January 15, 2015

The American Forest & Paper Association (AF&PA) is pleased to provide comments on the Resource Transformation Sector / Containers & Packaging Exposure Draft for Public Comment (the “Standard”).

The American Forest & Paper Association (AF&PA) serves to advance a sustainable U.S. pulp, paper, packaging, and wood products manufacturing industry through fact-based public policy and marketplace advocacy. AF&PA member companies make products essential for everyday life from renewable and recyclable resources and are committed to continuous improvement through the industry’s sustainability initiative - Better Practices, Better Planet 2020. The forest products industry accounts for approximately 4 percent of the total U.S. manufacturing GDP, manufactures approximately $210 billion in products annually, and employs nearly 900,000 men and women. The industry meets a payroll of approximately $50 billion annually and is among the top 10 manufacturing sector employers in 47 states.

AF&PA’s sustainability initiative - Better Practices, Better Planet 2020 - is the latest example of our members’ proactive commitment to the long-term success of our industry, our communities and our environment. We have long been responsible stewards of our planet’s resources. Our member companies have collectively made significant progress in each of the following goals, which comprise one of the most extensive quantifiable sets of sustainability goals for a U.S. manufacturing industry: increasing paper recovery for recycling; improving energy efficiency; reducing greenhouse gas emissions; promoting sustainable forestry practices; improving workplace safety; and reducing water use.

AF&PA members and staff participated in the Industry Work Group (IWG) established for the Standard, as well as the Delta Series event in New York. We appreciate SASB’s willingness to make changes to its draft Standard as a result of our participation.
GENERAL COMMENTS

Voluntary Standards

We appreciate SASB’s statement that “[d]isclosure under SASB Standards is voluntary”. AF&PA members strongly support retaining the voluntary nature of SASB Standards. SASB’s process includes regular meetings with the Securities and Exchange Commission (SEC), and it has been widely reported that SASB’s ultimate objective is to have the SEC mandate the use of its standards. SASB should clarify its intent regarding the SEC and, as stated, its standard should be voluntary.

Materiality, Topics, and Metrics

AF&PA supports SASB’s adherence to the Supreme Court’s definition of “materiality” and its emphasis that it is up to each company to decide for itself which sustainability topics are material. There is a lack of clarity, however, around how the Standard is intended to be used once a company determines that a topic is material. SASB representatives have given the impression that once a company has determined a topic is material, it must use the SASB metrics for that topic. The “Guidance on Accounting of Material Sustainability Topics” in the draft Standard, however, states “SASB recommends that each company consider using these accounting metrics when disclosing its performance with respect to each of the sustainability topics it has identified as material.” SASB also recommends that “companies should consider including a narrative description of any material factors necessary to ensure completeness, accuracy, and comparability of the data reported.”

We support the approach to metrics as described in the Standard and quoted above. Our members have serious concerns about the comparability and other aspects of the metrics SASB has chosen for the Standard. We believe making it clear, as does the text above, that companies have the flexibility to use those or other metrics, as well as the ability to explain why particular metrics do or do not “ensure completeness, accuracy, and comparability of the data reported” is very important for ensuring stakeholders using the data understand its potential limitations. Therefore, SASB should retain the “consider” language in the final Standard and explain the apparent inconsistency with its public statements.

Duplication With Existing Reporting Requirements

We understand that SASB tried to choose metrics that companies already report (voluntarily or pursuant to government requirement), as a way to minimize reporting burdens and ensure the metric is viable. Choosing these metrics, however, does raise potential concerns for reporting companies. Specifically, there is significant potential for inconsistent reporting between reports using the SASB standard (including, potentially SEC reports) versus other reports, including a company’s own sustainability reports, if
SASB’s metrics and the way in which they are derived and reported are not exactly the same as those used in the other reports. At a minimum, this inconsistency creates confusion among stakeholders; it also creates legal risk for reporting companies. Accordingly, to the extent that a metric is subject to multiple reporting requirements, the Standard should permit the reporting company to choose which requirement it is reporting under and indicate that choice in its reports.

Assurance

SASB indicates in the Standard that “it is expected that registrants disclose with the same level of rigor, accuracy, and responsibility as they apply to all other information contained in their SEC filings.” While AF&PA members have systems in place to ensure high quality data are publicly reported, we do not believe that some of the metrics in the Standard lend themselves to the same level of assurance as is provided in financial reporting. Metrics that are reported to government agencies are not a concern because they typically have their own assurance requirements. The methodologies for reporting other metrics, however, may allow for more flexibility in the calculation of the metric, and thus there may be greater variation in reported information than one might typically encounter in financial documents. SASB should revise its assurance requirements to recognize this flexibility. As an example, SASB should make an explicit link between its assurance requirements, and its recognition that estimates may be used, as long as the company explains the basis for the estimate. SASB should revise its statement that “SASB does not discourage the use of such estimates” to make it a more neutral statement acknowledging the reality that estimates will need to be used in reporting sustainability data.

American National Standards Institute (ANSI) Procedures

The material developed for the IWG stated that the “SASB Standards Development process is certified by: ANSI.” SASB’s Vision and Mission document also states that “SASB is also an ANSI accredited standards developer. Accreditation by ANSI signifies that SASB’s procedures to develop standards meet ANSI’s requirements for openness, balance, consensus, and due process.” Finally, SASB’s “Our Process” webpage states that “[a]s an ANSI-accredited standards-setting organization, SASB follows an open, orderly process that permits timely, thorough, and open study of sustainability accounting issues.”

Adherence to ANSI Essential Requirements provides stakeholders with assurances that needed procedural safeguards are present. This is especially important, if, as is the case here, there is the potential for a government agency--the Securities and Exchange Commission (SEC)--to mandate the use of a standard (although, as discussed above, we strongly believe the standard should be voluntary). Government standards typically are developed through a notice and comment process and are subject to numerous due process protections for stakeholders, including in many cases, judicial review. Private
standards adopted for government use should be developed with the same level of due process protection.

Office of Management and Budget (OMB) OMB Circular A-119 requires, with limited exception, that federal agencies and departments use “voluntary consensus standards,” which are “standards developed or adopted by voluntary consensus standards bodies.”\(^1\) The Circular also established guidelines for federal participation in the development and use of voluntary consensus standards. Specifically, the Circular provides the following attributes for a “voluntary consensus standards body”: (i) openness; (ii) balance of interest; (iii) due process; (iv) an appeals process; and (v) consensus. Section 12(d) of the National Technology Transfer and Advancement Act of 1995 (Public Law 104-113) basically codified the OMB Circular and requires that “all Federal agencies and departments shall use technical standards that are developed or adopted by voluntary consensus standards bodies,” unless use of such a standard is “inconsistent with applicable law or otherwise impractical.”

By definition, private standards such as SASB’s do not include the due process protections found in the development of government standards. ANSI Essential Requirements closely track the procedural safeguards required by the Circular.\(^2\) We note, however, that SASB is not using its accredited procedures to develop the Standard. Moreover, SASB’s descriptions of the ANSI process do not include “an appeals process,” and we are unaware of SASB having instituted an appeals process for its previous standards. It is also unclear how the SASB process complies with ANSI Essential Requirements, such as a “consensus vote.” We believe SASB should explicitly describe the process it is using to develop the Standard, and the extent to which the process is consistent with the ANSI Essential Requirements and OMB Circular A-119 (since there is the possibility that the SEC could adopt the Standard). If it is not using its ANSI-accredited procedures, SASB should make that clear in the Standard and on its website.

**Private, Non-Consensus Standards**

Generally, as required by ANSI, the Standard should avoid references to private tools or standards (e.g., Green-e, World Resources Institute (WRI) Water Risk Atlas tool, Aqueduct). Among other concerns, these tools or standards have not been developed in a consensus-based process that provides the procedural safeguards discussed above.

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\(^2\) The ANSI Essential Requirements for Due Process are: openness, lack of dominance, balance, coordination and harmonization, notification of standards development, consideration of views and objections, consensus vote, appeals, written procedures, compliance with normative ANSI policies and procedures. ANSI Essential Requirements: Due process requirements for American National Standards. January 2014.
In addition, SASB’s adoption of a particular private tool or standard has the effect of locking in that standard for the future. Other existing tools or standards may perform similar functions but be more suitable to the Containers and Packaging sector, and new, innovative standards may be developed in the future. SASB shouldn’t prejudge the suitability of those standards by locking in one particular standard at this time. At a minimum, SASB should describe what the tool provides or the standard is trying to accomplish, and after identifying the tool or standard, add “or equivalent.”

**SASB Use Of Varying National Standards, Laws And Definitions**

Our understanding is that SASB expects sustainability reporting to include global data, not information specific to the U.S. alone. However, the standards and laws referenced for development of the metrics are often nation-specific rather than internationally-recognized standards. For example, the U.S. Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) and Resource Conservation and Recovery Act (RCRA) are cited under Hazardous Waste Management, yet each country defines and manages hazardous waste differently; compliance standards developed for the EU Packaging and Packaging Waste Directive are cited under Product Lifecycle Management & Innovation, yet are not applicable in the U.S.; air quality emissions, such as Particulate Matter (PM) or Volatile Organic Chemicals (VOC) are measured differently from country-to-country; water quality is measured by biochemical oxygen demand (BOD) in the U.S., Chemical Oxygen Demand (COD) elsewhere. Use of the SASB metrics by a global company will require significant duplicative reporting by country. SASB should permit companies to report data using applicable nation-specific definitions and reporting requirements, as long as the bases for the definitions and requirements are also reported.

**Usefulness of Metrics As Indicators of Sustainability**

As discussed in the “Specific Comments” section below, we do not believe that the disclosure of particular metrics provides useful, comparable, sustainability-related information for stakeholders. But, more importantly, we do not believe that a simple comparison of any metrics themselves would provide a complete picture of the sustainability performance of the companies that reported those metrics (or didn’t report a particular metric because it is not material). Many companies explain the context for the metrics they include in their sustainability reports. Similarly, SASB should encourage stakeholders to consider the entirety of the information provided by companies that may report based on the Standard, and not to simply compare one company to another based only on the metrics.

**Consistent Units Across Metrics**
The Standard should be consistent and shouldn’t mix standard and metric units throughout the document. For example, the Standard specifies reporting the hazardous waste metric in “Tons,” while for the air quality metrics the Standard specifies to report in “Metric Tons.” It would be best to allow companies to consistently choose either standard or metric units based on the unit conventions used for other metrics in their other reports.

SPECIFIC COMMENTS

AF&PA has a number of comments on specific metrics included in the Standard as discussed below. We have omitted metrics on which we do not have any comments.

**Greenhouse Gas Emissions (RT0204-010)** *Gross global scope 1 emissions, percent covered under a regulatory program*

Global Warming Potential Factors (.01): The Standard references the global warming potential factors from the IPCC’s Second Assessment Report (1995). However, companies should be allowed the flexibility to choose the set of global warming potentials they base their emission estimates on and disclose this as part of their calculation methodologies.

Biogenic Emissions (.02): On average, about two-thirds of AF&PA members’ energy demand is met by carbon-neutral biomass. The carbon-neutral renewable energy generated by member mills on-site avoids fossil fuel- based GHG emissions as well as GHG emissions that would occur if biomass residuals were disposed of rather than used for energy. The Standard should specifically not require reporting of biogenic emissions, but those emissions should be reported separately, as is the case with the WRI/WBCSD Greenhouse Gas Protocol, which is referenced in the Standard.

Mobile Sources (.02): The Standard requires the inclusion of mobile source emissions as part of scope 1 emissions reporting, and provides examples of “marine, road, or rail”. Typically, our members may quantify emissions from the operation of mobile sources at our facilities, including through the use of emission factors applied to total fuel consumption, but they do not quantify emissions from mobile sources that transport our products, for example marine vessels. We believe those latter emissions would be considered Scope 3 emissions for our members and considered scope 1 emissions for the transportation entity. The Standard should be revised to better make this distinction, and only require the former category in Scope 1 reporting. Further, the referenced protocols (e.g., CDP) provide some flexibility and allow companies not to report company-owned mobile emission sources in some circumstances (e.g., data are not available) with appropriate disclosure; the Standard should include the same flexibility.
**Energy Management (RT0204-03)** Total energy consumed; percent grid electricity; percent renewable

1. The Description states that "electricity consumption indirectly contributes to climate change and air pollution," but this is not always the case. For example, in the Pacific Northwest, much of the electricity is generated by hydropower. The Description also states that the cost of electricity may "increase to offset carbon tax on utilities." SASB should add "a potential future" before "carbon tax." Finally, it is not always the case that a company can proactively limit its exposure to volatile energy prices "by fulfilling part of their energy needs from renewable sources," as indicated in the Description, and the text should be changed accordingly.

2. As discussed above, the Standard should not reference the Green-e standard. Similarly, for the same reasons, the Low Impact Hydropower Institute standard should not be referenced—Federal Energy Regulatory Commission (FERC) licensing should be sufficient. Many companies already report (voluntarily or as required by governments) their renewable energy usage and do not use those standards in reporting. This could lead to confusion among stakeholders as to the discrepancies between the reports.

3. Purchased electricity should be on a net basis, as this is consistent with most reporting protocols, and appropriately recognizes facilities that self-generate energy.

**Renewable energy--"Short time" (.17):** This note should also include the reference that is included in footnote 17 that discusses the meaning of a "short time" for renewable resources.

**Air Quality (RT0204-04)** Air emissions for the following pollutants: NOx (excluding N2O), SOx, Particulate Matter (PM), dioxins, and Volatile Organic Compounds (VOCs)

1. **Description:** The first sentence in the Description overstates and mischaracterizes potential risks from air emissions from facilities operating in compliance with their permits. We suggest the following addition to better describe these risks: “...other uncontrolled air emissions from containers and packaging manufacturing can have significant, localized human health and environmental impacts.”

2. **Value of Metrics:** Generally we do not see the value of these air metrics, as they do not provide stakeholders with useful information on which to compare the environmental performance of reporting companies. Many permit limits for these pollutants will depend on the location of the facility and whether it is in an attainment or non-attainment area, making them not comparable. Further, air emissions are a lagging indicator and since reporting companies are already highly regulated, there is little relevance to an investor having this information, so long as a company is in compliance. Accordingly, SASB should remove these metrics from the Standard.
3. Mobile Sources and Office Buildings (.19): As discussed above regarding greenhouse gas emissions, our members may quantify emissions from the operation of mobile sources at our facilities, including through the use of emission factors applied to total fuel consumption. They do not, however, quantify emissions from mobile sources that transport our products, and only the former should be required to be reported, with the flexibility not to report, with appropriate disclosure.

In addition, the reporting of all emissions from office buildings is required. This subsection should be modified to state “office buildings where manufacturing is carried out.” The amount of air emissions from non-manufacturing office buildings likely is de minimis compared to emissions from buildings used in manufacturing.

4. Dioxins (.20): While dioxin was a material issue for the industry decades ago, this is no longer the case as a result of investments made in compliance with the Cluster Rule. Further, as discussed in more detail in comments also filed today by the National Council for Air and Stream Improvement (NCASI), there are significant analytical measurement challenges with attempting to quantify emissions of dioxins from combustion sources at pulp and paper mills (recovery furnaces, lime kilns and boilers) that would prevent them from being able to quantify and report emission of dioxins. Indeed, in its recent effort to establish dioxin standards for industrial boilers, EPA concluded most of the available data it had collected for review were below the method detection limit or below the level at which they could be accurately quantified. Accordingly, EPA concluded that emissions of PCDD/Fs from industrial boilers “cannot practicably be measured.” (FR 76, No. 247, Friday, December 23, 2011, 80606). Based on the foregoing, SASB should remove the requirement to report dioxins emissions.

5. Particulate Matter (PM): AF&PA appreciates that SASB recognizes the difficulties of using PM2.5 as a surrogate for PM emissions and that the Standard allows companies to choose to report either PM10 or PM2.5 emissions. SASB’s recognition of different methodologies for calculating PM emissions highlights inherent lack of comparability. If one of the purposes of the metrics is to allow for comparison across companies, then including PM as a metric fails this test.

AF&PA and NCASI have done extensive work around the difficulties of measuring PM for EPA permitting purposes. Currently, there are no acceptable test methods for PM10, and PM2.5 from wet stacks. Further, as discussed in the comments filed by NCASI today, there are significant technical difficulties with measuring condensable PM. Therefore, if SASB retains a metric for PM it should require reporting of filterable PM only.

Water Management (RT0204-05) Total water withdrawn, percentage recycled, percentage in regions with High or Extremely High Baseline Water Stress
Total Water Withdrawn (.24): AF&PA members are working to reduce water use in their mills by 12 percent -- an AF&PA Better Practices, Better Planet 2020 sustainability goal -- and have achieved a 6% reduction in 2012 from the 2005 baseline. This demonstrates significant progress in reducing the water footprint of member mills. In addition, while the pulp and paper industry withdraws a significant amount of water for its manufacturing operations, it returns about 90% of the water withdrawn. The remainder is returned to the atmosphere or is in our products. Thus, the industry’s consumptive use of water is very low, which may be of more importance especially in water stressed areas, where removals of water from the watershed (i.e., water consumption), rather than merely water use, are of most concern. However, as discussed below, not all facilities have the ability to accurately measure the amount of water withdrawn—and it is even more challenging to measure consumptive use.

The industry’s water profile and the measurement challenges discussed above illustrate some of the complications in choosing a water metric for sustainability reporting. This complexity becomes even more apparent when one considers that companies will be aggregating their individual mill water data and reporting on a global basis, while water sustainability issues clearly are very site-specific. Accordingly, we recommend that the Standard allow companies to choose appropriate water metrics for disclosure and require discussion of why the metric was chosen and other relevant information needed to explain the water sustainability performance of the company. This is another case where simply comparing metrics does not result in increasing an investor’s understanding of the performance of different companies, and where the Standard should encourage Standard users to consider all of the information on an issue provided by a company, as we noted in our General Comments above.

No matter which metric is chosen, we appreciate SASB’s recognition that not all facilities have the measurement capability to accurately measure the amount of water withdrawn. AF&PA uses effluent discharge volume as a surrogate for water use. We believe that is a good surrogate as it is required to be reported to government agencies and we discharge most of what we withdraw. We believe the following statement in .27 allows our members to use the same surrogate, as long as they disclose it, and request that SASB confirm this is the case: “For registrant’s operations that are not submetered in a way that allows direct measurement of water use, estimation is acceptable and shall be disclosed as such.”

Percentage recycled (.25): This is another metric that may be calculated in more than one way, and where estimation should be allowed, per the statement in .27.

In addition, this metric has some complex tradeoffs that raise questions about its utility for sustainability reporting purposes. Importantly, there is potential for increased consumptive loss of water from the local watershed as a facility increases the amount of water recycled. There also could be energy tradeoffs as well, and simply calculating the percentage recycled can be a very resource intensive effort. We suggest that reporting
on water recycling should voluntary. Under this approach, companies that have expended the resources to document the percentage recycled can report the results, and the methodology they used.

**Water Stressed Areas (.26):** For the reasons discussed above, AF&PA does not support the use of private, non-consensus standards such as the World Resources Institute (WRI) Water Risk Atlas tool, Aqueduct. In addition, as discussed in more detail in the NCASI comments, the tool is designed to reflect water stress at a large regional level and it is simply incapable of accurately indicating water stress at a facility level. SASB should allow companies to describe the methods or tools they have used to determine whether their facilities are operating in water stressed areas.

**Water Management (RT0204-06) Number of incidents of non-compliance with water quality permits, standards and regulations (.28-.33)**

The metrics require reporting of warning letters, non-compliance with “voluntary agreements, standards, or guidelines, such as a total maximum daily load (TMDL) exceedances” and “voluntary standards,” which include among others… “effluent guidelines” from the International Finance Corporation. Because of the ambiguity and different thresholds for what defines a non-compliance incident in different jurisdictions, reporting a sheer number of non-compliance incidents does not capture the severity or societal, environmental and economic impacts from such incidents.

AF&PA strongly believes there needs to be a bright line demarking an incidence of “non-compliance”. Unfortunately, the discussion above does not provide such a bright line and its use of terms such as “effluent guidelines” and “TMDLs” confuse mandatory regulatory requirements with “voluntary requirements.”

In the U.S., the industry is subject to mandatory EPA effluent guidelines that are incorporated into their water permits through specific permit limits. Some mills also are in watersheds subject to TMDLs. TMDLs are not “voluntary agreements”. Instead, they are issued by government agencies (usually the state agency), and if a facility is subject to a TMDL, the TMDL ultimately will establish mandatory permit limits for the parameter for which the TMDL was developed. Further, the International Finance Corporation standard is not appropriate for reporting on U.S. operations, as it could require reporting daily on incidents for several parameters.

We believe that at least in the U.S., and other countries that have a mature and sophisticated regulatory and enforcement system, facilities should only be required to report incidents of non-compliance with their water permit limits that result from the conclusion of formal administrative or judicial enforcement proceedings, and that a company determines is material according to SEC rules. Warning letters, citizen complaints, etc. are simply allegations that may or may not reflect actual non-compliance.
Hazardous Materials Management (RT0204-07) Amount of hazardous waste, percentage recycled

Calculation of Hazardous Waste (.34): While hazardous waste generally is not a material issue for AF&PA members, reporting on this metric may pose difficulties for companies with operations across the globe. Every country defines hazardous materials differently and it would be inappropriate to hold facilities operating outside the U.S. to a definition of hazardous waste under Subtitle C of RCRA. A more appropriate approach defining hazardous materials would be to allow it to be contingent upon which country the facility is operating in. We also suggest that the Standard should exclude the hazardous waste generated as a result of remediation at a site. For example, lead paint removal at facilities generates hazardous waste but it reduces risks associated with exposure to material that would otherwise be left in place.

Hazardous Materials Management (RT0204-08) Number and aggregate quantity of reportable release and spills

Disclosure of reportable releases (.36):

1. As mentioned above regarding the definition of hazardous waste, AF&PA does not believe it is appropriate to include country-specific regulations as a reporting metric that would apply to companies operating around the globe. Additionally, the metric is redundant as companies with facilities in the U.S. are already required to report CERCLA releases and the costs associated with them. If the metric is kept it should be broadened to include all federally reportable spills and releases in various jurisdictions.

2. Reporting an aggregate quantity (mass or volume) of spills and releases across jurisdictions is not meaningful information as different chemicals have different reporting thresholds making aggregated values meaningless without appropriate context, and it can be a misleading indicator of a company’s performance. Similarly, companies should only be required to report spills and releases that are material according to SEC rules.

Product Safety (RT0204-09) Number of recalls and total units recalled

This metric should be removed from the Standard because if the recall was of such significance that it was deemed material by the company, it is already required to be reported to the SEC.

Product Lifecycle Management & Innovation (RT0204-10) Percentage of raw materials from recycled content and renewable resources

The registrant shall disclose the percentage of raw materials (by weight) for containers and packaging products from recycled content (.43):
This metric is of more importance to procurement managers within a company and consumers than it is to investors, and should be removed. The assumption that more recycled content is better is not always true. The amount of recycled material within a given product is highly dependent upon the functional requirements of a packaging product. For paper-based packaging products, the reference in the Standard to calculate percent recycled content is inconsistent with industry stands. Currently the industry calculates percent recycle content on a total product “fiber weight” basis rather than a total “product weight” basis (i.e., lbs. recycled fiber/total lbs. fiber in product vs. lbs. recycled fiber/lbs. total product weight including fiber, filler and coating). (also in .44).

Choosing Attributes (.45) The Standard states “[f]or raw materials that are both recycled content and renewable, the registrant may choose which category best reflects the nature of the material, but should not include a single material in both categories.” Recycled fiber is a renewable resource and should be allowed to be counted as both recycled content and as a renewable resource.

Product Lifecycle Management & Innovation (RT0204-11)  *Percentage of products that are (1) reusable, (2) recyclable, and (3) compostable*

1. The unit of measure (Percentage (%) by weight) in the table in the beginning of the Standard is inconsistent with unit of measure listed in the more detailed metric description section of the Standard (Percent (%) by revenue). This needs to be clarified. Percentage by revenue will be more difficult to quantify than percentage by weight.

2. The word “and” in the metric should be changed to “or” and clarification is needed in .50, which indicates that companies “should not include a single material in multiple categories.” AF&PA members make many products that fit in multiple categories and it would be difficult, if not impossible, to choose “the right” category for those products.

Product Lifecycle Management & Innovation (RT0204-12)  *Discussion of management approach to minimization of (1) weight and volume of packaging used and (2) noxious or hazardous constituents in packaging.*

1. We believe that the word “minimization” should be changed to “optimization.” The focus of the package design should be optimization of performance, which may, but just as easily may not, lead to minimization of weight and volume. Product damage, and the resulting environmental impacts associated with replacing damaged goods, has a larger overall life cycle negative impact than the impact of additional package weight.

2. The accounting metric currently focuses on weight and volume of packaging “used,” but if the standard is intended for companies that produce packaging and containers, the metric should focus on weight and volume of packaging “produced.”
Disclosure Options (.52): Reference is made to the Sustainable Packaging Coalition’s Material Use metrics. It is our understanding that those metrics are no longer being used by the Coalition; the reference should be removed.

**Materials Sourcing (RT0204-13) Total wood fiber purchased, percentage from certified sources**

Disclose the percentage of wood fiber-based raw materials (on a cost of goods sold (COGS) basis that are sourced consistent with relevant responsible sourcing standards (.55). SASB should require reporting of the percentage from certified sources on a total wood basis, not COGS basis--competitors can determine premiums paid (if any) for certified wood, which is proprietary information that should not be required to be disclosed--even indirectly.

Responsible sourcing standards for wood-based materials include the following, or equivalent (.57): As discussed above, the SASB standards should not be referencing private standards, as it is not up to SASB to determine which standards demonstrate responsible forest management practices. If, however, the Standard does list responsible sourcing standards, the American Tree Farm System (ATFS) also should be included. While the Standard does also include the phrase “or equivalent” which clearly would include ATFS, there is no reason to include the other major certification programs in the U.S. and not to include ATFS, which also is a major U.S. certification program.

**Materials Sourcing (RT0204-14) Percentage of non-wood raw materials sources in conformance with responsible sourcing standards**

1. There is a significant difference between the sophistication and rigor of the sourcing standards for wood fiber versus non-wood fiber. Accordingly, it would be inappropriate for SASB to require quantitative reporting for non-wood raw materials because it implies equivalence with quantitative reporting for sourcing of wood fiber. For example, a stakeholder might interpret the fact that 25% of a company’s wood fiber is certified and 25% of another company’s non-wood raw material is sourced in a manner consistent with a responsible sourcing program as demonstrating that both companies sustainability sourcing performance is equivalent, when this is simply not the case. SASB should make this a qualitative metric.

2. Reference is made to BES 6001. SASB acknowledges this actually is a construction standard, but references it anyway. We believe it is not appropriate to reference a construction standard in the Containers and Packaging Standard and it should be removed.

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AF&PA appreciates the opportunity to comment on the Standard. Please contact Jerry Schwartz at [redacted] or Katie Missimer [redacted] if you have any questions on our comments.

Sincerely yours,

Jerry Schwartz
Senior Director
Energy and Environmental Policy
January 15, 2015

Dr. Jean Rodgers, PhD, PE
Sustainability Accounting Standards Board
75 Broadway, Suite 202
San Francisco, California  94111

Re:  Containers and Packaging: Sustainability Accounting Standard—Exposure Draft for Public Comments

Dear Dr. Rodgers:

The Plastics Division of the American Chemistry Council (ACC)\(^1\) appreciates the opportunity to comment on the Sustainability Accounting Standards Board (SASB) draft standard in the Resource Transformation Sector for Containers and Packaging (Packaging Standard).

ACC supports sustainability reporting frameworks that emphasize flexibility and prioritize the identification of sustainability metrics that are deemed material by each company and their shareholders. Currently, it is up to each company to decide which sustainability topics are material, and we agree that disclosure under SASB standards should be voluntary. Companies should retain the right to consider using these metrics as well as others, or to decline and explain why a particular metric does not ensure accuracy and comparability of the data reported for that entity.

The draft Packaging Standard must remain a voluntary effort. Otherwise, it would impose a significant resource and cost burden on both established and new reporting companies, without clearly assisting investors and other stakeholders in evaluating individual company or cross-industry sustainability performance. Adding yet another framework to an area with existing private and public sector actions,\(^2\) could detract from existing initiatives to demonstrate

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\(^1\) The American Chemistry Council (ACC) represents the leading companies engaged in the business of chemistry. ACC members apply the science of chemistry to make innovative products and services that make people's lives better, healthier and safer. ACC is committed to improved environmental, health and safety performance through Responsible Care®, common sense advocacy designed to address major public policy issues, and health and environmental research and product testing. The business of chemistry is an $812 billion enterprise and a key element of the nation's economy. It is the nation’s largest exporter, accounting for twelve percent of all U.S. exports. Chemistry companies are among the largest investors in research and development. Safety and security have always been primary concerns of ACC members, and they have intensified their efforts, working closely with government agencies to improve security and to defend against any threat to the nation’s critical infrastructure.

\(^2\) For example, the Global Reporting Initiative (https://www.globalreporting.org/Pages/default.aspx), the Global Packaging Project (http://sustainability.mycgforum.com/global-packaging-project.html), as well as corporate social responsibility and sustainability initiatives.
sustainability performance, or lead to reporting that becomes a rote exercise of providing overly detailed data with little context or helpful content, simply to fulfill a requirement.

ACC does not, therefore, support efforts to require SASB standard compliance as part of disclosure in mandatory filings to the Securities and Exchange Commission (SEC), such as the Form 10-K and 20-F. Companies listed on U.S. stock exchanges are already required to report in their regulatory filings on material environmental issues, including but not limited to regulatory and climate change risks. As drafted, the Packaging Standard lacks the specificity and conformity necessary for financial reporting assurance, particularly given the many packaging substrates and applications that would be covered.

SASB, as an American National Standards Institute (ANSI) accredited standards developer, should employ the ANSI consensus processes to incorporate stakeholder input. In addition to following a process governed by openness, balance, consensus and due process, ACC encourages SASB to consider the following key points regarding the Packaging Standard:

1. Separate voluntary standards could better address materiality for the various packaging applications.
2. Sustainability standards should reflect all the performance benefits and risks associated with the life cycle of the goods or materials in question.
3. The development of metrics to ensure financial conformity and the ability to perform an audit requires greater specificity and objectivity.
4. New programs to require material disclosures should take into account existing initiatives that address sustainability efforts and coordinate to the greatest extent possible.

Each of these points is discussed in more detail below.

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1. Separate voluntary standards could better address materiality for the various packaging applications.

The packaging industry is impacted by significant differences in legal and regulatory requirements, consumer expectations, resource availability, technologies, and company configuration. In addition to the many packaging applications (e.g., food protection/storage/transportation, cosmetics protection, home and personal care product protection, pharmaceutical protection/preservation, electronics protection/transportation), there are also many different packaging substrates (e.g., steel, aluminum, plastic, glass, paper and paperboard, etc.), each with its own benefits and impacts.

ACC strongly cautions against the current approach that attempts to standardize reporting across packaging types and applications to permit greater comparisons between companies and sectors. The packaging industry’s diversity, with significantly different legal, regulatory and performance requirements, calls into question the viability of comparing metrics across the industry.

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Furthermore, a comparison of metrics across the industry fails to provide a complete picture of the sustainability performance of the packaging products and the overall companies that may respond.

ACC suggests therefore that SASB consider dividing the scope of the Packaging Standard into smaller subsets. The Packaging Standard could be divided by application, addressing each packaging application separately. This could enable the proposed metrics to reflect conditions particular to the applications and could increase the objectivity of comparisons between substrates. For example, in the U.S. food contact materials are highly regulated by the Food and Drug Administration (FDA). Food packaging must meet companies’ requirements for reducing food waste and assuring migration levels from the exposure of substances in the packaging to food are safe for normal consumer use, in addition to other sustainability requirements, and in addition to undergoing the FDA’s risk assessment. Separately, containers and packaging that are shipped through different modes of transportation are regulated under the U.S. Department of Transportation (DOT). This example poses safety as well as environmental sustainability requirements specific to DOT that would also need to be incorporated as part of packaging standards.

2. Sustainability standards should reflect all the performance benefits and risks associated with the life cycle of the goods or materials in question.

Sustainability standards for products, such as containers and packaging, should reflect all stages of the products’ life cycles. The various materials used in packaging, for a wide variety of applications, possess substantially different advantages and disadvantages. Life cycle assessment provides a holistic assessment of these tradeoffs, and provides the basis for cleaner production technologies that can result in products with a very low environmental footprint. Moreover, activities, processes, materials, and practices that may be sustainable for one company under a certain set of conditions – geographical, financial, temporal, societal, and technological – may not be sustainable for another company in the same market.

Plastic is a valuable material that should be treated as a resource and managed appropriately. Plastic packaging possesses a variety of attributes. Companies are in the best position to determine their own material risks. Plastic packaging products, when compared to alternative materials (e.g., paper and paperboard, glass, steel, aluminum, textiles, rubber, cork, etc.), are generally an efficient packaging choice in terms of energy and global warming impacts. For example, using 2011-2012 market data, at the U.S. national level it would take more than 64 million metric tons of other types of packaging to replace the 14.4 million metric tons of plastic packaging – more than four times the amount of packaging. Furthermore, the substitute packaging would require 80 percent more cumulative energy demand and result in 130 percent

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5 A total of 14.4 million Metric tons of plastic packaging represents six packaging categories analyzed by Franklin Associates: caps and closures; beverage containers; stretch and shrink; carrier bags; other flexible; and other rigid. *Id.*

6 Cumulative Energy Demand (CED) includes expended process energy and transportation energy as well as energy of material resource (EMR, or feedstock energy) embodied in the packaging material. *Id.* p. 10, 36.
more global warming potential impacts, expressed as CO$_2$ equivalents, when compared to the corresponding plastic packaging.\textsuperscript{7}

3. The development of metrics to ensure financial conformity and the ability to perform an audit requires greater specificity and objectivity.

A reporting framework designed for disclosure in federal financial filings should use clearly defined and technically robust terms and measurements, and must be actionable by companies. The draft packaging standard neither clearly defines the proposed metrics nor offers companies adequate guidance required to ensure auditability. Furthermore, some of the metrics in the Packaging Standard do not lend themselves to the same level of assurance as is required in financial reporting.

When the proposed metrics are evaluated through the lens of the American Institute of Certified Public Accountants’ definition of “suitable criteria,” many do not meet the key attributes of objectivity, measurability, completeness, and relevance.\textsuperscript{8} For example, if a company applied the Proposed Standard, it would be difficult to validate and compare qualitative metrics, such as RT0204-12.51 that asks companies to “discuss its management approach to minimizing lifecycle impacts from products…”\textsuperscript{9} It is also difficult to compare substrates when certain metrics are not relevant to all substrates, such as metric RT0204-14.58-.61 that focuses on non-wood raw materials sourced in conformance with responsible sourcing standards. A conformity assessment that “involves[s] a set of processes that show your product, service or system meets the requirements of a standard,” is necessary, although currently missing from the SASB process.\textsuperscript{10} Conformity assessments provide consumers and other stakeholders with confidence, can provide companies with a competitive edge, and can help decision-makers ensure appropriate reporting conditions are met.\textsuperscript{11}

4. New programs to require material disclosures should take into account existing initiatives that address sustainability efforts and coordinate to the greatest extent possible.

The Global Reporting Initiative (GRI) founded 18 years ago and officially supported by the United Nations Environment Programme (UNEP) 13 years ago, is a leading sustainability reporting framework.\textsuperscript{12} Now in its fourth iteration, the GRI framework represents extensive deliberation with international stakeholders to develop reporting guidelines and sector guidance to communicate sustainability performance and contributions to sustainable development. It

\textsuperscript{7} “Global Warming Potential (GWP) refers to the definition from the glossary of the Intergovernmental Plan on Climate Change (IPCC) Third Assessment Report – Climate Change 2001.

\textsuperscript{8} American Institute of Certified Public Accountants, Statements on Standards for Attestation Engagements (SSAEs), § 101.25, \url{http://www.aicpa.org/Research/Standards/AuditAttest/DownloadableDocuments/AT-00101.pdf}.

\textsuperscript{9} SASB Resource Transformation Sector: Containers & Packaging Sustainability Accounting Standard, Sustainable Industry Classification System #RT0204 (Exposure Draft for Public Comment), October 2014, p. 22.

