

METHANE EMISSION REDUCTION FROM OIL AND GAS QUANTIFICATION PROTOCOL
Addressing October 29-30, 2009, 2nd Round Protocol Review Questions and Comments

#	Section	Type of Comment	Comment / Statement	Proposed Resolution and Modifications made to Protocol
1	Section 1.0, Section 1.2	Technical	<p>Can you fully explain the definition of virtually continuous?</p> <p>Monitoring with equipment at all times with intermittent measurements. Is it defined? A number is not defined (i.e. X readings per min).</p>	<p>Virtually continuous has been defined in Section 1.2 as follows: Virtually continuous data collection is defined as continuous monitoring of facility emissions with a data point being taken and / or signals being averaged and recorded at least hourly.</p> <p>A footnote was also added in Section 1.0 to direct the reader to the definition of 'virtually continuous' in the Glossary of Terms in Section 1.2.</p>
2	Section 2.2, throughout	Technical	<p>With all the project data, is there a way to feed back continuously generated data to come up with a new improved baseline? Over time can observed emissions be used to develop refined emission factors in the future?</p>	<p>This is a very good idea conceptually. However, the emissions recorded based on project monitoring of methane emissions will be lower than under the baseline condition. This would not be an accurate representation of baseline emissions. However, when better data becomes available, it might be a valid approach going forward. This is one reason why AENV requested that a direct measurement of large rogue emission sources be included; for comparison over time.</p> <p>No modifications to the protocol were made at this time. Going forward, data collected by projects applying the protocol may be useful in refining emission factors and / or developing a performance standard.</p> <p>Data may be re-evaluated by AENV when the protocol is reviewed.</p>
3	Section 2.5	Technical	<p>Are you thinking that the improvement factor is calculated on facility by facility basis?</p>	<p>The improvement factor will be determined at an industry level. The data does not exist to refine this value to the facility level. Initial industry opinion was that this factor may be between 10-20%.</p> <p>The improvement factor has not yet been defined in the protocol and no changes made as this time.</p>

				Discussion with the industry technical group, AENV and other technical experts will be initiated to gain feedback on the best approach to define the factor. Following this discussion, a discussion document / appendix to the protocol will be developed.
4	Section 2.5	Policy	Will the improvement factor be improved over time?	Similar to the GIF, we need to assign the appropriate value and change it as necessary (i.e. review and update over time). The improvement factor will likely be reviewed periodically; maybe every three to five years consistent with either the GIF or protocol review periods.
5	Section 2.2, Section 2.5	Technical	In using the GFC Method proposed – how does this ensure conservativeness? This approach could easily overstate baseline emissions.	<p>As discussed during the stakeholder session, with the use of an industry standard baseline it is possible that emissions at the facility level may be either over- and/or under-estimated. However, the concept of an industry standard baseline is that it will be accurate at the industry level. This method is applied in a number of other procols, such as tillage management.</p> <p>The GFC method provides a good balance of accuracy and useability. The Specific Count Fitting method was not selected as the baseline approach due to the administrative burden associated with conducting counts and the potential for error. According to the industry group it is often difficult to get a consistent and repeatable count. As such, this approach would also be much more difficult to verify.</p> <p>Consensus of the technical working group was that specific fitting counts would not necessarily improve the accuracy of the approach and would add significant administrative burden.</p> <p>No changes were made to the protocol.</p>
6	Section 2.5, throughout	Policy	Re: ex-post adjustments – if we apply an improvement factor, and you discover that improvement factor is not what you thought it was, how does that work back to ex-post adjustment. Is it sticky going forward?	<p>AENV indicated that generally, changes to the improvement factor will only impact projects on a go forward basis. How it would apply to specific projects is uncertain. There will be no retroactive downgrading of offsets as the improvement factor changes.</p> <p>AENV also indicated that the value of the improvement factor will be reviewed periodically. The frequency of review has not yet been determined but may range from 3 years like the GIF to five years like for protocol review.</p>

			Does this mean that we should have a more frequent review?	<p>The protocol five year review periods are to review and see if assumptions still hold. If something is brought to AENV attention before that we can re-open and make modifications to protocols that will apply immediately. Other protocols have already seen these types of modification and updates.</p> <p>No changes were made to the protocol at this time.</p>
7	Section 1.1; Protocol Flexibility	General	<p>For the Flexibility Mechanisms - In certain circumstances it may be possible to circumvent requirements. There may be some inherent risk to this given that AENV doesn't pre-validate projects. Do you have set out criteria to determine criteria where it is allowed?</p> <p>**There was some concern that the protocol outlines three required criteria for quantifying methane emissions, but the flexibility mechanisms contradict them. It was requested that Flexibility Mechanism 3 (related to continuous monitoring) be addressed to provide more clarity.</p>	<p>Understand why this criteria is desired, however don't want to limit the flexibility of the protocol. If a project developer chooses to apply a flexibility mechanisms, the additional responsibility is on them to justify the approach and provide documentation that can be independently verified for its use. If they do not wish to face this uncertainty, it is always an option to apply the protocol's default approach.</p> <p>Flexibility mechanisms 2 and 3 were modified to retain flexibility but provide more clarity.</p>
8	Throughout	Policy	For a company that is a Specified Gas Emitter and has a facility that is under the cap, how could you use the protocol?	<p>As discussed during the review session, regulated facilities do not qualify for offset credits. Emission Performance Credits may be generated.</p> <p>No changes were made to the protocol.</p>
9	Section 1.1 (p.11)	General	What if one facility reports and one facility does not report? Is there a flex mech. for site specific emission	An additional flexibility mechanism was included in the protocol to allow for the use of site specific emission factors (i.e. based on specific

	Section 2.2.1 (Table 2.2)		factors?	<p>count fittings). To ensure there is no gaming, the protocol states that at facility's site-specific emission factors may only be used if they result in a more conservative estimate of baseline emissions. If the specific fitting count is less conservative, the generic fitting count method must be used.</p> <p>A note was also added in Table 2.2 of the baseline selection table, to allow for the use of historical information (i.e. specific fitting counts) if this results in a more conservative estimate. A note was also added in Section 2.2.1 (p.21) as follows: Alternatively, where facility historic component counts exist, they may be used provided they produce a more conservative estimate of baseline fugitive emissions.</p>
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