

Biogenic CO₂ Emissions

Case Studies – Responses to Charge Questions

Charge Questions:

- 1) Does the SAB consider these case studies to be appropriate and realistic?
- 2) Does the EPA provide sufficient information to support how EPA has applied the accounting framework in each case?
- 3) Are there alternative approaches or case studies that EPA should consider to illustrate more effectively how the framework is applied to stationary sources?

Team Members

Morton Barlaz, Chuck Rice, Steven Kelley, Richard Nelson

Charge Question #1

Does the SAB consider these case studies to be appropriate and realistic?

- “Marginal at best” to “No” for case studies #1 - #4;
 - “real-world” scenarios need to be incorporated to serve as models for other situations
 - we will learn more about the utility of the framework by testing it in multiple unique case studies with “real world” data development and inclusion
- Case study #5 needs to be re-done/removed as it is unrealistic.

Charge Question #2

Does the EPA provide sufficient information to support how EPA has applied the accounting framework in each case?

- Somewhat, but many values are single numbers across a wide region (e.g., the 1.5 tons of corn stover per acre across a “region”) and in some instances don’t really mirror real situations.
- Document does not address uncertainties and should develop examples from real data plus possible sensitivity analyses.
- More definitive wording statements is needed.
- Need accounting for co-products.

Charge Question #3

Are there alternative approaches or case studies that EPA should consider to illustrate more effectively how the framework is applied to stationary sources?

- Land scale needs to be addressed with each feedstock. Regional is probably too big for most cases that involve a soil component.
- Perform additional case studies:
 - perennial herbaceous energy crop
 - annual energy/biomass sorghums
 - rotations with food and energy crops
 - different land and soil types
 - municipal solid waste
 - internal reuse of process materials

Recommendations

More Actual/Realistic Case Studies that:

- o Mirror “reality” with examples currently in practice.
- o Determine the “real” BAF across many different scenarios that mirror real agriculture/forestry situations (e.g., “slice and dice” a little more finely).