\textsuperscript{10} International Organization for Standardization, “Conformity Assessment,” \url{http://www.iso.org/iso/home/about/conformity-assessment.htm}.

\textsuperscript{11} Id.

\textsuperscript{12} Global Reporting Initiative (GRI), “What is GRI?” \url{https://www.globalreporting.org/information/about-gri/what-is-GRI/Pages/default.aspx}.
remains unclear that the draft Packaging Standard provides additional value to those companies that report to GRI. SASB, when drafting voluntary standards, should take into account existing sustainability initiatives, such as GRI, and assess the SASB value proposition and synergies.

GRI actively seeks alliances and commits to collaborative activities with partner organizations to connect relevant frameworks. GRI maintains partnerships with the following organizations:

- Organisation for Economic Co-Operation and Development (OECD);
- United Nations Global Compact;
- International Finance Corporation;
- International Organization for Standardization’s ISO 26000 (social responsibility);
- United Nations Conference on Trade; and
- Earth Charter Initiative.

SASB discussions regarding materiality related to the packaging industry could benefit from coordination with the work completed by GRI related to packaging, as well as upstream material manufacturing (i.e., mining and metals, oil and gas).

Additional Comments – Specific Sections
For additional suggestions regarding the metrics in the draft Packaging Standard that overlap with the draft Chemical Standard, please see the other ACC comments submitted by Ms. Debra Phillips, on January 15, 2015 (attached).

a. Introduction: Purpose & Structure and Industry Description
   The Introduction should specify what types of U.S. and foreign public companies would be expected to use the Packaging Standard. Use of the term “Containers & Packaging industry” does not adequately describe what types of companies would participate in the proposed standard. Is the draft Packaging Standard directed at companies that use packaging for their products, that manufacture packaging, or that produce materials used to manufacture packaging? The subject for reporting is unclear.

b. Greenhouse Gas Emissions Metrics
   The Packaging Standard should take into account GHG emissions saved or reduced by using certain packaging materials, when compared to no packaging or to other packaging materials. SASB should incorporate life cycle benefits from the use phase of the product. The proposed metrics only address GHG emissions as a result of production, transportation, and disposal.

c. Energy Management Metrics
   In addition to fossil sources and renewable energy, the Packaging Standard should account for waste to energy recovery processes.

d. Hazardous Materials Management Metrics

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13 Global Reporting Initiative (GRI), “GRI’s Alliances and Synergies,”
Currently, SASB defines “hazardous waste” using the U.S. Environmental Protection Agency (USEPA) definitions, which are inadequate for addressing this impact area globally where significantly different waste definitions apply regionally. The definition of hazardous waste should be more flexible to account for varying definitions that currently exist globally and allow local definitions to dictate the categorization of hazardous waste.

In the U.S., there are strict regulatory requirements that in most cases do not allow the “recycling” of hazardous waste. Furthermore, the Proposed Standard uses the terms “waste” and “material” interchangeably, which is technically inaccurate and impossible for would-be reporters to interpret. Therefore, the “percentage recycled” portion of the metric is irrelevant as written and should be re-cast as a separate measure, to include a more expansive look at hazardous materials recycling, which seems more consistent with the impact category identified by SASB. In addition, ACC calls SASB’s attention to EPA’s recent release of its new solid waste rule, clarifying many of these definitional issues raised by the Packaging Standard.\textsuperscript{14}

Regarding the separate issue of recycling waste, as currently written the Proposed Standard does not consider materials that are incinerated, including those for energy recovery, to fall within the reuse or recycling categories.\textsuperscript{15} However, they may in fact provide additional value outside of or in addition to energy production. The metric should recognize recovered materials that are converted into chemicals, such as non-recyclable plastics-to-oil/chemicals production. Since plastics are derived from hydrocarbons, they have a high energy content that can be converted into crude oil and fuels, synthetic gas, and recycled feedstocks for new plastics and other products.\textsuperscript{16} Moreover, “various conversion technologies such as mass burn waste-to-energy, gasification and pyrolysis, are able to recover the energy contained in plastics.”\textsuperscript{17}

e. **Product Safety Metrics**

Packaging safety and performance is well-studied and documented as part of existing American Society for Testing and Materials (ASTM) standards, ISO technical standards, and American National Standards Institute (ANSI) standards. In addition to metrics about product recalls, SASB should include references to other safety and performance standards, allowing reporting companies to document product compliance when relevant.

f. **Product Lifecycle Management & Innovation Metrics**

In addition to giving credit to products that are 1) reusable, 2) recyclable, and 3) compostable, SASB should look to companies to document products that are recoverable


\textsuperscript{17} Id.
(when reuse, recycling, and composting are not an option). Overall, as mentioned above, the metrics in this category should document sustainability impacts (risks and benefits) across the life cycle of the products.

It is unclear how SASB defines “noxious or hazardous constituents” so further context and information is needed.

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Thank you for taking the ACC’s comments under consideration. Before the draft Packaging Standard moves forward there is a substantial amount of thought and deliberation that should occur. If you would like further information on any of the points raised, please contact me at [email] or 2.

Sincerely,

Emily Tipaldo
Director, Packaging
Plastics Division


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January 15 2015,

Dr. Jean Rogers,

Dr. Jean Rogers,

Re: Containers and Packaging: Sustainability Accounting Standard—Exposure Draft for Public Comments

Thank you for the opportunity to provide comments on the Sustainability Accounting Standard Board’s (SASB) “Exposure Draft Containers and Packaging: Sustainability Accounting Standard”. On behalf of the US packaging industry, representing over $150 billion in revenue, we approached our response as a collective effort between some of the industry’s largest associations: the American Chemistry Council (ACC), the American Forest & Paper Association (AF&PA), AMERIPEN, Flexible Packaging Association (FPA), the Glass Packaging Institute (GPI) and the Paperboard Packaging Council (PPC). Collectively, our coalition of packaging manufacturers and suppliers to the industry represent companies across the entire packaging supply chain. We represent the interests of material manufacturers of all substrates, and converters of all types of packaging. As these associations address many issues beyond just packaging and containers, we emphasize our response here is in direct relation to the Proposed Standard for Containers and Packaging only and are not representative of, or reflect comments made, in relation to other proposed SASB standards.

Comments found within this letter address the broad aspects of the Containers and Packaging Exposure Draft (Proposed Standard) only. Since the proposed metrics will impact the various segments of the container and packaging industry differently, each association, and company, may respond to the specific metrics individually. It is our expectation that in addressing our broad concerns with the Proposed Standard as a collective, we can instill in SASB an understanding of the relative importance we place on these larger issues. At the current time, we do not endorse the proposed standard however we wish to emphasize our collective interest in working collaboratively with SASB in order to ensure we find mutually acceptable means of resolving these concerns.

Eight overarching concerns frame our analysis of the Proposed Standard:
1. **SASB as a Voluntary Standard**

We appreciate SASB’s statement that “[d]isclosure under SASB Standards is voluntary”. Our collective memberships strongly support retaining the voluntary nature of SASB Standards. We believe many sustainability frameworks are supportive in helping increase transparency and improve reporting accuracy. While we have worked collectively to help draft similar frameworks specific to our industry—we have always reinforced the individualized nature of this data. We believe the application of a voluntary and flexible framework is necessary to inform and guide companies and their stakeholders to best understand which sustainability issues are most ‘material’ to their operations. Yet, it is noted that SASB’s process includes regular meetings with the Securities and Exchange Commission (SEC) and it is widely reported that SASB’s ultimate objective is to have the SEC mandate the use of its standards. *We request that SASB clearly identify its intent regarding the SEC and its standards.*

2. **SASB’s Intent to Standardize Metrics for Industry Comparability**

We understand SASB’s intent to standardize reporting in order to permit greater comparisons between companies and sectors, and yet we must strongly caution against this approach.

Our members have serious concerns about the comparability of metrics across our industry. The packaging industry is extremely diverse with significant differences in the structure and purpose of packaging. For example, the level and means of production against damage and spoilage differs for food, pharmaceuticals, electronics etc. The same differences in structure and purpose exist for the level of packaging—primary (direct contact with food), secondary (used for the sales of multiple products or additional security) and transport/shipping packaging. For each structure and purpose legal and regulatory requirements, technologies, raw material sourcing and end of use opportunities differ. From our own experience we conclude that a simple comparison of any metrics across our broad industry fails to provide a complete picture of the sustainability performance of companies in this sector. Additionally, companies that produce packaging from different substrates or even similar substrates with different packaging objectives will deem the materiality of their impacts differently. Due to the diverse nature of our industry, there is a significant risk in trying to compare performance data. *We strongly encourage SASB to include a strong statement on the challenge of standardized comparisons within all documentation pertaining to the packaging industry—including subsequent trainings and education offered by SASB. Within SASB’s documentation, we believe SASB should strongly encourage stakeholders to consider the entirety of the information provided by companies that may report based on the Proposed Standard and not simply to compare one company to another based only on the provided metrics. Additionally, we believe that companies should have the flexibility to use the SASB or other metrics, as well as the ability to explain why particular metrics do or do not “ensure completeness, accuracy and comparability of the data reported.” This is critical for ensuring that stakeholders using the data understand its potential limitations.*

3. **SASB Desire for Financial Level of Assurance**

SASB indicates in the Proposed Standard that “it is expected that registrants disclose with the same level of rigor, accuracy, and responsibility as they apply to all other information contained in their SEC filings”. Within the current draft we do not believe that SASB provides sufficiently defined processes or guidance on the preparation of disclosures to ensure auditability at the level required by financial accounting standards, as defined by the American Institute of Certified Public Accountants (AICPA). The key attributes of: (i) objectivity, (ii) measurability, (iii) completeness and (iv) relevance do not equally apply to all metrics.
proposed within the draft standard.\(^1\) We believe some of the metrics proposed are simply too variable or subjective to permit financial level accountability.

Metrics that are reported to government agencies are not a concern because they typically have their own assurance requirements. The methodologies for reporting other metrics, however, may allow for more flexibility in the calculation of the metric, and thus there may be greater variation in reported information than one might typically encounter in financial documents. **We believe SASB should revise its assurance requirements to recognize this flexibility. As an example, SASB should make an explicit link between its assurance requirements, and its recognition that estimates may be used, as long as the company explains the basis for the estimate. Additionally, SASB should revise its statement that “SASB does not discourage the use of such estimates” to make it a more neutral statement acknowledging the reality that estimates will need to be used in reporting sustainability data.**

4. **SASB’s Application of American National Standards Institute (ANSI) Procedures**

The material developed for the IWG stated that the “SASB Standards Development process is certified by: ANSI.” SASB’s Vision and Mission document states that: “SASB is also an ANSI accredited standards developer. Accreditation by ANSI signifies that SASB’s procedures to develop standards meet ANSI’s requirements for openness, balance, consensus, and due process.” Finally, SASB’s “Our Process” webpage states that “[as an ANSI-accredited standards-setting organization, SASB follows an open, orderly process that permits timely, thorough, and open study of sustainability accounting issues.”

Adherence to the ANSI procedures provides stakeholders with assurances that needed procedural safeguards are present. This is especially important if, as is the case here, there is the potential for a government agency—the Securities and Exchange Commission—to mandate the use of a standard. Government standards are typically developed through a notice and comment process and are subject to numerous due process protections for stakeholders, including in many cases, judicial review. Private standards adopted for government use should be developed with the same level of due process protection.

Office of Management and Budget (OMB) Circular A-119 requires, with limited exception, that federal agencies and departments use “voluntary consensus standards” which are “standards developed or adopted by voluntary consensus standards bodies.”\(^2\) The Circular also establishes guidelines for federal participation in the development and use of voluntary consensus standards. Specifically, the Circular provides the following attributes for a “voluntary consensus standards body”: (i) openness; (ii) balance of interest; (iii) due process; (iv) an appeals process; and (v) consensus. Section 12(d) of the National Technology Transfer and Advancement Act (Public Law 104-113) basically codified the OMB Circular and requires that “all Federal agencies and departments shall use technical standards that are develop or adopted by voluntary consensus standards bodies”, unless use of such a standard “inconsistent with applicable law or otherwise impractical.”


By definition, private standards such as SASB’s do not necessarily include the due process protections found in the development of government standards.

ANSI’s Essential Requirements closely track the procedural safeguards required by the Circular.3 We noted, however, that is not using its accredited procedures to develop the Standard. Moreover, SASB’s descriptions of the ANSI process do not include “an appeals process,” and we are unaware of SASB having instituted an appeals process for its previous standards. It is also unclear how the SASB process complies with the ANSI Essential Requirements, such as a “consensus vote.” We believe SASB should be more transparent about the process it is using to develop the Proposed Standard, and the extent to which the process is consistent with the ANSI Essential Requirements and OMB Circular A-119 (since there is the possibility that the SEC could adopt the Standard). If it is not using its ANSI-accredited procedures, SASB should make this clear in the Standard and on its website.

5. SASB’s Use Of Varying National Standards, Laws And Definitions
Our understanding is that SASB expects sustainability reporting to include global data, not information specific to the U.S. alone. However, the standards and laws referenced for development of the metrics are often nation-specific rather than internationally-recognized standards. For example, U.S. CERCLA and RCRA are cited under Hazardous Waste Management, yet each country defines and manages hazardous waste differently; compliance standards developed for the EU Packaging and Packaging Waste Directive are cited under Product Lifecycle Management & Innovation yet are not applicable in the U.S.; air quality emissions, such as Particulate Matter (PM) or VOC’s are measured differently from country-to-country; water quality is measure by BOD in the U.S., COD elsewhere. Application of the SASB metrics to a global company would require significant duplicative calculation and reporting by country which will be cost prohibitive. We encourage SASB to provide for normalization of reporting across global operations, recognizing that this will limit the comparability of the metrics.

6. SASB’s Application of Private, Non-Consensus Standards
Generally, as required by ANSI, the Standard should avoid references to private tools or standards (e.g. Green-e, World Resources Institute (WRI) Water Risk Atlas Tool, Aqueduct) as the singular basis for reporting against a metric. Among other concerns, some of these tools or standards have not been developed in a consensus-based process that provides the procedural safeguards discussed above. SASB’s adoption of a particular private tools or standard has the effect of locking in that standard for the future. Other existing tools or standards may perform similar functions but be more suitable to the Containers and Packaging sector, and new, innovative standards may be developed in the future. SASB should not prejudge the suitability of certain standards by referencing one particular standard at this time. At a minimum, SASB should describe what the tool provides or the standard is trying to accomplish, and after identifying the tool or standard, add “or equivalent.”

3 The ANSI Essential Requirements for Due Process are: openness, lack of dominance, balance, coordination and harmonization, notification of standards development, consideration of views and objections, consensus vote, appeals, written procedures, compliance with normative ANSI policies and procedures. ANSI Essential Requirements: Due process requirements for American National Standards. January 2014.
7. **Duplication With Existing Reporting Requirements**

We understand that SASB tried to choose metrics that companies already report (voluntarily or pursuant to government requirement), as a way to minimize reporting burdens and ensure the metric is viable. Choosing these metrics, however, does raise potential concerns for reporting companies. If SASB’s metrics and the methods by which they are derived and reported are not exactly the same as those used in other, existing reports, there is significant potential for inconsistent reporting between the Proposed Standard (including, potentially SEC reports) and other reports, such as a company’s own sustainability reports. For example, SASB’s proposed requirement to “report renewable energy from biomass sources are limited to those considered ‘eligible renewable’ according to the Green-e National Standard Version 2.4, or eligible for a state Renewable Portfolio Standard” may result in the exclusion of renewable energy data within the SASB submission but inclusion of renewable data on biomass according to other industry standards within a corporate sustainability report. **At a minimum, this inconsistency creates confusion among stakeholders; it could also create legal risk for reporting companies.** Accordingly, to the extent that a metric is subject to multiple reporting requirements, the Proposed Standard should permit the reporting company to choose which requirement it is reporting under and indicate that choice in its report.

8. **Consistent Units Across Metrics**

The Standard should use consistent measurement units throughout the document. For example, the Proposed Standard specifies reporting the hazardous waste metric in “Tons”, (short tons) while for the air quality metrics the Standard specifies to report in “Metric Tons.” **It would be best to allow companies to consistently choose either standard or metric units based on the unit conventions used for metrics in their other reports.**

Thank you for the opportunity to comment on the *Proposed Exposure Draft for Containers and Packaging*. We hope our collective effort to provide broad feedback, in addition to the specific comments we will submit independently, will help to strengthen and inform the Proposed Standard. We would be happy to discuss these points and any other matters related to the Containers and Packaging Exposure Draft Standard with you and your staff. We remain open to further collaboration on future training development and/or other resources SASB may seek to develop to support their process as it relates to the Containers and Packaging Standards.

Sincerely,

Emily Tipaldo  
Director, Plastics Division, American Chemistry Council

Jerry Schwartz  
Senior Director, Energy and Environmental Policy, American Forestry and Paper Association
Donna Dempsey
Executive Director, AMERIPEN

Marla Donahue
Executive Director, Flexible Packaging Association

Lynn Bragg
President, Glass Packaging Institute

Ben Markens
President, Paperboard Packaging Council
January 15, 2014

Sustainability Accounting Standards Board
75 Broadway, Suite 202
San Francisco, CA 94111

Re: International Paper Comments on Containers & Packaging Exposure Draft Standards for Public Comment

International Paper Company is pleased to provide comments related to the Resource Transformation Sector / Containers & Packaging Exposure Draft for Public Comment (the “Standard”).

About International Paper

International Paper (NYSE: IP) is a global leader in packaging and paper with manufacturing operations in North America, Europe, Latin America, Russia, Asia and North Africa. Our businesses include industrial and consumer packaging and uncoated papers. Headquartered in Memphis, Tenn., the company employs approximately 65,000 people and is strategically located in more than 24 countries to serve customers worldwide.

As the world's largest packaging and paper company, International Paper's wise use of natural resources — renewable wood fiber from sustainable and responsibly managed working forests, as well as water and energy — is critical to the sustainability of our business and our environment. For more than 116 years, our company has been a sustainability leader, with continuous performance improvement as the driving force and common denominator among our economic, environmental and social priorities.

International Paper has also independently created a set of voluntary sustainability goals as a commitment to our communities and the environment. In selecting sustainability objectives and goals we focus on criteria and metrics that best fit our diverse international sites with a primary focus on improving manufacturing process efficiency. This is the best and likely most efficient means of serving our diverse sustainability needs and objectives.

International Paper is a member company of the American Forest and Paper Association (AF&PA) and therefore is part of AF&PA’s sustainability initiative “Better Practices, Better Planet 2020.” In general, International Paper supports their separately submitted comments on the draft SASB standard. We appreciate the industry wide sustainability data
collection and reporting they do on our behalf each year and that of all other AF&PA member companies. This reporting serves an important industry wide function supporting the industry and the many renewable resource sourced products we help produce. We also publish an annual International Paper Sustainability Report to fulfill our responsibility to be both transparent and accountable to our many stakeholders and shareholders.

International Paper has been a forest products industry leader for over 116 years, ardently engaged in reducing our environmental footprint for over 50 years and over well more than the last 10 years have been reaching for and achieving the highest levels of manufacturing excellence and sustainable performance. Through this experience we recognize that comparisons must be made to a standard of excellence in order to be meaningful and for this reason endorse conceptually the development of a sustainability “standard”. However in its present form the SASB proposed standard is not workable or meaningful in several substantive respects. For this reason, we want to make it clear that International Paper does not endorse the proposed standard, as written. First, due to the complexity and global nature of our organization, reporting many of the suggested metrics, as currently defined in the standard, would be burdensome, impractical and provide little or no value, particularly in the comparison of one manufacturing site versus another. Further, we have found that diversity in equipment; locality, regional trends and resource availability, regulatory requirements, product variation, competitive constraints and many other factors make each manufacturing site virtually unique. As a result, the metrics we have chosen to measure against our sustainability goals are necessarily high level and straightforward in order to remain meaningful. The strict, detailed, inflexible framework proposed by SASB for reporting provides disincentive to report to the extent that the information requested under the standards is detailed and burdensome past the point of meaningful comparison. Our focus is towards continuous and purposeful improvement where given manufacturing sites can best contribute towards our chosen sustainability objectives. We hope our specific comments and recommendations make clear how the SASB metrics can be made more valuable. Moreover, we appreciate SASB’s willingness to make changes to its draft Standard as a result of our participation and hope that substantive change can be made to remove disincentives to participate in the long term.

**General Comments**

**Use of Varying National Standards**

SASB has indicated that the Standards are comprised “for use by U.S. and foreign public companies.” However, several of the standards reference U.S. regulations or standards that do not apply to and will not translate globally due to incompatibility with in-country requirements, cost and other logistical constraints. For example, the Resource Conservation Recover Act (RCRA) and the Comprehensive Environmental Response,
Compensation and Liability Act (CERCLA) are U.S. centric, and we will not impose regulatory obligation of this nature on the 20% of International Paper’s non-U.S. locations. U.S. regulations would impose an unreasonable burden on International Paper’s overseas locations with respect to training, sample analysis, data collection and reporting. Another possible consequence of imposing U.S. regulations on global sites is great confusion on the part of trained in-country environmental professionals and operational staff members by having “two-sets of books”. Similarly, reportable quantity (RQ) methodology as defined by CERCLA would have to be imposed on locations in countries in which we do business. This would create a second system of release reporting, potentially resulting in misreporting and staff member confusion trying to administer multiple requirements. Due to these negative consequences, International Paper suggests that SASB develop alternate globally applicable metrics.

We also have significant concern regarding SASB proposing specific reporting guidelines and protocols for other metrics, such as greenhouse gases and volatile organic compounds. These compounds, being regulated, have required reporting obligations and protocols, that differ from the proposed SASB standard. For example; greenhouse gas (GHG) emissions are reported under regulatory programs that differ from 1995 IPCC’s Second Assessment Report. Air emissions have different definitions depending on the U.S. state being discussed. Volatile Organic Compound (VOC) definitions range between state on which compounds are included and how they should be reported (i.e. as propane, as carbon). It does not make practical sense to ask companies to keep two sets of records for the same metric, which will occur if SASB creates stringent reporting requirements that do not match exactly with current regulatory requirements. One of principles used to manage GHG, energy and air quality data is to have one number for every input. Using a different method for SASB reporting creates a large data management problem and many discrepancies. International Paper recommends the standards allow companies to report consistently with applicable regulations and best available information rather than setting an arbitrary standard of reporting.

**Requirement to disclose calculation methodologies**

Under several standards, SASB is proposing to require companies to disclose the calculation methodologies. This proposed requirement is unreasonable since any individual site, may employ multiple methodologies to calculate certain metrics. For example, Scope 1 GHG and air emissions may be calculated by using continuous emissions monitoring system (CEMS), tested emission factors or published literature emission factors. The calculation methodology will vary by regulatory entity and source. It does not make sense to disclose a calculation methodology if multiple methods were used to calculate a portion of the total company emissions. It is burdensome and unreasonable to
ask respondents to disclose what portion of emissions was calculated using each methodology.

Specific Comments

International Paper has a number of comments on specific metrics included in the Standard as discussed below. We have omitted metrics on which we do not have any comments.

**Greenhouse Gas Emissions (RT0204-01)**. Gross global scope 1 emissions, percent covered under a regulatory program

0.02 These emissions include direct emissions of GHGs from stationary or mobile sources that include, but are not limited to, equipment, production facilities, office buildings, and transportation (i.e., marine, road, or rail).

International Paper recommends that mobile sources for which GHG emissions are calculated must be owned by the company and the standards be adjusted to declare so. According to the Greenhouse Gas reporting protocol used by the National Council for Air and Stream Improvement (NCASI) and International Paper, transportation of product is a Scope 3 activity and should be reported by the transportation sector. If reporting product and raw material transportation were to remain a requirement, it will be a major effort to quantify data with sufficient accuracy. Our estimations of Scope 3 emissions show that within our industry sector, these emissions are a small fraction of the total emissions.

**Energy Management (RT0204-03)**. Total energy consumed, percentage grid electricity, percent renewable

0.17 Energy from biomass sources are limited to those that are considered “eligible renewables” according to the Green-e Energy National Standard Version 2.4, or eligible for a state Renewable Portfolio Standard.

There is a broad variation between the 30 different US States having various Renewable Energy/Portfolio Standards in some cases including the Green-e voluntary standard in terms of what is and is not considered Renewable Energy. If all global definitions were included, the variation becomes even greater. The Green-e standard has a number of troublesome components, including but not limited to what constitutes “sustainably managed forests” and the 10 year limit on the length of time a unit can generate “renewable energy”. The Standard is meant to be limiting and build a market, not to recognize the volume of renewable energy generated/sold in the country. International Paper believes that the generation of Renewable Energy should be recognized for its attributes and not subject to a regulatory or market-based variation of what is sellable to whom and for what type of credit.
Over 70 percent of International Paper’s generated energy is from carbon neutral biomass. International Paper sells a small fraction of the potential credits that we generate from our mill system. Selling any renewable energy is a net societal benefit, and SASB’s approach should not penalize a company who is helping a state, region, country, or companies meet their renewable energy objectives. Renewable Energy generation is a physical reality, even in places where it might not be a creditable market or political reality.

Using the SASB’s approach International Paper would not be recognized as the source of these renewable energy credits. If markets or rules change you could see huge swings in a company’s renewable energy generation with no net environmental change. International Paper suggests that the Green-e requirements for biomass be eliminated, and that companies have flexibility in the methodology used to report renewable energy use.

0.18 The registrant shall apply conversion factors consistently for all data reported under this disclosure, such as the use of HHVs for fuel usage (including biofuels) and conversion of kWh to gigajoules

SASB is proposing to require companies to use consistent higher heating values (HHV) to calculate and report energy numbers. International Paper operates over 400 facilities globally; to require our company to use one HHV for all these facilities would be very difficult and burdensome. In addition U.S. requirements to report GHG emissions require use of different HHV methodologies depending on the fuel and unit which would make it impossible for US facilities to use consistent HHVs. International Paper suggests allowing sites to use the best available HHVs whether it’s a tested value or literature value.

Air Quality (RT0204-04). Air emissions for the following pollutants: NOx (excluding N2O), SOx, particulate matter (PM), dioxins, and volatile organic compounds (VOCs)

0.20 The registrant shall disclose emissions released to the atmosphere by emissions type. Substances include: Particulate matter (PM); reported as the sum of PM10 and PM2.5, or all particulates less than 10 micrometers in diameter

The particulate matter (PM) definition is inconsistent with most state’s definitions in the US. Most facilities report total PM and not PM less than 10 micrometers in diameter. The most common stack testing conducted at International Paper facilities is total PM and therefore PM is the most accurately reported permutation of particulate matter. Generally PM10 is calculated using a literature fraction of the total tested PM. International Paper suggests that SASB requires total PM reporting as that is what facilities are more familiar with and to be consistent with regulatory programs. Also, the definition should be revised to clarify the components required by the metric, it is not clear how condensable PM should or should not be accounted for in this definition.
0.20 The registrant shall disclose emissions released to the atmosphere by emissions type. Substances include: Dioxins/furans, reported, at a minimum, as the sum of the 17 congeners of polychlorinated dibenzodioxins (PCDDs) and polychlorinated dibenzofurans (PCDFs) that contain chlorine.

International Paper suggests eliminating the requirement to report dioxin/furan compounds. Dioxin data is an outdated metric for the Pulp and Paper industry that has been addressed by regulation, technology and process changes to minimize if not eliminate its measureable existence at paper manufacturing facilities. There are no dioxin/furan emissions from any process vents at pulp and paper mills, the only emissions are expected from combustion sources. However, EPA has refrained from regulating dioxin/furan emissions from industrial boilers because the emission levels are generally below detection levels. Due to the extremely low levels of dioxin/furan from combustion sources, facilities would not be able to measure and quantify their PCDD/F emissions.

**Water Management (RT0204-05).** Total water withdrawn, percentage recycled, percentage in regions with High or Extremely High Baseline Water Stress.

0.24 The registrant shall disclose the amount of water (in thousands of cubic meters) that was withdrawn from fresh water sources for use in operations.

Pulp and paper production is accomplished through aqueous processes that by nature involve large volumes of water to dilute, convey and process wood chips into pulp and ultimately paper or paperboard products. Most of this water, generally in excess of 90%, is treated for removal of sugars, methanol and other compounds inherent in wood and the generation of wood fiber that exits the process in an aqueous solution. This water is treated to remove biological and chemical oxygen demand and then released to surface receiving waters. The small fraction of water that is consumed in the process exits largely as gaseous moisture as steam, cooling tower vapor or in final products. Essentially all “consumed” water is returned to the environment as atmospheric moisture. The 5% to 10% of the water used from surface or groundwater sources and emitted to the atmosphere as moisture is referred to as “consumptive use” – the criteria used by AF&PA to reflect water use sustainability. The remaining 90% of withdrawn water is returned to the environment as water discharge, post-treatment. Moisture in the atmosphere returns to the earth as rain and as a result almost all water withdrawn for use in the mills is available for reuse from the environment.

There are inherent inaccuracies in the measured data available to assess water use sustainability criteria. Consumptive use determined largely by effluent volumetric
measurements is a reasonable criterion for AF&PA’s assessment of industry wide performance over a decade to decade temporal range. Withdrawal rates where measurement data are available are likely best over time to assess changes in water use at any given site but such data is likely only accurate to within 5% to 10%. Water withdrawal data are not useful to compare one mill to another since process type, product type, and the level of water availability and potential for “stress” in a given locality varies so widely as to make mill to mill comparisons essentially meaningless. International Paper recommends you eliminate any “benchmarking” objective for water use or water use reduction from consideration.

0.25 The registrant shall disclose the total amount of water by volume (in thousands of cubic meters) that was recycled during the fiscal year. This figure shall include the amount recycled in closed-loop and open-loop systems.

Consideration of “percentage recycled” is a meaningless criteria and our recommendation is to eliminate the metric from the standard. There is no meaningful way to measure “percentage recycled” and if one were to create some calculation system to estimate the metric, what would be the benefit of this information, except to expend considerable time, energy and at considerable cost? Reduction in water withdrawal in water stressed areas is a worthy objective, but “percentage recycled” has no bearing on this criterion. Again, the inherent variability in process type, age and type of equipment, product type, and the level of water availability and potential for “stress” in a given locality varies so widely as to make a qualitative or even a semi quantitative determination of recycle practices meaningless.

Investment in equipment that uses in-process water rather than fresh water may reduce water use, but a decision to do so wouldn’t be based in any way upon the “percent recycle” criterion as the criterion is meaningless. If any benefit of such equipment use is justifiable from an economic standpoint, it would show up in the water withdrawal criteria. International Paper recommends you strike any “percentage recycled” criteria from consideration in assessing water use from pulp and paper production.
January 15, 2015

Sustainability Accounting Standards Board
75 Broadway, Suite 202
San Francisco, CA 94111

To Whom It May Concern:

The National Council for Air and Stream Improvement, Inc. (NCASI) is pleased to provide the following comments on the Public Exposure Draft Standard for Public Comment: Resource Transformation Sector/ Containers & Packaging Sustainability Accounting Standard.

NCASI is a non-profit environmental research institute that seeks to create credible scientific information required to address the environmental information needs of the forest products industry in North America. NCASI conducts surveys, provides advice regarding technically appropriate methods of conducting environmental field measurements, undertakes technical studies such as scientific literature reviews and research compilations, and sponsors scientific research by universities and others to document the environmental performance of industry facility operations and forest management, and to gain insight into opportunities for further improvement in meeting sustainability goals.

The nature of NCASI’s research provides us with a unique lens on the development of metrics related to documenting the performance of forest products industry operations, given our research into the development and field application of sampling and analytical test methods, along with over 70 years of experience in reviewing and treating data that characterize environmental releases from the sector. With this background in mind, we offer the following comments on the Draft Standard:

RT0204-01. Gross global scope 1 emissions, percentage covered under a regulatory program
.01 The registrant shall disclose gross global Scope 1 greenhouse gas (GHG) emissions to the atmosphere of the six GHGs covered under the Kyoto Protocol (carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride).
The WRI/WBCSD Greenhouse Gas Protocol specifies that “direct CO₂ emissions from the combustion of biomass shall not be included in scope 1 but reported separately”.¹ The language in .01 could be misinterpreted as requiring biogenic CO₂ to be reported with other scope 1 greenhouse gases. It is suggested that the language in .01 be clarified to specifically exclude biogenic CO₂ in scope 1 reporting.

RT0204-03. Total energy consumed, percentage grid electricity, percentage renewable

.15 The registrant shall disclose purchased grid electricity consumption as a percentage of its total energy consumption

The US pulp and paper industry generates substantial amounts of electricity for sale through the efficient use of onsite combined heat and power systems. Total sales of electricity from the US paper industry were 8,152 million kWh in 2010.² The ability to credit sold electricity in .15 should be considered.

.17 Renewable energy is defined as energy from sources that are capable of being replenished in a short time though ecological cycles, such as geothermal, wind, solar, hydro, and biomass.

- For the purposes of this disclosure, the scope of renewable energy from hydro and biomass sources are limited to the following:
  - Energy from hydro sources that are certified by the Low Impact Hydropower Institute
  - Energy from biomass sources are limited to those that are considered “eligible renewable” according to the Green-e Energy National Standard Version 2.4, or eligible for a state Renewable Portfolio Standard.

A number of pulp and paper facilities generate hydroelectric power. Over 1,700 hydroelectric facilities operate within the United States. Non federal hydropower projects are regulated by the Federal Energy Regulatory Commission (FERC) and number 1,623 sites (with the Bureau of Reclamation and Army Corps of Engineers operating the remaining sites within the US).³ FERC regulations include licensing, compliance, and dam safety and inspection requirements. Only 120 hydroelectric facilities are registered with the Low Impact Hydropower Institute⁴ so would represent less than 10% of operating hydroelectric power plants. It is suggested that any hydroelectric power from a hydropower facility with a FERC license should qualify as renewable energy.

³ http://www.hydro.org/tech-and-policy/faq/
⁴ http://lowimpacthydro.org/certified-facilities//
The US forest products industry generated 1,610 trillion BTU from the combustion of spent pulping liquors and other biomass residuals in 2010\(^5\). Within the US industrial sector, the pulp and paper and wood products industry comprised nearly 60% of the biomass material used in combustion for energy generation\(^6\). Biomass used for energy generation within the forest products industry in North America originates from forest management practices complying with State forestry Best Management Practices (BMPs) or provincial regulations. In addition, the widespread adoption of third party, independent, sustainable forestry standards such as the Sustainable Forestry Initiative (SFI\(^®\)), the Canadian Standards Association standard for Sustainable Forest Management (CSA-SFM), the American Tree Farm System (ATFS), and the Forest Stewardship Council (FSC\(^®\)) further ensure the responsible use of biomass within North America. It is estimated that over 430 million acres of forest land is enrolled in one or more of SFI\(^7\), FSC\(^8\), CSA-SFM\(^9\) and ATFS\(^10\) within the United States and Canada. State forestry BMPs and provincial regulations are regularly updated, reflect multiple stakeholder input, and are based upon local conditions. The major sustainable forestry regulations and certification standards have provisions to ensure sustainable harvest levels, and to protect biodiversity, wildlife habitat and water quality. Because of the prevalent use of sustainable forestry standards, local regulations, and BMPs, compliance with additional programs such as Green-e are burdensome and are unlikely to provide additional benefits related to the responsible use of biomass for energy generation. It is suggested that the Green-e requirements for biomass be removed, and that companies have flexibility in the methodology they use to report their renewable energy use, as long as they disclose the basis for the amounts reported.

RT0204-04. Air emissions for the following pollutants: NOx (excluding N\(_2\)O), SOx, particulate matter (PM), dioxins, and volatile organic compounds (VOCs)

.20 The registrant shall disclose emissions released to the atmosphere by emissions type. Substances include:

- Oxides of sulfur (SO\(_2\) and SO\(_3\)) reported as SO\(_2\)

The pulp and paper industry reports SO\(_2\) as SO\(_2\), and SO\(_3\) as sulfuric acid (H\(_2\)SO\(_4\)) because all the SO\(_3\) is released as H\(_2\)SO\(_4\). Therefore the current reporting requirement could not be met and should be revised accordingly.


