



## CDM: Recommendation form for Small Scale Methodologies (Version 01.1)

*(To be used for presenting questions/proposals/amendments to the simplified methodologies for small-scale CDM project activity categories)*

<b>Date of SSC WG meeting:</b>	16–19 April 2013, SSC WG 40
<b>Title/Subject (give a small title or specify the subject of your submission, maximum 200 characters):</b>	Clarification on the definition of point-of-entry treatment systems and their eligibility under AMS-III.AV version 3
<b>Indicative methodology to which your submission relates</b> <i>(refer the items of Appendix B of the Simplified Modalities and Procedures), if applicable:</i>	AMS-III.AV “Low greenhouse gas emitting water purification systems”
<b>Name of the authors of the query:</b>	Roman Schibli/Lars Osterwalder Institution: South Pole Carbon Asset Management Ltd. <a href="mailto:r.schibli@southpolecarbon.com">r.schibli@southpolecarbon.com</a> , <a href="mailto:l.osterwalder@southpolecarbon.com">l.osterwalder@southpolecarbon.com</a>

### Summary of the query:

Please use the space below to summarize the query related to SSC methodologies/categories SSC Modalities and Procedures provide recommendation/analysis of the SSC WG.

Original text from Stakeholder:

The CDM consultant seeks clarification concerning the definition of point-of-entry (POE) water purification systems and their eligibility under AMS.III.AV Version 3:

**According to paragraph 1, AMS.III-AV. (Version 3), low greenhouse gas emitting safe drinking water production systems:** “This methodology comprises introduction of low greenhouse gas emitting water purification systems to provide safe drinking water (SDW). **Water purification technologies that involve point-of use (POU) or point-of-entry (POE) treatment systems for residential or institutional applications such as systems installed at a school or a community centre are included.** The examples include, but are not limited to water filters (e.g. membrane, activated carbon, ceramic filters), solar energy powered ultraviolet (UV) disinfection devices, solar disinfection techniques, photocatalytic disinfection equipment, pasteurization appliances, chemical disinfection methods (eg. chlorination), combined treatment approaches (eg. flocculation plus disinfection).”

A range of point-of-entry treatment systems for residential or institutional application at a community centre do not only purify contaminated water at the community centre but also provide effective protection of recontamination all the way until the point-of-use. Such POE systems are therefore an appropriate solution for replacing boiling as the means of disinfecting drinking water. In the view of the consultant following two POE systems fulfil the eligibility criteria of paragraph 1 in AMS.III-AV (Version 3):

- a) **Point-of-entry chlorination at a water kiosk or community centre**, i.e. by using chlorine dispensers that add the correct dosage of e.g. liquid sodium hypochlorite solution to water containers (e.g. 20 – 30 L) or by providing already chlorinated water for drinking purposes (the water kiosk operator mixes chlorine into a storage tank directly at the water point). The residual chlorine will protect effectively against any recontamination.
- b) **Bottling of safe water in disinfected containers after POE treatment at a water kiosk or community centre**, i.e. treatment of contaminated water at a community centre (e.g. using pre-filtration and solar energy powered UV disinfection), bottling into disinfected and sealed containers (e.g. 20 – 30 L) and container sales at water kiosk or home-delivery. This eliminates the risk of recontamination due to dirty containers.

These two POE systems provide drinking water at the point-of-entry and at the point-of-use that comply with the minimum performance target as per "Evaluating household water treatment options: Health based targets and microbiological performance specifications" (WHO, 2011).

