



terrapass

restore the balance

Comments on the  
Climate Action Reserve Landfill Project Protocol  
Public Comment Draft Version 3.0

Submitted by

Erin Craig, CEO

TerraPass Inc.

527 Howard St., 4<sup>th</sup> Fl.

San Francisco, CA 94105

TerraPass Inc.

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TerraPass is pleased to be able to comment on the Public Draft of the Landfill Project Reporting Protocol Version 3.0. We offer strong support to the Reserve in its continued efforts to produce high-quality project protocols in a participatory and transparent manner.

Based in San Francisco, TerraPass is a carbon offset project originator, retailer and wholesaler with over 3.5 million tons of CO<sub>2</sub>e reductions under contract and a variety of landfill and livestock projects listed on the Reserve. We offer the following comments on the *Public Comment Draft Version 3.0* based on our experience working with more than 100 landfill gas collection and destruction projects around the country and as a project developer with 8 landfill projects currently listed on the Reserve and proceeding towards issuance.

## Protocol

### 3 Eligibility Rules

#### 3.4.1 The Performance Standard Test

4. Installation of additional wells at an eligible closed landfill where landfill gas was collected and destroyed prior to the project start date using a qualifying flare (or flares) that is not otherwise eligible under the protocol (e.g. a flare installed prior to the earliest allowable project start date).<sup>10</sup> The project is only eligible if the qualifying flare(s) continue to be used to destroy collected methane. Only incremental gas collection and destruction (beyond baseline levels) will be eligible for crediting.

## Comments

TerraPass fully supports the position that closed landfills should have a special exemption which allows them to credit gas collection system expansions which feed a pre-existing flare. However, this clause also seems to preclude closed landfills from using the standard method of determining baseline (the capacity of the pre-existing flare) in cases where the pre-existing flare is being replaced for whatever reason. We can think of no reasons to exclude such cases from crediting and suggest the wording be clarified.

## Protocol

#### 3.4.2.3 NMOC Threshold

## Comments

It is our understanding that the Reserve is using the NMOC threshold as a performance-standard screening device to help distinguish regulatory installations of landfill gas control systems from voluntary ones. We recommend striking all of the first paragraph of this section, except the first sentence, as this paragraph provides confusing and unnecessary information which implies this screening

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device is only appropriate in cases where NMOC air emissions are a factor, and our experience with CAR indicates that this is not its intention.

### Protocol

Figure 6.1. Suggested arrangement of LFG metering equipment.

### Comments

It is TerraPass' understanding that the Reserve has adopted Figure 6.1 and several other aspects of the Landfill Project Reporting Protocol from the Clean Development Mechanism's ACM0001. However, when asked whether a single flow meter would suffice to meter landfill gas delivered to a power plant (as pictured in Figure 6.1), the Reserve's initial response was that this would be insufficient and that one flow meter would be required for each generator within a power plant.

TerraPass' involvement with and understanding of CDM methodologies, along with the experience shared from third-party verification bodies, is unambiguous and contrary to this interpretation. In all applications of CDM ACM0001, a single flow meter is sufficient for determining the quantity of landfill gas delivered to a power plant.

The CDM clearly defines the terms "power plant" and "power unit" as follows<sup>1</sup>:

A power plant/unit is a facility that generates electric power. Several power units at one site comprise one power plant, whereby a power unit is characterized by the fact that it can operate independently of the other power units at the same site. Where several identical power units (i.e. with the same capacity, age and efficiency) are installed at one site, they may be considered as one single power unit.

TerraPass requests that the Reserve reconsider its previously stated position and adopt the relevant terms and definitions from the CDM that have been used and applied in developing the Landfill Project Reporting Protocol, such as "power plant," so as to make clear that only one flow meter is required to measure flow to multiple generators, provided those generators are the same size, make, model and fit-out.

### Protocol

6.2 Instrument QA / QC

### Comments

TerraPass suggests that the instrument QA / QC requirements for handheld methane analyzers be explicitly spelled out. The QA / QC requirements noted for continuous flow meters and continuous gas analyzers are not readily applicable to

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<sup>1</sup> For instance, see "Tool to calculate the emission factor for an electricity system (Version 2)" - <http://cdm.unfccc.int/methodologies/PAmethodologies/tools/am-tool-07-v2.pdf>

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handheld methane analyzers and the resulting interpretations can be cause for variability and confusion. One example of such confusion follows

If a handheld methane meter is attached to certified gas cylinders and a methane content reading is taken, this activity is a “field check.” If this field check shows the instrument to be out of calibration, even very far out of calibration, the operator can immediately implement an instrument calibration using the instrument’s documented procedure. After calibrating, if a new reading shows the instrument to be within calibration tolerances, the instrument should be declared calibrated. However, the language in the protocol states, “if the field check on a piece of equipment reveals accuracy outside of a +/- 5% threshold, calibration by a manufacturer or a certified service provider is required for that piece of equipment.” This statement does not apply to the methane analysis function of handheld methane analyzers. They can be accurately calibrated in the field.