\(^7\) http://www.sfiprogram.org/about-us/basics-of-sfi/

\(^8\) https://us.fsc.org/

\(^9\) www.certificationcanada.org

\(^10\) https://www.treefarmsystem.org/about-tree-farm-system
• **Particulate matter (PM); reported as the sum of PM$_{10}$ and PM$_{2.5}$, or all particulates less than 10 micrometers in diameter**

In the U.S., the definition of PM$_{10}$ includes PM$_{2.5}$ as well as condensable particulate matter. The language of the metric implies that PM$_{10}$ (i.e., filterable PM$_{10}$ and condensable PM) should be added to PM$_{2.5}$ (i.e., filterable PM$_{2.5}$ and condensable PM), thus resulting in double-counting of PM$_{2.5}$ and condensable PM. This metric should be revised to clarify which components (filterable vs. condensable) and fractions (total PM, PM$_{10}$, PM$_{2.5}$) are, in fact, required to be reported.

• **Dioxins/furans, reported, at minimum, as the sum of the 17 congeners of polychlorinated dibenzodioxins (PCDDs) and polychlorinated dibenzofurans (PCDFs) that contain chlorine**

Given that the pulp and paper industry has been reporting air emissions of dioxins and furans as part of SARA 313 reporting for many years, a distinction must be made between SARA reporting and SASB reporting requirements.

There are no PCDD/F emissions from any process vents at pulp and paper mills. Thus, all of these reported emissions are associated with combustion sources, namely boilers, recovery furnaces, and lime kilns. For such sources, SARA 313 reporting is based on the premise that (1) the emissions of PCDD/Fs are not expected to be zero from combustion sources, and (2) facilities must provide the best estimates of these emissions. SASB reporting, however, would have to meet a higher threshold. It could not just be based upon the presumption of PCDD/F emissions from all combustion sources and using any available information. Facilities would have to have the ability to measure and quantify these emissions in order to have confidence in the values they report. That is where the real challenge lies. Due to the extremely low levels of PCDD/F in the flue gases from combustion sources, facilities would not be able to measure and quantify their PCDD/F emissions.

In its recent effort to establish PCDD/F standards for industrial boilers, the US Environmental Protection Agency (EPA) required a large number of sources to test and submit PCDD/F emissions data from boilers using the current EPA test method. Upon analyzing these data, EPA concluded that 55 percent of the results were below the method detection limit and nearly all the remaining data were below the level at which they could be accurately quantified. Based on these findings EPA concluded that emissions of PCDD/Fs from industrial boilers “cannot practicably be measured” (FR 76, No. 247, Friday, December 23, 2011, 80606) and decided to not establish any PCDD/F emission limits on boilers and steam generators and instead promulgated a work practice standard.

Our examination of the PCDD/F emissions data for kraft recovery furnaces and lime kilns showed a similar pattern. Detailed, multiple run, isomer-specific emissions data are available for 11 kraft recovery furnaces and 4 lime kilns in NCASI’s database. These data have been submitted to EPA for its ongoing “Dioxin Reassessment” effort (http://cfpub.epa.gov/ncea/ cfm/recordisplay.cfm?deid=235432). An examination of the data shows that on average 62% and 65% of the isomers were non-detect. On a total PCDD/F basis,
10 of the 11 recovery furnaces had TCDD/F concentrations below the method practical quantitation limit (PQL = 3 x reported detection limit (RDL)) of 0.57 ng/dscm (3-hr test) estimated by EPA from the analysis of the boiler MACT data. On a TEQ basis, all 11 furnaces were well below the quantitation limit of 0.083 ng/dscm estimated by EPA. On both a total PCDD/F and a TEQ basis, the emissions for all 4 lime kilns were well below the respective quantitation limits developed by EPA during boiler MACT.

The above information clearly shows that pulp and paper mills with recovery furnaces, lime kilns and boilers and wood products facilities with boilers would not be able to quantify and report PCDD/F emissions, and that including this metric within this indicator grouping would not have a sound scientific basis. Indeed, any data reported under this metric would be unreliable and inaccurate.

RT0204-05. Total water withdrawn, percentage recycled, percentage in regions with High or Extremely High Baseline Water Stress

.24 The registrant shall disclose the amount of water (in thousands of cubic meters) that was withdrawn from freshwater sources for use in operations.

Water withdrawals at pulp and paper facilities are sometimes not measured or aren’t measured with the same degree of accuracy as water discharges, which are required to be measured with calibrated meters and reported pursuant to an NPDES water discharge permit. For the US pulp and paper industry it is estimated that 90% of total water inputs to a mill are returned to surface waters\(^{11}\) meaning that, for the US pulp and paper industry, water withdrawals and water discharges closely correspond. The standard should explicitly allow for estimated water withdrawal values to be used to satisfy this reporting requirement.

.25 The registrant shall disclose the total amount of water by volume (in thousands of cubic meters) that was recycled during the fiscal year. This figure shall include the amount recycled in closed-loop and open-loop systems.

Water recycle is a difficult metric to quantify because reuse deals with internal flows for which sufficient metering is often not available for complete characterization, and because the same volume of water may be used and reused for several different purposes within a mill before final discharge. Recognizing that water is integral to the operation of pulp and paper mills, and to demonstrate the efficient and responsible use of water within facilities, NCASI developed the NCASI Water Recycle Tool to facilitate mill specific estimates of water recycle at pulp and paper facilities. The approach used within the NCASI water recycle tool is to compare water use at a pulp and paper mill under current operating practices to an equivalent mill operating with no water recycle but producing the same product. This approach is compatible with the definition of water recycle in .25: “any volume of water reused multiple times shall be counted a recycled each time it is recycled and reused” and the approach should be recognized as a means for making the required calculation.

Requiring the reporting of a quantitative estimate of water recycle will add a substantial reporting burden to the pulp and paper industry that is currently not required within any other disclosure program. For complex, integrated pulp and paper facilities the time requirements to develop a detailed estimate of water recycle, even with the NCASI Water Recycle Tool to facilitate calculations, can be in the 20 to 40 person hour range. Further, the concept of recycle as a sustainability metric isn’t complete without some discussion of trade-offs including, importantly, the potential for increased consumptive losses of water from the local watershed, which was one of the findings from the Council of Great Lakes Industries (CGLI) water footprinting work\(^\text{12}\). It is suggested that the reporting of water recycle be optional versus required.

\(^{26}\) Using the World Resources Institute’s (WRI) Water Risk Atlas tool, Aqueduct, the registrant shall analyze all of its operations for water risk and identify facilities that are in a location with High (40-80%) or Extremely High (>80%) Baseline Water Stress. Water withdrawn in locations with High or Extremely High Baseline Water Stress shall be indicated as a percentage of total water withdrawn.

WRI Aqueduct is one tool among many that can be used for screening water stressed regions. Aqueduct should only be used for high level analysis, and is no substitute for local knowledge and local water quality data. The Baseline Water Stress within the WRI Aqueduct Tool is calculated as the ratio of “total annual water withdrawals” to “total annual available flow”. Total annual water withdrawals are calculated at the national level and are estimated using regression equations based on annually measured indicators such as gross domestic product (GDP), population, irrigated area, and electrical power production. National numbers are then spatially disaggregated by sector (domestic, industrial, agricultural), with a goal of maximizing correlations with reported withdrawals (irrigated area for agriculture, nighttime lights and power plants for industrial uses and the population). Total annual available flow, the denominator in Baseline Water Stress, is calculated through mass balance and several of the mass balance vectors are either calculated or based upon general factors applied regardless of the geographical region. The approach used to calculate Baseline Water Stress is only applicable at the country-wide or very large watershed level and may be subject to large error. It is suggested that this requirement either be removed because of WRI Aqueduct’s inability to adequately characterize water stress at the local watershed level, in which the results are most pertinent. If the use of WRI Aqueduct is retained for characterizing water stress, it should be recognized that the results from this tool will have limited utility in characterizing water stress at the local watershed level.

\(^{33}\) Violations, regardless of their measurement methodology or frequency, shall be disclosed.

Determining a violation of a standard is inextricably linked to the measurement methodology used to evaluate performance against that standard. In the US, and likely elsewhere, this linkage is embedded in the legal documents that specify performance requirements for dischargers and quality requirements for discharges. For this reason, the phrase “regardless of their measurement methodology” should be removed from the standard at \(^{33}\). Confusion and inconsistent reporting

conventions are sure to result if multiple methodologies are to be employed for measuring the same performance metric.

We appreciate your consideration of our comments, and can be reached at the coordinates above if you have any questions regarding this submission.

Regards,

Kirsten Vice

Reid Miner
January 15, 2015 (revised February 12, 2015)

Sustainability Accounting Standards Board
75 Broadway, Suite 202
San Francisco, CA 94111

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7 http://www.sfiprogram.org/about-us/basics-of-sfi/

8 https://us.fsc.org/

9 www.certificationcanada.org

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.25 The registrant shall disclose the total amount of water by volume (in thousands of cubic meters) that was recycled during the fiscal year. This figure shall include the amount recycled in closed-loop and open-loop systems.

Water recycle is a difficult metric to quantify because reuse deals with internal flows for which sufficient metering is often not available for complete characterization, and because the same volume of water may be used and reused for several different purposes within a mill before final discharge. Recognizing that water is integral to the operation of pulp and paper mills, and to demonstrate the efficient and responsible use of water within facilities, NCASI developed the NCASI Water Recycle Tool to facilitate mill specific estimates of water recycle at pulp and paper facilities. The approach used within the NCASI water recycle tool is to compare water use at a pulp and paper mill under current operating practices to an equivalent mill operating with no water recycle but producing the same product. This approach is compatible with the definition of water recycle in .25: “any volume of water reused multiple times shall be counted a recycled each time it is recycled and reused” and the approach should be recognized as a means for making the required calculation.

Requiring the reporting of a quantitative estimate of water recycle will add a substantial reporting burden to the pulp and paper industry that is currently not required within any other disclosure program. For complex, integrated pulp and paper facilities the time requirements to develop a detailed estimate of water recycle, even with the NCASI Water Recycle Tool to facilitate calculations, can be in the 20 to 40 person hour range. Further, the concept of recycle as a sustainability metric isn’t complete without some discussion of trade-offs including, importantly, the potential for increased consumptive losses of water from the local watershed, which was one of the findings from the Council of Great Lakes Industries (CGLI) water footprinting work\textsuperscript{12}. It is suggested that the reporting of water recycle be optional versus required.

\textit{.26 Using the World Resources Institute’s (WRI) Water Risk Atlas tool, Aqueduct, the registrant shall analyze all of its operations for water risk and identify facilities that are in a location with High (40-80\%) or Extremely High(>80\%) Baseline Water Stress. Water withdrawn in locations with High or Extremely High Baseline Water Stress shall be indicated as a percentage of total water withdrawn.}

WRI Aqueduct is one tool among many that can be used for screening water stressed regions. Aqueduct should only be used for high level analysis, and is no substitute for local knowledge and local water quality data. The Baseline Water Stress within the WRI Aqueduct Tool is calculated as the ratio of “total annual water withdrawals” to “total annual available flow”. Total annual water withdrawals are calculated at the national level and are estimated using regression equations based on annually measured indicators such as gross domestic product (GDP), population, irrigated area, and electrical power production. National numbers are then spatially disaggregated by sector (domestic, industrial, agricultural), with a goal of maximizing correlations with reported withdrawals (irrigated area for agriculture, nighttime lights and power plants for industrial uses and the population). Total annual available flow, the denominator in Baseline Water Stress, is calculated through mass balance and several of the mass balance vectors are either calculated or based upon general factors applied regardless of the geographical region. The approach used to calculate Baseline Water Stress is only applicable at the country-wide or very large watershed level and may be subject to large error. It is suggested that this requirement either be removed because of WRI Aqueduct’s inability to adequately characterize water stress at the local watershed level, in which the results are most pertinent. If the use of WRI Aqueduct is retained for characterizing water stress, it should be recognized that the results from this tool will have limited utility in characterizing water stress at the local watershed level.

\textit{.33 Violations, regardless of their measurement methodology or frequency, shall be disclosed.}

Determining a violation of a standard is inextricably linked to the measurement methodology used to evaluate performance against that standard. In the US, and likely elsewhere, this linkage is embedded in the legal documents that specify performance requirements for dischargers and quality requirements for discharges. For this reason, the phrase “regardless of their measurement methodology” should be removed from the standard at .33. Confusion and inconsistent reporting

conventions are sure to result if multiple methodologies are to be employed for measuring the same performance metric.

We appreciate your consideration of our comments, and can be reached at the coordinates above if you have any questions regarding this submission.

Regards,

Kirsten Vice

Reid Miner
January 6, 2015

Sustainability Accounting Standards Board®
75 Broadway, Suite 202
San Francisco, CA 94111

Re: Comments on Containers and Packaging Standard

Thank you for the opportunity to comment on the Sustainability Accounting Standards Board’s (SASB) Containers and Packaging Standard.

The Sustainable Forestry Initiative® Inc. (SFI) is an independent, nonprofit organization that is solely responsible for maintaining, overseeing and improving the internationally recognized SFI® program. Across the United States and Canada, over 250 million acres are certified to the SFI forest management standard. In addition, through the SFI program’s unique and proactive “Fiber Sourcing” requirements, all SFI program participants – whether they own lands or buy fiber from non-certified lands – must take measures to ensure that the raw material in their supply chain is from responsible, legal sources.

The SFI requirements address forest sustainability regardless of the final product produced from the forest, whether it is lumber, paper, or packaging. The SFI Standard’s requirements for land management and the procurement of fiber are essential to conserving environmental factors such as water quality, soil productivity, and biodiversity, as forests meet the growing global demand for bioenergy. Numerous packaging producers across the U.S. and Canada utilize certification to the SFI Standard as a proof point of responsible sourcing of forest fiber.

Approximately 80% of forested acres in the United States are not certified to any forest certification standard. Most of those forested acres are owned by family forest owners. Those owners have varied goals for owning forests and forest certification may not be cost-effective for them. It is for these very reasons that SFI designed its Fiber Sourcing requirements. SFI requires all SFI program participants to demonstrate that the raw material in their supply chain comes from legal and responsible sources, whether the forests are certified or not. Certification to SFI’s Fiber Sourcing requirements must be third-party verified.

When buying fiber from forests in North America that are not certified, SFI program participants must:

- Supply regionally appropriate information or services so forest landowners can identify and protect or create habitat for wildlife; reforest harvested lands, either naturally and through replanting; and protect riparian zones and water quality.
- Provide implementation guidance for responsible forestry, addressing topics such as biodiversity, utilization, afforestation, invasive exotic plants and animals, and special sites.
- Promote the use of loggers and resource professionals trained in sustainable forestry practices and, where possible, support logger certification programs.
- Clearly define fiber sourcing policies in writing and make them available to suppliers — contracts for the purchase of raw material must include requirements for the use of best management practices to protect water quality.
• Implement a verifiable monitoring system.
• Encourage landowners to participate in forest management certification programs.

SFI Fiber Sourcing also directly addresses legality, both in terms of compliance with all laws and regulations and the avoidance of fiber from controversial sources. Because of the importance of fiber sourcing in the supply chain, below are suggested edits to the “Materials Sourcing” section of the draft Containers and Packaging Standard.

**Materials Sourcing**

**Description**

Materials sourcing for containers and packaging companies involves the sustainable sourcing practices of raw materials, including recycled and virgin materials. Paper packaging companies are using various third-party certifications, like the Sustainable Forestry Initiative® (SFI) and the Forest Stewardship Council (FSC) in an effort to verify the responsible sourcing of virgin wood materials. These third-party certifications are important as companies look for greater assurance of fiber from legal and responsible sources. Chain-of-Custody Forest certification programs, which verify that materials, both virgin and recycled, are from responsible, well-managed forests and that they do not have negative social and environmental impacts. Companies that implement responsible sourcing efforts into their supply chains may be better insulated from illegal and unethical activities that result in reputational harm to the organization. Companies that are using certifications to meet market demand will be better positioned to expand market share, and to manage changing customer requests and regulations.

**Accounting Metrics**

RT0204-13. Total wood fiber purchased, percentage from certified sources

.54 The registrant shall disclose the total weight of wood fiber-based raw materials purchased during the fiscal year.

.55 The registrant shall disclose the percentage of its wood fiber-based raw materials (on a cost of goods sold [COGS] basis) that are sourced consistent with relevant responsible sourcing standards, where:

• Responsible sourcing is defined as use of procurement policies, decisions, and practices to manage and ensure the attainment of environmental and social objectives by procuring materials with a certified provenance.
• The scope of responsible sourcing standards includes, but is not limited to, protection of natural resources, fair treatment of workers and community, and resource efficiency.

.56 The percentage is calculated as the cost of wood fiber-based raw materials that are sourced consistent with responsible sourcing standards, divided by the total cost of wood fiber-based raw materials.

.57 Responsible sourcing standards for wood-based materials include the following, or equivalent:

- Forest Stewardship Council (FSC) (i.e., FSC 100% label, and FSC Mixed Sources and FSC Recycled labels),
- Sustainable Forest Initiative (SFI), (i.e SFI Chain of Custody and SFI Certified Sourcing labels)
- Programme for the Endorsement of Forest Certification (PEFC). (i.e PEFC Certified and PEFC Recycled labels)

Thank you for consideration of our comments. I can be reached with any questions or concerns by email at [email] or [email].

Sincerely,

Jason Metnick
Senior Vice President, Customer Affairs
January 15, 2015

Dr. Jean Rogers  
SASB  
75 Broadway, Suite 202  
San Francisco, CA 94111

Re: Containers and Packaging: Sustainability Accounting Standard—Exposure Draft for Public Comments

Dear Dr. Rogers,

Thank you for the opportunity to provide comments on the Sustainability Accounting Standard Board’s (SASB) “Exposure Draft Containers and Packaging: Sustainability Accounting Standard”. Founded in 1899, Sonoco is a global provider of a variety of consumer packaging, industrial products, protective packaging, and displays and packaging supply chain services. With annualized combined sales of approximately $5.4 billion, the Company has more than 21,000 employees working in more than 340 operations in 34 countries, serving some of the world’s best known brands in some 85 nations. Sonoco is a proud member of the 2014/2015 Dow Jones Sustainability World Index. More information on the Company and its sustainability-related activities can be found on our website at www.sonoco.com.

Sonoco supports the comments submitted by AMERIPEN and the packaging industry’s largest associations: the American Chemistry Council (ACC), the American Forestry and Paper Association (AF&PA), AMERIPEN, Flexible Packaging Association (FPA), the Paperboard Packaging Coalition (PPC) and the Glass Packaging Institute (GPI). Collectively, these associations represent an estimated 400 companies across the entire packaging supply chain, representing the interests of material manufacturers of all substrates, converters of all types of packaging, as well as end of life recovery.

Sonoco’s comments address both the broad aspects of the Containers and Packaging Exposure Draft (Proposed Standard) and the specific metrics. We support the association’s collective interest in working collaboratively with SASB in order to ensure mutually acceptable alternatives to our concerns.

**AREAS OF GENERAL CONCERN**

Eight overarching concerns frame our analysis of the Proposed Standard:

1. **SASB as a Voluntary Standard**

   We appreciate SASB’s statement that “[d]isclosure under SASB Standards is voluntary” and we strongly support retaining the voluntary nature of SASB Standards. Yet, it is noted that SASB’s process includes
regular meetings with the Securities and Exchange Commission (SEC) and it is widely reported that SASB’s ultimate objective is to have the SEC mandate the use of its standards. *We request that SASB clearly identify its intent regarding the SEC and its standards.*

2. **SASB’s Intent to Standardize Metrics for Industry Comparability**

   We understand SASB’s intent to standardize reporting in order to permit greater comparisons between companies and sector, yet we must strongly caution against this approach. Sonoco has serious concerns about the comparability of metrics across our industry. The packaging industry is extremely diverse with significant differences in the structure and purpose of packaging. For example, the level and means of protection against damage and spoilage differs for food, pharmaceuticals, electronics, etc. The same differences in structure and purpose exist for the level of packaging—primary (direct contact with product), secondary (used for sale of multiple products or additional security), and transport/shipping packaging. For each structure and purpose, legal and regulatory requirements, technologies, raw material sourcing and end-of-use opportunities differ. From our own experience we conclude that a simple comparison of any metrics across our broad industry fails to provide a complete picture of the sustainability performance of companies in this sector. Additionally, companies that produce packaging from different substrates or even similar substrates with different packaging objectives will deem the materiality of their impacts differently. Therefore, we believe that there is a significant risk to engaged companies in SASB trying to compare metrics designed to inform the investment community. *We strongly encourage SASB to include further discussion on the challenge of standardized comparisons within all documentation pertaining to the packaging industry—including subsequent trainings and educations.* Within SASB’s documentation, we believe SASB should strongly encourage stakeholders to consider the entirety of the information provided by companies that may report based on the Proposed Standard and not simply to compare one company to another based only on the provided metrics. Additionally, we believe that companies should have the flexibility to use the SASB or other metrics, as well as the ability to explain why particular metrics do or do not “ensure completeness, accuracy and comparability of the data reported.” *This is critical for ensuring that stakeholders using the data understand its potential limitations.*

3. **SASB Desire for Financial Level of Assurance**

   SASB indicates in the Proposed Standard that “it is expected that registrants disclose with the same level of rigor, accuracy, and responsibility as they apply to all other information contained in their SEC filings”. Within the current draft, Sonoco does not believe that SASB provides sufficiently defined processes or guidance on the preparation of disclosures to ensure auditability at the level required by financial accounting standards, as defined by the American Institute of Certified Public Accountants (AICPA). The key attributes of: i) objectivity, ii) measurability, iii) completeness and iv) relevance do not equally apply to all metrics proposed within the draft standard. ¹We believe some of the metrics proposed are simply to variable or subjective in order to permit for financial level accountability.

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Metrics that are reported to government agencies are not a concern because they typically have their own assurance requirements. The methodologies for reporting other metrics, however, may allow for more flexibility in the calculation of the metric, and thus there may be greater variation in reported information than one might typically encounter in financial documents. We believe SASB should revise its assurance requirements to recognize this flexibility. As an example, SASB should make an explicit link between its assurance requirements, and its recognition that estimates may be used, as long as the company explains the basis for the estimate. Additionally, SASB should revise its statement that “SASB does not discourage the use of such estimates” to make it a more neutral statement acknowledging the reality that estimates will need to be used in reporting sustainability data.

4. SASB’s Application of American National Standards Institute (ANSI) Procedures

The material developed for the IWG stated that the “SASB Standards Development process is certified by ANSI.” SASB’s Vision and Mission document states that “SASB is also an ANSI accredited standards developer. Accreditation by ANSI signifies that SASB’s procedures to develop standards meet ANSI’s requirements for openness, balance, consensus, and due process.” Finally, SASB’s “Our Process” webpage states that “[a]s an ANSI-accredited standards-setting organization, SASB follows an open, orderly process that permits timely, thorough, and open study of sustainability accounting issues.” Adherence to ANSI procedures provides stakeholders with assurances that needed procedural safeguards are present. This is especially important, if, as is the case here, there is the potential for a government agency—the Securities and Exchange Commission—to mandate the use of a standard. Government standards typically are developed through a notice and comment process and are subject to numerous due process protections for stakeholders, including in many cases, judicial review. Private standards adopted for government use should be developed with the same level of due process protection.

Office of Management and Budget (OMB) OMB Circular A-119 requires, with limited exception, that federal agencies and departments use “voluntary consensus standards,” which are “standards developed or adopted by voluntary consensus standards bodies.” The Circular also established guidelines for federal participation in the development and use of voluntary consensus standards. Specifically, the Circular provides the following attributes for a “voluntary consensus standards body”: (i) openness; (ii) balance of interest; (iii) due process; (iv) an appeals process; and (v) consensus. Section 12(d) of the National Technology Transfer and Advancement Act of 1995 (Public Law 104-113) basically codified the OMB Circular and requires that “all Federal agencies and departments shall use technical standards that are developed or adopted by voluntary consensus standards bodies,” unless use of such a standard is “inconsistent with applicable law or otherwise impractical.”

By definition, private standards such as SASB’s do not include the due process protections found in the development of government standards. ANSI Essential Requirements closely track the procedural
safeguards required by the Circular. We note, however, that SASB is not using its accredited procedures to develop the Standard. Moreover, SASB’s descriptions of the ANSI process do not include “an appeals process,” and we are unaware of SASB having instituted an appeals process for its previous standards. It is also unclear how the SASB process complies with the ANSI Essential Requirements, such as a “consensus vote.” We believe SASB should explicitly describe the process it is using to develop the Standard, and the extent to which the process is consistent with the ANSI Essential Requirements and OMB Circular A-119 (since there is the possibility that the SEC could adopt the Standard). If it is not using its ANSI-accredited procedures, SASB should make that clear in the draft Standard and on its website.

5. SASB’s Use Of Varying National Standards, Laws And Definitions
Our understanding is that SASB expects sustainability reporting to include global data, not information specific to the U.S. alone. However, the standards and laws referenced for development of the metrics are often nation-specific rather than internationally-recognized standards. For example, U.S. CERCLA and RCRA are cited under Hazardous Waste Management, yet each country defines and manages hazardous waste differently; compliance standards developed for the EU Packaging and Packaging Waste Directive are cited under Product Lifecycle Management & Innovation yet are not applicable in the U.S.; air quality emissions, such as Particulate Matter (PM) or VOC’s are measured differently from country-to-country; water quality is measure by BOD in the U.S., COD elsewhere. Application of the SASB metrics to a global company would require significant duplicative calculation and reporting by country, which will be cost prohibitive. We encourage SASB to provide for normalization of reporting across global operations, recognizing that this will limit the comparability of the metrics.

6. SASB’s Application of Private, Non-Consensus Standards
Generally, as required by ANSI, the Standard should avoid references to private tools or standards (e.g. Green-e, World Resources Institute (WRI) Water Risk Atlas tool, Aqueduct) as the singular basis for reporting against a metric. Among other concerns, some of these tools or standards have not been developed in a consensus-based process that provides the procedural safeguards discussed above. We caution SASB about adopting some of the tools which have not been developed according to ANSI or OMB Circular A-119 processes. We believe the required use of tools or standards which have not be subject to the same standard of review and due process as required by ANSI or the OMB Circular risk the validity of the SASB process.

In addition, SASB’s adoption of a particular private tools or standard has the effect of locking in that standard for the future. Other existing tools or standards may perform similar functions but be more suitable to the Containers and Packaging sector, and new, innovative standards may be developed in the future. SASB should not prejudge the suitability of certain standards by referencing one particular standard.

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3 The ANSI Essential Requirements for Due Process are: openness, lack of dominance, balance, coordination and harmonization, notification of standards development, consideration of views and objections, consensus vote, appeals, written procedures, compliance with normative ANSI policies and procedures. ANSI Essential Requirements: Due process requirements for American National Standards. January 2014.

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at this time. At a minimum, SASB should describe what the tool provides or the standard is trying to accomplish, and after identifying the tool or standard, add “or equivalent.”

7. Duplication With Existing Reporting Requirements
We understand that SASB tried to choose metrics that companies already report (voluntarily or pursuant to government requirement), as a way to minimize reporting burdens and ensure the metric is viable. Choosing these metrics, however, does raise potential concerns for reporting companies. If SASB’s metrics and the methods by which they are derived and reported are not exactly the same as those used in other, existing reports, there is significant potential for inconsistent reporting between the Proposed Standard (including, potentially SEC reports) and other reports, such as a company’s own sustainability reports. For example, SASB’s proposed requirement to “report renewable energy from biomass sources are limited to those considered ‘eligible renewables’ according to the Green-e National Standard Version 2.4, or eligible for a state Renewable Portfolio Standard” may result in exclusion of renewable energy data within the SASB submission but inclusion of renewable data on biomass according to other industry standards within a corporate sustainability report. At a minimum, this inconsistency creates confusion among stakeholders; it also creates legal risk for reporting companies. Accordingly, to the extent that a metric is subject to multiple reporting requirements, the Proposed Standard should permit the reporting company to choose which requirement it is reporting under and indicate that choice in its report.

8. Consistent Units Across Metrics
The Standard should use consistent measurement units throughout the document. For example, the Proposed Standard specifies reporting the hazardous waste metric in “Tons” (short tons), while for the air quality metrics the Standard specifies to report in “Metric Tons.” It would be best to allow companies to consistently choose either standard or metric units based on the unit conventions used for metrics in their other reports.

SPECIFIC METRICS OF CONCERN

RT0204-01. Greenhouse Gas Emissions
Sonoco agrees with AMERIPEN on the need to align GHG reporting with that required by the SEC. If SASB chooses not to align with existing reporting requirements, then the following should be considered.

Sonoco strongly supports comments by the National Council for Air and Stream Improvement (NCASI) and the American Forest & Paper Association (AF&PA) regarding the value of and need for separate reporting of emissions from biomass energy as described in the WRI/WBCSD Greenhouse Gas Protocol. As they recommend, the standard should specifically not require reporting of biogenic CO2 emissions, but be reported separately, as is the case with the WRI/WBCSD Greenhouse Gas Protocol. Sonoco recently completed construction of a new biomass boiler, 2 gas-fired boilers and retired 4 old fossil fuel boilers, replacing significant coal feedstock with
biomass and natural gas. This use of biomass is a critical element of our GHG reduction strategy and use of the WRI/WBCSD approach to biogenic emissions has contributed to decreasing Sonoco’s global GHG emissions by more than 15 percent since our baseline year of 2009. We also suggest clarity on .02 where ‘transportation’ is defined, referencing the WRI/WBCSD protocol as it relates to Scope 1 emissions. For the packaging industry, non-internal transport (marine, road and rail) are not considered direct emissions.

RTO0204-03. Energy Management

Sonoco agrees with AMERIPEN that language specific to the pulp and paper industry should be deleted. We also support comments by AF&PA relating to purchased electricity reporting on a net basis, consistent with most reporting protocols and recognizing operations that self-generate energy. Additionally, we support reference to footnote 17 in discussing ‘short time’ replenishment in .17.

RT0204-04. Air Quality

Sonoco concurs with AF&PA and NCASI on the value of air quality reporting as this has a direct relationship to the geography of the facility(s) being reported and the regulatory requirements within these geographies – both domestic and international – for monitoring and reporting. This variety in scope and application prevents comparability and can benefit companies with locations in less regulated countries or regions within countries.

Inclusion of office buildings, and mobile sources is inconsistent with GHG and water reporting (e.g., direct GHG emissions do not include mobile sources; water reporting is specific to operations); it also requires extensive expenditure of manpower and financial resources. Few office buildings have air quality monitoring; additionally, as many are leased, cooperation with landlords is required and permission could be refused. Mobile emissions vary by geography due to fuel and engine variability, as well as regulatory requirements. Accounting for this variability across multiple countries, with the same accountability required of financial reporting (as required by SASB) is critically cost-inefficient.

RT0204-05 and RT0204-06. Water Management

Sonoco supports the comments by AF&PA and NCASI relating to the differing metrics of water reporting and the relevance (and accuracy) of each. We would add that water recycling is technology dependent, not a comparable metric, and should be removed. A number of factors influence a mill’s ability to operate at high water recycle rates, including quality of raw materials (especially at recycle mills), product quality requirements, and the extent of corrosion-resistant materials within the plant.

We also concur with NCASI’s concerns over limitations of the WRI Water Risk Atlas tool and support AF&PA’s request that, in reporting of water use in stressed areas, companies should be allowed to utilize reputable tools other than the WRI Water Risk Atlas tool so long as the tool used is disclosed.

Lastly, we support the concerns stated by NCASI and AF&PA over reporting of specific emissions and violations, specifically as variability in requirements across geographies preclude comparisons (e.g., BOD is mainly used in the U.S., COD elsewhere). Additionally, we are very concerned over the requirement of reporting on any non-
compliance not resulting in enforcement action. This opens the door to reporting of nuisance and other unsubstantiated complaints.

**RT0204-07 and RT0204-08. Hazardous Materials Management**

Sonoco supports AF&PA’s concerns regarding the applicability of RCRA and other U.S.-specific regulatory definitions to operations outside the U.S. This, as with other metrics, precludes comparability as companies operating predominantly in developed countries (with higher regulatory requirements) who report on releases and spills will be disadvantaged over those who do not.

The metric is also unclear as to the definition of waste as having ‘no further use’ and subsequent discussions of recycling, reclamation and remanufacture as to reporting requirements. The definition of ‘discarded’ is assumed to be landfilled or incinerated without energy recovery. If ‘discarded’ is to include recycling (and reuse, reclamation and remanufacture), then the metrics should allow for a description of the company’s strategy to reduce and manage hazardous waste.

This is also an area where the reporting metric (tons) differs from those in other standards (tonnes).

**RT0204-10 and RT0204-11. Product Lifecycle Management and Innovation – reporting of recoverable and renewable packaging**

Sonoco recommends that companies reporting on these metrics be allowed to use estimates and that such use be supported by SASB. Sonoco produces packaging from a variety of substrates—some, as in metal, do not provide defined numbers relating to recycled content. Additionally, as described by AMERIPEN, packaging is often completed by the packer/filler, which may impact recovery or percentage of renewable material. For example, Sonoco’s composite cans, used for coffee, stacked chips, and powdered beverage, nuts and other products are often filled, sealed, and labeled by a co-packer. The multiple ‘hands’ involved in producing a filled package makes it extremely difficult to adhere to the rigor of financial reporting when reporting on recovery and use of renewable materials.

There are inconsistencies in reporting metrics between containers and packaging that are reusable, recoverable (recyclable and compostable) and renewable; e.g., percent by weigh for some, COGS for others. Sonoco recommends that a percentage weight measurement be utilized across these metrics. Given the variety and scope of Sonoco’s container and packaging offerings, measuring against COGS would require significant expenditure of financial and manpower resources, creating cost-inefficiencies.

**RT0204-12. Product Lifecycle Management and Innovation – minimization/noxious or hazardous constituents in packaging**

The metric references the SPC’s Packaging Indicators and Metrics Framework. This was supplanted by the Global Protocol on Packaging Sustainability 2.0 and is no longer supported by SPC.
Additionally, Europe’s ‘Essential Requirements' have been adapted into a new ISO 186XX series of standards under Packaging and the Environment – that modernizes the 1995 Essential Requirements. The ISO framework eliminates ‘minimization’ as part of the recent focus on food and product waste. It recognizes that more packaging may actually result in reduced food and product loss – with significant environmental improvements over and above that related to increased packaging. It also replaces the obsolete 'noxious or hazardous constituents' reference with language in accordance with the Global Harmonized Standard.

Sonoco also recommends that any LCA discussion be accompanied by disclosure of the LCA tool (or tools) utilized. Variability in the LCA tools’ assumptions, boundaries, scope and calculations can result in vastly disparate reporting of environmental impacts.

RT0204-13. Material Sourcing

Sonoco supports AF&PA’s concerns over use of COGS; as discussed above, its use will require considerable resources and is cost-inefficient.

We are also concerned that forest products are held to a higher, and more time-consuming material sourcing reporting standard than other substrates. We agree with AF&PA that the sophistication and rigor of the sourcing standards for wood fiber is significant. Use of a percentage by weight calculation rather than COGS would make this reporting more equitable.

We also ask that reporting of responsible sourcing for non-wood and non-aluminum packaging be deferred until standards equitable to wood fiber and aluminum sourcing be established for those substrates. Use of the BES 6001 is unacceptable. BES 6001, as discussed by SASB, was developed for materials used in the construction industry and is not appropriate for materials used for containers and packaging destined for the variety of regulated segments to which we serve; e.g., food products, pharmaceuticals, children’s toys, dangerous materials and chemicals, etc.

On behalf of Sonoco, thank you for the opportunity to comment on the Proposed Exposure Draft for Containers and Packaging. We hope the feedback will help to strengthen and inform the Proposed Standard. I will be happy to discuss our feedback and any other matters related to the Containers and Packaging Exposure Draft Standard with you and your staff.

Sincerely,

Laura A. Rowell
Global Sustainability Manager
Sonoco Consumer Packaging

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January 15, 2015

Sustainable Accounting Standards Board
75 Broadway, Suite 202
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Subject: Public Comments on Draft Standards for Resource Transformation Sector

Sustainable Accounting Standards Board,

We are pleased to submit comments on the draft standards for the Resource Transformation sector. During the industry working group phase, we participated in and provided feedback on the Containers and Packaging industry survey. We have noted that while some of our comments from that process were integrated into the draft standards, others were not. Our comments here focus on the Containers and Packaging industry draft standards, while also highlighting metrics that permeate the draft standards for other industries included in the Resource Transformation sector.

