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June 7, 2010

Syd Partidge  
Policy Manager  
Climate Action Reserve  
523 W. Sixth Street, Suite 428  
Los Angeles, CA 90014

**Re: Comments on the Public Review Draft of the Organic Waste Composting Project Protocol**

Dear Mr. Partridge:

The California Compost Coalition (CCC) is very supportive of the development of the Organic Waste Composting Project Protocol and appreciative of the efforts of the Climate Action Reserve (CAR) staff to produce a quality protocol. Toward that end, the CCC offers the following comments on the Draft Organic Waste Composting Protocol (OWCP) released for public review.

**Section 2.2, Project Definition**, provides a maximum of 48 hours to incorporate eligible material into the composting process. This will be difficult to comply with in the event of a long weekend or holiday. An exception to this BMP requirement in those instances is recommended, such as allowing 72 hours.

**Section 3.4.2.1, Guidance on Solid Organic Waste Regulations**, states that otherwise eligible waste streams fail the Legal Requirement Test if the local jurisdiction has passed a mandate to divert the material from landfills. The Organic Waste Digestion Protocol (OWDP) included an exception to this component of the Legal Requirement Test in the case where the local mandate is enacted as a component of an otherwise additional carbon offset project. The CCC believes that the same rationale that justified this exception in the OWDP leads to the conclusion in the OWCP.

In many cases, composting food waste will require significant investments in compost technologies and infrastructure, as well as permitting expenses. Local jurisdictions will find it easier to commit resources towards the project, in the form of community education, staff resources, revisions to pricing structures and contractual arrangements, and partnering with service providers, if a local mandate can be passed without negatively impacting project economics. As with the OWDP, the legal requirement itself is "additional" along with the project.

Regarding the definition of “legally binding mandates”, it is essential that contracts between local jurisdictions and service providers do not constitute a legally binding mandate. Local jurisdictions must use metrics of performance to choose between service providers and to monitor performance and it should be stated in the OWCP that the Legal Requirement Test is not applied to contractual obligations.

**5.1.1.2.1 Residential SSO Waste Stream Characterization**, requires 2 hand samplings for waste characterization per quarter for source separated organic waste streams. The CCC recommends reducing the number of hand sorting events to one per quarter following 8 in the first year to establish a baseline. It is also recommended that photo documentation be required of the waste from which the sample is obtained, the sample itself, and the categories into which it is divided.

**Section 5.1.1.2.2, Commercial SSO Waste Stream Characterization**, states the following:

*“In order to quantify the proportional weight of food waste and soiled paper waste in a commercial stream, projects may apply the default factors in Table 5.1 or may use generator provided waste characterization data ...”*

The OWCP should also provide the possibility for the project to do their own waste characterization, as with the Residential SSO Waste Stream, rather than rely on the generator or default factors for the information.

**Section 6.3.1, Time, Temperature, and Turning Frequency BMP Monitoring**, requires daily temperature readings. An exception to daily temperature monitoring should be allowed when the facility is closed (weekends, holidays). The monitored temperatures don’t normally show much variation over periods of a couple of days.

**Table 5.2** provides emission factors for CH<sub>4</sub> and N<sub>2</sub>O for the composting process. Depending on various technology options implemented in the project, the emission factors for the CH<sub>4</sub> and N<sub>2</sub>O added together range from 0.09 to 0.18 MTCO<sub>2</sub>e/MT of eligible waste. If it is assumed that an eligible waste stream is 75% food waste and 25% soiled paper, then the amount of avoided landfill emissions is 0.393 MTCO<sub>2</sub>e/MT of eligible waste. Using the proposed emission factors, project emissions from CH<sub>4</sub> and N<sub>2</sub>O emissions constitute a range of 23 to 46% of the avoided methane. Although these values are within the range of available data in the current literature, the CAR should continue to seek better information as it is developed to improve the protocol.

In the Issue Paper – Methane Avoidance from Composting, literature sources are cited regarding nitrous oxide emissions from landfills with conclusion that; “... *the anoxic conditions required for N<sub>2</sub>O formation are potentially likely to occur in a landfill environment.*” However, these emissions are excluded from the baseline emissions of the OWCP. Given its significance as a project emission using the currently proposed emission factors, its inclusion would be a more equitable representation of avoided emissions.

**Section 8.5.2, Quantification**, provides guidance to project verifiers. Table 8.3 includes several points regarding the use of the FOD equation in quantifying baseline emissions. Because the Methane Emission Factors for landfilled waste are provided in

Table A.3, and are calculated using parameters that are fixed in the OWCP, it doesn't seem as if there is any need to apply the FOD equation.

Decay constants (k) for food waste and soiled paper are provided in Table A.2 and are a function of climate. The decay constant for food waste in temperate dry areas, of 0.06, results in a half-life of about 12 years and a period of 40 years to reach 90% waste decomposition. For temperate, wet areas the k of 0.185 results in a half-life of about 4 years and 13 years to 90% decomposition. The CCC understands that there is not a lot of applicable data available on decomposition of specific waste components in landfills. However, the k values seem low for food waste, particularly in dry areas. This is particularly relevant due to evidence that temperature conditions are relatively constant in landfills regardless of ambient conditions, and the high moisture content of food waste. The CAR is urged to revisit this issue as data becomes available to refine these parameters.

Thank you for the opportunity to provide comments on this protocol.

Sincerely,

A handwritten signature in black ink, appearing to read "Neil S.R. Edgar". The signature is fluid and cursive, with the first name "Neil" being the most prominent.

Neil S.R. Edgar  
Executive Director