## Protocol

### 6.2 Instrument QA / QC

All gas flow meters<sup>25</sup> and continuous methane analyzers must be:

- Cleaned and inspected on a quarterly basis, with the activities performed and as found/as left condition of the equipment documented
- Field checked for calibration accuracy with the percent drift documented, using either a portable instrument (such as a pitot tube) or manufacturer specified guidance, at the end of - but no more than two months prior to - the end date of the reporting period
- Calibrated by the manufacturer or a certified calibration service per manufacturer’s guidance or every 5 years, whichever is more frequent

## Comments

- TerraPass supports the Reserve’s decision, in this and other protocols, to adopt a calibration regime in keeping with device manufacturers’ recommendations. Calibration checks are preferable to calibrations when the manufacturer does not recommend frequent calibrations and the device is found to be operating within specifications. Calibration checks are typically less expensive to project owners than factory calibrations, provide a sound means of insuring accuracy and provide for greater continuity of flow monitoring.
- TerraPass requests that the Reserve clarify its meaning of the phrase “on a quarterly basis.” One interpretation of this phrase could be “occurring once per quarter”. Similarly, TerraPass understands that “weekly” means “once per week”. However we have encountered different interpretations of this text during verification activities. Please offer more exact language.

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- TerraPass also requests that the Reserve detail what actions will be taken or discounts applied, if any, for missing a quarterly cleaning and inspection, considering that discounts are already built-in to project calibrations and calibration checks. Transparency in this matter will benefit project developers by allowing any risks associated with the cleaning and inspection schedule to be properly assessed and conveyed to project owners.
  - It has been our experience in multiple projects that from time to time the required periodic calibration, field check, inspection and cleaning events do not occur at the scheduled time. Many devices and the equipment used in their calibration are able to perform “as found” tests which provide rigorous evidence of reading errors. We suggest that the Reserve provide guidance for circumstances where a meter has missed a scheduled calibration but an “as found” check or calibration finds the device to be within acceptable tolerances. To be clear, this is a different circumstance than a “failed calibration”

### Comments Regarding Historic Combustion

On occasion, we encounter landfills which have conducted short-term tests or operational experiments involving destruction devices such as passive flares or rented flares which are later removed from the landfill without any reference or relevance to the carbon offset project built thereafter. We also encounter a great number of landfills which remove older destruction devices specifically because a new active gas system is to be installed in the near future.

While this second population is well-covered in the current landfill protocol, the former group is not. We do not believe landfills who experimented with “novel” passive flares in the late 1990’s or rented a temporary flare skid to conduct a pilot test should be treated the same as a landfill with destruction devices as a regular and ongoing facet of a landfill’s operations.

In our experience, it is straightforward to distinguish between these two types when viewing the specifics of a case at hand, though we acknowledge it might be difficult to create a rule which consistently separates them properly. We urge the Reserve to consider these cases either by delegating the decision of whether such cases of prior combustion truly represent “methane destruction that would have happened without the project” by enabling their consideration at project listing (as a variance or otherwise).

### Comments Regarding Hourly Monitoring of the Destruction Device(s)

Finally, this protocol and others require that projects monitor and record the hourly operational activity of gas destruction devices in order to ensure that gas is not being sent to an inoperable device and subsequently vented to the atmosphere. In most instances this requirement is unnecessary as the majority of destruction devices covered in these protocols, including generator sets, boilers and many flares *cannot* accept gas if the device is not operating. Mechanical systems such as

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pressure by-pass loops, auto-functioning shut-off valves, automated damper closure systems, and blower shut-down systems represent a few of the many common engineering solutions which ensure gas does not flow to inoperable destruction devices.

We recommend that if a destruction device can be verifiably demonstrated to be “closed” to gas flow at the location of the flow meter when the destruction device is not combusting whether due to a planned and unplanned shut-down event, then an hourly record of operations is unnecessary.