Our comments fall into five (5) themes:
1. Referencing private standards and tools
2. Auditability and comparability
3. Inadequacy of definition
4. Materiality or relevancy

Regards,

Alicia Robbins
Resource Economist

Enclosure: Comments
1. Referencing private standards and tools

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The definition of “eligible renewable” for biomass in the Green-e standard is arbitrarily complex and would require the ability to trace the biomass source not only back to the acre of land but back to the part of the tree from which it came. Furthermore, it would be difficult to show compliance with the eligible renewable criteria without certification to the green-e standard. The result is the equivalent of SASB endorsing a particular proprietary standard, which is a violation of ANSI’s Commercial Terms (see footnote 1). Any reference to private standards should always include the phrase “or equivalent.”

We recommend changing the biomass criteria to be in compliance with State-level biomass energy definitions or renewable portfolio standards. As an example, Washington State’s definition provides the following:

RCW 19.285.030
(3)(a) "Biomass energy" includes: (i) Organic by-products of pulping and the wood manufacturing process; (ii) animal manure; (iii) solid organic fuels from wood; (iv) forest or field residues; (v) untreated wooden demolition or construction debris; (vi) food waste and food processing residuals; (vii) liquors derived from algae; (viii) dedicated energy crops; and (ix) yard waste.

Footnote 1: The ANSI Essential Requirements: Due Process Requirements for American National Standards prohibits standards from endorsing particular products, services, or companies and requires explicit safeguards if a standard references a sole source. As per Subsection 3.2, Commercial Terms and Conditions: “Provisions involving business relations between buyer and seller such as guarantees, warranties, and other commercial terms and conditions shall not be included in an American National Standard. The appearance that a standard endorses any particular products, services or companies must be avoided. Therefore, it is generally not acceptable to include manufacturer lists, service provider lists, or similar material in the text of a standard or in an annex (or the equivalent). Where a sole source exists for essential equipment, materials or services necessary to determine compliance with the standard, it is permissible to supply the name and address of the source in a footnote or informative annex as long as the words “or the equivalent” are added to the reference. In connection with standards that relate to the determination of whether products or services conform to one or more standards, the process or criteria for determining conformity can be standardized as long as the description of the process or criteria is limited to technical and engineering concerns and does not include what would otherwise be a commercial term.” See:

(b) "Biomass energy" does not include: (i) Wood pieces that have been treated with chemical preservatives such as creosote, pentachlorophenol, or copper-chrome-arsenic; (ii) wood from old growth forests; or (iii) municipal solid waste.

<table>
<thead>
<tr>
<th>Industry Standard</th>
<th>Containers and Packaging</th>
<th>Chemicals</th>
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<tbody>
<tr>
<td>Disclosure Topic</td>
<td>Water Management</td>
<td>Water Management</td>
</tr>
<tr>
<td>Accounting metric code</td>
<td>RT0204-05</td>
<td>RT0101-06</td>
</tr>
<tr>
<td>Comment</td>
<td>RE: Use of WRI Water Risk Atlas Tool</td>
<td></td>
</tr>
</tbody>
</table>
|                   | See above and footnote 1 regarding ANSI essential elements for due process and references to proprietary (non-governmental) tools. Any reference to private standards should always include the phrase “or equivalent.” Here, as an alternative, SASB should provide a concise summary of what the WRI tool provides and then add a footnote, “such as the WRI Water Risk Atlas Tool, or equivalent.”
|                   | The tool itself and its indicators are highly subjective and overlook many aspects of water management that are relevant to the industry, while simultaneously weighting other criteria that do not apply at all. Reporting against this specific tool would be challenging in terms of aggregating site level data and could generate an inaccurate assessment of water supply risk. |

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<tr>
<th>Industry Standard</th>
<th>Containers and Packaging</th>
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<tbody>
<tr>
<td>Disclosure Topic</td>
<td>Material sourcing</td>
</tr>
<tr>
<td>Accounting metric code</td>
<td>RT0204-13</td>
</tr>
<tr>
<td>Comment</td>
<td>RE: responsible sourcing standards</td>
</tr>
<tr>
<td></td>
<td>See footnote 1 regarding ANSI essential elements for due process and references to proprietary (non-governmental) tools. It is noted that in this instance of referring to proprietary (non-governmental) tools the qualifying statement of “or equivalent” is included. If a list of certifying bodies is included, then we recommend it be as comprehensive as possible, and include the American Tree Farm System (ATFS).</td>
</tr>
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</table>
2. **Auditability and Comparability**

<table>
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<tr>
<th>Industry Standard</th>
<th>Containers and Packaging</th>
<th>Chemicals</th>
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<tbody>
<tr>
<td>Accounting metric code</td>
<td>RT0204-02</td>
<td>RT0101-02</td>
</tr>
<tr>
<td>Comment</td>
<td>RE: “long-term and short-term strategy”</td>
<td></td>
</tr>
<tr>
<td></td>
<td>These strategic risks, if material, are already included in companies’ annual reports. Reporting them again here would be redundant.</td>
<td></td>
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<tr>
<th>Industry Standard</th>
<th>Containers and Packaging</th>
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<tbody>
<tr>
<td>Disclosure Topic</td>
<td>Air Quality</td>
</tr>
<tr>
<td>Accounting metric code</td>
<td>RT0204-04</td>
</tr>
<tr>
<td>Comment</td>
<td>RE: NOx (excluding N2O), SOx, particulate matter (PM), dioxins, and volatile organic compounds (VOCs)</td>
</tr>
<tr>
<td></td>
<td>Measuring emissions for these pollutants and aggregating them from the site level would not provide comparable information to investors and auditing for them would be challenging.</td>
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<tr>
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<tbody>
<tr>
<td>Disclosure Topic</td>
<td>Material sourcing</td>
</tr>
<tr>
<td>Accounting metric code</td>
<td>RT0204-13</td>
</tr>
<tr>
<td>Comment</td>
<td>RE: percentage of its wood fiber-based raw materials (on a cost of good sold [COGS] basis) that are sourced with relevant responsible sourcing standards</td>
</tr>
<tr>
<td></td>
<td>Using COGS is not a useful metric since prices for comparable materials vary by region and market. This should be revised to “percentage of its wood fiber-based raw materials that are sourced from a certified responsible sourcing entity.”</td>
</tr>
</tbody>
</table>
Disclosure Topic | Material sourcing
---|---
Accounting metric code | RT0204-14

**Comment**
RE: percentage of its non-wood raw materials sourced in conformance with responsible sourcing standards

This metric is neither comparable nor auditable. This metric was not in the working group survey and is insufficiently developed. The systems in place to evaluate responsible sourcing for non-wood raw materials are generally not equivalent to those for evaluating wood fiber-based materials, which are well-established. As it is currently written, this metric could potentially result in the reporting of misleading information.

Disclosure Topic | Water Management
---|---
Accounting metric code | RT0204-05 | RT0101-06

**Comment**
RE: Water withdrawn, percentage recycled, percentage in regions with High or Extremely High Baseline Water Stress

Water intake measurements are not an accurate means of assessing water use. Discharge measurements are regulated by government agencies and provide a more feasible level of reporting.

**3. Inadequacy of Definition**

Disclosure Topic | Water Management
---|---
Accounting metric code | RT-0204-06 | RT-0101-07

**Comment**
RE: Definition of non-compliance

The definition of non-compliance here is inadequate. We recommend revising to reflect the number of non-compliances reported to regulatory agencies, rather than use the number of “incidents” or “fines, warning letters, etc.”
4. **Materiality or Relevancy**

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<tbody>
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</tr>
<tr>
<td>Accounting metric code</td>
<td>RT0204-04</td>
</tr>
<tr>
<td>Comment</td>
<td>RE: Dioxin</td>
</tr>
<tr>
<td></td>
<td>Dioxins are no longer a material issue for this industry and the requirement to report on them should be removed from the standard.</td>
</tr>
</tbody>
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<tr>
<th>Industry Standard</th>
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<tr>
<td>Disclosure Topic</td>
<td>Product Lifecycle Management and Innovation</td>
</tr>
<tr>
<td>Accounting metric code</td>
<td>RT0204-12</td>
</tr>
<tr>
<td>Comment</td>
<td>RE: Reference to E.U. Directive on Packaging and Packaging Waste</td>
</tr>
<tr>
<td></td>
<td>It is inappropriate to require US-based companies to meet a directive that may not apply to their operations.</td>
</tr>
</tbody>
</table>
Metric

Greenhouse Gas Intensity

Rationale
- It is an important measure for global stakeholders.
- This is tracked by many other reporting tools and systems.
- It speaks to sustainability issues.

Units
Expressed as pounds of carbon dioxide (CO₂) equivalent net emissions per pound of production, referenced to 1990 as the base year

Definitions
Green House Gases (CO₂ equivalents): includes carbon dioxide, methane, nitrous oxides, HFC, PFC, and SF6.

Production, pounds: The pounds of material produced at North American Industry Classification System (NAICS) 325 facilities in the United States. This number will be reported to ACC as a single, aggregated number for each company. This includes all pounds of NAICS 325 products, including intra-company transfers of products with inherent market value. This number excludes wastes and recycled materials. Production should be counted for that portion of a corporation or company that is used to determine ACC dues. Joint venture production is reported by the operating company. This definition is consistent with both the ACC Energy Efficiency and Greenhouse Gas Emissions Survey and the original Pollution Prevention Code of Responsible Care®.

See Appendix C for instructions, Appendix D for worksheets and Appendix E for FAQ’s.

Member Reporting Instructions
The ACC Energy Efficiency and Greenhouse Gas Emissions Survey will be used for data collection for this metric. An on-line version of this survey must be completed by members within the data management system. Members will also have the option of completing the survey via excel spreadsheets and uploading the data directly onto the data management system. This data will be released to the public only as aggregated ACC membership data. Once the company has entered in this data, they will then have to approve it before the ACC will begin its approval process.

As part of the Responsible Care Strategic Review, the GHG and EE emissions factors have been aligned with the EPA Mandatory Greenhouse Gas rule – effective 2014.

Timing for Reporting
Company will be due by May 31, 2015.
Metric

Energy Efficiency

Rationale
- It is an important measure for global stakeholders.
- It is also tracked by many other reporting tools and systems.
- This speaks to sustainability issues.

Units
Expressed as BTUs consumed per pound of production

Definitions
*BTUs consumed:* Total energy, in British Thermal Units (BTUs), consumed at ACC member company facilities.

*Production, pounds:* The pounds of material produced at North American Industry Classification System (NAICS) 325 facilities in the United States. This number will be reported to ACC as a single, aggregated number for each company. This includes all pounds of NAICS 325 products, including intra-company transfers of products with inherent market value. This number excludes wastes and recycled materials. Production should be counted for that portion of a corporation or company that is used to determine ACC dues. Joint venture production is reported by the operating company. This definition is consistent with both the ACC Energy Efficiency and Greenhouse Gas Emissions Survey and the original Pollution Prevention Code of Responsible Care®.

See Appendix C for instructions, Appendix D for an example survey and Appendix E for FAQ’s.

Member Reporting Instructions
The ACC Energy Efficiency and Greenhouse Gas Emissions Survey will be used for data collection for this metric. An on-line version of this survey must be completed by members within the data management system. Members will also have the option of completing the survey via excel spreadsheets and uploading the data directly onto the data management system. This data will be released to the public only as aggregated ACC membership data. Once the company has entered in this data, they will then have to approve it before the ACC will begin its approval process.

As part of the Responsible Care Strategic Review, the GHG and EE emissions factors have been aligned with the EPA Mandatory Greenhouse Gas rule – effective 2014.

Timing for Reporting
Company will be due by May 31, 2015.
GENERAL INFORMATION

Beginning in calendar year 2002 data, there will no longer be a small energy user exemption at the company level, but rather an individual plant site small user exemption. Single site deminimis reporting levels are being used starting this year for both energy and greenhouse gas emission reporting. Those single facility annual deminimis levels are 100 billion Btu for total energy use and 5000 tons total equivalent net CO2 emissions per individual greenhouse gas (CO2, CH4, N2O, HFCs, PFCs, SF6). If all of your company’s facilities are below the energy and GHG deminimis levels, and your company prefers not to complete the survey this year, indicate this response in the metrics website.

1. Confidentiality of submitted data.

The confidentiality of individual company responses will be rigorously safeguarded by American Chemistry Council (Council) staff. Council staff will review and if necessary verify submitted data. The data will then be entered in the Council’s confidential database. Individual company survey responses will be destroyed after one year. Individual company data will be retained by the Council in its confidential database for use in correlating and verifying data reported subsequently, and to assess survey respondent companies’ aggregate efficiency and emissions trends over time. Only the aggregated industry-wide data will be reported to Council members and used by the Council in its advocacy activities. This aggregated data is reported to the public at www.americanchemistry.com/rc, as an industry-wide performance measurement under the Responsible Care® program. When default conversion factors are changed, time-series aggregate performance will be corrected to use consistent conversion factors.

2. Frequency of survey.

This is an annual survey which will provide a running annual tabulation of energy consumption, CO2 and other greenhouse gas emissions and related output measures such as constant dollar value of sales and aggregate pounds of production. This will allow an evaluation of chemical industry performance trends in the areas of energy efficiency and greenhouse gas emissions.

3. Reasons for the survey

The business of chemistry is energy-intensive and the cost of purchasing energy and using it in compliance with laws and regulations is substantial for most companies. During the last few years high and volatile energy prices and tightness in U.S. energy markets adversely impacted many Council member companies. In addition, for more than a decade the issue of potential anthropogenic global climate change has been of intense interest to many government officials, scientists, environmental interest groups and citizens in the United States and abroad. Many policymakers continue to be interested in mandatory greenhouse gas emissions reduction measures which if not carefully crafted would adversely affect Council member companies' access to competitively-priced energy. The Council is conducting a high level effort to achieve reliable and affordable energy supplies, continued international competitiveness of the U.S. business of chemistry, and protection of the environment.

In 2002, the Council adopted specific performance metrics for the new Responsible Care® program. Energy efficiency and greenhouse gas emissions were among the adopted measures that are reported to the public as an indication of industry performance in these areas. Starting with the reporting of 2003 data, portions of this survey became mandatory for all members in order to provide the information necessary to track energy efficiency and greenhouse gas intensity. Our ability to demonstrate that Council members are voluntarily continuing to improve their energy efficiency, lower the carbon intensity of their NAICS 325 manufacturing, and reduce emissions of other greenhouse gases greatly strengthens our credibility in arguing for rational energy policies. Therefore, additional voluntary sections of this report will also be used to further the Council’s advocacy goals.
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APPENDIX C – Greenhouse Gas and Energy Efficiency Instructions

INSTRUCTIONS - AMERICAN CHEMISTRY COUNCIL ENERGY EFFICIENCY AND GREENHOUSE GAS EMISSIONS SURVEY

**Updated: January, 2015**
4. Survey distribution.
The survey is sent to the Executive Contact of each Council member company, and, for companies which responded to the previous year's survey, to each company's survey contact person for that year. In addition, the survey will be posted as a downloadable Excel spreadsheet, under the ‘Help’ section of the performance measures reporting site: http://metrics.responsiblecaretoolkit.com. It is also posted under the ‘Guidance’ section of ‘Metrics’ area at www.rctoolkit.com.

5. Data requested

The survey is designed to capture total energy use and greenhouse gas emissions by member companies each year, in NAICS 325, chemical manufacturing (formerly SIC 28, chemicals and allied products), in the United States. Purchased energy used as fuel, purchased steam, and purchased electricity, including both purchased non-feedstock and feedstock electricity, as well as fuels produced on-site, are to be reported on Part 2 (Sheet 1) with related fuel combustion CO2e emissions and indirect purchased electricity-associated CO2e emissions. **Beginning with 2014 reporting, purchased and on-feedstock electricity is reported as one number.** Total CO2 equivalent (CO2e) emissions are to be reported where factors are available. EPA GHG Mandatory Reporting Rule (40 CFR Part 98) default heating values and GHG emission factors for combustion sources (Table C-1 to Subpart C of Part 98) are used for energy and CO2 emission factors, and Table C-2 to Subpart C are used for CH4 and N2O emission factors for combustion sources. The default emission factors used in this survey are the composite of the CO2, CH4, and N2O emissions on a CO2e basis. All heating value and emission factors are updated to match the EPA revisions to 40 CFR Part 98 promulgated in the Federal Register on November 29, 2014 so that this ACC reporting is on the same basis as the mandatory EPA reporting. Emissions of other important greenhouse gases are to be reported on Part 3 (Sheet 2). Non-purchased electricity energy (i.e. fossil energy-based self-generation) used as feedstocks is not reported. Major facility or operational changes, and voluntary energy efficiency and greenhouse gas emissions reduction measures are tallied on Part 4 (Sheet 3); Part 4 information is optional; however, all members are strongly encouraged to complete Part 4 in order for ACC to explain indicated changes in performance on an aggregated basis.

6. Facility data to be reported.

Energy and GHG emissions and other data for sites or facilities that support ACC dues-based operations should be reported. For example, office or laboratory facilities that are over 50% supportive of non-NAICS 325 production are not reportable. Office or laboratory facilities that are over 50% in support of NAICS 325 production are reportable. Similarly, parts of single sites that are over 50% in support of non-NAICS 325 production are not reportable, however, if it is easier to keep all data together for the total site, that can be included in the reported data. The key is to be consistent in your company’s reporting method year to year.

7. Individual facility data should not be submitted

Member companies may find it useful to track their energy use on a site, plant, or product basis. For this Council survey, however, individual facility totals are neither necessary nor desired. **This survey requests aggregate information for the company** for NAICS 325 manufacturing in the United States. **We request that each company submit only one response.**

8. Reporting energy consumed at a site where products other than NAICS 325 products are also produced.

Where a plant or company's product mix is part NAICS 325 and part others, please allocate energy as appropriate. Company responders' judgments are acceptable. The critical aspect of this allocation is to be consistent year-to-year. Allocations made for the EIA MECS survey or for prior years' Council surveys may provide useful guidance.
9. **Exclusion of energy used in transportation of chemical products or feedstocks.**

The intent of the survey is to capture manufacturing sector energy use only, and not to include fleet transport energy.

10. **Exclusion of energy use, sales dollars, pounds of production, CO\(_2\) or other greenhouse gas emissions data from operations in Puerto Rico or other U.S. territories.**

The energy consumption data should include only that consumed in the 50 states, the sales dollars should include that derived from products produced in the 50 states (whether sold in the U.S. or exported), the total production should include products produced in the 50 states (whether sold in the U.S. or exported), and CO\(_2\) and other greenhouse gas emissions data should include only those emissions from sources located in the 50 states.

11. **Higher heating value**

The report will be based on the use of higher heating value for all fuels when converting to MM Btu/year.

12. **Data availability; judgment.**

ACC anticipates that data needed to respond to this survey will be readily available from company records. To minimize the burden of responding, estimates or judgments may be used where necessary to file a comprehensive report. Consistency in methodology from year to year is important in order to accurately monitor energy efficiency and greenhouse gas emissions trends.

13. **Energy conversion factors provided**

The survey form includes standard energy conversion factors to convert the physical units of energy to MM Btu. A default conversion factor of 10,000 Btu/kWh is used for purchased electricity to reflect typical electric utility efficiency and transmission losses. Where the actual fuel heating value is known to differ from the default standard conversion value listed on the survey form, indicate the appropriate alternate conversion factor in the space provided on the form and use the alternate factor in your calculations. Similarly, default standard CO\(_2\)e emission factors are given on the survey form. Again, if actual CO\(_2\)e emission rates as LB/MMBtu are known to differ from the standard values given, indicate the appropriate alternative factor on the form and use it in your calculations. EPA GHG Mandatory Reporting Rule factors are used in the ACC survey where applicable.

14. **Energy conversion factors to be provided by respondents**

Please note that in two cases on Part 2 ([Sheet 1](#)) (items 2h., Purchased Steam and 2i, Other Purchased) we are requesting respondents to provide the appropriate energy conversion and CO\(_2\)e emissions factors. If a more accurate figure is not available, the default steam energy conversion factor of 1200 Btu/lb steam may be used.

15. **NAICS classifications**

For your guidance, a copy of the NAICS (North American Industrial Classification System) codes for chemical manufacturing is given at the end of these instructions.
electricity use and associated indirect CO2 emissions. Electricity used for non-feedstock purposes should be listed on line 2a-1, while feedstock electricity (electrolysis processes) should be listed on line 2a-2. Self-generated electricity should not be listed anywhere, since it is generated from the fuels which will be listed either as purchased or on-site produced. This method will allow accounting for the fuel-to-electricity conversion process efficiency and allow for tabulation of total CO2 emissions. If the facility sells or exports electricity or steam, the quantity sold or exported should be subtracted from the amount of purchased electricity or steam in the appropriate row so that net consumption or utilization is reported. For this survey a conversion factor of 10,000 Btu/kWh is used to account for typical electric utility efficiency and transmission line losses. CO2 emissions attributable to purchased electricity will be calculated using a CO2 “output rate” which in turn is calculated from data contained in the latest “Annual Energy Review” of the Energy Information Administration. This CO2 output rate, expressed in LbCO2/MMBtu, appears on the survey form and is embedded in the Excel spreadsheet. In the event publication of a later edition of the “Annual Energy Review” occurs after this survey is distributed but before Council staff aggregate and analyze survey responses, staff will use the latest data to calculate a new output rate and will use that new rate in their compilation of survey results. Where the individual company has determined an overall equivalent CO2e emission rate per kWh or per MMBtu based on its determination of emissions from purchased electricity using EPA eGRID or other data, that conversion factor can be inserted into the response, or the total kWh and CO2e emissions can simply be provided.

1-6. Purchased steam
Purchased steam should be listed on Part 2 (Sheet 1). Do not list steam produced on-site from fuels that are themselves listed on Part 2 (Sheet 1). That would be double counting, as the fuel energy input has already been reported. Similarly, except as given in instruction 1-7 below, do not report steam produced on-site by process heat recovery (process stream cooling which generates steam). An example would be formaldehyde manufacturing, where steam is generated by process cooling and used elsewhere on-site. In many cases, the steam quantity is not metered so the quantity may not be readily available.

1-7. Process-generated steam
If steam is generated by the process and that steam is sold or transferred off-site by the reporting company to another company, the steam sold or transferred should be accounted for by the reporting company (the steam generator) as a negative value in the purchased steam row of Part 2 (Sheet 1). Similarly, if steam generated in a process by another company is purchased by the reporting company site by process heat recovery, that purchased steam should be reported by the reporting company (the purchaser) as a positive value on Part 2 (Sheet 1). No CO2e emissions should be reported on Sheet 1 for purchased steam generated in a process (that is, that portion of total purchased steam that is produced in a process).

1-8. Steam and electricity purchased from cogeneration (Combined Heat and Power-CHP) facilities should be reported as follows:
1.8. a Steam
Steam energy purchased from a cogeneration facility should be valued at the default standard 1200 Btu/LB unless an actual value is known; however, the 1200 Btu/LB figure includes consideration of typical boiler efficiency, so an actual known value should consider actual steam enthalpy rise and steam generator efficiency. For simplicity, any credit for increased overall efficiency with cogeneration would be applied to the net electrical heat rate rather than toward any steam credit. CO2e emissions associated with steam purchased from a cogeneration facility would be calculated based on the total Btu of that steam, calculated per the above, and applying the CO2e emission rate for the primary fuel being fired by the cogeneration facility, e.g., 207.3 LB/MMBtu for coal and 117.1 LB/MMBtu for natural gas.

1-8. b Electricity
Electricity purchased from a cogeneration facility should be valued at the default standard 10,000 Btu/kWh unless an actual value is known. The actual value would be the average net heat rate as Btu/kWh calculated by deducting the steam enthalpy value from the energy input, prior to dividing the net heat input by the net electricity output. In all cases, Higher Heating Value (HHV) of the fuel should be used.

Updated: January, 2015
16. Whom to contact for additional information about the survey

Contact Bryan Kuppe at the American Chemistry Council: telephone (202) 249-6188; e-mail: Bryan_Kuppe@americanchemistry.com

Part 2 (SHEET 1): SALES; PRODUCTION; PURCHASED ELECTRICITY & FUELS PLUS ON-SITE GENERATED FUELS

SALES

1-1. Reason for requesting the company sales dollar amount.
Reported aggregate energy use, \( \text{CO}_2 \text{e} \) and other greenhouse gas emissions will be compared to sales dollars, corrected for inflation, to assess aggregate trends and cross check with pounds of production. Member companies already report their "sales" to the Council, according to an agreed formula, for the purpose of calculating their Council dues. However, this information is confidential and Council staff working on this energy efficiency and greenhouse gas emissions survey do not have access to it. This is why we request that sales dollar value be reported on this survey, for all NAICS 325 products including exports, on a corporate total basis comparable to the energy use basis. Intra-company sales and transfers within and out of NAICS 325 should be included. (This should be similar to the method of shipments dollar accounting as reported in the Annual Survey of Manufactures (ASM) of the Census Bureau.)

POUNDS OF PRODUCTION

1-2. Reason for requesting data on "pounds of production"
The Council recognizes that measures such as the constant dollar value of sales, shipments or value-added all have weaknesses when used as the measure of output against which to compare energy input and greenhouse gas emissions. While pounds of production is not a perfect measure, it is useful as a measure of industry trends. To minimize the reporting burden on member companies, we are asking for a single, aggregate number for pounds of production. This will include pounds of all NAICS 325 products resulting from the energy consumption reported on the survey. This information can be assembled by summing individual sites' pounds of production totals to obtain an aggregate pounds of production total for the company. We recognize this may result in some double-counting because one site's output may be another site's input. Nevertheless, this method seems straightforward and if followed consistently will accurately indicate the trend in pounds of production over time. Furthermore, this method parallels in concept the Census Bureau's method for collecting data on company shipments. This method will be used for reporting our progress toward our greenhouse gas intensity commitment.

1-3. Include the value and quantity of exports respectively in the sales dollars and pounds of production reported.
The basic idea is to count all sales and production attributable to domestic manufacture, i.e. that which consumes the energy reported. Sales and production of products manufactured outside the United States, or manufactured outside the United States and imported into the United States, should not be included in the sales dollar total or the production total.

1-4. Estimated \( \text{CO}_2 \text{e} \) emission factors for typical on-site generated and other fuels which are burned as fuel.
A list of estimated emission factors appears at the end of these instructions for those cases where the correct factor is not known by the respondent but the fuel stream source is known.

PURCHASED NON FEEDSTOCK ENERGY & FEEDSTOCK ELECTRICITY

1-5. Purchased electricity (including feedstock electricity).
Purchased electricity used for heating or power plus purchased “feedstock” electricity used directly in the process (such as electrolysis) should be listed on Sheet 1. Total purchased electricity quantity is needed in order to quantify total
**1-8.c Alternative cogeneration allocation**

As an alternative to the method shown in 1-8.a and b if specific values are not known for a CHP unit, individual cogeneration unit energy and CO2e emissions can be distributed to steam output and electricity output based on design performance conditions of the specific cogeneration unit. A recommended method is the “CHP Efficiency Method” as provided in the WRI greenhouse Gas Protocol Initiative calculation tool *Allocation of Emissions from a Combined Heat and Power (CHP) Plant*, located at the following web site: [http://www.ghgprotocol.org/calculation-tools/all-tools](http://www.ghgprotocol.org/calculation-tools/all-tools)

However, if this method is used, at least the company submissions to ACC for the three years prior to the methodology change should be adjusted to the same basis so that performance trends can be maintained. If a new cogeneration facility comes on line, this alternative allocation method should be used upon startup unless specific data is known. As noted elsewhere, use of the same methodology year to year is critical to maintain an accurate performance trend.

**FUEL PRODUCED ON SITE**

**1-9. Reason for requesting data for on-site produced energy**

Council member companies are major users of on-site produced energy including combustible byproduct streams. The use of on-site produced energy displaces the purchase of direct fossil fuel energy. If only purchased non-feedstock energy and resultant CO2e emissions were reported, our industry’s energy efficiency would be overstated and our CO2e emissions understated. To correctly report and assess energy efficiency and CO2e emissions trends, on-site produced energy and its CO2e emissions must also be counted. Therefore, for this purpose, energy and CO2e data aggregated on Part 2 (*Sheet 1*) of the survey include both purchased and on-site produced energy, as indicated on Part 2 (*Sheet 1*) line 6.

**1-10. Energy sources to report**

Fuels produced on-site should include those produced in the process from feedstock energy inputs or non-energy inputs and which are combusted to produce heat and power, generate electricity, etc. The on-site fuels are to include those considered to be byproduct fuels, including byproduct gases, even if low Btu content or if mixed with other fuels. Low-value byproducts which are destroyed in flares or incinerators without heat recovery – that is, not used as fuels – result in combustion CO2e emissions which should be included as Process CO2 on Sheet 2 (item 7.a); the energy associated with those uses should not be reported. Low-value byproducts destroyed in incinerators with heat recovery should be reported on Part 2 (*Sheet 1*), item 4- Fuel Produced On-site; report energy and CO2 emissions. Appropriate energy conversion factors and CO2e emission factors should be used in the conversion calculations. For reference, a list of approximate conversion factors based on byproduct fuels generally available provided below.

**PART 3 (SHEET 2): EMISSIONS OF GREENHOUSE GASES OTHER THAN CO2 PRODUCED FROM COMBUSTION OF FUELS**

**2-1. Reason for requesting data on non-combustion CO2e greenhouse gases**

The 1992 U.N. Framework Convention on Climate Change (UNFCCC, also called “the Rio Convention”), resulted in an agreement that is in force and has been ratified by the U.S. That convention, ongoing international negotiations and domestic U.S. government initiatives are all directed to reducing greenhouse gas emissions, and those include consideration of the basket of six gases. In addition, the EPA GHG Mandatory Reporting Rule requires reporting of the six gases.
2-2. Rationale for the particular set of gases listed in the survey
The gases of particular domestic and international interest are carbon dioxide (CO₂, including CO₂ other than CO₂ produced from combustion of fuels), methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs) and sulfur hexafluoride (SF₆). These are the gases that are typically included in the GHG “basket of gases”.

2-3. Sources to report; exclusion of “de minimis” quantities
We want to follow a rule of reason. We would like members to provide reasonably available data regarding significant emissions sources. We are not interested in “de minimis” quantities. Therefore, there is a single facility deminimus emission level of 5000 Tons per year of CO₂ equivalent emissions, with no total company deminimus level. Individual site totals would be summed to provide a single net emission of the six gases on a CO₂ equivalent basis.

2-4. Reporting emissions of the manufactured gases (HFCs, PFCs and SF₆) already included in the company’s response to survey question 1b. (pounds of production)
Part 2 (Sheet 1) requests data on your company’s pounds of production, including pounds of these manufactured gases. Part 3 (Sheet 2) requests data on emissions of these gases, which DOES NOT include production. For example, fugitive emissions of HFCs from equipment would be reported on Part 3 (Sheet 2) if emissions of any listed HFC amount to 5000 tons or more in net CO₂ equivalent per single facility. The total value on Part 3 (Sheet 2) is the total of all company sites that each exceeds the 5000 ton net CO₂ equivalent emission level.

2-5. Converting emissions of gases other than CO₂ to CO₂ equivalents
The necessary conversion factors have been developed by the Intergovernmental Panel on Climate Change (IPCC). Greenhouse gases vary greatly in their power to trap the earth’s heat. They also vary greatly in the length of time they remain in the atmosphere. Taking both of these factors into account, the IPCC has developed “global warming potentials” for different “time horizons”. The “conversion factors” used in this survey are the IPCC global warming potentials for a 100 year time horizon resulting from the ICPP Fourth Assessment Report. Using these factors, for instance, a ton of methane emitted would be equivalent to 25 tons of CO₂. A ton of SF₆ emitted is equivalent to 22,800 tons of CO₂. The factors used in this survey are the IPCC AR4 factors, which are currently used by the US EPA (78 Fed. Reg. 71904, November 29, 2014) and for individual country reporting. As factors are revised in the future by the IPCC and generally accepted for reporting purposes, they will be incorporated into this survey at the appropriate time.

2-6. Sinks; “removal by sinks”
The terms “sinks” and “sequestration” are used loosely to refer to actions and/or processes which remove greenhouse gases from the atmosphere and store them elsewhere. The most common example in the case of CO₂ is the function performed by growing trees. The trees remove the gas from the atmosphere (sequester it) and store it as part of the living organism above and below ground. The tree is the sink. Following the tree’s death, the CO₂ may continue to be sequestered for many years in remaining sinks such as lumber, other wood products or mass on the forest floor. Other types of sequestration activities (e.g., geologic) should also be included in Part 3 (Sheet 2), item 11.

2-7. Rationale for requesting information on greenhouse gas “removal by sinks”
Removal of greenhouse gases by sinks reduces net emissions and slows the increase in atmospheric concentrations of greenhouse gases. Potential means of removal of particular interest at this time include three types of direct, human-induced land use change and forestry activities: afforestation, reforestation and deforestation which have taken place since 1990. Other types of sequestration should also be reported. While guidelines have not been established for sinks, information on these activities could prove valuable when quantifying voluntary chemical industry activities.
NAICS CODES – NAICS 325 – CHEMICAL MANUFACTURING

325  Chemical Manufacturing
3251  Basic Chemical Manufacturing
32511  Petrochemical Manufacturing
32512  Industrial Gas Manufacturing
32513  Synthetic Dye and Pigment Manufacturing
325131  Inorganic Dye and Pigment Manufacturing
325132  Synthetic Organic Dye and Pigment Manufacturing
32518  Other Basic Inorganic Chemical Manufacturing
325181  Alkalies and Chlorine Manufacturing
325182  Carbon Black Manufacturing
325188  All Other Basic Inorganic Chemical Manufacturing
32519  Other Basic Organic Chemical Manufacturing
325191  Gum and Wood Chemical Manufacturing
325192  Cyclic Crude and Intermediate Manufacturing
325193  Ethyl Alcohol Manufacturing
325199  All Other Basic Organic Chemical Manufacturing
3252  Resin, Synthetic Rubber, and Artificial and Synthetic Fibers and Filaments Manufacturing
32521  Resin and Synthetic Rubber Manufacturing
325211  Plastics Material and Resin Manufacturing
325212  Synthetic Rubber Manufacturing
32522  Artificial and Synthetic Fibers and Filaments Manufacturing
325221  Cellulosic Organic Fiber Manufacturing
325222  Noncellulosic Organic Fiber Manufacturing
3253  Pesticide, Fertilizer, and Other Agricultural Chemical Manufacturing
32531  Fertilizer Manufacturing
325311  Nitrogenous Fertilizer Manufacturing
325312  Phosphatic Fertilizer Manufacturing
325314  Fertilizer (Mixing Only) Manufacturing
32532  Pesticide and Other Agricultural Chemical Manufacturing
3254  Pharmaceutical and Medicine Manufacturing
32541  Pharmaceutical and Medicine Manufacturing
325411  Medicinal and Botanical Manufacturing
325412  Pharmaceutical Preparation Manufacturing
325413  In-Vitro Diagnostic Substance Manufacturing
325414  Biological Product (except Diagnostic) Manufacturing
3255  Paint, Coating, and Adhesive Manufacturing
32551  Paint and Coating Manufacturing
32552  Adhesive Manufacturing
3256  Soap, Cleaning Compound, and Toilet Preparation Manufacturing
32561  Soap and Cleaning Compound Manufacturing
325611  Soap and Other Detergent Manufacturing
325612  Polish and Other Sanitation Good Manufacturing
325613  Surface Active Agent Manufacturing
32562  Toilet Preparation Manufacturing
3259  Other Chemical Product and Preparation Manufacturing
32591  Printing Ink Manufacturing
32592  Explosives Manufacturing
32599  All Other Chemical Product and Preparation Manufacturing
325991  Custom Compounding of Purchased Resins
325992  Photographic Film, Paper, Plate, and Chemical Manufacturing
325998  All Other Miscellaneous Chemical Product and Preparation Manufacturing
2-8. Use of this data on greenhouse gases
As always, the confidentiality of individual company data will be rigorously safeguarded by Council staff. Only aggregate data will be compiled and included in the annual report of the survey or any summary document and in the overall Responsible Care metrics. We will be measuring our performance by tracking over time our “greenhouse gas intensity.” This will be expressed as the ratio of ACC member aggregated greenhouse gas emissions to aggregate production (pounds net CO2 equivalent emitted per pound of production).

