. Questions for VOC emission control parties VOC emissions from automobiles, especially those leaking from fuel tanks and fuel hoses in Asia, where temperatures are higher, are expected to be a major problem. Are many automobile canisters capable of absorbing sufficient gasoline vapors? Are the very large number of motorcycles used in Asian mega-cities known for the actual VOCs derived from such gasoline leaks?</p>	<p>Your questions are crucial, and as of now, the actual situation is not fully understood. Further investigation and research will be necessary in the future.</p>
<p>Q7.</p>	<p>It is very glad to hear that Vietnam shows</p>

<p>Vietnam has issued regulation on VOC standard in atmosphere air quality (QCVN 05: 2023). However, our capacity in VOC sampling and analysing is still limited. We would like to join the VOC project of EANET in order to improve our capacity in VOC issue. What plan and activities we need to prepare for joining VOC project?</p>	<p>the intention to join the EANET VOC project and Vietnam has already issued the air quality standard including VOC. The standard should also include the methodology of VOC measurement, so please start to establish the monitoring station and measuring labs according to the standard at first. During and after the establish of station and lab this project can support the training, advice and lecture to enhance the capacities of VOC measurement in Vietnam.</p>
<p>Q8. For sBTEX, what sampling method (canister or sorbent tube) is recommended?</p>	<p>Thank you so much for the question regarding sampling method. Either way, BTEX can be sampled and analyzed. For canister sampling/measurement EPA TO-15A procedure is recommended, and for sorbent tubes manual EPA TO-17 manual would be the first choice.</p> <p>I have also read and learned from these manuals. Please contact me anytime if you need further or another questions.</p>
<p>Q9. Greetings from Myanmar. I want to know how many effect of climate change and public health due to the VOC components. How to control this VOC. Thank you.</p>	<p>As a climate change attributed to VOCs, VOCs are the precursors of tropospheric ozone (with positive radiative forcing) as well as organic aerosols (with negative radiative forcing).</p> <p>VOCs have different health impact. Long term and short term effect. Some are carcinogen, some are inhalation toxicity. The health effect of VOCs are considered based on individual chemical property.</p>
<p>Q10. What is the role of micro-sensor or low cost sensor technology to monitor VOC</p>	<p>There are commercial formaldehyde and TVOC (Total VOC) low-cost sensors available. The detection range may be for</p>

concentration?

high concentration and uncertainty also
may be high. For example,
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