…

I've reviewed the draft Argentina Landfill Protocol and have a few comments/suggestions for you to consider. I'd be happy to discuss any of these more in the future with you if that would be helpful. Thanks for going through the effort to revise the protocol – I think it is going to result in positive outcomes for project developers, the Registry, and verifiers alike.

1. In general, it may be useful to refine the bullets on page 32 to better reflect the edits/clarifications made on pages 33 to 36.

2. Bullet #1 on page 32 still references the "regular basis" requirement. As a verifier, it would be preferable to have a more concrete time frame (e.g., quarterly, twice annually, etc.) prescribed here. Sometimes the manufacturer's recommendation can conflict with the requirements in the first sentence (and with the additional requirements listed on page 33). For example, it's common for the manufacturer's recommendation to focus on calibrations/accuracy checks, not cleanings/inspections. In this case, the project developer may make the case that by completing calibrations on time, the requirement of the protocol is satisfied. But when they do calibrations, rarely, if ever, are the conditions on page 33 documented (e.g., not completed by site personnel, no note of condition of meter before/after, etc.). This leaves some room for project developers to push back. I would personally prefer to steer clear of manufacturer's recommendations for cleaning and inspections and, instead, have a Reserve-prescribed requirement that is reasonable for project developers to meet, for example twice a year. However, I do love that you added the list of items to be included on a cleaning/inspection template and make it clear that having this documentation is required.

3. May be helpful to include the "as-found" terminology in bullet #2 on page 32.

4. Note 20 on bottom of page 32: I've never seen an instance of a verification body conducting the third-party field check, but I suppose this does not hurt to have in the protocol if you want this to be an option for project developers. Also, do you mean the VB that is performing the verification for that reporting period or a different/any VB? It may be useful to add language in this note similar to what is noted on page 33: that the entity must have "no material interest in the project, and their only role in the project is to conduct the field check." This also actually directly conflicts with note 20 because the VB has a role other than conducting a field check. It may also be helpful to define what "material interest" means – we had a client recently who thought that the consultant to the project was a third-party because they believed themselves to have no material interest (they were tasked with conducting the calculations and doing field checks). We clearly disagreed that they count as a third-party as far as field checks are concerned, so it may help to have more clarity with the language there.

5. Note 21 on bottom of page 32: might want to consider mentioning that if they choose to use a calibration certificate to meet this requirement, an as-found reading must be given to demonstrate the meter was reading accurately.

6. Why is it important that cleaning and inspections are done by site personnel? Would there be a negative impact if these were allowed to be completed by third parties?

7. Page 34, “Field checks for flow meters must be conducted against volumetric flow.” Many calibration certificates I see measure accuracy in other ways, not volumetric flow (e.g., milliwatts). I suspect that if you make this a requirement, a lot of project developers may have trouble meeting the requirement. Also, this sentence contradicts with the sentence on page 36: “(e.g., drift is recorded in milliwatts, which cannot be directly translated into a drift percentage), the project developer should seek guidance from the instrument manufacturer to confirm when the 5% drift threshold has been reached and how to appropriately scale the relevant data.”

8. Page 34, “In this case, the competency of the individual and the accuracy of the field check procedure must be assessed and approved by the verification body.” I want to pose a theoretical scenario here:

    a. You have a project with an analyzer which is reading normal CH4 values around 53% during July. CH4 values are typically between 48-55% CH4 at the landfill. There’s an electrical issue at the flare skid which prompts an unscheduled calibration of all equipment. The as-found readings from the calibration show that the analyzer was over-reading by 30%. Would this be an instance where the VB could use their judgement? Would it be reasonable and acceptable to assume that the analyzer was actually reading accurately prior to the electrical issue, even though the calibration would suggest otherwise? Could we approve the project developer to not adjust CH4 readings back to the last successful calibration (even though this is required in the protocol), but instead adjust back to the date of the electrical failure? My point is that it should be clear when and in what circumstances VBs are being given room for professional judgement.

9. Page 34, “If, at the time of the failed field check, the meter is cleaned and checked again, with the “as-left” condition found to be within the accuracy threshold, a full calibration is not required for that piece of equipment. This shall be considered a failed field check, followed by a successful field check." We see this sometimes with calibration certificates, too. A “calibration” is performed by a qualified/accredited calibration service, but the as-found and as-left values are identical, which would indicate that the meter was simply checked for accuracy but the meter was not altered in any way. Since this was completed by a qualified/accredited calibration service and is presented/labelled as a calibration, would this could toward the calibration requirement of the protocol?

10. Page 35, “Flow meter calibrations shall be documented to show that the meter was calibrated to a range of flow rates corresponding to the flow rates expected at the landfill. Methane analyzer calibrations shall be documented to show that the calibration was carried out to the range of conditions (temperature and pressure) corresponding to the range of conditions as measured at the landfill.” It would be my preference as a verifier to have more of a quantitative threshold for this. For example, meters must be calibrated within 25% of the average flow/methane concentration for the reporting period.

11. Page 35, “Portable methane analyzers must also be field calibrated to a known sample gas prior to each use.” It may be helpful to include more requirements/detail for this, similar to the bullets on page 33 for cleaning and inspection. What would be deemed acceptable documentation for meeting this requirement? For example, is date sufficient or must you note the exact time the field calibration was completed? Make/model and serial number of the meter being calibrated? Reference gas used? As-found and as-left condition/readings? Name of personnel? Is a written note from the technician who performed the procedure (e.g., “calibration completed”) sufficient enough evidence? Should the project developer have a checklist/template prepared for technicians to fill out or is a download pulled directly from the portable calibration equipment acceptable?
12. Page 36, “For calibrations that indicate over-reporting (higher flow rates, or higher methane concentration), the metered values must be adjusted based on the greatest calibration drift recorded at the time of calibration.” Adding an equation here may be helpful. I’ve worked with clients in the past who were confused on how exactly to do this calculation properly.
13. Page 36, “If the required on-site cleaning, inspection, calibration, or testing is not properly documented, GHG credits cannot be generated for that reporting period.” This is partially true, as credits might be issued as long as the Reserve issues variance approval. Might be helpful to have a note here.

Please let me know if you have any questions or wish to discuss further. Hope my review is helpful. I look forward to improving the protocol in the future.

Best,

Masury Lynch

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Environmental Scientist

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