2-9. Completing Part 3 (Sheet 2)
On Part 3 (Sheet 2), data on emissions (not production quantities) of specified greenhouse gases are requested. For the chemical industry as a whole, combustion CO₂ is overwhelmingly the most important greenhouse gas. However, the quantity of the other gases emitted is significant for the industry, and emissions of some gases can be important for some individual companies. Respondents should review their respective company’s operations, identify sources (if any) of emissions of the various gases, and assemble the relevant data. Don’t forget the “de minimis” exclusion of small quantities (instruction 2-3 above).

Enter the respective quantity of any listed greenhouse gas, in tons, in the left hand column of the appropriate line (7.a. through 7.f.). Convert those tons to CO₂ equivalent tons using the conversion factors given on the form, and enter the results in the right hand column of the respective line. Total the entries in the right hand column of lines 7.a. through 7.f. and enter this total in the right hand column of line 8. From Part 2 (Sheet 1), line 6, carry forward to Part 3 (Sheet 2) the total tons of combustion CO₂ emissions from nonfeedstock energy and purchased electricity and enter this number in the right hand column of line 9. Add the entries in lines 8 and 9 to obtain the company’s grand total of the specified greenhouse gases expressed in equivalent tons of CO₂. Enter this result on line 10. (For those respondents using the spreadsheet in electronic form, Excel will perform all of the above calculations after entry of the physical quantity of each gas.)

Enter on line 11 any net data regarding your company’s removal of greenhouse gases by sinks. Report annual equivalent tons of CO₂ removed by land use/forestry activities or other sequestration activities instituted since 1990. Determine your Net Total Emissions Less Removals By Sinks by summing lines 10 and 11 and enter the result on line 12.

PART 4 (SHEET 3): MAJOR CHANGES; VOLUNTARY PROGRAMS (this sheet is optional; however, ACC strongly encourages members to provide this information to help explain shifts in ACC member aggregated performance.)

3-1. Major Changes
On Part 4 (Sheet 3), please list any major facility or operational changes during the reporting year which substantially affected your company's energy consumption, energy efficiency and/or greenhouse gas emissions. This information is very helpful in assessing the factors underlying year-to-year trends.

3-2. Participation in Voluntary Programs
Please also indicate on Part 4 (Sheet 3) the extent of your company's activity in the areas listed.

Questions? If you have any questions or believe you need to report additional items, please contact Bryan Kuppe at the American Chemistry Council: telephone 202.249.6188; e-mail: Bryan_Kuppe@americanchemistry.com
### ALTERNATIVE ESTIMATED CO$_2$e EMISSION FACTORS

<table>
<thead>
<tr>
<th>FUEL TYPE</th>
<th>CO$_2$e EMISSION FACTOR, LB/MMBTU</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acetylene</td>
<td>158</td>
</tr>
<tr>
<td>Ethanol</td>
<td>151 (includes CH4, N2O)</td>
</tr>
<tr>
<td>Coal Tar Oil</td>
<td>260</td>
</tr>
<tr>
<td>Coke Oven Gas</td>
<td>103 (includes CH4, N2O)</td>
</tr>
<tr>
<td>Methanol</td>
<td>142</td>
</tr>
<tr>
<td>Municipal Solid Waste (MSW)</td>
<td>203 (includes CH4, N2O)</td>
</tr>
<tr>
<td>Phenol Residue</td>
<td>162</td>
</tr>
<tr>
<td>Propane</td>
<td>136</td>
</tr>
<tr>
<td>Refuse Derived Fuel (RDF)</td>
<td>231</td>
</tr>
<tr>
<td>Toluene</td>
<td>179</td>
</tr>
<tr>
<td>Wood</td>
<td>211 (includes CH4, N2O)</td>
</tr>
</tbody>
</table>

(Note: CO$_2$e from emissions of CH4 and N2O during combustion are included above as noted where provided in the EPA Mandatory Reporting Rule).

### SELECTED BTU CONTENT

<table>
<thead>
<tr>
<th>FUEL</th>
<th>BTU/UNIT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coal Tar Oil</td>
<td>145,000 /gal</td>
</tr>
<tr>
<td>Coke Oven Tar</td>
<td>34.68 MM / ton</td>
</tr>
<tr>
<td>Phenol Residue</td>
<td>160,000 /gal</td>
</tr>
</tbody>
</table>
January 15, 2015

Sustainability Accounting Standards Board®
75 Broadway
Suite 202
San Francisco, CA 94111

Dear Sustainability Accounting Standards Board,

The American Chemistry Council (ACC) appreciates the opportunity to comment on the Sustainability Accounting Standards Board’s (SASB) draft standard in the Resource Transformation Sector for Chemicals. ACC’s comments urge SASB to make adjustments to the draft standard to address issues of materiality, relevance, decision-usefulness for the mainstream investor, technical deficiencies with certain metrics and associated definitions, and in some cases extraordinary financial burden associated with the proposed reporting.

ACC values a strong working relationship with SASB and appreciates the efforts made by staff to inform ACC and its members throughout the draft standard development process. With that in mind, we are concerned that several important issues are not adequately addressed in the draft standard and revisions should be incorporated prior to releasing the provisional draft. ACC members would also like to take this opportunity to outline a number of concerns related to SASB’s process to develop this draft chemical standard. There has been a lack of transparency in the decision-making process regarding which comments to incorporate, and it appears that very little of our feedback in the earlier stages has been incorporated into this draft standard. It would be appreciated if SASB would provide more information to stakeholders regarding these processes and decisions.

There is considerable overlap between this draft standard and current industry practices already implemented by the chemical industry’s Responsible Care® program. Failure to recognize the overlap and to harmonize the two will create needless, burdensome and expensive reporting obligations. As background, Responsible Care is the chemical industry’s commitment to enhance performance, improve employee health and safety, the health of the communities in which they operate and the environment as a whole. Since 1988, when the initiative launched in the US, our industry has made dramatic performance improvements and public reporting demonstrates our commitment to sustainability, transparency and systems to produce continual improvement. Today, Responsible Care is practiced in over 60 economies worldwide through the International Council of Chemical Associations¹ and is noted as the premier example in the world of industry aligning under one performance program. One of the eight Fundamental Features of Responsible Care is public reporting of performance; both trade associations and member companies alike report above and beyond regulatory standards as a cornerstone feature of the program, and have developed reporting standards in areas such as process safety, where no existing protocols, regulatory or otherwise, exist. Globally, chemical industry associations whose members practice Responsible Care report member data that shows considerable improvements in environment, health and safety performance². In the United States, ACC member companies operate nearly six times safer than the average of the U.S. manufacturing sector, and three times as safe as the business of chemistry overall, and we voluntarily disclose both company-specific and aggregate industry performance results across a

range of environment, health and safety indicators\(^3\). The chemical industry, under Responsible Care, operates what is widely viewed as the broadest, most robust and successful voluntary industry performance reporting program. Indeed, 53% of ACC’s members that implement Responsible Care report to the US Securities and Exchange Commission (SEC). We urge SASB to leverage this commonality to fully align with industry standards such as Responsible Care to minimize financial burden on reporting companies as well as strengthen the materiality of information collected.

The chemical industry has embarked on a long-term and successful journey with voluntary reporting standards. We support such voluntary mechanisms to share performance data with interested stakeholders. However, establishing a robust performance reporting program has taken decades of investment and significant sector-specific expertise. Given the complex and serious nature of this reporting, ACC believes that if the SEC were to adopt sustainability standards reporting, those standards must be set through a transparent process that provides an opportunity for broad stakeholder input and that fully accounts for materiality, relevance, decision-usefulness and cost-effectiveness. We believe that the SASB process is inadequate in these areas. Further, as SASB states in the draft standard introduction, ACC agrees that each company is ultimately responsible for determining which information is material to its company and operations, and thus which information should be included in any reporting, voluntary or mandatory. Materiality is not “one size that fits all”.

SASB, while seeking to apply its reporting globally, takes a US-centric approach to issues and related definitions of some metrics in its draft reporting standard. If SASB seeks to apply its standards globally, ACC believes that the ability to report for worldwide operations is critically important. Where broadly used global reporting standards exist (e.g. GHG), SASB should leverage these protocols. Where such global definitions do not exist, SASB should allow flexibility for regional requirements and definitions until such globally harmonized approaches are developed; until that time, SASB should not arbitrarily require use of US reporting criteria and definitions on a global scale.

Additionally, there are a number of metrics within the draft standard that are unsubstantiated, implicate disclosure of Confidential Business Information (CBI), and/or create incomparable data points. ACC urges SASB to reconsider these draft metrics. Our detailed comments elaborate on these issues and identify suggestions for improvement. We look forward to SASB’s consideration of the substantive and constructive comments that follow.

\(^3\) American Chemistry Council, 2014 - http://responsiblecare.americanchemistry.com/Performance-Results
Detailed Comments

1. Greenhouse Gas Emissions (GHG)
   a. RT0101-01. Gross global Scope 1 emissions, percentage covered under regulatory program.

   ACC recommends modification to the draft metric to improve materiality and comparability of the reported data.

   There are several existing protocols that the chemical industry, and Responsible Care® companies in particular, use to report carbon emissions. The proposed metric should be further aligned with these protocols, and adjusted for additional comparability and ease of reporting. Protocols with which the proposed metric should be further aligned include the ACC Responsible Care GHG emissions reporting guidance, and the Environmental Protection Agency’s (EPA) Greenhouse Gas Reporting Program (GHGRP). The second part of the proposed metric referencing regulatory coverage should be withdrawn.

   • SASB should expand reporting to include Scope 2 emissions, consistent with EPA’s GHGRP. SASB’s inclusion of only Scope 1 emissions limits comparability between companies by failing to distinguish between a company who may purchase most of its energy and another who generates energy on site. Additionally, by including only Scope 1 emissions certain companies in this sector, such as compressed gas companies, would be divulging CBI. Inclusion of Scope 2 emissions would alleviate this issue, while allowing for greater comparability between reporting companies.

   • SASB should exclude emission data from mobile sources from this draft metric, as it is not included in the scope of Responsible Care or EPA’s GHGRP (Subpart C). Currently, most ACC member companies are not required to track GHG emissions from mobile sources. In addition, these sources are generally minor in terms of scope given this industry’s stationary operations. The inclusion of mobile sources in this reporting will add extraordinary financial burden with little to no actionable data produced.

   • SASB should include a definition for the facilities expected to be covered by this reporting. Currently, the draft metric references production facilities, offices and mobile sources, but does not address R&D centers, distribution centers, laboratories, etc. Clarity should be provided at a minimum, and ACC recommends establishing deminimis reporting levels to exclude very small operations and office buildings. ACC recommends the deminimis levels included in its Responsible Care reporting guidelines of 5,000 tons total equivalent net CO2 emission per individual greenhouse gas, or the equivalent of a typical package boiler used in the manufacturing setting.

   • Requiring disclosure of percentage of Scope 1 emissions covered under a regulatory program is immaterial and ACC recommends its removal from this metric.

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4 ACC’s Greenhouse Gas Reporting Guidance – The guidance will be submitted to SASB staff, as it is not available publically.
b. RT0101-02. Description of long-term and short-term strategy or plan to manage Scope 1 emissions, emissions reduction targets, and an analysis of performance against those targets

ACC recommends this draft metric be modified to focus on assessing risks and opportunities associated with carbon emissions, as well as performance improvement over time.

ACC has concerns over comparability of information submitted under this draft metric, as well as possible disclosure of CBI. Greater alignment with the Responsible Care management systems and reporting in assessing and managing risks as well as driving continuous performance improvements would leverage activities and reporting under an existing standard.

- Responsible Care requires participating companies to assess and managing environmental, health, safety and security risks. ACC suggests that this metric should be modified as “Description of systems to assess and manage risks and opportunities associated with carbon emissions.”
- Additionally, SASB’s metric should focus on emissions reduction over time rather than the analysis of performance against targets. Normalization in reporting to account for acquisitions and divestitures would be particularly important in this area. ACC suggests that SASB modify this part of the metric to read “emissions reductions achieved over a rolling 5-year timeframe.”

2. Energy Management
   c. RT0101-03. Total energy consumed, percentage grid electricity, percentage renewable

ACC recommends modification to the draft metric to increase materiality and comparability of the reported data.

There are several existing protocols that the chemical industry, and Responsible Care® companies in particular, use to report energy consumption. The draft metric should be further aligned with these protocols and adjusted for additional comparability and ease of reporting. SASB should be further aligned to include the ACC Responsible Care energy consumption reporting guidance.

- As with the GHG emissions metric, ACC recommends instating a deminimus value for reporting in line with industry standards of 100 billion Btu for total energy use, or the equivalent of a typical package boiler used in the manufacturing setting.
- ACC requests clarification on the materiality of percent grid electricity reporting as a separate metric rather than simply considering purchased and non-purchased energy together. Many chemical facilities produce power onsite through combined heat and power units and their treatment within this metric is not obvious. Some credit for this efficient technology should be given.
- ACC should exclude emission data from mobile sources from this draft metric. These sources are generally minor in terms of scope given this industry’s stationary operations. The inclusion of mobile sources in this reporting will add extraordinary financial burden to reporting with little to no actionable data produced.
- Inclusion of renewable energy sources may falsely depict a sense of “greenness” by failing to account for full lifecycle impacts. Lifecycle assessments have shown that
manufacturing from renewable resources can be done in both environmentally advantaged and disadvantaged ways. This metric shows bias that renewables are superior without consideration of sustainability impacts. We also question whether a mainstream investor is interested in this data, and if so, would not the investor also be interested in any associated cost premium paid for the renewable energy. ACC notes that SASB should particularly exclude the use of renewable certificates, where the certificate – as opposed to actual renewable energy - is used as an offset.

3. Air Quality

a. RT0101-04. Air emissions for the following pollutants: NOx (excluding N2O), SOx, and volatile organic compounds (VOCs)

ACC recommends modification to the draft metric to increase materiality and comparability of the reported data.

SASB should align with Responsible Care industry reporting standards that define reportable emissions as those tracked under regional operating permits, such as US EPA Title V permit reporting under the Clean Air Act⁶. It should also allow for reporting of VOCs as defined by local authorities globally.

- Many companies track SOx, NOx and VOC emissions only under permit requirements within specific production units. The draft metric implies that all emissions must be calculated and reported. Installing monitoring devices to accurately report emissions across all sources would require significant capital expenditures and in some cases is technologically infeasible. This investment would generate small scale data that is not decision-useful to investors. To make reporting manageable and financially viable, Responsible Care reporting guidelines for air emissions specify that companies report on substances consistent with their local permit requirements, such that no new reporting is triggered. SASB should align this draft metric with these reporting requirements allowing companies to report for those operations required to track emissions under local permitting requirements to reduce additional financial burden brought on by this draft metric.

- ACC urges SASB to adopt the following language to clarify that SOx and NOx reporting be limited to emissions required to be tracked/reported under local permitting obligations: “Reporting of VOCs, NOx and SOx shall be limited to those sources within facilities that would otherwise be required to prepare and submit annual emissions inventory as per their respective permitting / regulatory requirements. Although state reporting requirements for emissions vary in terms of scope (e.g. some regions require SOx reporting while others require only SO2), ACC’s reporting defers to the regional reporting requirement.”

- Due to the variance of VOC definitions globally, ACC strongly urges SASB to include a broad definition of VOCs that allows for regional differences in criteria. It is not appropriate for SASB to push a US-centric definition globally, nor to attempt to facilitate global reporting protocols. Applying US VOC definitions is not currently executed by companies and would require new analysis and tracking systems.

⁶ US EPA Clean Air Act, Title V - [http://www.epa.gov/air/caa/title5.html](http://www.epa.gov/air/caa/title5.html)
b. RT0101-05. Number of production facilities in or near areas of dense population

ACC recommends this draft metric be modified to include a qualitative description of company prioritization and management of overall operational risk. We believe this revised metric is best captured in the “Operational Safety, Emergency Management and Response” section.

Proximity of facilities to areas of dense population is just one factor that can be used to communicate overall operational risk. ACC believes this draft metric is an incomplete accounting of operational risk and is arbitrarily placed in the “Air Quality” section. Certainly proximity to dense populations could also be a factor in looking at water quality and waste issues as well. Therefore, ACC suggests that the metric be recast in the “Operational Safety, Emergency Management and Response” section.

- ACC’s alternative proposal is “A description of the company’s prioritization of operational risks and mitigation measures being taken or planned.” This would allow for consideration of issues such as facility citing in relation to natural resources and dense populations, process risks at facilities, transportation routes for key products, layers of risk mitigation, operational controls, etc.

4. Water Management

a. RT0101-06. Total water withdrawn, percentage recycled, percentage in regions with High or Extremely High Baseline Water Stress

ACC recommends modification to the draft metric to increase materiality and comparability of the reported data.

This draft metric requires companies to report both water withdrawn and water recycled rather than allowing for companies to report ‘net water consumption’ which ACC asserts is a better measure of performance. ‘Net’ water consumption is more environmentally relevant and consistent with ACC’s Responsible Care Net Water Consumption metric, which allows companies to take credit for water returned to its original source. The first two reporting terms should therefore be combined. The third reporting term of percentage of water in high water stress regions may have the effect of establishing a single tool (WRI Aqueduct) and its underlying database as the standard for defining water stress, though no consensus on this point currently exists, and doing so may invalidate other useful third-party tools that companies currently use. Experience shows that the Aqueduct tool, like other global tools, is a useful risk tool for management but a potentially misleading performance metric for shareholders, as it may provide a far different result from actual site conditions obtained in a more granular local water analysis. Moreover, results can depend sensitively on boundary definitions, and may not be comparable across industries (different results may be obtained for different industry-specific weighting schemes). A reporting metric in this area will be burdensome for some organizations and does not take into account whether or not the organization is taking water from the stressed source.

- SASB should adopt a ‘net water consumption’ metric, which is the appropriate joining of its first two proposed metrics.
- Reporting ‘percentage in regions with High or Extremely High Baseline Water Stress’ makes use of the World Resources Institute’s Aqueduct tool, but the definitions of ‘water stressed’ are not standardized. In addition, the Aqueduct tool uses complex indicators which may not take into account that companies could be
located in a high stress environment, yet draw water from a non-stressed location. ACC also notes that a number of smaller and medium-sized companies currently do not use the Aqueduct Tool and mandated use may place extraordinary financial burden on these companies. Therefore, ACC urges SASB to include in this metric, an allowance that companies be permitted to analyze water stress using the tool of their choice as an advanced reporting option.

b. RT0101-07. Number of incidents of non-compliance with water-quality permits, standards, and regulations

ACC recommends withdrawal or modification of this draft metric.

Non-compliance in this area seems out of balance with other impact areas, as it is the only metric of its type in the SASB draft. As such, it is unclear why SASB chose to apply this type of metric only in the water area. As an indirect measure of performance, ACC believes it does not provide investors decision-useful information as the magnitude of violations could differ wildly. In addition, the inclusion of violations against voluntary standards is inappropriate and discourages companies from going beyond basic regulatory compliance and participating in such programs.

- SASB should withdraw this draft metric as it is an indirect measure, leading to information that will not be decision-useful to investors. Of particular concern is that since violations in one region could be compliance in another region, reported figures could be disproportionate based on geography making the data incomparable. Additionally, since there is no global compliance standard by which companies are held to account, and violations will range from major to minor, comparisons company to company will be nearly impossible.
- If SASB moves forward with this metric, non-compliance in voluntary programs must absolutely be eliminated from reporting.

5. Hazardous Materials Management

a. RT0101-08. Amount of hazardous waste, percentage recycled

ACC recommends disaggregating the two data points proposed in this metric and further modifying the language to address definitional issues with ‘hazardous waste’ and to clarify the focus of reporting.

Currently, SASB defines ‘hazardous waste’ using USEPA definitions, which are inadequate for addressing this impact area globally where significantly different waste definitions apply regionally. The definition of hazardous waste should be more flexible to account for varying definitions that currently exist globally and allow local definitions to dictate the categorization of hazardous waste.

In the US, there are strict regulatory requirements that in most cases do not allow the “recycling” of hazardous waste. Further, the SASB guide uses the terms “waste” and “material” interchangeably, which is technically inaccurate and impossible for would-be reporters to interpret. Therefore, the “percentage recycled” portion of the metric is irrelevant as written and should be re-cast as a separate measure, to include a more expansive look at hazardous materials recycling, which seems more consistent with the impact category identified by SASB. In addition, ACC calls SASB’s attention to EPA’s recent release of its
new final solid waste rule\(^7\), clarifying many of these definitional issues raised by the SASB proposal.

- SASB should include an “Amount of hazardous waste” measure, deferring in the reporting instructions to local and regional definitions to ease workability and global application for companies.
- SASB should establish a second metric of “Percent of hazardous materials recycled” which is more fully aligned with the impact area and allows more meaningful reporting to investors. While reporting of materials reuse and recycling may be important, this cannot be tied to hazardous waste, which in many cases, cannot be recycled according to US law. A good definition of “hazardous material” and “recycled” would be needed for reporters to be able to give appropriate data on this metric.

b. RT0101-09. Number and aggregate quantity of reportable releases and spills, quantity recovered

**ACC recommends withdrawal of this draft metric.**

This metric is redundant with SASB’s draft Operational Safety Metric for process safety incidents, creating overlapping reporting. Counting releases here and additionally collecting process safety incidents could lead to a ‘doubling’ effect when looking for total incidents incurred by a company. While the operational safety metric also includes incidents involving injuries and fires, the vast majority of ACC member company process safety incidents are releases and spills. In fact, over the past 5 years, 83% of ACC member company process safety incidents were releases and spills. The process safety metric uses the amount of material released in a one-hour period threshold to determine whether reporting is triggered and the severity of the incident. These are the type of incidents of most interest to investors. In addition, the reporting basis is US-centric using Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)\(^8\) threshold quantities and cannot be applied globally without significant investment in new systems and processes.

- The metric will capture incidents already reported in other draft metrics, including the Operational Process Safety and Distribution metrics.
- In addition, the CERCLA table is devised for operations in the US, while there are several other such ‘lists’ commonly used by other countries, such as the Globally Harmonized System of Classification and Labeling of Chemicals (GHS)\(^9\). These two lists, for example, vary on the reportable quantity for a substance and it would be difficult for one company to apply the CERCLA table to operations outside of the US where they are currently using GHS. There would be an extraordinary financial burden placed on global companies expected to reclassify and handle hazardous material releases under a single definition.

### 6. Employee Health and Safety

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\(^8\) The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), 1980 - [http://www.epa.gov/superfund/about.htm](http://www.epa.gov/superfund/about.htm)

\(^9\) Globally Harmonized System of Classification and Labeling of Chemicals (GHS) - [https://www.osha.gov/dsg/hazcom/ghs.html](https://www.osha.gov/dsg/hazcom/ghs.html)
a. **RT0101-10. (1)Total Recordable injury rate and (2) fatality rate for (a) full time employees and (b) contract employees**

ACC supports this draft metric but requests clarification on definition of ‘contractor’.

Collecting the Total Recordable Injury Rate (TRIR) and fatality information has been a long standing commitment in the chemical industry. ACC member companies have been publically reporting these data points for many years. Responsible Care companies have reduced their TRIR by 80 percent since 1990 for employees\(^\text{10}\). ACC Responsible Care companies voluntarily report contractor safety rates independently of employee data, consistent with the proposed SASB metric. However, ACC reporting guidelines include definitions of individuals to be classified as contractors and some additional guidance is also required in the SASB standard.

- SASB should consider allowances for global companies to loosely translate their occupational injury and illness data to US standards, based on regional reporting requirements.
- ACC’s reporting guidelines align with OSHA reporting standards, requiring that companies with fewer than 10 employees are not required to report data. SASB should align with OSHA in this regard and allow for a *deminimis* reporting level.

\(^{10}\) American Chemistry Council, 2014 Responsible Care Fact - [http://responsiblecare.americanchemistry.com/Performance-Results/Safety](http://responsiblecare.americanchemistry.com/Performance-Results/Safety)

b. **RT0101-11. Discussion of efforts to assess, monitor, and reduce exposure of employees and contract workers to long-term (chronic) health risks**

ACC requests further clarification on reporting expectations with regard to this draft metric.

While no industry reporting standard exists, ACC Responsible Care companies must have a strategy for improving environment, health, safety and security performance, and must track their performance against internal goals. However, given the current description of this metric, it is unclear the level of specificity being requested and whether additional activities or testing/monitoring would be required.

- More information is needed in this area to determine the level of detail requested and the format for the data. For example, participating companies could discuss that risks have been assessed or that there are currently efforts to further monitor workplace exposure and develop risk management programs.
- Likewise, many companies have robust systems to reduce workplace exposure to manage long term health risks. However, these programs are highly variable company to company and therefore the comparability of the reported qualitative information would be very difficult to the subjective observer and require the reader to be well versed in the standard operations of a chemical company.
- Without addition clarification regarding detailed reporting expectations, the comparability of reporting for this draft metric may undermine the value.
- ACC suggests the following clarifying statements be incorporated in the text supporting the metric reporting: “Organizations can provide information regarding their systems to identify, evaluate and manage chronic health risks to employees and contract workers. Organizations can also report any third party certifications they have achieved (e.g. RCMS\(^8\) or RC14001\(^8\)) that verifies implementation of these systems.”
7. Product Lifecycle Management & Innovation

The chemical industry is a significant contributor to solving the world’s sustainability challenges. From fertilizers and pesticides improving crop yields to disinfection chemistry to light-weighting of vehicles for added fuel efficiency, chemical companies invest in and develop technologies that contribute to enhanced environmental, safety, health, security, quality of life and sustainability of the planet. Chemical water filtration and disinfection systems have helped eradicate waterborne diseases and epidemics. A recent study by McKinsey indicates that for every ton of CO2 emitted by the chemical industry, its products and technologies enable 2-3 tons of CO2 savings. Chemical products such as insulation and silicone weather proofing save energy and reduce carbon emissions. The chemical industry contributes to alleviating world hunger through advances in seeds, crop protection and food stabilizers, leading to better application, higher crop yields, lower prices and more abundant food sources. Chemistry represents 30% of the value of materials used in agriculture production. Chemistry contributes to 10% of the value of a computer; 15% of the value of consumer electronics; 33% of the value of semiconductors; and 34% of photographic equipment, enhancing flow of information and transparency of data. ACC urges SASB to consider these contributions and modify this suite of metrics to allow for companies to showcase their performance in these critical areas. The metrics in their current form do not allow for this reporting.

ACC recommends significant changes to this suite of SASB draft metrics. A summary of the recommendations is as follows:

- RT0101-012 and RT0101-016 should be combined into one metric that allows companies to articulate qualitatively, their products’ sustainability impacts across their lifecycles.
- RT0101-013 should be re-cast as a qualitative metric describing a company’s management approach to minimization product risks across their lifecycles.
- RT0101-014 should be withdrawn
- RT-0101-015 should be withdrawn

a. RT0101-012. Percentage of raw materials from renewable resources and RT0101-016. Total addressable market and share of market for Green Chemistry-based products

ACC recommends re-development of this metric to allow for qualitative reporting of a company’s product sustainability impact across their lifecycles.

Each of the originally proposed metrics aims for positive reporting of reduced sustainability impacts from a reporting company’s products. This approach would be strengthened and more technically sound if it were broadened to allow for companies to articulate their products sustainability impacts across their lifecycles in areas beyond renewables and green chemistry.

As stand-alone measurements, there are serious flaws in the two metrics as proposed. First, with regard to the renewables metric, this proposed approach assumes renewables are superior without the consideration of sustainability impacts throughout the entire lifecycle of a product. In many cases, renewables may perform more poorly across its lifecycle despite the implication from this metric that more renewables is inherently superior. In addition, reporting a percentage of raw materials from renewable resources...
requires companies to track all raw material transactions by weight, an exercise generally not undertaken in companies today, and then trace those raw materials – many of which have been passed through multiple marketplace transactions since the origins of the product. Technically, this approach is infeasible today. A broadened approach would allow full qualitative accounting of the lifecycle impacts of companies’ products beyond the simple initial extraction/production process.

Second, the “green chemistry” metric not only contains fundamental definitional flaws, it also creates potential anti-trust implications that may inadvertently result as a product of market forecasting. “Green chemistry-based products” lacks clear definition and the framework for determination provided in the draft metric excludes considerations that exist in other green chemistry definitions. The proposed metric definition, if used, should be further aligned with the American Chemistry Society’s 12 Principles of Green Chemistry\textsuperscript{11}. ACC’s proposed alternative qualitative approach would allow companies to explain their product sustainability impacts overall, inclusive of use of green chemistry in its products.

- SASB should adopt a metric that combines concepts in the proposed RT-0101-012 and RT-0101-016, yet allows for companies to provide qualitative information about its products’ sustainability impacts.
- Mainstream investors would most surely be interested in an approach that allows companies to showcase breakthrough technologies and opportunities for opening new markets to the organization through products that contribute to sustainability challenges. This approach would allow for such reporting, while the SASB proposal would not.
- The ACC proposed alternative approach is as follows: “Discussion of product sustainability impacts across their lifecycles, including for example, product sourcing, use of green chemistry as defined by the ACS 12 Principles of Green Chemistry, carbon emissions, energy use, water use, land use and food supply, health effects, availability of clean water, product durability and end of life.

b. RT0101-013. Percentage of products by revenue that qualify as (a) Registration, Evaluation, Authorization and Restriction of Chemical (REACH) substances of very high concern (SVHC) and/or (b) Class I World Health Organization (WHO): Acute Toxicity Hazard Categories

ACC recommends modification to the draft metric to increase materiality and comparability of the reported data.

ACC has concerns over the technical workability and exclusion of proper scientific assessment within this draft metric. From a technical standpoint, for example, there are mismatches between the endpoints of focus in the two referenced lists and no reference criteria for PBTs/CMRs. Furthermore, there is no ability to apply the definition to mixtures, which become more prevalent the further one travels along the chemicals supply chain. ACC believes this draft metric is a misuse of the referenced regulatory lists and advises SASB leverage approaches to this impact area in other industry and SASB standards. In addition, the proposed metric proposal assumes that products reported here are relevant to investors as they are inherently disadvantaged in the marketplace. In fact, there are times when the

\textsuperscript{11} American Chemistry Society, 12 Principles of Green Chemistry - http://www.acs.org/content/acs/en/greenchemistry/what-is-green-chemistry/principles/12-principles-of-green-chemistry.html
reverse is true. Markets can be opened by products that contain REACH SVHC or WHO class I substances when sustainability challenges are addressed and the products are demonstrated as safe for their intended use. Taking this farther, at times, products containing REACH SVHC are authorized under REACH when others are not, opening up significant business opportunities to the companies that have authorized uses for these products. To improve the technical accuracy of the proposed metric and address the underlying issue more holistically, ACC recommends the following alternatives:

- Under the Responsible Care Product Safety Code, companies are required to conduct risk characterizations and develop product safety management plans for their products. Completion of these Responsible Care requirements could be measured as a percentage of a company’s product lines.
- Alternatively, SASB could adopt a modified approach to the one taken in its draft Packaging standard, which includes a metric for “Discussion of management approach to minimization of (1) of packaging used and (2) noxious or hazardous constituents in packaging.” This could be adjusted for Chemicals as follows: “Discussion of the management approach to minimization of risks of products across their lifecycle, including the development of new products,”

**c. RT0101-014. Percentage of products by revenue that contain genetically modified organisms**

*ACC recommends withdrawal of this draft metric as it is not a sustainability issue for the chemical industry.*

ACC advises removal of this draft metric due to its lack of materiality and on the basis that it implies aversion to GMO-related products. The basis for the inclusion of this metric is unclear. GMOs are not regulated substances and there is no evidence of legal or regulatory action being taken in this regard. If SASB is relying on consumer demand regarding GMOs, it should disclose its research fully and indicate consumer sentiment on this issue as compared to other chemical industry concerns to demonstrate relative materiality. ACC strongly believes the inclusion of GMO reporting in the Chemicals sector is unsubstantiated and misplaced given the very few number of chemical companies for which this metric would apply. Further, labeling requirements for product containing GMOs which could affect cost are occurring downstream of the chemicals industry.

In addition, the inclusion of this metric implies a negative sustainability impact from products containing GMOs, which is in contradiction to the science on this issue. Food from GMOs is digested in the body the same as food from non-GM crops. Hundreds of studies have demonstrated and continue to demonstrate that GMOs do not present any health risk—they do not cause new allergies or cancers, infertility, ADHD or any other diseases. In the years that farmers have grown crops from GM seeds (since around 1994), there has not been a single documented instance of harm to human health resulting from genetic modifications, including new allergic reactions. The current language would fail to incentivize innovative strides with GMOs, such as disease-resistance and higher crop yields, because given the negative GMO connotation amplified by this metric to investors. Additionally, the percentage basis for reporting could create comparison difficulties between integrated and non-integrated companies. For example, an integrated company with a significant revenue-generating

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GMO-based agricultural business could underestimate given reporting based on percentages as compared to a small company with a GMO-only business.

- Overall, ACC believes this to be a fundamentally flawed metric with no sustainability materiality, particularly for the Chemical sector and strongly urges its removal from the SASB proposal.

d. **RT0101-015. Amount of regulatory fines and settlements associated with product safety**

*ACC recommends withdrawal of this draft metric.*

This information is already included in SEC reporting and is not material as a separate matter for sustainability reporting. The inclusion of this metric is a serious departure into very indirect measurements of performance and in this case could include even speculative issues based on settlements regardless of finding or cause. Also, since there is no global compliance standard by which companies are held to account, and violations can be assessed dramatically differently across regions and countries, comparisons company to company will be nearly impossible.

8. **Political Spending**

   a. **RT0101-017. Amount of political campaign spending, lobbying expenditures, and contributions to tax-exempt groups, including trade associations**

*ACC recommends withdrawal of this draft metric.*

ACC has serious concerns with this draft metric and believes the framework may lead to unintended qualitative assessment of reporting companies, based on limited information, and is redundant to reporting requirements under the United States Lobbying Disclosure Act (LDA)\(^\text{13}\). It is also unclear why this metric is uniquely and arbitrarily identified to only two sectors of the many for which SASB has set provisional standards. Many of the industry sectors for which SASB has set reporting standards did not identify this area as material—quite appropriately—even when these sectors, such as healthcare and automotive, engage in significant lobbying and political contributions.

Reporting in this area would mislead mainstream investors by inferring that any such activities are inherently negative. In fact, when aligned with strategic business objectives, they can be a positive factor in long-term company performance. Further, chemical companies often lobby for more sustainable policy and candidate outcomes. In this draft metric’s preamble, SASB states that, “Companies with a well-articulated strategy for engaging with policymakers and regulators—one that is aligned with their goals and activities for long-term sustainable outcomes and also accounts for societal externalities—could benefit from a stronger, long-term license to operate. Such companies will likely be better prepared for medium- to long-term regulatory adjustments that deal with global, high-impact issues.” (pg. 27). This suggests that companies should have a qualitative, well-articulated strategy. However, the draft metric is focused only on the quantitative expenditure and is poorly suited to determine any such qualitative approach.

b. RT0101-18. Five Largest political, lobbying, or tax exempt group expenditures

ACC recommends withdrawal of this draft metric.

Like the previous metric, ACC asserts that collection of this data is redundant with LDA reporting requirements related to contributions to candidates and organizations, specific lobbying issues, and ballot measures. SASB’s proposed metric implies that any such activities are inherently negative. As commented above, SASB’s targeted determination of materiality in the Chemicals and Non-Renewables sectors seems arbitrary, given significant lobbying activities of other sectors where this metric was not identified. Operating under the assumption that any such activities are a negative reflection of the reporting company deters exercising this right and transitively implies a negative connotation to the industry itself. This will wrongfully imply to investors that any engagement in the policy-making or political process is damaging.


a. RT0101-19. Process Safety Incidents Count (PSIC), Process Safety Total Incident Rate (PSTIR), Process Safety Incident Severity Rate (PSISR)

ACC supports this draft metric.

Collecting and reporting lagging process safety data points is a key practice that demonstrates industry’s commitment to keeping our facilities and communities safe as a top priority. While not all of this information is reported publically as a rate by ACC, all of the information to develop the rate is collected and many companies report this information already. ACC member companies have reduced total process safety incidents by 55% since 1995, and in 2013 more than half of ACC member companies did not experience a single process safety incident. While supporting this metric, ACC also calls SASB’s attention to other process safety protocols available internationally. For example, some European companies track and report to a European Process Safety Centre (EPSC) standard. Additionally, an international activity through the ICCA is underway for the past several years to develop a globally accepted definition for process safety incident reporting. ACC encourages SASB to allow for flexible reporting so that a new globally adopted approach could be used to report in this area.

b. RT0101-20. Challenges to the Safety Systems indicator rate (Tier 3)

ACC recommends withdrawal of this draft metric.

