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Amazi Meza Program - Rwanda Water Supply at Schools Safe Water Container Cleaning Procedures

While cleaning safe water containers is important and part of the routine maintenance of the LifeStraw Community filters, it could, if not done properly, lead to microbiological contamination of the drinking water and render the filtration process meaningless. In this light, the process below is proposed to not only move forward with cleaning of the safe water containers but also to ensure precautions are taken to prevent safe water containers from getting contaminated.

In order to achieve this twofold objective, Amazi Meza team has developed procedures below to ensure cleaning of the safe water containers is carried out properly. These procedures focus on starting slowly, organizing cleaning campaigns, and emphasizing the need for the presence of an Amazi Meza team member when the safe water containers are cleaned.

Starting slowly: Considering the risk of cleaning safe water containers, starting slowly will help the team observe and evaluate the cleaning procedures being used, gain more confidence in carrying out cleaning activities, and determine the best way forward. Starting slowly implies that, during the repair and replacement campaign, the team will also clean safe water containers when necessary. Below are examples of cases when safe water containers need to be cleaned:

- If containers cannot be seen through. It might be due to algae forming inside of the container or other similar deposits such as fine mud especially if at some point the container was not well covered. In this case, the Field Tech will need to clean the safe water container.
- If the school makes a request to clean their safe water container. In this case the team will evaluate the school's request and determine if and when cleaning activities will take place. Possibly, the team would be able to fit cleaning activities into repair visits.
- If safe water containers were cleaned by the school unsupervised. If during the conversation with the school, Field Technician learns that the school had cleaned safe water containers unsupervised, they should carry out further cleaning of the containers to make sure that no microbiological contamination was introduced during the cleaning. However, the team may determine that cleaning was done properly, and in that scenario water quality testing process will be conducted to confirm non contamination occurred.

Cleaning campaigns: Cleaning campaigns will be required whenever large scale cleaning of safe water containers happens. During these campaigns, all the filters at the school will be cleaned and the number of the schools to include will be determined based on the grouping of schools into VPAs (Voluntary Project Activity).

Schools recruited into the Amazi Meza program are grouped into different VPAs depending on the time they were recruited; VPA1, VPA2, etc. It is this logic that will be followed when organizing the cleaning campaigns; in other words, schools recruited first will be included in the initial cleaning campaigns.

Considering that cleaning campaigns will involve many filters, the success will depend on the engagement of schools especially by participating when cleaning activities take place. And, in order to maximize the engagement of the school, cleaning campaigns should most often be organized during school breaks to not only avoid disruption of classes but also to minimize the risk of students carrying out cleaning of the safe water containers unsupervised. During cleaning campaigns, the following activities will take place:

1. Communicate with the school to inform them about cleaning campaigns. For VPA 1 schools, this should be done at the same time when communicating the arrival of more LSC filters.
2. Schedule cleaning events at schools. For VPA1 this will coincide with the installation of additional LSC filters
3. Conduct training of the focal person and the cleaning of the safe water container for all filters distributed to schools previously.
4. If the school has received many filters, that is 15 filters or more, two Field Technicians should team up for cleaning safe water containers.
5. Conduct water quality testing at the end of cleaning events to confirm that no contamination was introduced. Steps for selecting filters from which to sample water are shared towards the end of this guide.

Integration of water quality testing: water quality testing should be integrated into safe water cleaning activities either as part of the repair campaigns or cleaning campaigns. Conducting water quality testing will provide assurance that no contamination was introduced during the cleaning event and, if there was contamination, then appropriate measures including further cleaning will be taken immediately. Depending on the number of safe water containers that need cleaning, the availability of water quality testing supplies, and the incubation capacity, field technicians will decide how many water samples to collect. During repair and replacement campaigns they might decide to sample all cleaned filters if the number is manageable, otherwise a proportion of filters will be sampled especially during the cleaning campaigns.

Safe water container cleaning questions in the monitoring calls?

In order to integrate safe water container cleaning into monitoring activities, additional questions might be added into the monitoring surveys to help Amazi Meza team understand whether the school needed their filters be cleaned. In this way, more information will be gathered on schools that need safe water containers cleaning and how many filters will need cleaning during the repair and replacement campaigns. Below are proposed questions to be added to the monitoring survey:

- Is it possible to see through the safe water container for all filters?
 - Yes
 - No
- If No, why is it not possible to see through the safe water containers?
 - There is formation of algae inside
 - Another deposit formed inside
- If No, How many safe water containers have had this issue?
- Do you know if any safe water container has been cleaned inside by members of the school?
 - Yes
 - No
- If yes, how many safe water containers have been cleaned inside by members of the school?

Cleaning procedures: Below is a cleaning checklist that includes materials and supplies needed for cleaning and steps to be followed during the cleaning events. For a successful cleaning event, the cleaning team should make sure that all materials are available from the beginning and that steps are followed to the T.

A. Materials and supplies

- Gloves/hand sanitizers
- Soaps (without odor)
- Cleaning sponges
- Cotton or sponge ended wooden Baguettes/ sticks for cleaning taps
- Water container (bucket/jerry can)

B. PROCEDURES

1. Carefully, choose a safe and clean place at the school where to carry out filter cleaning
2. Ensure that enough filtered water is stored in safe water containers or a separate and clean container (bucket, jerry can, basin) to use during the cleaning of safe water containers.
3. Ensure that filtered water is available to use during the safe water container cleaning process. Plan to use 5 liters of filtered water per each cleaned container
4. Drain all filtered water into a clean container (Bucket, Jerry can, basin)

5. Smoothly remove upper parts of the filter by lifting the lock.
6. Put on gloves or clean your hands by washing or using hand sanitizer before the cleaning of the safe water container
7. Pick up the sponge and wet it with soap and filtered water
8. Thoroughly, ensuring all surfaces are cleaned, clean the inside and the edge of the safe water container by scrubbing it with the soapy sponge.
9. Use the cotton or sponge ended baguettes to scrub taps.
10. Properly, use the filtered water stored in the clean container to rinse the inside of the safe water container. Conduct multiple (2-3 times) rinses to ensure that the safe water container is rinsed properly.
11. Carefully, reassemble the filter, fill the filter with water and discard the first batch of filtered water.
12. Complete the process by collecting water samples from the **second batch of filtered water** for water quality testing. Carefully follow the labeling instructions and initiate a Water Quality Testing survey form to ensure all necessary data is collected for tracking the results of the test. The number of water samples to be collected at the school will be determined in the following manner:
 - a. Collect one water sample if the school has 5 or less water filters (34 samples)
 - b. Collect two water samples if the schools has between 6 and 10 water filters (170 samples)
 - c. Collect three water samples if the school has more than 10 water filters (105 samples)
 - d. **Exception:** if there is a school with multiple filters with visibly dirty safe storage containers, test all of those filters

Random selection procedures of filters for water quality testing

- First, clean safe water containers for all the filters
- Then write down LSC barcodes on pieces of papers
- Fold all pieces of papers in a similar fashion and then mix them together
- Randomly, select paper(s) based on the number of the samples to be collected
 - 1 if the school has 5 or less filters
 - 2 if the school has between 6 and 10 filters
 - 3 if the school has more than 10 filters

NB: Remember to collect a water sample from the **second batch of water**. The first batch should be discarded.