

**To:** Voluntary Carbon Standard Association ([secretariat@v-c-s.org](mailto:secretariat@v-c-s.org))

**From:** Verdeo Group, Inc.

**Date:** August 12, 2009

**Re: Stakeholder Comments on Proposed Revisions to ACM0008 to Include Methane Capture and Destruction from Abandoned Coal Mines**

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Thank you for the opportunity to provide comments on the proposed methodology revisions to ACM0008 submitted to the Voluntary Carbon Standard (VCS) Association by Vessels Coal Gas, Inc. and WSP Environment & Energy. These proposed revisions, which are designed to expand the applicability of ACM0008 to abandoned coal mines, will be a valuable addition to the suite of methodologies available for use in the international and U.S. carbon markets under the VCS.

To date, there has been no approved methodology with a baseline emissions quantification approach that accounts for an abandoned mine's declining emissions rate over time. We believe that these proposed methodology revisions, which were developed on the basis of greenhouse gas (GHG) inventory guidance published by the IPCC and the U.S. EPA, provide a credible and conservative approach to quantify baseline emissions from individual abandoned mines.

Our comments on and recommendations to these proposed methodology revisions are below.

**1. Revise the definition of “abandoned mine methane”. (*Section 1, page 2*)**

The proposed definition of abandoned mine methane is “methane which has been extracted from open or sealed vents, shafts, portals or gob wells at locations where active mining operations and/or ventilation have ceased.” We recommend that this definition be revised to define just one definitive point in time at which a mine transitions from an active to abandoned status. This will reduce the potential for confusion or inconsistent applications of the methodology.

The U.N. Economic Commission for Europe's Ad Hoc Group of Experts on Coal Mine Methane has developed a glossary of terms in common use throughout the coal mine methane industry worldwide. This glossary includes a definition of an abandoned mine as: “a mine where all mining activity including mine development and coal production have ceased, mine personnel are not present in the mine workings, and mine ventilation fans are no longer operative.”<sup>1</sup> We recommend that this definition be incorporated into the methodology.

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<sup>1</sup> “Glossary of Coal Mine Methane Terms and Definitions” established by the U.N. Economic Commission for Europe's Ad Hoc Group of Experts on Coal Mine Methane (July 29, 2008). Available at: [http://www.unece.org/energy/se/pdfs/cmm4/ECE.ENERGY.GE.4.2008.3\\_e.pdf](http://www.unece.org/energy/se/pdfs/cmm4/ECE.ENERGY.GE.4.2008.3_e.pdf)

**2. Revise the definition of the term “flooded abandoned/decommissioned mine”. (Section 1, page 2)**

Abandoned mines can be flooded to various degrees, and it is widely recognized that flooding impedes the flow of methane from the mine over time. However, the IPCC recognizes only “fully flooded” abandoned mines for having negligible, or zero, emissions.<sup>2</sup> As a result, we recommend that the proposed non-applicability of the methodology to “flooded” mines be clarified to state that the methodology is not applicable to “fully flooded” abandoned mines.

**3. Include an optional approach alongside the equation to estimate the *ex ante* projection of emissions of methane from venting and sealed abandoned mines to allow users to define the frequency (or periodicity) of the variable *t*. (Section 2, page 7, Equation 25)**

The variable *t* in the equation to estimate the *ex ante* projection of methane emissions is defined as “The time elapsed from the date of mine closure to the current crediting year *y* in years”. Because *t* is defined with an interval of twelve months, the equation may not accurately calculate the cumulative emissions generated under the decline curve for a given year. This could result in an underestimation of baseline emissions from an abandoned mine, particularly for mines that have been recently abandoned.

We recommend that the methodology enable a project developer to specify the time interval for the calculation of *ex ante* emissions by defining *t* without a frequency or time period. By allowing a more frequent calculation interval (e.g., 3 months or 1 month), a user may more precisely calculate the quantity of emissions generated by an abandoned mine, particularly one that is recently abandoned.

Thank you for the opportunity to submit these stakeholder comments in response to the proposed methodology revisions to ACM0008. For further questions, please contact:

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<sup>2</sup> The 2006 IPCC Guidelines for National Greenhouse Gas Inventories, Volume 2, Chapter 4, states that fully flooded mines “should be assigned an emission of zero as the emissions from such mines are negligible.” (p. 4.23)