The current ANSI API RP 754 process safety metric, which SASB references as the criteria for a Tier 3 incident, specifically states that is does not recommend Tier 3 incident data be reported publically. Tier 3 incidents are only recommended for internal company use and tracking and not recommend for public reporting. ACC strongly objects to inclusion of this metric.

- Publicly reporting Tier 3 data is inconsistent with the ANSI API RP 754 reporting standard recommendations.

Tier 3 data is meant to aid companies by providing a level of leading information about a company’s process safety program, commonly referred to as a ‘near miss’. Near misses are commonly reported internally for occupation incidents as well. However, in this impact area it is appropriately not recommended for public reporting. It should not be reported publicly in this discipline either.

c. **RT0101- 21. Number of transport incidents**

*ACC supports this metric approach with definitional clarifications.*

For most chemical companies, the actual transportation and in-transit storage and handling are conducted by third parties, not by the chemical companies themselves. However, product stewardship and safe distribution of chemicals are important areas of management for Responsible Care companies, which currently report on the number of DOT 5800 incidents associated with their companies and their products. For global applicability, however, we support SASB’s proposal to allow for reporting against other protocols that exist in the EU and through ICCA. As a clarification, ACC recommends that SASB limit the scope of these DOT 5800 incidents to the types listed in 49 CFR 171.15 (immediate notice of certain hazardous materials incidents) and not include 49 CFR 171.16 (detailed hazardous material incident reports) as this would incorporate an element of severity to the reporting, making it more meaningful and more consistent with SASB’s intent to identify incidents which may affect a company’s long term financial sustainability. Further, SASB should apply similar definitions in other regions for equivalent (i.e. more significant incident) level of incident reporting.

d. **Note to RT0101- 21. ‘Description of transport incidents including corrective actions taken’**

*ACC recommends that this metric be recast to allow for narrative descriptions of emergency response and preparedness activities, consistent to the metric category.*

Considering that many transport incidents happen with third party shippers, corrective actions taken are also by those third party shippers and in many cases those shippers are not required to report that information to the company. Reporting the root cause analysis and corrective action taken for each incident is an unmanageable amount of data to report to SASB. Uneven reporting would also be very likely, limiting company to company and incident to incident comparisons. This metric should be modified to allow companies to describe their efforts on emergency preparedness and planning activities when incidents do occur, consistent with the intent of this SASB impact category.

- Considering the amount of data being requested for this metric, which in some cases could take months or years to collect, this metric should be modified to allow companies to report on the numerous ways they prepare for and respond to emergencies involving their products and operations. ACC’s proposed alternative is “Description of activities undertaken to prepare for and respond to emergencies involving the company’s products and operations.”

**Activity Metrics**

1. **RT0101-A Amount of chemical production**

   *ACC requests additional guidance on the units of measure for this draft metric.*

   Not all chemical companies calculate output in cubic meters or tons. As many chemical companies have diverse product lines, output could be measured in units or ‘widgets’. Forcing companies to determine output in weight or volume would misrepresent the final product. SASB should provide additional guidance for the units of measure for this draft metric which should be more specific in regards to how companies should report when they do not measure output in cubic meters or tons. In addition many companies consider their actual production output confidential information, and disclose rated capacity as an alternative. SASB should consider this as an alternative.

2. **RT0101-B Number of employees, percentage in manufacturing role**

   *ACC recommends this withdrawal of this draft metric.*

   Assuming that SASB intends to use this figure for normalization purposes, there is no relevance to the manufacturing role that employees assume in the process. Most companies could accurately report that 100% of employees are in a role that supports the operations of its manufacturing. This draft metric becomes more irrelevant given the role automation plays in industry today and compounded with the variety of ways industry manufactures products, the number of employees in a manufacturing role is irrelevant. SASB correctly did not identify this normalizing factor for other sectors, and it is likewise not relevant to the Chemical sector. ACC strongly recommends that SASB address the detailed comments provided prior to release of the provisional standard.

   Thank you for consideration of ACC’s comments. Please feel free to contact me at 202.249.6185 with any questions you may have.

Respectfully submitted,

Debra Phillips  
Vice President, Responsible Care® and Value Chain Outreach  
American Chemistry Council
January 15, 2015

Sustainability Accounting Standards Board®
75 Broadway
Suite 202
San Francisco, CA 94111

Dear Sustainability Accounting Standards Board,

The American Chemistry Council (ACC) appreciates the opportunity to comment on the Sustainability Accounting Standards Board’s (SASB) draft standard in the Resource Transformation Sector for Chemicals. ACC’s comments urge SASB to make adjustments to the draft standard to address issues of materiality, relevance, decision-usefulness for the mainstream investor, technical deficiencies with certain metrics and associated definitions, and in some cases extraordinary financial burden associated with the proposed reporting.

ACC values a strong working relationship with SASB and appreciates the efforts made by staff to inform ACC and its members throughout the draft standard development process. With that in mind, we are concerned that several important issues are not adequately addressed in the draft standard and revisions should be incorporated prior to releasing the provisional draft. ACC members would also like to take this opportunity to outline a number of concerns related to SASB’s process to develop this draft chemical standard. There has been a lack of transparency in the decision-making process regarding which comments to incorporate, and it appears that very little of our feedback in the earlier stages has been incorporated into this draft standard. It would be appreciated if SASB would provide more information to stakeholders regarding these processes and decisions.

There is considerable overlap between this draft standard and current industry practices already implemented by the chemical industry’s Responsible Care® program. Failure to recognize the overlap and to harmonize the two will create needless, burdensome and expensive reporting obligations. As background, Responsible Care is the chemical industry’s commitment to enhance performance, improve employee health and safety, the health of the communities in which they operate and the environment as a whole. Since 1988, when the initiative launched in the US, our industry has made dramatic performance improvements and public reporting demonstrates our commitment to sustainability, transparency and systems to produce continual improvement. Today, Responsible Care is practiced in over 60 economies worldwide through the International Council of Chemical Associations1 and is noted as the premier example in the world of industry aligning under one performance program. One of the eight Fundamental Features of Responsible Care is public reporting of performance; both trade associations and member companies alike report above and beyond regulatory standards as a cornerstone feature of the program, and have developed reporting standards in areas such as process safety, where no existing protocols, regulatory or otherwise, exist. Globally, chemical industry associations whose members practice Responsible Care report member data that shows considerable improvements in environment, health and safety performance2. In the United States, ACC member companies operate nearly six times safer than the average of the U.S. manufacturing sector, and three times as safe as the business of chemistry overall, and we voluntarily disclose both company-specific and aggregate industry performance results across a

range of environment, health and safety indicators\(^3\). The chemical industry, under Responsible Care, operates what is widely viewed as the broadest, most robust and successful voluntary industry performance reporting program. Indeed, 53% of ACC’s members that implement Responsible Care report to the US Securities and Exchange Commission (SEC). We urge SASB to leverage this commonality to fully align with industry standards such as Responsible Care to minimize financial burden on reporting companies as well as strengthen the materiality of information collected.

The chemical industry has embarked on a long-term and successful journey with voluntary reporting standards. We support such voluntary mechanisms to share performance data with interested stakeholders. However, establishing a robust performance reporting program has taken decades of investment and significant sector-specific expertise. Given the complex and serious nature of this reporting, ACC believes that if the SEC were to adopt sustainability standards reporting, those standards must be set through a transparent process that provides an opportunity for broad stakeholder input and that fully accounts for materiality, relevance, decision-usefulness and cost-effectiveness. We believe that the SASB process is inadequate in these areas. Further, as SASB states in the draft standard introduction, ACC agrees that each company is ultimately responsible for determining which information is material to its company and operations, and thus which information should be included in any reporting, voluntary or mandatory. Materiality is not “one size that fits all”.

SASB, while seeking to apply its reporting globally, takes a US-centric approach to issues and related definitions of some metrics in its draft reporting standard. If SASB seeks to apply its standards globally, ACC believes that the ability to report for worldwide operations is critically important. Where broadly used global reporting standards exist (e.g. GHG), SASB should leverage these protocols. Where such global definitions do not exist, SASB should allow flexibility for regional requirements and definitions until such globally harmonized approaches are developed; until that time, SASB should not arbitrarily require use of US reporting criteria and definitions on a global scale.

Additionally, there are a number of metrics within the draft standard that are unsubstantiated, implicate disclosure of Confidential Business Information (CBI), and/or create incomparable data points. ACC urges SASB to reconsider these draft metrics. Our detailed comments elaborate on these issues and identify suggestions for improvement. We look forward to SASB’s consideration of the substantive and constructive comments that follow.

\(^3\) American Chemistry Council, 2014 - [http://responsiblecare.americanchemistry.com/Performance-Results](http://responsiblecare.americanchemistry.com/Performance-Results)
Detailed Comments

1. Greenhouse Gas Emissions (GHG)
   a. RT0101-01. Gross global Scope 1 emissions, percentage covered under regulatory program.

   ACC recommends modification to the draft metric to improve materiality and comparability of the reported data.

There are several existing protocols that the chemical industry, and Responsible Care® companies in particular, use to report carbon emissions. The proposed metric should be further aligned with these protocols, and adjusted for additional comparability and ease of reporting. Protocols with which the proposed metric should be further aligned include the ACC Responsible Care GHG emissions reporting guidance\(^4\), and the Environmental Protection Agency’s (EPA) Greenhouse Gas Reporting Program (GHGRP)\(^5\). The second part of the proposed metric referencing regulatory coverage should be withdrawn.

- SASB should expand reporting to include Scope 2 emissions, consistent with EPA’s GHGRP. SASB’s inclusion of only Scope 1 emissions limits comparability between companies by failing to distinguish between a company who may purchase most of its energy and another who generates energy on site. Additionally, by including only Scope 1 emissions certain companies in this sector, such as compressed gas companies, would be divulging CBI. Inclusion of Scope 2 emissions would alleviate this issue, while allowing for greater comparability between reporting companies.

- SASB should exclude emission data from mobile sources from this draft metric, as it is not included in the scope of Responsible Care or EPA’s GHGRP (Subpart C). Currently, most ACC member companies are not required to track GHG emissions from mobile sources. In addition, these sources are generally minor in terms of scope given this industry’s stationary operations. The inclusion of mobile sources in this reporting will add extraordinary financial burden with little to no actionable data produced.

- SASB should include a definition for the facilities expected to be covered by this reporting. Currently, the draft metric references production facilities, offices and mobile sources, but does not address R&D centers, distribution centers, laboratories, etc. Clarity should be provided at a minimum, and ACC recommends establishing deminimis reporting levels to exclude very small operations and office buildings. ACC recommends the deminimis levels included in its Responsible Care reporting guidelines of 5,000 tons total equivalent net CO\(_2\) emission per individual greenhouse gas, or the equivalent of a typical package boiler used in the manufacturing setting.

- Requiring disclosure of percentage of Scope 1 emissions covered under a regulatory program is immaterial and ACC recommends its removal from this metric.

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\(^4\) ACC’s Greenhouse Gas Reporting Guidance – The guidance will be submitted to SASB staff, as it is not available publically.

b. RT0101-02. Description of long-term and short-term strategy or plan to manage Scope 1 emissions, emissions reduction targets, and an analysis of performance against those targets

ACC recommends this draft metric be modified to focus on assessing risks and opportunities associated with carbon emissions, as well as performance improvement over time.

ACC has concerns over comparability of information submitted under this draft metric, as well as possible disclosure of CBI. Greater alignment with the Responsible Care management systems and reporting in assessing and managing risks as well as driving continuous performance improvements would leverage activities and reporting under an existing standard.

- Responsible Care requires participating companies to assess and managing environmental, health, safety and security risks. ACC suggests that this metric should be modified as “Description of systems to assess and manage risks and opportunities associated with carbon emissions.”
- Additionally, SASB’s metric should focus on emissions reduction over time rather than the analysis of performance against targets. Normalization in reporting to account for acquisitions and divestitures would be particularly important in this area. ACC suggests that SASB modify this part of the metric to read “emissions reductions achieved over a rolling 5-year timeframe.”

2. Energy Management

c. RT0101-03. Total energy consumed, percentage grid electricity, percentage renewable

ACC recommends modification to the draft metric to increase materiality and comparability of the reported data.

There are several existing protocols that the chemical industry, and Responsible Care® companies in particular, use to report energy consumption. The draft metric should be further aligned with these protocols and adjusted for additional comparability and ease of reporting. SASB should be further aligned to include the ACC Responsible Care energy consumption reporting guidance.

- As with the GHG emissions metric, ACC recommends instating a *deminimis* value for reporting in line with industry standards of 100 billion Btu for total energy use, or the equivalent of a typical package boiler used in the manufacturing setting.
- ACC requests clarification on the materiality of percent grid electricity reporting as a separate metric rather than simply considering purchased and non-purchased energy together. Many chemical facilities produce power onsite through combined heat and power units and their treatment within this metric is not obvious. Some credit for this efficient technology should be given.
- ACC should exclude emission data from mobile sources from this draft metric. These sources are generally minor in terms of scope given this industry’s stationary operations. The inclusion of mobile sources in this reporting will add extraordinary financial burden to reporting with little to no actionable data produced.
- Inclusion of renewable energy sources may falsely depict a sense of “greenness” by failing to account for full lifecycle impacts. Lifecycle assessments have shown that
manufacturing from renewable resources can be done in both environmentally advantaged and disadvantaged ways. This metric shows bias that renewables are superior without consideration of sustainability impacts. We also question whether a mainstream investor is interested in this data, and if so, would not the investor also be interested in any associated cost premium paid for the renewable energy. ACC notes that SASB should particularly exclude the use of renewable certificates, where the certificate – as opposed to actual renewable energy - is used as an offset.

3. Air Quality

   a. RT0101-04. Air emissions for the following pollutants: NOx (excluding N₂O), SOx, and volatile organic compounds (VOCs)

   ACC recommends modification to the draft metric to increase materiality and comparability of the reported data.

SASB should align with Responsible Care industry reporting standards that define reportable emissions as those tracked under regional operating permits, such as US EPA Title V permit reporting under the Clean Air Act. It should also allow for reporting of VOCs as defined by local authorities globally.

- Many companies track SOx, NOx and VOC emissions only under permit requirements within specific production units. The draft metric implies that all emissions must be calculated and reported. Installing monitoring devices to accurately report emissions across all sources would require significant capital expenditures and in some cases is technologically infeasible. This investment would generate small scale data that is not decision-useful to investors. To make reporting manageable and financially viable, Responsible Care reporting guidelines for air emissions specify that companies report on substances consistent with their local permit requirements, such that no new reporting is triggered. SASB should align this draft metric with these reporting requirements allowing companies to report for those operations required to track emissions under local permitting requirements to reduce additional financial burden brought on by this draft metric.

- ACC urges SASB to adopt the following language to clarify that SOx and NOx reporting be limited to emissions required to be tracked/reported under local permitting obligations: “Reporting of VOCs, NOx and SOx shall be limited to those sources within facilities that would otherwise be required to prepare and submit annual emissions inventory as per their respective permitting / regulatory requirements. Although state reporting requirements for emissions vary in terms of scope (e.g. some regions require SOx reporting while others require only SO2), ACC’s reporting defers to the regional reporting requirement.”

- Due to the variance of VOC definitions globally, ACC strongly urges SASB to include a broad definition of VOCs that allows for regional differences in criteria. It is not appropriate for SASB to push a US-centric definition globally, nor to attempt to facilitate global reporting protocols. Applying US VOC definitions is not currently executed by companies and would require new analysis and tracking systems.

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6 US EPA Clean Air Act, Title V - [http://www.epa.gov/air/CAA/title5.html](http://www.epa.gov/air/CAA/title5.html)
b. RT0101-05. Number of production facilities in or near areas of dense population

ACC recommends this draft metric be modified to include a qualitative description of company prioritization and management of overall operational risk. We believe this revised metric is best captured in the “Operational Safety, Emergency Management and Response” section.

Proximity of facilities to areas of dense population is just one factor that can be used to communicate overall operational risk. ACC believes this draft metric is an incomplete accounting of operational risk and is arbitrarily placed in the “Air Quality” section. Certainly proximity to dense populations could also be a factor in looking at water quality and waste issues as well. Therefore, ACC suggests that the metric be recast in the “Operational Safety, Emergency Management and Response” section.

- ACC’s alternative proposal is “A description of the company’s prioritization of operational risks and mitigation measures being taken or planned.” This would allow for consideration of issues such as facility citing in relation to natural resources and dense populations, process risks at facilities, transportation routes for key products, layers of risk mitigation, operational controls, etc.

4. Water Management
   a. RT0101-06. Total water withdrawn, percentage recycled, percentage in regions with High or Extremely High Baseline Water Stress

ACC recommends modification to the draft metric to increase materiality and comparability of the reported data.

This draft metric requires companies to report both water withdrawn and water recycled rather than allowing for companies to report ‘net water consumption’ which ACC asserts is a better measure of performance. ‘Net’ water consumption is more environmentally relevant and consistent with ACC’s Responsible Care Net Water Consumption metric, which allows companies to take credit for water returned to its original source. The first two reporting terms should therefore be combined. The third reporting term of percentage of water in high water stress regions may have the effect of establishing a single tool (WRI Aqueduct) and its underlying database as the standard for defining water stress, though no consensus on this point currently exists, and doing so may invalidate other useful third-party tools that companies currently use. Experience shows that the Aqueduct tool, like other global tools, is a useful risk tool for management but a potentially misleading performance metric for shareholders, as it may provide a far different result from actual site conditions obtained in a more granular local water analysis. Moreover, results can depend sensitively on boundary definitions, and may not be comparable across industries (different results may be obtained for different industry-specific weighting schemes). A reporting metric in this area will be burdensome for some organizations and does not take into account whether or not the organization is taking water from the stressed source.

- SASB should adopt a ‘net water consumption’ metric, which is the appropriate joining of its first two proposed metrics.
- Reporting ‘percentage in regions with High or Extremely High Baseline Water Stress’ makes use of the World Resources Institute’s Aqueduct tool, but the definitions of ‘water stressed’ are not standardized. In addition, the Aqueduct tool uses complex indicators which may not take into account that companies could be
located in a high stress environment, yet draw water from a non-stressed location. ACC also notes that a number of smaller and medium-sized companies currently do not use the Aqueduct Tool and mandated use may place extraordinary financial burden on these companies. Therefore, ACC urges SASB to include in this metric, an allowance that companies be permitted to analyze water stress using the tool of their choice as an advanced reporting option.

b. **RT0101-07. Number of incidents of non-compliance with water-quality permits, standards, and regulations**

*ACC recommends withdrawal or modification of this draft metric.*

Non-compliance in this area seems out of balance with other impact areas, as it is the only metric of its type in the SASB draft. As such, it is unclear why SASB chose to apply this type of metric only in the water area. As an indirect measure of performance, ACC believes it does not provide investors decision-useful information as the magnitude of violations could differ wildly. In addition, the inclusion of violations against voluntary standards is inappropriate and discourages companies from going beyond basic regulatory compliance and participating in such programs.

- SASB should withdraw this draft metric as it is an indirect measure, leading to information that will not be decision-useful to investors. Of particular concern is that since violations in one region could be compliance in another region, reported figures could be disproportionate based on geography making the data incomparable. Additionally, since there is no global compliance standard by which companies are held to account, and violations will range from major to minor, comparisons company to company will be nearly impossible
- If SASB moves forward with this metric, non-compliance in voluntary programs must absolutely be eliminated from reporting.

5. **Hazardous Materials Management**

a. **RT0101-08. Amount of hazardous waste, percentage recycled**

*ACC recommends disaggregating the two data points proposed in this metric and further modifying the language to address definitional issues with ‘hazardous waste’ and to clarify the focus of reporting.*

Currently, SASB defines ‘hazardous waste’ using USEPA definitions, which are inadequate for addressing this impact area globally where significantly different waste definitions apply regionally. The definition of hazardous waste should be more flexible to account for varying definitions that currently exist globally and allow local definitions to dictate the categorization of hazardous waste.

In the US, there are strict regulatory requirements that in most cases do not allow the “recycling” of hazardous waste. Further, the SASB guide uses the terms “waste” and “material” interchangeably, which is technically inaccurate and impossible for would-be reporters to interpret. Therefore, the “percentage recycled” portion of the metric is irrelevant as written and should be re-cast as a separate measure, to include a more expansive look at hazardous materials recycling, which seems more consistent with the impact category identified by SASB. In addition, ACC calls SASB’s attention to EPA’s recent release of its
new final solid waste rule\(^7\), clarifying many of these definitional issues raised by the SASB proposal.

- SASB should include an “Amount of hazardous waste” measure, deferring in the reporting instructions to local and regional definitions to ease workability and global application for companies.
- SASB should establish a second metric of “Percent of hazardous materials recycled” which is more fully aligned with the impact area and allows more meaningful reporting to investors. While reporting of materials reuse and recycling may be important, this cannot be tied to hazardous waste, which in many cases, cannot be recycled according to US law. A good definition of “hazardous material” and “recycled” would be needed for reporters to be able to give appropriate data on this metric.

b. RT0101-09. Number and aggregate quantity of reportable releases and spills, quantity recovered

**ACC recommends withdrawal of this draft metric.**

This metric is redundant with SASB’s draft Operational Safety Metric for process safety incidents, creating overlapping reporting. Counting releases here and additionally collecting process safety incidents could lead to a ‘doubling’ effect when looking for total incidents incurred by a company. While the operational safety metric also includes incidents involving injuries and fires, the vast majority of ACC member company process safety incidents are releases and spills. In fact, over the past 5 years, 83% of ACC member company process safety incidents were releases and spills. The process safety metric uses the amount of material released in a one-hour period threshold to determine whether reporting is triggered and the severity of the incident. These are the type of incidents of most interest to investors. In addition, the reporting basis is US-centric using Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)\(^8\) threshold quantities and cannot be applied globally without significant investment in new systems and processes.

- The metric will capture incidents already reported in other draft metrics, including the Operational Process Safety and Distribution metrics.
- In addition, the CERCLA table is devised for operations in the US, while there are several other such ‘lists’ commonly used by other countries, such as the Globally Harmonized System of Classification and Labeling of Chemicals (GHS)\(^9\). These two lists, for example, vary on the reportable quantity for a substance and it would be difficult for one company to apply the CERCLA table to operations outside of the US where they are currently using GHS. There would be an extraordinary financial burden placed on global companies expected to reclassify and handle hazardous material releases under a single definition.

6. **Employee Health and Safety**

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\(^8\) The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), 1980 - [http://www.epa.gov/superfund/about.htm](http://www.epa.gov/superfund/about.htm)

\(^9\) Globally Harmonized System of Classification and Labeling of Chemicals (GHS) - [https://www.osha.gov/dsg/hazcom/ghs.html](https://www.osha.gov/dsg/hazcom/ghs.html)
ACC comments to draft SASB Chemicals Standard
January 8th, 2015

a. RT0101-10. (1)Total Recordable injury rate and (2) fatality rate for (a) full time employees and (b) contract employees

ACC supports this draft metric but requests clarification on definition of ‘contractor’.

Collecting the Total Recordable Injury Rate (TRIR) and fatality information has been a long standing commitment in the chemical industry. ACC member companies have been publically reporting these data points for many years. Responsible Care companies have reduced their TRIR by 80 percent since 1990 for employees10. ACC Responsible Care companies voluntarily report contractor safety rates independently of employee data, consistent with the proposed SASB metric. However, ACC reporting guidelines include definitions of individuals to be classified as contractors and some additional guidance is also required in the SASB standard.

- SASB should consider allowances for global companies to loosely translate their occupational injury and illness data to US standards, based on regional reporting requirements.
- ACC’s reporting guidelines align with OSHA reporting standards, requiring that companies with fewer than 10 employees are not required to report data. SASB should align with OSHA in this regard and allow for a deminimis reporting level.

b. RT0101-11. Discussion of efforts to assess, monitor, and reduce exposure of employees and contract workers to long-term (chronic) health risks

ACC requests further clarification on reporting expectations with regard to this draft metric.

While no industry reporting standard exists, ACC Responsible Care companies must have a strategy for improving environment, health, safety and security performance, and must track their performance against internal goals. However, given the current description of this metric, it is unclear the level of specificity being requested and whether additional activities or testing/monitoring would be required.

- More information is needed in this area to determine the level of detail requested and the format for the data. For example, participating companies could discuss that risks have been assessed or that there are currently efforts to further monitor workplace exposure and develop risk management programs.
- Likewise, many companies have robust systems to reduce workplace exposure to manage long term health risks. However, these programs are highly variable company to company and therefore the comparability of the reported qualitative information would be very difficult to the subjective observer and require the reader to be well versed in the standard operations of a chemical company.
- Without addition clarification regarding detailed reporting expectations, the comparability of reporting for this draft metric may undermine the value.
- ACC suggests the following clarifying statements be incorporated in the text supporting the metric reporting: “Organizations can provide information regarding their systems to identify, evaluate and manage chronic health risks to employees and contract workers. Organizations can also report any third party certifications they have achieved (e.g. RCMS® or RC14001®) that verifies implementation of these systems.”

10 American Chemistry Council, 2014 Responsible Care Fact - http://responsiblecare.americanchemistry.com/Performance-Results/Safety
7. **Product Lifecycle Management & Innovation**

The chemical industry is a significant contributor to solving the world’s sustainability challenges. From fertilizers and pesticides improving crop yields to disinfection chemistry to light-weighting of vehicles for added fuel efficiency, chemical companies invest in and develop technologies that contribute to enhanced environmental, safety, health, security, quality of life and sustainability of the planet. Chemical water filtration and disinfection systems have helped eradicate waterborne diseases and epidemics. A recent study by McKinsey indicates that for every ton of CO2 emitted by the chemical industry, its products and technologies enable 2-3 tons of CO2 savings. Chemical products such as insulation and silicone weather proofing save energy and reduce carbon emissions. The chemical industry contributes to alleviating world hunger through advances in seeds, crop protection and food stabilizers, leading to better application, higher crop yields, lower prices and more abundant food sources. Chemistry represents 30% of the value of materials used in agriculture production. Chemistry contributes to 10% of the value of a computer; 15% of the value of consumer electronics; 33% of the value of semiconductors; and 34% of photographic equipment, enhancing flow of information and transparency of data. ACC urges SASB to consider these contributions and modify this suite of metrics to allow for companies to showcase their performance in these critical areas. The metrics in their current form do not allow for this reporting.

ACC recommends significant changes to this suite of SASB draft metrics. A summary of the recommendations is as follows:

- RT0101-012 and RT0101-016 should be combined into one metric that allows companies to articulate qualitatively, their products’ sustainability impacts across their lifecycles.
- RT0101-013 should be re-cast as a qualitative metric describing a company’s management approach to minimization product risks across their lifecycles.
- RT0101-014 should be withdrawn
- RT-0101-015 should be withdrawn

a. **RT0101-012. Percentage of raw materials from renewable resources and RT0101-016. Total addressable market and share of market for Green Chemistry-based products**

*ACC recommends re-development of this metric to allow for qualitative reporting of a company’s product sustainability impact across their lifecycles.*

Each of the originally proposed metrics aims for positive reporting of reduced sustainability impacts from a reporting company’s products. This approach would be strengthened and more technically sound if it were broadened to allow for companies to articulate their products sustainability impacts across their lifecycles in areas beyond renewables and green chemistry.

As stand-alone measurements, there are serious flaws in the two metrics as proposed. First, with regard to the renewables metric, this proposed approach assumes renewables are superior without the consideration of sustainability impacts throughout the entire lifecycle of a product. In many cases, renewables may perform more poorly across its lifecycle despite the implication from this metric that more renewables is inherently superior. In addition, reporting a percentage of raw materials from renewable resources...
requires companies to track all raw material transactions by weight, an exercise generally not undertaken in companies today, and then trace those raw materials – many of which have been passed through multiple marketplace transactions since the origins of the product. Technically, this approach is infeasible today. A broadened approach would allow full qualitative accounting of the lifecycle impacts of companies’ products beyond the simple initial extraction/production process.

Second, the “green chemistry” metric not only contains fundamental definitional flaws, it also creates potential anti-trust implications that may inadvertently result as a product of market forecasting. “Green chemistry-based products” lacks clear definition and the framework for determination provided in the draft metric excludes considerations that exist in other green chemistry definitions. The proposed metric definition, if used, should be further aligned with the American Chemistry Society’s 12 Principles of Green Chemistry. ACC’s proposed alternative qualitative approach would allow companies to explain their product sustainability impacts overall, inclusive of use of green chemistry in its products.

- SASB should adopt a metric that combines concepts in the proposed RT-0101-012 and RT-0101-016, yet allows for companies to provide qualitative information about its products’ sustainability impacts.
- Mainstream investors would most surely be interested in an approach that allows companies to showcase breakthrough technologies and opportunities for opening new markets to the organization through products that contribute to sustainability challenges. This approach would allow for such reporting, while the SASB proposal would not.
- The ACC proposed alternative approach is as follows: “Discussion of product sustainability impacts across their lifecycles, including for example, product sourcing, use of green chemistry as defined by the ACS 12 Principles of Green Chemistry, carbon emissions, energy use, water use, land use and food supply, health effects, availability of clean water, product durability and end of life.

b. RT0101-013. Percentage of products by revenue that qualify as (a) Registration, Evaluation, Authorization and Restriction of Chemical (REACH) substances of very high concern (SVHC) and/or (b) Class I World Health Organization (WHO): Acute Toxicity Hazard Categories

ACC recommends modification to the draft metric to increase materiality and comparability of the reported data.

ACC has concerns over the technical workability and exclusion of proper scientific assessment within this draft metric. From a technical standpoint, for example, there are mismatches between the endpoints of focus in the two referenced lists and no reference criteria for PBTs/CMRs. Furthermore, there is no ability to apply the definition to mixtures, which become more prevalent the further one travels along the chemicals supply chain. ACC believes this draft metric is a misuse of the referenced regulatory lists and advises SASB leverage approaches to this impact area in other industry and SASB standards. In addition, the proposed metric proposal assumes that products reported here are relevant to investors as they are inherently disadvantaged in the marketplace. In fact, there are times when the

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11 American Chemistry Society, 12 Principles of Green Chemistry - [http://www.acs.org/content/acs/en/greenchemistry/what-is-green-chemistry/principles/12-principles-of-green-chemistry.html](http://www.acs.org/content/acs/en/greenchemistry/what-is-green-chemistry/principles/12-principles-of-green-chemistry.html)
reverse is true. Markets can be opened by products that contain REACH SVHC or WHO class I substances when sustainability challenges are addressed and the products are demonstrated as safe for their intended use. Taking this farther, at times, products containing REACH SVHC are authorized under REACH when others are not, opening up significant business opportunities to the companies that have authorized uses for these products. To improve the technical accuracy of the proposed metric and address the underlying issue more holistically, ACC recommends the following alternatives:

- Under the Responsible Care Product Safety Code, companies are required to conduct risk characterizations and develop product safety management plans for their products. Completion of these Responsible Care requirements could be measured as a percentage of a company’s product lines.
- Alternatively, SASB could adopt a modified approach to the one taken in its draft Packaging standard, which includes a metric for “Discussion of management approach to minimization of (1) of packaging used and (2) noxious or hazardous constituents in packaging.” This could be adjusted for Chemicals as follows: “Discussion of the management approach to minimization of risks of products across their lifecycle, including the development of new products,”

**c. RT0101-014. Percentage of products by revenue that contain genetically modified organisms**

*ACC recommends withdrawal of this draft metric as it is not a sustainability issue for the chemical industry.*

ACC advises removal of this draft metric due to its lack of materiality and on the basis that it implies aversion to GMO-related products. The basis for the inclusion of this metric is unclear. GMOs are not regulated substances and there is no evidence of legal or regulatory action being taken in this regard. If SASB is relying on consumer demand regarding GMOs, it should disclose its research fully and indicate consumer sentiment on this issue as compared to other chemical industry concerns to demonstrate relative materiality. ACC strongly believes the inclusion of GMO reporting in the Chemicals sector is unsubstantiated and misplaced given the very few number of chemical companies for which this metric would apply. Further, labeling requirements for product containing GMOs which could affect cost are occurring downstream of the chemicals industry.

In addition, the inclusion of this metric implies a negative sustainability impact from products containing GMOs, which is in contradiction to the science on this issue. Food from GMOs is digested in the body the same as food from non-GM crops. Hundreds of studies have demonstrated and continue to demonstrate that GMOs do not present any health risk—they do not cause new allergies or cancers, infertility, ADHD or any other diseases. In the years that farmers have grown crops from GM seeds (since around 1994), there has not been a single documented instance of harm to human health resulting from genetic modifications, including new allergic reactions\(^\text{12}\). The current language would fail to incentivize innovative strides with GMOs, such as disease-resistance and higher crop yields, because given the negative GMO connotation amplified by this metric to investors. Additionally, the percentage basis for reporting could create comparison difficulties between integrated and non-integrated companies. For example, an integrated company with a significant revenue-generating

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\(^{12}\) Croplife America – [http://gmoanswers.com/explore](http://gmoanswers.com/explore)
GMO-based agricultural business could underestimate given reporting based on percentages as compared to a small company with a GMO-only business.

- Overall, ACC believes this to be a fundamentally flawed metric with no sustainability materiality, particularly for the Chemical sector and strongly urges its removal from the SASB proposal.

d. RT0101-015. Amount of regulatory fines and settlements associated with product safety

ACC recommends withdrawal of this draft metric.

This information is already included in SEC reporting and is not material as a separate matter for sustainability reporting. The inclusion of this metric is a serious departure into very indirect measurements of performance and in this case could include even speculative issues based on settlements regardless of finding or cause. Also, since there is no global compliance standard by which companies are held to account, and violations can be assessed dramatically differently across regions and countries, comparisons company to company will be nearly impossible.

8. Political Spending
   a. RT0101-017. Amount of political campaign spending, lobbying expenditures, and contributions to tax-exempt groups, including trade associations

ACC recommends withdrawal of this draft metric.

ACC has serious concerns with this draft metric and believes the framework may lead to unintended qualitative assessment of reporting companies, based on limited information, and is redundant to reporting requirements under the United States Lobbying Disclosure Act (LDA)\(^\text{13}\). It is also unclear why this metric is uniquely and arbitrarily identified to only two sectors of the many for which SASB has set provisional standards. Many of the industry sectors for which SASB has set reporting standards did not identify this area as material—quite appropriately— even when these sectors, such as healthcare and automotive, engage in significant lobbying and political contributions.

Reporting in this area would mislead mainstream investors by inferring that any such activities are inherently negative. In fact, when aligned with strategic business objectives, they can be a positive factor in long-term company performance. Further, chemical companies often lobby for more sustainable policy and candidate outcomes. In this draft metric’s preamble, SASB states that, “Companies with a well-articulated strategy for engaging with policymakers and regulators—one that is aligned with their goals and activities for long-term sustainable outcomes and also accounts for societal externalities—could benefit from a stronger, long-term license to operate. Such companies will likely be better prepared for medium- to-long-term regulatory adjustments that deal with global, high-impact issues.” (pg. 27). This suggests that companies should have a qualitative, well-articulated strategy. However, the draft metric is focused only on the quantitative expenditure and is poorly suited to determine any such qualitative approach.

b. RT0101-18. Five Largest political, lobbying, or tax exempt group expenditures

ACC recommends withdrawal of this draft metric.

Like the previous metric, ACC asserts that collection of this data is redundant with LDA reporting requirements related to contributions to candidates and organizations, specific lobbying issues, and ballot measures. SASB’s proposed metric implies that any such activities are inherently negative. As commented above, SASB’s targeted determination of materiality in the Chemicals and Non-Renewables sectors seems arbitrary, given significant lobbying activities of other sectors where this metric was not identified. Operating under the assumption that any such activities are a negative reflection of the reporting company deters exercising this right and transitively implies a negative connotation to the industry itself. This will wrongfully imply to investors that any engagement in the policy-making or political process is damaging.


a. RT0101-19. Process Safety Incidents Count (PSIC), Process Safety Total Incident Rate (PSTIR), Process Safety Incident Severity Rate (PSISR)

ACC supports this draft metric.