The monitoring requirements for these two POE treatment systems are in line with AMS.III-AV (Version 3):

- An ex-ante survey is required to establish (I) the population serviced by the project equipment within the project boundary, (II) the average volume of drinking water per person per day (as a fraction of the treated drinking water collected at the water kiosk, i.e. not including water used for cooking and/or other purposes) and (III) the proportions of NRB and fossil fuel.
- The quantity of purified water in year y (litres) is directly monitored (i.e. using water meter readings, amount of chlorine used and/or sales data) at a random and representative sample of all installed POE units.
- The samples for the drinking water quality test are taken from a random and representative sample of containers collected by end users at the water kiosk (at a random and representative sample of all installed POE units). The design of the two above described systems guarantees safe water at POU if the water quality meets the required quality standards at the POE.
- Households collecting (or being delivered with) drinking water containers are excluded if they have (gained) access to a public distribution network supplying safe drinking water. This condition should be checked annually during the crediting period.
- CO2 emissions from on-site consumption of fossil fuels due to the project activity (e.g. fuel consumed for water container home-delivery) shall be calculated using the latest version of the tool "Tool to calculate project or leakage CO2 emissions from fossil fuel combustion".

We would like to ask for clarification if UNFCCC agrees with our interpretation of point-of-entry (POE) water purification systems at a community centre and if therefore the two described water purification systems (POE chlorination at a water kiosk or community centre and bottling of safe water in disinfected containers after POE treatment at a water kiosk or community centre) fulfil the eligibility criteria according to paragraph 1 in AMS.III-AV (Version 3).

#### **Recommendation by the SSC WG:**

Please use the space below to provide amendments / change (in your expert view, if necessary).

Please refer to paragraph 39 of the meeting report of the SSC WG 40  
<[http://cdm.unfccc.int/Panels/ssc\\_wg](http://cdm.unfccc.int/Panels/ssc_wg)>.

#### **Answer to authors of query by the SSC WG:**

Please use the space below to provide answer to the authors of the above query.

The small-scale working group (SSC WG) of the CDM Executive Board would like to thank the author for the submission.

First of all, the SSC WG would like to refer to an earlier clarification submission SSC\_644, which was about the use of a water kiosk under AMS-III.AV. At that time, a water kiosk was not accepted by the SSC WG due to the fact that there have been no health impact studies of water kiosks to date, and no rigorous, published evaluations of the impact on household drinking water quality. Therefore, the SSC WG could not conclude with certainty that the quality of the drinking water from water kiosks at the site/time of its use would be equivalent with the quality of boiled water (baseline).

However, the SSC WG noted the recent study published by the World Health Organization (WHO) "A toolkit for monitoring and evaluating household water treatment and safe storage programmes" (WHO 2012, Annex A, Summary of HWTS methods), in which different water treatment technologies and their likelihood of recontamination is studied. Taking into account the findings of the report, the SSC WG agreed that AMS-III.AV can be applicable to the following cases, as the technologies described can provide protection against recontamination:

- Point-of-entry chlorination at a water kiosk or community centre, for example by using chlorine dispensers that add the correct dosage of liquid sodium hypochlorite solution to water containers (e.g. 20–30 L) or by providing already chlorinated water for drinking purposes (the water kiosk operator mixes chlorine into a storage tank directly at the water point);

(b) Bottling of safe water in disinfected containers after POE treatment at a water kiosk or community centre, that is, treatment of contaminated water at a community centre by using pre-filtration and solar energy powered UV disinfection, bottling into disinfected and sealed containers (e.g. 20–30 L) and container sales at water kiosk or home-delivery. In this case, project proponents need to implement preventive measures for recontamination, for example, necessary hygiene training of end user.

The SSC WG further agreed to recommend to revise the methodology to clarify that these types of projects mentioned above can apply the methodology.

Signature of SSC WG Chair: Mr. Martin Cames

Date: 19/04/2013

Signature of SSC WG Vice-Chair: Mr. Washington Zhakata

Date: 19/04/2013

#### SECTION TO BE FILLED IN BY THE UNFCCC SECRETARIAT

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#### History of the document

Version	Date	Nature of revision(s)
01.1	12 April 2012	Editorial changes to include new logo and other improvements.
01.0	2005	Initial publication.
<b>Decision Class:</b> Regulatory <b>Document Type:</b> Form <b>Business Function:</b> Methodology		