



June 7, 2012

Via Electronic Transmission: Stallworth.holly@epa.gov

Dr. Holly Stallworth, Designated Federal Official
Science Advisory Board
U.S. Environmental Protection Agency
1200 Pennsylvania Ave., NW
Washington, DC 20460

Re: Comments on SAB Review of EPA's *Draft Accounting Framework for Biogenic CO₂ Emissions from Stationary Sources*

Dear Dr. Stallworth:

Eco-Cycle is pleased to submit comments on the Science Advisory Board's (SAB) Review of EPA's *Draft Accounting Framework for Biogenic CO₂ Emissions from Stationary Sources*. **We strongly support the Board in not issuing a categorical exclusion to biogenic emissions from municipal solid waste (MSW) management, including landfills and incinerators.** We believe the Board can go further in protecting public health and our environment by ensuring the waste industry is responsible for reporting the full climate impact of their activities.

Eco-Cycle is one of the largest non-profit recyclers in the US and has an international reputation as a pioneer and innovator in resource conservation. We believe our comments represent those of us in the recycling and Zero Waste industries whose true mission is a sustainable future. We compete directly with incinerators and landfills to recover our valuable resources but are disadvantaged by the environmental externalities of waste disposal that are passed on to society and not accounted for in the marketplace. We believe these biogenic emissions reporting standards will help to disclose the full climate impact of our overreliance on landfills and incinerators in this country and advance the national dialogue on how to reach a resource recovery goal of 90% by 2030.

Depleting Resources Faster than Regeneration

Biomass feedstocks should not be considered carbon neutral if the feedstocks are being depleted faster than they are being regenerated. Every ecosystem indicator points to Americans consuming far more than a sustainable share of resources. In fact, we are consuming resources 1.5 times faster than Earth can regenerate them, and if the entire world's population consumed at the rate of the average American, we would need four planets to meet our resource demand.ⁱ This means our plant-based feedstocks are being harvested and consumed at beyond a normal replacement rate—we are adding carbon dioxide to the atmosphere faster than new plant growth can draw it down. For this reason,

landfills and incinerators should be required to report biogenic emissions and not categorically excluded, as the Board has recommended. This is consistent with IPCC guidelines, which state, “If combustion, or any other factor, is causing long term decline in the total carbon embodied in living biomass (e.g., forests), this net release of carbon should be evident in the calculation of CO₂ emissions.”ⁱⁱ This position should not be reevaluated as requested by several groups representing the landfill and incineration industries.

Differentiating Landfills from Composting and Anaerobic Digestion

In keeping with the unsustainable use of Earth’s resources, the biogenic accounting factor (BAF) for landfills should not be set at zero. The initial review supports the idea that the same BAF cannot be applied across the board in the waste industry. However, the Board has currently lumped together landfills with composting and anaerobic digestion facilities. Composting facilities and anaerobic digesters produce agricultural amendments that return carbon to soils. **The Board should maintain a BAF of zero for composting and anaerobic digesters. A BAF for landfill emissions should be calculated separately and not set to zero based on the overconsumption of our plant-based feedstocks.**

Materials Management Perspective

Waste should not get a free pass on biogenic emissions reporting because it’s considered inevitable: It’s the end result of wasteful industrial practices, inefficient resource use, poor design, a lack of recovery infrastructure and programs, and distorted economic incentives. The contribution of waste to greenhouse gas emissions is deceptively small because it cannot be viewed in isolation of our production and consumption systems. The EPA issued a groundbreaking report in 2009 which found 42% of our greenhouse gas emissions were attributable to the way we produce, consume and dispose of our products, packaging and food.ⁱⁱⁱ

EPA is providing cutting-edge dialogue and reports on Sustainable Materials Management as a new way to consider the lifecycle flow of our resource extraction, use and disposal. Tools such as the Waste Reduction Model (WARM) calculate greenhouse gas emissions over the entire lifecycle of a material. Waste must be considered part of our entire system of resource use, not an isolated afterthought, and must be subject to the same stringent reporting standards as other forms of energy production and resource use.