Collecting and reporting lagging process safety data points is a key practice that demonstrates industry’s commitment to keeping our facilities and communities safe as a top priority. While not all of this information is reported publically as a rate by ACC, all of the information to develop the rate is collected and many companies report this information already. ACC member companies have reduced total process safety incidents by 55% since 1995, and in 2013 more than half of ACC member companies did not experience a single process safety incident. While supporting this metric, ACC also calls SASB’s attention to other process safety protocols available internationally. For example, some European companies track and report to a European Process Safety Centre (EPSC) standard. Additionally, an international activity through the ICCA is underway for the past several years to develop a globally accepted definition for process safety incident reporting. ACC encourages SASB to allow for flexible reporting so that a new globally adopted approach could be used to report in this area.

b. RT0101-20. Challenges to the Safety Systems indicator rate (Tier 3)

ACC recommends withdrawal of this draft metric.

The current ANSI API RP 754 process safety metric, which SASB references as the criteria for a Tier 3 incident, specifically states that is does not recommend Tier 3 incident data be reported publically. Tier 3 incidents are only recommended for internal company use and tracking and not recommend for public reporting. ACC strongly objects to inclusion of this metric.

- Publicly reporting Tier 3 data is inconsistent with the ANSI API RP 754 reporting standard recommendations.

• Tier 3 data is meant to aid companies by providing a level of leading information about a company’s process safety program, commonly referred to as a ‘near miss’. Near misses are commonly reported internally for occupation incidents as well. However, in this impact area it is appropriately not recommended for public reporting. It should not be reported publicly in this discipline either.

c. RT0101- 21. Number of transport incidents

ACC supports this metric approach with definitional clarifications.

For most chemical companies, the actual transportation and in-transit storage and handling are conducted by third parties, not by the chemical companies themselves. However, product stewardship and safe distribution of chemicals are important areas of management for Responsible Care companies, which currently report on the number of DOT 5800 incidents associated with their companies and their products. For global applicability, however, we support SASB’s proposal to allow for reporting against other protocols that exist in the EU and through ICCA. As a clarification, ACC recommends that SASB limit the scope of these DOT 5800 incidents to the types listed in 49 CFR 171.15 (immediate notice of certain hazardous materials incidents) and not include 49 CFR 171.16 (detailed hazardous material incident reports) as this would incorporate an element of severity to the reporting, making it more meaningful and more consistent with SASB’s intent to identify incidents which may affect a company’s long term financial sustainability. Further, SASB should apply similar definitions in other regions for equivalent (i.e. more significant incident) level of incident reporting.

d. Note to RT0101- 21. ‘Description of transport incidents including corrective actions taken’

ACC recommends that this metric be recast to allow for narrative descriptions of emergency response and preparedness activities, consistent to the metric category.

Considering that many transport incidents happen with third party shippers, corrective actions taken are also by those third party shippers and in many cases those shippers are not required to report that information to the company. Reporting the root cause analysis and corrective action taken for each incident is an unmanageable amount of data to report to SASB. Uneven reporting would also be very likely, limiting company to company and incident to incident comparisons. This metric should be modified to allow companies to describe their efforts on emergency preparedness and planning activities when incidents do occur, consistent with the intent of this SASB impact category.

- Considering the amount of data being requested for this metric, which in some cases could take months or years to collect, this metric should be modified to allow companies to report on the numerous ways they prepare for and respond to emergencies involving their products and operations. ACC’s proposed alternative is “Description of activities undertaken to prepare for and respond to emergencies involving the company’s products and operations.

Activity Metrics

1. **RT0101-A Amount of chemical production**

   *ACC requests additional guidance on the units of measure for this draft metric.*

   Not all chemical companies calculate output in cubic meters or tons. As many chemical companies have diverse product lines, output could be measured in units or ‘widgets’. Forcing companies to determine output in weight or volume would misrepresent the final product. SASB should provide additional guidance for the units of measure for this draft metric which should be more specific in regards to how companies should report when they do not measure output in cubic meters or tons. In addition many companies consider their actual production output confidential information, and disclose rated capacity as an alternative. SASB should consider this as an alternative.

2. **RT0101-B Number of employees, percentage in manufacturing role**

   *ACC recommends this withdrawal of this draft metric.*

   Assuming that SASB intends to use this figure for normalization purposes, there is no relevance to the manufacturing role that employees assume in the process. Most companies could accurately report that 100% of employees are in a role that supports the operations of its manufacturing. This draft metric becomes more irrelevant given the role automation plays in industry today and compounded with the variety of ways industry manufactures products, the number of employees in a manufacturing role is irrelevant. SASB correctly did not identify this normalizing factor for other sectors, and it is likewise not relevant to the Chemical sector. ACC strongly recommends that SASB address the detailed comments provided prior to release of the provisional standard.

   Thank you for consideration of ACC’s comments. Please feel free to contact me at 202.249.6185 with any questions you may have.

     Respectfully submitted,

     Debra Phillips  
     Vice President, Responsible Care® and Value Chain Outreach  
     American Chemistry Council
January 15, 2015

Sustainability Accounting Standards Board®
75 Broadway
Suite 202
San Francisco, CA 94111

Dear Sustainability Accounting Standards Board,

DuPont appreciates the opportunity to comment on the Sustainability Accounting Standards Board’s (SASB) draft standard in the Resource Transformation Sector for Chemicals. DuPont’s comments urge SASB to make adjustments to the draft standard to address issues of materiality, relevance, decision-usefulness for the mainstream investor, technical deficiencies with certain metrics and associated definitions, and in some cases extraordinary financial burden associated with the proposed reporting.

DuPont values a strong working relationship with SASB and appreciates the efforts made by staff to inform ACC and its members throughout the draft standard development process. With that in mind, we are concerned that several important issues are not adequately addressed in the draft standard and revisions should be incorporated prior to releasing the provisional draft. DuPont would also like to take this opportunity to outline a number of concerns related to SASB’s process to develop this draft chemical standard. There has been a lack of transparency in the decision-making process regarding which comments to incorporate, and it appears that very little of the industry’s feedback in the earlier stages has been incorporated into this draft standard. It would be appreciated if SASB would provide more information to stakeholders regarding these processes and decisions.

There is considerable overlap between this draft standard and current industry practices already implemented by the chemical industry’s Responsible Care® program. Failure to recognize the overlap and to harmonize the two will create needless, burdensome and expensive reporting obligations. As background, Responsible Care is the chemical industry’s commitment to enhance performance, improve employee health and safety, the health of the communities in which they operate and the environment as a whole. Since 1988, when the initiative launched in the US, our industry has made dramatic performance improvements and public reporting demonstrates our commitment to sustainability, transparency and systems to produce continual improvement. Today, Responsible Care is practiced in over 60 economies worldwide through the International Council of Chemical Associations1 and is noted as the premier example in the world of industry aligning under one performance program. One of the eight Fundamental Features of Responsible Care is public reporting of performance; both trade associations and member companies alike report above and beyond regulatory standards as a cornerstone feature of the program, and have developed reporting standards in areas such as process safety, where no existing protocols, regulatory or otherwise, exist. Globally, chemical industry associations whose members practice Responsible Care report member data that shows considerable improvements in environment, health and safety performance2. In the United States, ACC member companies operate nearly six times safer than the average of the U.S. manufacturing sector, and three times as safe as the business of chemistry overall, and we voluntarily disclose both company-specific and aggregate industry performance results across a range of environment, health and safety indicators3. The chemical industry, under Responsible Care, operates what is widely viewed as the broadest, most robust and successful voluntary industry performance reporting program. Indeed, 53% of ACC’s members that implement Responsible Care report to the US Securities and Exchange Commission (SEC). We urge SASB to leverage this

3 American Chemistry Council, 2014 - http://responsiblecare.americanchemistry.com/Performance-Results
commonality to fully align with industry standards such as Responsible Care to minimize financial burden on reporting companies as well as strengthen the materiality of information collected.

The chemical industry has embarked on a long-term and successful journey with voluntary reporting standards. We support such voluntary mechanisms to share performance data with interested stakeholders. However, establishing a robust performance reporting program has taken decades of investment and significant sector-specific expertise. Given the complex and serious nature of this reporting, DuPont believes that if the SEC were to adopt sustainability standards reporting, those standards must be set through a transparent process that provides an opportunity for broad stakeholder input and that fully accounts for materiality, relevance, decision-usefulness and cost-effectiveness.

SASB, while seeking to apply its reporting globally, takes a US-centric approach to issues and related definitions of some metrics in its draft reporting standard. If SASB seeks to apply its standards globally, DuPont believes that the ability to report for worldwide operations is critically important. Where broadly used global reporting standards exist (e.g. GHG), SASB should leverage these protocols. Where such global definitions do not exist, SASB should allow flexibility for regional requirements and definitions until such globally harmonized approaches are developed; until that time, SASB should not arbitrarily require use of US reporting criteria and definitions on a global scale.

Additionally, there are a number of metrics within the draft standard that are unsubstantiated, implicate disclosure of Confidential Business Information (CBI), and/or create incomparable data points. DuPont urges SASB to reconsider these draft metrics. Our detailed comments elaborate on these issues and identify suggestions for improvement. We look forward to SASB’s consideration of the substantive and constructive comments that follow.
Detailed Comments

1. Greenhouse Gas Emissions (GHG)
   a. RT0101-01. Gross global Scope 1 emissions, percentage covered under regulatory program.

   DuPont recommends modification to the draft metric to improve materiality and comparability of the reported data.

   There are several existing protocols that the chemical industry, and Responsible Care® companies in particular, use to report carbon emissions. The proposed metric should be further aligned with these protocols, and adjusted for additional comparability and ease of reporting. Protocols with which the proposed metric should be further aligned include the ACC Responsible Care GHG emissions reporting guidance. The second part of the proposed metric referencing regulatory coverage should be withdrawn.

   - SASB should expand reporting to include Scope 2 emissions. SASB’s inclusion of only Scope 1 emissions limits comparability between companies by failing to distinguish between a company who may purchase most of its energy and another who generates energy on site.
   - SASB should exclude emission data from mobile sources from this draft metric, as it is not included in the scope of Responsible Care or EPA’s GHGRP (Subpart C). Currently, most ACC member companies are not required to track GHG emissions from mobile sources. In addition, these sources are generally minor in terms of scope given this industry’s stationary operations. The inclusion of mobile sources in this reporting will add financial burden with little to no actionable data produced.
   - SASB should include a definition for the facilities expected to be covered by this reporting. Currently, the draft metric references production facilities, offices and mobile sources, but does not address R&D centers, distribution centers, laboratories, etc. Clarity should be provided at a minimum, and DuPont recommends establishing deminimis reporting levels to exclude very small operations and office buildings. DuPont recommends the deminimis levels included in its Responsible Care reporting guidelines of 5,000 tons total equivalent net CO₂ emission per individual greenhouse gas, or the equivalent of a typical package boiler used in the manufacturing setting.
   - Requiring disclosure of percentage of Scope 1 emissions covered under a regulatory program is immaterial and DuPont recommends its removal from this metric.

   b. RT0101-02. Description of long-term and short-term strategy or plan to manage Scope 1 emissions, emissions reduction targets, and an analysis of performance against those targets

   ACC’s Greenhouse Gas Reporting Guidance – The guidance will be submitted to SASB staff, as it is not available publically.
DuPont recommends this draft metric be modified to focus on assessing risks and opportunities associated with carbon emissions, as well as performance improvement over time.

DuPont has concerns over comparability of information submitted under this draft metric, as well as possible disclosure of CBI. Greater alignment with the Responsible Care management systems and reporting in assessing and managing risks as well as driving continuous performance improvements would leverage activities and reporting under an existing standard.

- Responsible Care requires participating companies to assess and managing environmental, health, safety and security risks. DuPont suggests that this metric should be modified as “Description of systems to assess and manage risks and opportunities associated with carbon emissions.”
- Additionally, SASB’s metric should focus on emissions reduction over time rather than the analysis of performance against targets. Normalization in reporting to account for acquisitions and divestitures would be particularly important in this area. DuPont suggests that SASB modify this part of the metric to read “emissions reductions achieved over a rolling 5-year timeframe.”

2. Energy Management
   c. RT0101-03. Total energy consumed, percentage grid electricity, percentage renewable

   DuPont recommends modification to the draft metric to increase materiality and comparability of the reported data.

   There are several existing protocols that the chemical industry, and Responsible Care® companies in particular, use to report energy consumption. The draft metric should be further aligned with these protocols and adjusted for additional comparability and ease of reporting. SASB should be further aligned to include the ACC Responsible Care energy consumption reporting guidance.

   - As with the GHG emissions metric, DuPont recommends instating a deminimis value for reporting in line with industry standards of 100 billion Btu for total energy use, or the equivalent of a typical package boiler used in the manufacturing setting.
   - DuPont requests clarification on the materiality of percent grid electricity reporting as a separate metric rather than simply considering purchased and non-purchased energy together. Many chemical facilities produce power onsite through combined heat and power units and their treatment within this metric is not obvious. Some credit for this efficient technology should be given.
   - SASB should exclude emission data from mobile sources from this draft metric. These sources are generally minor in terms of scope given this industry’s stationary operations. The inclusion of mobile sources in this reporting will add extraordinary financial burden to reporting with little to no actionable data produced.
3. Air Quality

a. RT0101-04. Air emissions for the following pollutants: NO\textsubscript{x} (excluding N\textsubscript{2}O), SO\textsubscript{x}, and volatile organic compounds (VOCs)

*DuPont recommends modification to the draft metric to increase materiality and comparability of the reported data.*

SASB should align with Responsible Care industry reporting standards that define reportable emissions as those tracked under regional operating permits, such as US EPA Title V permit reporting under the Clean Air Act\textsuperscript{5}. It should also allow for reporting of VOCs as defined by local authorities globally.

- Many companies track SO\textsubscript{x}, NO\textsubscript{x} and VOC emissions only under permit requirements within specific production units. The draft metric implies that all emissions must be calculated and reported. Installing monitoring devices to accurately report emissions across all sources would require significant capital expenditures and in some cases is technologically infeasible. This investment would generate small scale data that is not decision-useful to investors. To make reporting manageable and financially viable, Responsible Care reporting guidelines for air emissions specify that companies report on substances consistent with their local permit requirements, such that no new reporting is triggered. SASB should align this draft metric with these reporting requirements allowing companies to report for those operations required to track emissions under local permitting requirements to reduce additional financial burden brought on by this draft metric.

- DuPont urges SASB to adopt the following language to clarify that SO\textsubscript{x} and NO\textsubscript{x} reporting be limited to emissions required to be tracked/reported under local permitting obligations: “Reporting of VOCs, NO\textsubscript{x} and SO\textsubscript{x} may be limited to those sources within facilities that would otherwise be required to prepare and submit annual emissions inventory as per their respective permitting / regulatory requirements. Although state reporting requirements for emissions vary in terms of scope (e.g. some regions require SO\textsubscript{x} reporting while others require only SO\textsubscript{2}), ACC’s reporting defers to the regional reporting requirement.”

- Due to the variance of VOC definitions globally, DuPont strongly urges SASB to include a broad definition of VOCs that allows for regional differences in criteria. It is not appropriate for SASB to push a US-centric definition globally, nor to attempt to facilitate global reporting protocols. Applying US VOC definitions is not currently executed by companies and would require new analysis and tracking systems.

b. RT0101-05. Number of production facilities in or near areas of dense population

*DuPont recommends this draft metric be modified to include a qualitative description of company prioritization and management of overall operational risk. We believe this revised*  

\textsuperscript{5} US EPA Clean Air Act, Title V - [http://www.epa.gov/air/caa/title5.html](http://www.epa.gov/air/caa/title5.html)
metric is best captured in the “Operational Safety, Emergency Management and Response” section.

Proximity of facilities to areas of dense population is just one factor that can be used to communicate overall operational risk. DuPont believes this draft metric is an incomplete accounting of operational risk and is arbitrarily placed in the “Air Quality” section. Certainly proximity to dense populations could also be a factor in looking at water quality and waste issues as well. Therefore, DuPont suggests that the metric be recast in the “Operational Safety, Emergency Management and Response” section.

- DuPont’s alternative proposal is “A description of the company’s prioritization of operational risks and mitigation measures being taken or planned.” This would allow for consideration of issues such as facility citing in relation to natural resources and dense populations, process risks at facilities, transportation routes for key products, layers of risk mitigation, operational controls, etc.

4. Water Management

a. RT0101-06. Total water withdrawn, percentage recycled, percentage in regions with High or Extremely High Baseline Water Stress

*DuPont recommends modification to the draft metric to increase materiality and comparability of the reported data.*

This draft metric requires companies to report both water consumption and water recycled rather than allowing for companies to report ‘net water consumption’ which DuPont asserts is a better measure of performance. ‘Net’ water consumption is more environmentally relevant and consistent with ACC’s Responsible Care Net Water Consumption metric. ACC’s Net Water Consumption metric allows for companies to report net water consumption by allowing companies to take credit for water returned to its original source. The first two reporting terms should therefore be combined.

- SASB should adopt a ‘net water consumption’ metric, which is the appropriate joining of its first two proposed metrics.
- SASB’s draft Water Management metric should clarify the treatment of saltwater usage, which is fairly common practice in the chemicals industry. It appears to be excluded from reporting.
- Reporting ‘percentage in regions with High or Extremely High Baseline Water Stress’ makes use of the World Resources Institute’s Aqueduct tool, but the definitions of ‘water stressed’ are not standardized. In addition, the Aqueduct tool uses complex indicators which may not take into account that companies could be located in a high stress environment, yet draw water from a non-stressed location. These concerns should be addressed in the metric.

b. RT0101-07. Number of incidents of non-compliance with water-quality permits, standards, and regulations

*DuPont recommends withdrawal or modification of this draft metric.*
Non-compliance in this area seems out of balance with other impact areas, as it is the only metric of its type in the SASB draft. As such, it is unclear why SASB chose to apply this type of metric only in the water area. As an indirect measure of performance, DuPont believes it does not provide investors decision-useful information as the magnitude of violations could differ wildly. In addition, the inclusion of violations against voluntary standards is inappropriate and discourages companies from going beyond basic regulatory compliance and participating in such programs.

- SASB should withdraw this draft metric as it is an indirect measure, leading to information that will not be decision-useful to investors. Of particular concern is that since violations in one region could be compliance in another region, reported figures could be disproportionate based on geography making the data incomparable. Additionally, since there is no global compliance standard by which companies are held to account, and violations will range from major to minor, comparisons company to company will be nearly impossible.
- If SASB moves forward with this metric, non-compliance in voluntary programs must absolutely be eliminated from reporting.

5. Hazardous Materials Management
   a. RT0101-08. Amount of hazardous waste, percentage recycled

   DuPont recommends disaggregating the two data points proposed in this metric and further modifying the language to address definitional issues with ‘hazardous waste’ and to clarify the focus of reporting.

   Currently, SASB defines ‘hazardous waste’ using USEPA definitions, which are inadequate for addressing this impact area globally where significantly different waste definitions apply regionally. The definition of hazardous waste should be more flexible to account for varying definitions that currently exist globally and allow local definitions to dictate the categorization of hazardous waste.

   In the US, there are strict regulatory requirements that in most cases do not allow the “recycling” of hazardous waste. Further, the SASB guide uses the terms “waste” and “material” interchangeably, which is technically inaccurate and impossible for would-be reporters to interpret. Therefore, the “percentage recycled” portion of the metric is irrelevant as written and should be re-cast as a separate measure, to include a more expansive look at hazardous materials recycling, which seems more consistent with the impact category identified by SASB. In addition, DuPont calls SASB’s attention to EPA’s recent release of its new final solid waste rule, clarifying many of these definitional issues raised by the SASB proposal.
   - SASB should include an “Amount of hazardous waste” measure, deferring in the reporting instructions to local and regional definitions to ease workability and global application for companies.
   - SASB should establish a second metric of “Percent of hazardous materials recycled” which is more fully aligned with the impact area and allows more meaningful reporting to investors. While reporting of materials reuse and recycling may be

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important, this cannot be tied to hazardous waste, which in many cases, cannot be recycled according to US law. A good definition of “hazardous material” and “recycled” would be needed for reporters to be able to give appropriate data on this metric.

b. RT0101-09. Number and aggregate quantity of reportable releases and spills, quantity recovered

*DuPont recommends withdrawal of this draft metric.*

This metric is redundant with SASB’s draft Operational Safety Metric for process safety incidents, creating overlapping reporting. Counting releases here and additionally collecting process safety incidents could lead to a ‘doubling’ effect when looking for total incidents incurred by a company. While the operational safety metric also includes incidents involving injuries and fires, the vast majority of ACC member company process safety incidents are releases and spills. In fact, over the past 5 years, 83% of ACC member company process safety incidents were releases and spills. The process safety metric uses the amount of material released in a one-hour period threshold to determine whether reporting is triggered and the severity of the incident. These are the type of incidents of most interest to investors. In addition, the reporting basis is US-centric using Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)\(^7\) threshold quantities and cannot be applied globally without significant investment in new systems and processes.

- The metric will capture incidents already reported in other draft metrics, including the Operational Process Safety and Distribution metrics.
- In addition, the CERCLA table is devised for operations in the US, while there are several other such ‘lists’ commonly used by other countries, such as the Globally Harmonized System of Classification and Labeling of Chemicals (GHS)\(^8\). These two lists, for example, vary on the reportable quantity for a substance and it would be difficult for one company to apply the CERCLA table to operations outside of the US where they are currently using GHS. There would be an extraordinary financial burden placed on global companies expected to reclassify and handle hazardous material releases under a single definition.

6. Employee Health and Safety

a. RT0101-10. (1)Total Recordable injury rate and (2) fatality rate for (a) full time employees and (b) contract employees

*DuPont supports this draft metric but requests clarification on definition of ‘contractor’.*

Collecting the Total Recordable Injury Rate (TRIR) and fatality information has been a long standing commitment in the chemical industry. ACC member companies have been publically reporting these data points for many years. Responsible Care companies have

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\(^7\) The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), 1980 - [http://www.epa.gov/superfund/about.htm](http://www.epa.gov/superfund/about.htm)

\(^8\) Globally Harmonized System of Classification and Labeling of Chemicals (GHS) - [https://www.osha.gov/dsg/hazcom/ghs.html](https://www.osha.gov/dsg/hazcom/ghs.html)
reduced their TRIR by 80 percent since 1990 for employees. ACC Responsible Care companies voluntarily report contractor safety rates independently of employee data, consistent with the proposed SASB metric. However, ACC reporting guidelines include definitions of individuals to be classified as contractors and some additional guidance is also required in the SASB standard.

- SASB should consider allowances for global companies to loosely translate their occupational injury and illness data to US standards, based on regional reporting requirements.
- ACC’s reporting guidelines align with OSHA reporting standards, requiring that companies with fewer than 10 employees are not required to report data. SASB should align with OSHA in this regard and allow for a deminimis reporting level.

b. RT0101-11. Discussion of efforts to assess, monitor, and reduce exposure of employees and contract workers to long-term (chronic) health risks

DuPont requests further clarification on reporting expectations with regard to this draft metric.

While no industry reporting standard exists, ACC Responsible Care companies must have a strategy for improving environment, health, safety and security performance, and must track their performance against internal goals. However, given the current description of this metric, it is unclear the level of specificity being requested and whether additional activities or testing/monitoring would be required.

- More information is needed in this area to determine the level of detail requested and the format for the data. For example, participating companies could discuss that risks have been assessed or that there are currently efforts to further monitor workplace exposure and develop risk management programs.
- Likewise, many companies have robust systems to reduce workplace exposure to manage long term health risks. However, these programs are highly variable company to company and therefore the comparability of the reported qualitative information would be very difficult to the subjective observer and require the reader to be well versed in the standard operations of a chemical company.
- Without addition clarification regarding detailed reporting expectations, the comparability of reporting for this draft metric may undermine the value.
- DuPont suggests the following clarifying statements be incorporated in the text supporting the metric reporting: “Organizations can provide information regarding their systems to identify, evaluate and manage chronic health risks to employees and contract workers. Organizations can also report any third party certifications they have achieved (e.g. RCMS® or RC14001®) that verifies implementation of these systems.”

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9 American Chemistry Council, 2014 Responsible Care Fact - http://responsiblecare.americanchemistry.com/Performance-Results/Safety
7. **Product Lifecycle Management & Innovation**

The chemical industry is a significant contributor to solving the world’s sustainability challenges. From fertilizers and pesticides improving crop yields to disinfection chemistry to light-weighting of vehicles for added fuel efficiency, chemical companies invest in and develop technologies that contribute to enhanced environmental, safety, health, security, quality of life and sustainability of the planet. Chemical water filtration and disinfection systems have helped eradicate waterborne diseases and epidemics. A recent study by McKinsey indicates that for every ton of CO2 emitted by the chemical industry, its products and technologies enable 2-3 tons of CO2 savings. Chemical products such as insulation and silicone weather proofing save energy and reduce carbon emissions. The chemical industry contributes to alleviating world hunger through advances in seeds, crop protection and food stabilizers, leading to better application, higher crop yields, lower prices and more abundant food sources. Chemistry represents 30% of the value of materials used in agriculture production. Chemistry contributes to 10% of the value of a computer; 15% of the value of consumer electronics; 33% of the value of semiconductors; and 34% of photographic equipment, enhancing flow of information and transparency of data.

DuPont urges SASB to consider these contributions and modify this suite of metrics to allow for companies to showcase their performance in these critical areas. The metrics in their current form do not allow for this reporting.

DuPont recommends significant changes to this suite of SASB draft metrics. A summary of the recommendations is as follows:

- RT0101-012 and RT0101-016 should be combined into one metric that allows companies to articulate qualitatively, their products’ sustainability impacts across their lifecycles.
- RT0101-013 should be re-cast as a qualitative metric describing a company’s management approach to minimization product risks across their lifecycles.
- RT0101-014 should be withdrawn
- RT-0101-015 should be withdrawn

a. **RT0101-012. Percentage of raw materials from renewable resources** and **RT0101-016. Total addressable market and share of market for Green Chemistry-based products**

_DuPont recommends re-development of this metric to allow for qualitative reporting of a company’s product sustainability impact across their lifecycles._

Each of the originally proposed metrics aims for positive reporting of reduced sustainability impacts from a reporting company’s products. This approach would be strengthened and more technically sound if it were broadened to allow for companies to articulate their products sustainability impacts across their lifecycles in areas beyond renewables and green chemistry.

As stand-alone measurements, there are serious flaws in the two metrics as proposed. First, with regard to the renewables metric, this proposed approach assumes renewables are superior without the consideration of sustainability impacts throughout the entire
lifecycle of a product. In many cases, renewables may perform more poorly across its lifecycle despite the implication from this metric that more renewables is inherently superior. In addition, reporting a percentage of raw materials from renewable resources requires companies to track all raw material transactions by weight, an exercise generally not undertaken in companies today, and then trace those raw materials – many of which have been passed through multiple marketplace transactions since the origins of the product. Technically, this approach is infeasible today. A broadened approach would allow full qualitative accounting of the lifecycle impacts of companies’ products beyond the simple initial extraction/production process.

Second, the “green chemistry” metric not only contains fundamental definitional flaws, it also creates potential anti-trust implications that may inadvertently result as a product of market forecasting. “Green chemistry-based products” lacks clear definition and the framework for determination provided in the draft metric excludes considerations that exist in other green chemistry definitions. The proposed metric definition, if used, should be further aligned with the American Chemistry Society’s 12 Principles of Green Chemistry\(^\text{10}\). DuPont’s proposed alternative qualitative approach would allow companies to explain their product sustainability impacts overall, inclusive of use of green chemistry in its products.

- SASB should adopt a metric that combines concepts in the proposed RT-0101-012 and RT-0101-016, yet allows for companies to provide qualitative information about its products’ sustainability impacts.
- Mainstream investors would most surely be interested in an approach that allows companies to showcase breakthrough technologies and opportunities for opening new markets to the organization through products that contribute to sustainability challenges. This approach would allow for such reporting, while the SASB proposal would not.
- The DuPont proposed alternative approach is as follows: “Discussion of product sustainability impacts across their lifecycles, including for example, product sourcing, use of green chemistry as defined by the ACS 12 Principles of Green Chemistry, carbon emissions, energy use, water use, land use and food supply, health effects, availability of clean water, product durability and end of life.

b. RT0101-013. Percentage of products by revenue that qualify as (a) Registration, Evaluation, Authorization and Restriction of Chemical (REACH) substances of very high concern (SVHC) and/or (b) Class I World Health Organization (WHO): Acute Toxicity Hazard Categories

DuPont recommends modification to the draft metric to increase materiality and comparability of the reported data.

DuPont has concerns over the technical workability and exclusion of proper scientific assessment within this draft metric. From a technical standpoint, for example, there are

\(^{10}\) American Chemistry Society, 12 Principles of Green Chemistry - http://www.acs.org/content/acs/en/greenchemistry/what-is-green-chemistry/principles/12-principles-of-green-chemistry.html
mismatches between the endpoints of focus in the two referenced lists and no reference criteria for PBTs/CMRs. Furthermore, there is no ability to apply the definition to mixtures, which become more prevalent the further one travels along the chemicals supply chain. DuPont believes this draft metric is a misuse of the referenced regulatory lists and advises SASB leverage approaches to this impact area in other industry and SASB standards. In addition, the proposed metric proposal assumes that products reported here are relevant to investors as they are inherently disadvantaged in the marketplace. In fact, there are times when the reverse is true. Markets can be opened by products that contain REACH SVHC or WHO class I substances when sustainability challenges are addressed and the products are demonstrated as safe for their intended use. Taking this farther, at times, products containing REACH SVHC are authorized under REACH when others are not, opening up significant business opportunities to the companies that have authorized uses for these products. To improve the technical accuracy of the proposed metric and address the underlying issue more holistically, DuPont recommends the following alternatives:

- Under the Responsible Care Product Safety Code, companies are required to conduct risk characterizations and develop product safety management plans for their products. Completion of these Responsible Care requirements could be measured as a percentage of a company’s product lines.
- Alternatively, SASB could adopt a modified approach to the one taken in its draft Packaging standard, which includes a metric for “Discussion of management approach to minimization of (1) of packaging used and (2) noxious or hazardous constituents in packaging.” This could be adjusted for Chemicals as follows: “Discussion of the management approach to minimization of risks of products across their lifecycle, including the development of new products.”

**c. RT0101-014. Percentage of products by revenue that contain genetically modified organisms**

*DuPont recommends withdrawal of this draft metric as it is not a sustainability issue for the chemical industry.*

DuPont advises removal of this draft metric due to its lack of materiality and on the basis that it implies aversion to GMO-related products. The basis for the inclusion of this metric is unclear. GMOs are not regulated substances and there is no evidence of legal or regulatory action being taken in this regard. If SASB is relying on consumer demand regarding GMOs, it should disclose its research fully and indicate consumer sentiment on this issue as compared to other chemical industry concerns to demonstrate relative materiality. DuPont strongly believes the inclusion of GMO reporting in the Chemicals sector is unsubstantiated and misplaced given the very few number of chemical companies for which this metric would apply. Further, labeling requirements for product containing GMOs which could affect cost are occurring downstream of the chemicals industry.

In addition, the inclusion of this metric implies a negative sustainability impact from products containing GMOs, which is in contradiction to the science on this issue. Food from GMOs is digested in the body the same as food from non-GM crops. Hundreds of studies have demonstrated and continue to demonstrate that GMOs do not present any health risk—they do not cause new allergies or cancers, infertility, ADHD or any other diseases. In the years that farmers have grown crops from GM seeds (since around 1994), there has not been a
single documented instance of harm to human health resulting from genetic modifications, including new allergic reactions\textsuperscript{11}. The current language would fail to incentivize innovative strides with GMOs, such as disease-resistance and higher crop yields, because given the negative GMO connotation amplified by this metric to investors. Additionally, the percentage basis for reporting could create comparison difficulties between integrated and non-integrated companies. For example, an integrated company with a significant revenue-generating GMO-based agricultural business could underestimate given reporting based on percentages as compared to a small company with a GMO-only business.

- Overall, DuPont believes this to be a fundamentally flawed metric with no sustainability materiality, particularly for the Chemical sector and strongly urges its removal from the SASB proposal.

d. RT0101-015. Amount of regulatory fines and settlements associated with product safety

\textit{DuPont recommends withdrawal of this draft metric.}

This information is already included in SEC reporting and is not material as a separate matter for sustainability reporting. The inclusion of this metric is a serious departure into very indirect measurements of performance and in this case could include even speculative issues based on settlements regardless of finding or cause. Also, since there is no global compliance standard by which companies are held to account, and violations can be assessed dramatically differently across regions and countries, comparisons company to company will be nearly impossible.

8. Political Spending

a. RT0101-017. Amount of political campaign spending, lobbying expenditures, and contributions to tax-exempt groups, including trade associations

\textit{DuPont recommends withdrawal of this draft metric.}

DuPont has serious concerns with this draft metric and believes the framework may lead to unintended qualitative assessment of reporting companies, based on limited information, and is redundant to reporting requirements under the United States Lobbying Disclosure Act (LDA)\textsuperscript{12}. It is also unclear why this metric is uniquely and arbitrarily identified to only two sectors of the many for which SASB has set provisional standards. Many of the industry sectors for which SASB has set reporting standards did not identify this area as material – quite appropriately - even when these sectors, such as healthcare and automotive, engage in significant lobbying and political contributions.

Reporting in this area would mislead mainstream investors by inferring that any such activities are inherently negative. In fact, when aligned with strategic business objectives, they can be a positive factor in long-term company performance. Further, chemical companies often lobby for more sustainable policy and candidate outcomes. In this draft metric’s preamble, SASB states that, “Companies with a well-articulated strategy for engaging with policymakers and regulators—one that is aligned with their goals and activities

\textsuperscript{11} Croplife America – \url{http://gmoanswers.com/explore}

\textsuperscript{12} US Lobbying Disclosure Act, 2013 - \url{http://lobbyingdisclosure.house.gov/amended lda_guide.html}
for long-term sustainable outcomes and also accounts for societal externalities—could benefit from a stronger, long-term license to operate. Such companies will likely be better prepared for medium- to long-term regulatory adjustments that deal with global, high-impact issues.” (pg. 27). This suggests that companies should have a qualitative, well-articulated strategy. However, the draft metric is focused only on the quantitative expenditure and is poorly suited to determine any such qualitative approach.

b. RT0101-18. Five Largest political, lobbying, or tax exempt group expenditures

DuPont recommends withdrawal of this draft metric.

Like the previous metric, DuPont asserts that collection of this data is redundant with LDA reporting requirements related to contributions to candidates and organizations, specific lobbying issues, and ballot measures. SASB’s proposed metric implies that any such activities are inherently negative. As commented above, SASB’s targeted determination of materiality in the Chemicals and Non-Renewables sectors seems arbitrary, given significant lobbying activities of other sectors where this metric was not identified. Operating under the assumption that any such activities are a negative reflection of the reporting company deters exercising this right and transitively implies a negative connotation to the industry itself. This will wrongfully imply to investors that any engagement in the policy-making or political process is damaging.


a. RT0101- 19. Process Safety Incidents Count (PSIC), Process Safety Total Incident Rate (PSTIR), Process Safety Incident Severity Rate (PSISR)

DuPont supports this draft metric.

Collecting and reporting lagging process safety data points is a key practice that demonstrates industry’s commitment to keeping our facilities and communities safe as a top priority. While not all of this information is reported publically as a rate by ACC, all of the information to develop the rate is collected and many companies report this information already. While supporting this metric, DuPont also calls SASB’s attention to other process safety protocols available internationally. For example, some European companies track and report to a European Process Safety Centre (EPSC) standard. Additionally, an international activity through the ICCA is underway for the past several years to develop a globally accepted definition for process safety incident reporting. DuPont encourages SASB to allow for flexible reporting so that a new globally adopted approach could be used to report in this area.

b. RT0101- 20. Challenges to the Safety Systems indicator rate (Tier 3)

DuPont recommends withdrawal of this draft metric.

The current ANSI API RP 754 process safety metric, which SASB references as the criteria for a Tier 3 incident, specifically states that is does not recommend Tier 3 incident data be reported publically. Tier 3 incidents are only recommended for internal company use and tracking and not recommend for public reporting. DuPont strongly objects to inclusion of this metric.
Publicly reporting Tier 3 data is inconsistent with the ANSI API RP 754 reporting standard recommendations.

