



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)

Date of SSC WG meeting:	16–19 April 2013, SSC WG 40
Title/Subject (give a small title or specify the subject of your submission, maximum 200 characters):	Clarification on the inclusion of chlorine dispensers under AMS-III.AV version 3
Indicative methodology to which your submission relates <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
Name of the authors of the query:	Alexandra Fielden Institution: Dispensers for Safe Water afielden@poverty-action.org
<u>Summary of the query:</u>	
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.	
<p>Original text from PP:</p> <p>We seek clarification regarding the inclusion of chlorine dispensers (“dispensers”) as an accepted water treatment technology under AMS-III.AV. version 3 “Low greenhouse gas emitting safe drinking water production systems.”</p> <p><u>The Technology</u></p> <p>The chlorine dispenser hardware consists of a blow-molded HDPE tank fitted with a valve which consistently delivers a precise dose of chlorine. The tank is filled with sodium hypochlorite chlorine solution and installed at the water source in a protective casing. To use the dispenser, community members go to their water source, place their bucket or jerrican under the dispenser, turn the valve to dispense the correct amount of chlorine, and then fill the bucket as they normally would with water from the source. The dispenser hardware works in tandem with a community education program. The community is informed about the dangers of unsafe water and how to use the dispenser. A local volunteer works to continually educate the community about the benefits of the dispenser, to promote its use, and to maintain the supply of chlorine.</p> <p>We feel that dispensers meet the criteria for inclusion under the methodology AMS-III.AV Version 3. Firstly, dispensers fulfill the definition of POU devices listed in the methodology. Secondly, since dispensers are a means of supplying standardized dosing of chlorine used by many other accepted chlorination products, they attain the required WHO “interim” performance target for water treatment technologies. Water quality improvements actualized through proper use of the dispenser can be tested at the household level to ensure water is safe at consumption, and to enable accurate and conservative calculations of emissions reductions. These observations are explained in more detail below.</p> <p><u>Clause 1: Included Technologies</u></p> <p>Clause 1 of AMS-III.AV. Version 03.0 (Sectoral Scope: 03, EB 69) states that:</p>	

“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.”

(1) Dispensers are classified as a POU treatment

The definition of a POU device listed in footnote 1 of AMS-III.AV version 3 is:

“Point of Use (POU) devices treat only the water intended for direct consumption, typically at a single tap or limited number of taps”

Dispensers require manual dosing – users turn a valve to release a metered dose of chlorine into a chosen hand-held water container. Instructions indicate that users should **“treat only the water intended for direct consumption”** with the dispenser, and this is emphasized in community trainings. Chlorine dispensers are therefore functionally identical to other widely-used types of household chlorination – where users apply a measured dose of chlorine to a small quantity of water, representing a relatively small proportion of the total water used for household purposes.

Each dispenser serves one water source, such as a well, protected spring, or standpipe. These water sources can be understood as the rural, developing country equivalents to **“a single tap or limited number of taps”** that would be found in more developed, urban areas.

(2) Dispensers are used for residential and (sometimes) institutional applications

A dispenser is installed in a convenient location close to, or en route to, a communal water source. The vast majority of dispenser users are residents from the surrounding households who collect and treat water for personal and family consumption.

Dispensers are also occasionally used in institutional settings. Program monitoring in Kenya has found examples of dispensers being used to treat drinking water for schoolchildren in areas where the dispenser is located close to school grounds, although this practice is not commonplace.

Clause 2b: Performance Targets

Clause 2b of AMS-III.AV states that:

“...the application of the project technology/equipment achieves compliance either with: (i) at a minimum the performance target as per “Evaluating household water treatment options: Health based targets and microbiological performance specifications” (WHO, 2011); or (ii) an applicable national standard or guideline.”

The September 2012 revision to the AMS-III.AV methodology included project technologies that comply with WHO’s “interim” performance target on household water treatment. The WHO report cited above classifies chlorine as meeting this interim protective target, and notes that “existing evidence based on numerous field trials indicates [chlorination has] a protective effect against diarrhoeal disease” (p. 20).

Dispensers are a method of supplying chlorine in bulk at a location convenient to users of a given water source. Dispensers thereby maximize the uptake and cost-effectiveness of chlorination. Dispensers also contribute to safe storage via the residual protection that chlorine achieves throughout the water transport and storage chain, enabling the consumption of safe drinking water at the household level.

To guarantee “microbiologically clean water,” the CDC recommends maintaining a minimum FRC (free residual chlorine) concentration of 0.2mg/L in stored drinking water.¹ A widely accepted and applied method

¹ The United States Centers for Disease Control and Prevention (CDC). “Chlorine Residual Testing Fact Sheet.” Safe Water System Project, available at: http://www.cdc.gov/safewater/publications_pages/chlorineresidual.pdf

of achieving this among chlorination products is through a 3ml dose of 1.2% sodium hypochlorite solution for 20L of water² – this same dosing is used by chlorine dispensers. As part of project monitoring, residual chlorine is tested at the household level to ensure that stored drinking water is adequately treated.

With this information at hand, we seek clarification regarding the inclusion of chlorine dispensers under AMS-III.AV version 3 for potential projects and PoAs utilizing this technology.

Recommendation by the SSC WG:

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

Please refer to paragraph 38 of the meeting report of the SSC WG 40
<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.

The SSC WG agreed to clarify that chlorine dispenser as described in the submission is eligible under AMS-III.AV, in which chemical disinfection methods including chlorination is included as one of the acceptable water purification technologies.

The author of the submission may also wish to refer to submission SSC_673 for more clarification by the SSC WG on relevant issues.

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

SSC-Submission number:

SSC_672

Date when the form was received at UNFCCC secretariat:

19 April 2013

Date of transmission to the EB:

19 April 2013

Date of posting in the UNFCCC CDM web site:

19 April 2013

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² The United States Centers for Disease Control and Prevention (CDC), "Safe Water for the Community, A Guide for Establishing a Community-Based Safe Water System Program", p. 31.
http://www.cdc.gov/safewater/publications_pages/Safe_Water_for_the_Community.pdf

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.
Decision Class: Regulatory Document Type: Form Business Function: Methodology		