The Board should recommend the EPA reverse its position in the Mandatory Greenhouse Gas Reporting Rule, Subpart HH, of treating the biogenic emissions from landfills as carbon neutral. Landfills should be held liable for reporting all their emissions, regardless of origin, in order to fully assess our materials management choices along the entire production and consumption chain.

Energy Sources Report Biogenic Emissions

IPCC guidelines require incinerators to report biogenic emissions when counted as an energy source, stating, “If incineration of waste is used for energy purposes, both fossil and biogenic CO₂ emissions should be estimated.”^{iv} As landfill gas to energy projects are also marketed as a source of energy, **landfills utilizing landfill gas to energy systems should also be required to report biogenic emissions.** We support the Board in holding waste incineration responsible for its CO₂ emissions, but advocate the Board recommend the EPA extend the same requirement to landfills for consistency in accounting.

Landfills are increasingly credited with reducing methane emissions through renewable energy standards and carbon credits. This fully ignores the real opportunity on the table to completely avoid methane emissions in the first place, not just capture some of them, through recycling and composting diversion programs. Keeping organic materials out of landfills is the best short-term solution for reducing our CO₂ emissions because of the potency of methane over the next 20 years. The longer it takes to address the real problem of burying our organic discards, the more abrupt and radical climate change may be.

Methane Emissions Worst Case Scenario, Not Benchmark

Methane emissions from landfills are not inevitable. We create potent methane emissions when we choose to bury our organic wastes in a landfill. Projects and facilities should not be compared using the benchmark of how much methane emissions from landfills were avoided because this assumes these emissions are the default, inevitable scenario. We must consider the alternative resource recovery options of recycling and composting our discarded paper, food and yard scraps, which reduce net greenhouse gas emissions while also generating far more domestic jobs per ton.^v The benchmark to measure emissions should be the best practice of preventing or avoiding emissions through resource recovery, not the worst case scenario when we have chosen to turn our biomass into potent methane emissions.

Address Uncaptured Methane Emissions

We fully agree with the SAB review that accounting methods must consider methane emissions from landfills that go uncaptured. Methane traps 72 times more heat in our atmosphere over a 20-year period than CO₂.^{vi} In keeping with the emphasis in the review of focusing on reducing emissions that occur before 2050 to meet the goals of keeping worldwide temperature change below 2° C, it is paramount all methane emissions are addressed and accounted for in every framework.

Eco-Cycle appreciates the opportunity to comment on the SAB's review document. If you have any questions about our comments, please contact me at 303.444.6634 or Kate@ecocycle.org.

Respectfully Submitted,

Kate Bailey
Eco-Cycle International Program Developer

ⁱ World Wildlife Fund, 2012. Living Planet Report 2012. Available at http://wwf.panda.org/about_our_earth/all_publications/living_planet_report/.

ⁱⁱ IPCC, 2006. 2006 IPCC Guidelines for National Greenhouse Gas Inventories: Chapter 5, Incineration and Open Burning of Waste. Available at http://www.ipcc-nggip.iges.or.jp/public/2006gl/pdf/5_Volume5/V5_5_Ch5_IOB.pdf.

ⁱⁱⁱ EPA, 2009. Opportunities to Reduce Greenhouse Gas Emissions through Materials and Land Management Practices. Available at http://www.epa.gov/oswer/docs/ghg_land_and_materials_management.pdf.

^{iv} IPCC, 2006.

^v Tellus Institute, 2011. More Jobs, Less Pollution: Growing the Recycling Economy in the US. Available at <http://www.nrdc.org/business/guides/recyclingreport.asp>.

^{vi} IPCC, 2007. "Climate Change 2007: The Physical Science Basis, Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change." Chapter 2: Changes in Atmospheric Constituents and in Radiative Forcing. Available at <http://www.ipcc.ch/pdf/assessment-report/ar4/wg1/ar4-wg1-chapter2.pdf>.