Tier 3 data is meant to aid companies by providing a level of leading information about a company’s process safety program, commonly referred to as a ‘near miss’. Near misses are commonly reported internally for occupation incidents as well. However, in this impact area it is appropriately not recommended for public reporting. It should not be reported publicly in this discipline either.

c. RT0101- 21. Number of transport incidents

DuPont supports this metric approach with definitional clarifications.

For most chemical companies, the actual transportation and in-transit storage and handling are conducted by third parties, not by the chemical companies themselves. However, product stewardship and safe distribution of chemicals are important areas of management for Responsible Care companies, which currently report on the number of DOT 5800 incidents associated with their companies and their products. For global applicability, however, we support SASB’s proposal to allow for reporting against other protocols that exist in the EU and through ICCA. As a clarification, DuPont recommends that SASB limit the scope of these DOT 5800 incidents to the types listed in 49 CFR 171.15 (immediate notice of certain hazardous materials incidents) and not include 49 CFR 171.16 (detailed hazardous material incident reports) as this would incorporate an element of severity to the reporting, making it more meaningful and more consistent with SASB’s intent to identify incidents which may affect a company’s long term financial sustainability. Further, SASB should apply similar definitions in other regions for equivalent (i.e. more significant incident) level of incident reporting.

d. Note to RT0101- 21. ‘Description of transport incidents including corrective actions taken’

DuPont recommends that this metric be recast to allow for narrative descriptions of emergency response and preparedness activities, consistent to the metric category.

Considering that many transport incidents happen with third party shippers, corrective actions taken are also by those third party shippers and in many cases those shippers are not required to report that information to the company. Reporting the root cause analysis and corrective action taken for each incident is an unmanageable amount of data to report to SASB. Uneven reporting would also be very likely, limiting company to company and incident to incident comparisons. This metric should be modified to allow companies to describe their efforts on emergency preparedness and planning activities when incidents do occur, consistent with the intent of this SASB impact category.

- Considering the amount of data being requested for this metric, which in some cases could take months or years to collect, this metric should be modified to allow companies to report on the numerous ways they prepare for and respond to emergencies involving their products and operations. DuPont’s proposed alternative

is “Description of activities undertaken to prepare for and respond to emergencies involving the company’s products and operations.

Activity Metrics

1. **RT0101-A Amount of chemical production**

*DuPont requests additional guidance on the units of measure for this draft metric.*

Not all chemical companies calculate output in cubic meters or tons. As many chemical companies have diverse product lines, output could be measured in units or ‘widgets’. Forcing companies to determine output in weight or volume would misrepresent the final product. SASB should provide additional guidance for the units of measure for this draft metric which should be more specific in regards to how companies should report when they do not measure output in cubic meters or tons. In addition many companies consider their actual production output confidential information, and disclose rated capacity as an alternative. SASB should consider this as an alternative.

2. **RT0101-B Number of employees, percentage in manufacturing role**

*DuPont recommends this withdrawal of this draft metric.*

Assuming that SASB intends to use this figure for normalization purposes, there is no relevance to the manufacturing role that employees assume in the process. Most companies could accurately report that 100% of employees are in a role that supports the operations of its manufacturing. This draft metric becomes more irrelevant given the role automation plays in industry today and compounded with the variety of ways industry manufactures products, the number of employees in a manufacturing role is irrelevant. SASB correctly did not identify this normalizing factor for other sectors, and it is likewise not relevant to the Chemical sector. DuPont strongly recommends that SASB address the detailed comments provided prior to release of the provisional standard.

Thank you for consideration of DuPont’s comments. Please feel free to contact me at 302-774-8588 with any questions you may have.

Respectfully submitted,

Dawn Rittenhouse
Director, Sustainability
DuPont
January 15, 2015

Sustainability Accounting Standards Board®
75 Broadway
Suite 202
San Francisco, CA 94111

Dear Sustainability Accounting Standards Board,

Eastman Chemical Company (Eastman) hereby submits comments on the Sustainability Accounting Standards Board’s (SASB) draft standard in the Resource Transformation Sector for Chemicals. Eastman urges SASB to make adjustments to the draft standard to address issues of materiality, relevancy, and usefulness for the mainstream investor, technical deficiencies with certain metrics and associated definitions, and in some cases extraordinary financial burden.

From a fundamental perspective, Eastman expresses concern regarding direction and purpose of the draft standards. SASB indicates on page 1 of the draft standards, “(E)ach company is ultimately responsible for determining which information is material and is therefore required to be included in its Form 10-K or 20-F and other periodic SEC filings”; however as stated on page 2 and as is apparent in the document, SASB takes a position that there has been an identification of topics “that it believes may be material for all companies within each SICS industry.” Eastman requests that SASB make every effort to provide clarity that the proposed standards serve as guidance to frame possible metrics that would be useful in conveying information regarding topics that a company itself has determined to be material and are not binding, mandatory nor compulsory for use in public reporting.

Eastman supports mechanisms to share sustainability performance data and information with interested stakeholders. Publication of company-specific sustainability reports, issuance of reports and information consistent with various indices (such as Global Reporting Initiative (GRI), Dow Jones Sustainability Index, Carbon Disclosure Project), participation in various organizations (such as World Business Council for Sustainable Development, Responsible Care for the chemical industry), and other such involvements represent the type of means companies may currently use to provide information regarding sustainability programs, progress and challenges. Eastman believes that the use of such means is an effective mechanism to provide a “reasonable investor” information sufficient to affect decisions. Eastman believes that the effort undertaken by SASB and the resultant standards will result in duplication of effort and in many instances will result in the imposition of additional burden to satisfy the reporting requirement imposed. Eastman urges SASB to leverage existing reporting protocols where possible.
Eastman notes that for many of the standards and topics SASB tends to apply U.S.-centric terminology, definition and metrics. Eastman believes that application of such concepts to globally-supplied data will result in an additional burden regarding development and collection of such information. Since the proposed standards have the potential to significantly impact U.S.-based multinational companies, SASB should allow flexibility for regional requirements and definitions, and SASB should not arbitrarily require use of U.S. reporting criteria and definitions on a global scale.

Following are more detailed comments regarding specific sections of the proposed standards. Eastman appreciates the opportunity to provide these comments, and we look forward to SASB’s consideration of these comments. Please feel free to contact me at 423-224-0256 with any questions you may have.

Sincerely,

David Saulsbury
Director, Global Health, Safety, Security and Site HSES Services

Enclosure
1. Greenhouse Gas Emissions (GHG)
   a. RT0101-01. Gross global Scope 1 emissions, percentage covered under regulatory program

   • There are several existing protocols that the chemical industry uses to report carbon emissions. The proposed metric should be further aligned with these protocols and adjusted for additional comparability and ease of reporting. Protocols with which the proposed metric should be further aligned include the ACC Responsible Care CO2 emissions reporting guidance, the Environmental Protection Agency’s (EPA) Greenhouse Gas Reporting Protocol and the World Business Council for Sustainable Development’s GHG Protocol (http://www.wbcsd.org/Pages/EDocument/EDocumentDetails.aspx?ID=15375&NoSearchContextKey=true).
   • SASB should expand reporting to include Scope 2 emissions. The inclusion of only Scope 1 emissions limits comparability between companies by failing to distinguish between a company who may purchase most of its energy and another who generates energy on site.
   • SASB should exclude emission data from mobile sources from this draft metric as these sources are generally minor in terms of scope given this industry’s stationary operations and the inclusion of mobile sources in this reporting will add extraordinary financial burden with little to no actionable data produced.
   • SASB should include a definition for the facilities expected to be covered by this reporting. Currently, the draft metric references production facilities, offices and mobile sources, but does not address R&D centers, distribution centers, laboratories, etc. Clarity should be provided at a minimum and deminimis reporting levels established to exclude small operations and office buildings.
   • Requiring disclosure of percentage of emissions covered under a regulatory program is immaterial, and Eastman requests its removal from this metric.

2. Energy Management
   b. RT0101-03. Total energy consumed, percentage grid electricity, percentage renewable

   • Eastman requests modification of the metric to allow the flexibility to report energy efficiency as opposed to total energy. A number of companies have in the past reported an energy efficiency value. A switch to reporting total energy usage is problematic in that it may enable a calculation of confidential information such as production rates and capacities. Flexibility to report
energy efficiency will provide consistency and a protection of CBI and sensitive information.

- SASB should exclude emission data from mobile sources from this draft metric. These sources are generally minor in terms of scope given this industry’s stationary operations. The inclusion of mobile sources in this reporting will add extraordinary financial burden with little to no actionable data produced.

3. Air Quality
   a. RT0101-04. Air emissions for the following pollutants: NOx (excluding N2O), SOx, and volatile organic compounds (VOCs)
      - For the chemical industry, the disclosure of air emissions should be limited to direct emissions from stationary sources at production facilities. Emission metrics from other sources indicated (office buildings, marine vessels transporting products, truck fleets) and other mobile and small sources are typically not collected and a requirement to generate such information results in a significant burden. In regard to product transportation, such movements are often provided by third party carriers and the associated emissions would be most appropriately included in the transportation sector.
      - Many companies track SOx, NOx and VOC emissions only under permit requirements within specific production units. The draft metric implies that all emissions must be calculated and reported. Installing monitoring devices to accurately report emissions across all sources would require significant capital expenditures and in some cases is technologically infeasible. This investment would generate small scale data that is not decision-useful to investors. To make reporting manageable and to avoid increased financial and administrative burden, specify that reporting should be consistent with applicable local permit, license or regulatory requirements.
      - Due to the variance of VOC definitions globally, SASB should include a broad definition of VOCs that allows for regional differences in criteria.

   b. RT0101-05. Number of production facilities in or near areas of dense population
      - Eastman recommends deletion of this metric as the information in this context is not material nor does it provide information that is not already commonly available.

4. Water Management
   a. RT0101-06. Total water withdrawn, percentage recycled, percentage in regions with High or Extremely High Baseline Water Stress
      - Eastman requests that this metric be modified to allow as an alternative the reporting of water consumption. In many instances water consumption is a
preferable metric in that it may serve as a better indicator of potential impact. This metric would allow companies to report net water consumption by allowing them to take credit for withdrawn water returned to its original source.

- Flexibility should be provided regarding the metric requiring reporting percentage in regions with High or Extremely High Baseline Water Stress. First, the metric should not be limited to the WRI Aqueduct Tool. There are other tools available to assist in such evaluations and companies should be able to choose the tool that best meets their needs. Second, location within such a region does not necessarily equate to risk; therefore, consideration should be given as to the effectiveness of the tool with no context.

b. RT0101-07. Number of incidents of non-compliance with water-quality permits, standards, and regulations

- Eastman recommends withdrawal of this metric. Retention of this metric is problematic for a number of reasons. Mechanisms and requirements exist to report enforcement activities that result in significant penalty or fine. Those types of issues are the ones that are material and should be of interest. Due to variances in regulations, permit conditions and agreements, this metric is not comparable across facilities, locations and geographies. Also, incidences of “non-compliance” are highly variable with regard to scope, cause, potential impact and potential outcome. For example, a failure to meet a reporting deadline may be considered a “non-compliance” in the same manner as a discharge of material in exceedance of a permit limit. Clearly, impact and potential outcome of those two deviations is not the same. Finally, since reporting of non-compliance may be subject to certain legal and regulatory requirements, jurisdictions and protections, use of this metric is problematic in that it may jeopardize such procedures and protections.

5. Hazardous Materials Management
a. RT0101-08. Amount of hazardous waste, percentage recycled

- Eastman recommends modification to allow a company to choose to use either total amount of hazardous waste or a metric that indexes hazardous waste to a production or financial measure (such as pounds per pound of production or pounds per dollar of earnings).
- The definition of hazardous waste should be more flexible to account for varying definitions that currently exist globally and allow local definitions to dictate the categorization of hazardous waste.
- Eastman recommends that the “percentage recycled” portion of the metric be withdrawn. Particularly in the U.S., a metric regarding “recycling” of hazardous waste is problematic in that the RCRA regulations in certain cases prohibit activities that a “reasonable investor” may regard as recycle. Use of this metric will result in confusion and will be misleading.
b. RT0101-09. Number and aggregate quantity of reportable releases and spills, quantity recovered

- Eastman recommends withdrawal of this metric. This metric is redundant with SASB’s draft Operational Safety Metric for process safety incidents, creating overlapping reporting. Counting releases here and additionally collecting process safety incidents could lead to a ‘doubling’ effect when looking for total incidents incurred by a company. The operational safety metric also includes incidents involving injuries and fires; however, according to the American Chemistry Council, the vast majority of member company process safety incidents are releases and spills. The process safety metric uses the amount of material released in a one-hour period threshold to determine whether reporting is triggered and the severity of the incident. These are the type of incidents of most interest to investors. Also, the basis of the proposed metric is U.S.-centric requiring use of Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) threshold quantities and cannot be applied globally without significant investment in new systems and processes.

6. Employee Health and Safety
   a. RT0101-11. Discussion of efforts to assess, monitor, and reduce exposure of employees and contract workers to long-term (chronic) health risks

- Eastman recommends withdrawal of this metric. Most companies will have a strategy for improving environment, health, safety and security performance, and must track their performance against internal goals. However, given the qualitative and open-ended nature of the proposed metric, responses will be highly varied in content, detail and the information provided is not likely to be useful to a “reasonable investor” evaluating company performances.

7. Product Lifecycle Management & Innovation

Eastman supports comments submitted by the American Chemistry Council regarding this section calling for significant changes to this suite of SASB draft metrics. In particular:

- RT0101-012 and RT0101-016 should be combined into one metric that allows companies to articulate qualitatively their products’ sustainability impacts across their lifecycles.
- RT0101-013 should be re-cast as a qualitative metric describing a company’s management approach to minimization of product risks across their lifecycles. Alternatively, SASB could adopt a modified approach to the one taken in its draft Packaging standard that can be adjusted for Chemicals as follows: “Discussion
of the management approach to minimization of risks of products across their lifecycle, including the development of new products."

- RT0101-014 should be withdrawn.
- RT-0101-015 should be withdrawn as this information is already included in SEC reporting and is not material as a separate matter for sustainability reporting. The inclusion of this metric is a serious departure into very indirect measurements of performance and in this case could include even speculative issues based on settlements regardless of finding or cause. Also, since there is no global compliance standard by which companies are held to account, and violations can be assessed dramatically differently across regions and countries, comparisons company to company will be nearly impossible.

8. Political Spending
   a. RT0101-017. Amount of political campaign spending, lobbying expenditures, and contributions to tax-exempt groups, including trade associations
      
      Eastman recommends withdrawal of this metric. Information is currently reported under the United States Lobbying Disclosure Act (LDA) and is available to a "reasonable investor."

   b. RT0101-18. Five largest political, lobbying, or tax exempt group expenditures
      
      Eastman recommends withdrawal of this metric. Like the previous metric, collection of this data is redundant with LDA reporting requirements related to contributions to candidates and organizations, specific lobbying issues, and ballot measures. In addition, SASB’s determination of materiality with regard to this issue for the Chemicals and Non-Renewables sectors seems arbitrary, given that significant lobbying activities of other sectors where this metric was not identified. Eastman is concerned that this metric provides an implication to investors that any engagement in the policy-making or political process is damaging.

   a. RT0101-19. Process Safety Incidents Count (PSIC), Process Safety Total Incident Rate (PSTIR), Process Safety Incident Severity Rate (PSISR)
      
      Eastman urges SASB to modify the metric to allow for use of other accepted global approaches in addition to the referenced ACC approach.

   b. RT0101-20. Challenges to the Safety Systems indicator rate (Tier 3)
      
      Eastman recommends withdrawal of this metric. Publicly reporting Tier 3 data is inconsistent with the ANSI API RP 754 reporting standard.
recommendations. Tier 3 data is meant to aid companies by providing a level of leading information about a company’s process safety program, commonly referred to as a “near miss.” Near misses are commonly reported internally for occupation incidents as well. However, in this impact area it is appropriately not recommended for public reporting. It should not be reported publicly in this discipline either.

d. **Note to RT0101- 21. ‘Description of transport incidents including corrective actions taken’**

- Eastman recommends this requirement be withdrawn as it will entail a very significant and unreasonable administrative burden. In many instances, transportation incidents involve third party contractors and complete incident information may not be reportable to the company. Reporting the root cause analysis and corrective action taken for each incident is an unmanageable amount of data to report. Variances in reporting and the information provided will result in difficulty in making comparisons company to company. An alternative is to allow a description of activities undertaken to prepare for and respond to emergencies involving the company’s products and operations.
1) Feedback regarding accounting metric "RT0101-05 Number of production facilities in or near areas of dense population":
- The number of production facilities in or near areas of dense population does not provide insights into effective strategies targeting the reduction of air emissions. The accounting metric should therefore be replaced by a corresponding accounting metric such as RT0101-02 (for GHG emissions): "Description of long-term and short-term strategy or plan to manage Scope 1 emissions, emissions reduction targets, and an analysis of performance against those targets"
- Furthermore, the current accounting metric seems to exclusively focus on potential risks. The benefits include short transport distances, shared use of infrastructure, greater effectiveness of closed loop systems, availability of personnel.
2) Feedback regarding accounting metric "RT0101-14. Percentage of products by revenue that contain genetically modified organisms":

- The achievements in the field of "Green Chemistry" (see accounting metric RT0101-16) are often based on innovative bioprocesses applying genetically modified organisms, as demonstrated by Solazyme and Amyris (two of the EPA Presidential Green Chemistry Challenge Winners 2014). The contradiction between these two accounting metrics (RT0101-14 "GMOs as a potential risk" and RT0101-16 "GMOs as opportunity") should be avoided by deleting RT0101-14 and instead discussing and analyzing the role of GMOs within RT0101-16.

<table>
<thead>
<tr>
<th>Product Lifecycle Management &amp; Innovation</th>
<th>Percentage of raw materials from renewable resources</th>
<th>Quantitative</th>
<th>Percentage (%) by weight</th>
<th>RT0101-12</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percentage of products by revenue that qualify as (a) Registration, Evaluation, Authorisation and Restriction of Chemical (REACH) substances of very high concern (SVHC), or (b) Class I World Health Organization (WHO): Acute Toxicity Hazard Categories</td>
<td>Quantitative</td>
<td>Percentage (%) by revenue</td>
<td>RT0101-13</td>
<td></td>
</tr>
<tr>
<td>Percentage of products by revenue that contain genetically modified organisms</td>
<td>Quantitative</td>
<td>Percentage (%) by revenue</td>
<td>RT0101-14</td>
<td></td>
</tr>
<tr>
<td>Amount of legal and regulatory fines and settlements associated with product safety</td>
<td>Quantitative</td>
<td>U.S. Dollars ($)</td>
<td>RT0101-15</td>
<td></td>
</tr>
<tr>
<td>Total addressable market and share of market for Green Chemistry-based products</td>
<td>Quantitative</td>
<td>U.S. Dollars ($), Percentage (%)</td>
<td>RT0101-16</td>
<td></td>
</tr>
</tbody>
</table>
**Screenshots of “Accounting metrics”:**

**RT0101-05. Number of production facilities in or near areas of dense population**

24. The registrant shall disclose the number of its production facilities that are located in or near areas of dense population, which are defined as urbanized areas according to U.S. Census Bureau definitions.14

- Generically, these include urbanized areas with populations greater than 50,000.
- A list of urbanized areas is available based on census results, with the list from 2010 accessible here: http://www.gpo.gov/fdsys/pkg/FR-2012-03-27/pdf/2012-0603.pdf.

25. The scope of disclosure includes production facilities that are located in a census tract or block considered to be in an urbanized area, or are within 49 kilometers of an urbanized area.15

26. For production facilities located outside of the U.S., the registrant shall use available census data to determine whether the facility is located in an urbanized area, as defined by the U.S. Census Bureau:

- In the absence of available or accurate census data, the registrant should use international population density data available from the Columbia University/NASA Socioeconomic Data and Applications Center (SDEAC) Grided Population of the World (GPW), v3.

**RT0101-14. Percentage of products by revenue that contain genetically modified organisms**

54. The registrant shall disclose the percentage of its products by revenue that contain genetically modified organisms (GMOs), where:

- GMOs are defined as an organism, with the exception of human beings, in which the genetic material has been altered in a way that does not occur naturally by mating and/or natural recombination, consistent with EU Directive 2001/18/EC.

55. The scope of disclosure includes GMOs that are defined by, or subject to, the following:

- EU Directive 2001/18/EC,
- Regulation EC 1829/2003,
- Maine HP 0490 LD 718,
- Vermont H. 112 Act 0120,
- Connecticut House Bill 6527, or
- Other U.S. state or federal regulation, as enacted.

23 http://www.businessdictionary.com/definition/persistent-biocumulative-and-toxic-BBT.html#vY98Hg2
24 https://www.epa.gov/content/cancerogenic-mutagenic-and-reprotoxic-substances-lists
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56. The percentage is calculated as the revenue from products that contain GMOs, divided by total revenue from all products.
January 15, 2015

Sustainability Accounting Standards Board®
75 Broadway
Suite 202
San Francisco, CA 94111

Dear Sustainability Accounting Standards Board,

FMC appreciates the opportunity to comment on the Sustainability Accounting Standards Board’s draft standard in the Resource Transformation Sector for Chemicals. FMC has been a part of the American Chemistry Council’s working group to develop the attached comments on the draft standard and fully supports the recommendations. I urge SASB to make adjustments to the draft standard to address issues of materiality, relevance, decision-usefulness for the mainstream investor, technical deficiencies with certain metrics and associated definitions, and in some cases extraordinary financial burden associated with the proposed reporting.

Thank you for consideration of these comments. Please feel free to contact me at 215.299.6183 with any questions you may have.

Respectfully submitted,

Linda W. Froelich | FMC Corporation
Director, Corporate Sustainability
1735 Market St., Philadelphia, PA 19103
January 15, 2015

Sustainability Accounting Standards Board®
75 Broadway
Suite 202
San Francisco, CA 94111

Dear Sustainability Accounting Standards Board,

The American Chemistry Council (ACC) appreciates the opportunity to comment on the Sustainability Accounting Standards Board’s (SASB) draft standard in the Resource Transformation Sector for Chemicals. ACC’s comments urge SASB to make adjustments to the draft standard to address issues of materiality, relevance, decision-usefulness for the mainstream investor, technical deficiencies with certain metrics and associated definitions, and in some cases extraordinary financial burden associated with the proposed reporting.

ACC values a strong working relationship with SASB and appreciates the efforts made by staff to inform ACC and its members throughout the draft standard development process. With that in mind, we are concerned that several important issues are not adequately addressed in the draft standard and revisions should be incorporated prior to releasing the provisional draft. ACC members would also like to take this opportunity to outline a number of concerns related to SASB’s process to develop this draft chemical standard. There has been a lack of transparency in the decision-making process regarding which comments to incorporate, and it appears that very little of our feedback in the earlier stages has been incorporated into this draft standard. It would be appreciated if SASB would provide more information to stakeholders regarding these processes and decisions.

There is considerable overlap between this draft standard and current industry practices already implemented by the chemical industry’s Responsible Care® program. Failure to recognize the overlap and to harmonize the two will create needless, burdensome and expensive reporting obligations. As background, Responsible Care is the chemical industry’s commitment to enhance performance, improve employee health and safety, the health of the communities in which they operate and the environment as a whole. Since 1988, when the initiative launched in the US, our industry has made dramatic performance improvements and public reporting demonstrates our commitment to sustainability, transparency and systems to produce continual improvement. Today, Responsible Care is practiced in over 60 economies worldwide through the International Council of Chemical Associations¹ and is noted as the premier example in the world of industry aligning under one performance program. One of the eight Fundamental Features of Responsible Care is public reporting of performance; both trade associations and member companies alike report above and beyond regulatory standards as a cornerstone feature of the program, and have developed reporting standards in areas such as process safety, where no existing protocols, regulatory or otherwise, exist. Globally, chemical industry associations whose members practice Responsible Care report member data that shows considerable improvements in environment, health and safety performance². In the United States, ACC member companies operate nearly six times safer than the average of the U.S. manufacturing sector, and three times as safe as the business of chemistry overall, and we voluntarily disclose both company-specific and aggregate industry performance results across a

ACC comments to draft SASB Chemicals Standard
January 8th, 2015

range of environment, health and safety indicators. The chemical industry, under Responsible Care, operates what is widely viewed as the broadest, most robust and successful voluntary industry performance reporting program. Indeed, 53% of ACC’s members that implement Responsible Care report to the US Securities and Exchange Commission (SEC). We urge SASB to leverage this commonality to fully align with industry standards such as Responsible Care to minimize financial burden on reporting companies as well as strengthen the materiality of information collected.

The chemical industry has embarked on a long-term and successful journey with voluntary reporting standards. We support such voluntary mechanisms to share performance data with interested stakeholders. However, establishing a robust performance reporting program has taken decades of investment and significant sector-specific expertise. Given the complex and serious nature of this reporting, ACC believes that if the SEC were to adopt sustainability standards reporting, those standards must be set through a transparent process that provides an opportunity for broad stakeholder input and that fully accounts for materiality, relevance, decision-usefulness and cost-effectiveness. We believe that the SASB process is inadequate in these areas. Further, as SASB states in the draft standard introduction, ACC agrees that each company is ultimately responsible for determining which information is material to its company and operations, and thus which information should be included in any reporting, voluntary or mandatory. Materiality is not “one size that fits all”.

SASB, while seeking to apply its reporting globally, takes a US-centric approach to issues and related definitions of some metrics in its draft reporting standard. If SASB seeks to apply its standards globally, ACC believes that the ability to report for worldwide operations is critically important. Where broadly used global reporting standards exist (e.g. GHG), SASB should leverage these protocols. Where such global definitions do not exist, SASB should allow flexibility for regional requirements and definitions until such globally harmonized approaches are developed; until that time, SASB should not arbitrarily require use of US reporting criteria and definitions on a global scale.

Additionally, there are a number of metrics within the draft standard that are unsubstantiated, implicate disclosure of Confidential Business Information (CBI), and/or create incomparable data points. ACC urges SASB to reconsider these draft metrics. Our detailed comments elaborate on these issues and identify suggestions for improvement. We look forward to SASB’s consideration of the substantive and constructive comments that follow.

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3 American Chemistry Council, 2014 - http://responsiblecare.americanchemistry.com/Performance-Results
Detailed Comments

1. Greenhouse Gas Emissions (GHG)
   a. RT0101-01. Gross global Scope 1 emissions, percentage covered under regulatory program.

   ACC recommends modification to the draft metric to improve materiality and comparability of the reported data.

   There are several existing protocols that the chemical industry, and Responsible Care® companies in particular, use to report carbon emissions. The proposed metric should be further aligned with these protocols, and adjusted for additional comparability and ease of reporting. Protocols with which the proposed metric should be further aligned include the ACC Responsible Care GHG emissions reporting guidance⁴, and the Environmental Protection Agency’s (EPA) Greenhouse Gas Reporting Program (GHGRP)⁵. The second part of the proposed metric referencing regulatory coverage should be withdrawn.

   - SASB should expand reporting to include Scope 2 emissions, consistent with EPA’s GHGRP. SASB’s inclusion of only Scope 1 emissions limits comparability between companies by failing to distinguish between a company who may purchase most of its energy and another who generates energy on site. Additionally, by including only Scope 1 emissions certain companies in this sector, such as compressed gas companies, would be divulging CBI. Inclusion of Scope 2 emissions would alleviate this issue, while allowing for greater comparability between reporting companies.
   - SASB should exclude emission data from mobile sources from this draft metric, as it is not included in the scope of Responsible Care or EPA’s GHGRP (Subpart C). Currently, most ACC member companies are not required to track GHG emissions from mobile sources. In addition, these sources are generally minor in terms of scope given this industry’s stationary operations. The inclusion of mobile sources in this reporting will add extraordinary financial burden with little to no actionable data produced.
   - SASB should include a definition for the facilities expected to be covered by this reporting. Currently, the draft metric references production facilities, offices and mobile sources, but does not address R&D centers, distribution centers, laboratories, etc. Clarity should be provided at a minimum, and ACC recommends establishing deminimis reporting levels to exclude very small operations and office buildings. ACC recommends the deminimis levels included in its Responsible Care reporting guidelines of 5,000 tons total equivalent net CO₂ emission per individual greenhouse gas, or the equivalent of a typical package boiler used in the manufacturing setting.
   - Requiring disclosure of percentage of Scope 1 emissions covered under a regulatory program is immaterial and ACC recommends its removal from this metric.

⁴ ACC’s Greenhouse Gas Reporting Guidance – The guidance will be submitted to SASB staff, as it is not available publically.
b. RT0101-02. Description of long-term and short-term strategy or plan to manage Scope 1 emissions, emissions reduction targets, and an analysis of performance against those targets

ACC recommends this draft metric be modified to focus on assessing risks and opportunities associated with carbon emissions, as well as performance improvement over time.

ACC has concerns over comparability of information submitted under this draft metric, as well as possible disclosure of CBI. Greater alignment with the Responsible Care management systems and reporting in assessing and managing risks as well as driving continuous performance improvements would leverage activities and reporting under an existing standard.

- Responsible Care requires participating companies to assess and managing environmental, health, safety and security risks. ACC suggests that this metric should be modified as “Description of systems to assess and manage risks and opportunities associated with carbon emissions.”
- Additionally, SASB’s metric should focus on emissions reduction over time rather than the analysis of performance against targets. Normalization in reporting to account for acquisitions and divestitures would be particularly important in this area. ACC suggests that SASB modify this part of the metric to read “emissions reductions achieved over a rolling 5-year timeframe.”

2. Energy Management

c. RT0101-03. Total energy consumed, percentage grid electricity, percentage renewable

ACC recommends modification to the draft metric to increase materiality and comparability of the reported data.

There are several existing protocols that the chemical industry, and Responsible Care® companies in particular, use to report energy consumption. The draft metric should be further aligned with these protocols and adjusted for additional comparability and ease of reporting. SASB should be further aligned to include the ACC Responsible Care energy consumption reporting guidance.

- As with the GHG emissions metric, ACC recommends instating a deminimus value for reporting in line with industry standards of 100 billion Btu for total energy use, or the equivalent of a typical package boiler used in the manufacturing setting.
- ACC requests clarification on the materiality of percent grid electricity reporting as a separate metric rather than simply considering purchased and non-purchased energy together. Many chemical facilities produce power onsite through combined heat and power units and their treatment within this metric is not obvious. Some credit for this efficient technology should be given.
- SASB should exclude emission data from mobile sources from this draft metric. These sources are generally minor in terms of scope given this industry’s stationary operations. The inclusion of mobile sources in this reporting will add extraordinary financial burden to reporting with little to no actionable data produced.
- Inclusion of renewable energy sources may falsely depict a sense of “greenness” by failing to account for full lifecycle impacts. Lifecycle assessments have shown that
manufacturing from renewable resources can be done in both environmentally advantaged and disadvantaged ways. This metric shows bias that renewables are superior without consideration of sustainability impacts. We also question whether a mainstream investor is interested in this data, and if so, would not the investor also be interested in any associated cost premium paid for the renewable energy. ACC notes that SASB should particularly exclude the use of renewable certificates, where the certificate – as opposed to actual renewable energy - is used as an offset.

3. Air Quality

a. RT0101-04. Air emissions for the following pollutants: NOx (excluding N2O), SOx, and volatile organic compounds (VOCs)

*ACC recommends modification to the draft metric to increase materiality and comparability of the reported data.*

SASB should align with Responsible Care industry reporting standards that define reportable emissions as those tracked under regional operating permits, such as US EPA Title V permit reporting under the Clean Air Act⁶. It should also allow for reporting of VOCs as defined by local authorities globally.

- Many companies track SOx, NOx and VOC emissions only under permit requirements within specific production units. The draft metric implies that all emissions must be calculated and reported. Installing monitoring devices to accurately report emissions across all sources would require significant capital expenditures and in some cases is technologically infeasible. This investment would generate small scale data that is not decision-useful to investors. To make reporting manageable and financially viable, Responsible Care reporting guidelines for air emissions specify that companies report on substances consistent with their local permit requirements, such that no new reporting is triggered. SASB should align this draft metric with these reporting requirements allowing companies to report for those operations required to track emissions under local permitting requirements to reduce additional financial burden brought on by this draft metric.

- ACC urges SASB to adopt the following language to clarify that SOx and NOx reporting be limited to emissions required to be tracked/reported under local permitting obligations: “Reporting of VOCs, NOx and SOx shall be limited to those sources within facilities that would otherwise be required to prepare and submit annual emissions inventory as per their respective permitting / regulatory requirements. Although state reporting requirements for emissions vary in terms of scope (e.g. some regions require SOx reporting while others require only SO2), ACC’s reporting defers to the regional reporting requirement.”

- Due to the variance of VOC definitions globally, ACC strongly urges SASB to include a broad definition of VOCs that allows for regional differences in criteria. It is not appropriate for SASB to push a US-centric definition globally, nor to attempt to facilitate global reporting protocols. Applying US VOC definitions is not currently executed by companies and would require new analysis and tracking systems.

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⁶ US EPA Clean Air Act, Title V - [http://www.epa.gov/air/caa/title5.html](http://www.epa.gov/air/caa/title5.html)
b. RT0101-05. Number of production facilities in or near areas of dense population

ACC recommends this draft metric be modified to include a qualitative description of company prioritization and management of overall operational risk. We believe this revised metric is best captured in the “Operational Safety, Emergency Management and Response” section.

Proximity of facilities to areas of dense population is just one factor that can be used to communicate overall operational risk. ACC believes this draft metric is an incomplete accounting of operational risk and is arbitrarily placed in the “Air Quality” section. Certainly proximity to dense populations could also be a factor in looking at water quality and waste issues as well. Therefore, ACC suggests that the metric be recast in the “Operational Safety, Emergency Management and Response” section.

- ACC’s alternative proposal is “A description of the company’s prioritization of operational risks and mitigation measures being taken or planned.” This would allow for consideration of issues such as facility citing in relation to natural resources and dense populations, process risks at facilities, transportation routes for key products, layers of risk mitigation, operational controls, etc.

4. Water Management
   a. RT0101-06. Total water withdrawn, percentage recycled, percentage in regions with High or Extremely High Baseline Water Stress

ACC recommends modification to the draft metric to increase materiality and comparability of the reported data.

This draft metric requires companies to report both water withdrawn and water recycled rather than allowing for companies to report ‘net water consumption’ which ACC asserts is a better measure of performance. ‘Net’ water consumption is more environmentally relevant and consistent with ACC’s Responsible Care Net Water Consumption metric, which allows companies to take credit for water returned to its original source. The first two reporting terms should therefore be combined. The third reporting term of percentage of water in high water stress regions may have the effect of establishing a single tool (WRI Aqueduct) and its underlying database as the standard for defining water stress, though no consensus on this point currently exists, and doing so may invalidate other useful third-party tools that companies currently use. Experience shows that the Aqueduct tool, like other global tools, is a useful risk tool for management but a potentially misleading performance metric for shareholders, as it may provide a far different result from actual site conditions obtained in a more granular local water analysis. Moreover, results can depend sensitively on boundary definitions, and may not be comparable across industries (different results may be obtained for different industry-specific weighting schemes). A reporting metric in this area will be burdensome for some organizations and does not take into account whether or not the organization is taking water from the stressed source.

- SASB should adopt a ‘net water consumption’ metric, which is the appropriate joining of its first two proposed metrics.
- Reporting ‘percentage in regions with High or Extremely High Baseline Water Stress’ makes use of the World Resources Institute’s Aqueduct tool, but the definitions of ‘water stressed’ are not standardized. In addition, the Aqueduct tool uses complex indicators which may not take into account that companies could be
located in a high stress environment, yet draw water from a non-stressed location. Finally, ACC notes that a number of smaller and medium-sized companies currently do not use the Aqueduct Tool and mandated use place extraordinary financial burden on these companies. Companies should be allowed to analyze water stress using the tool of their choice as an advanced reporting option.

b. RT0101-07. Number of incidents of non-compliance with water-quality permits, standards, and regulations

ACC recommends withdrawal or modification of this draft metric.

Non-compliance in this area seems out of balance with other impact areas, as it is the only metric of its type in the SASB draft. As such, it is unclear why SASB chose to apply this type of metric only in the water area. As an indirect measure of performance, ACC believes it does not provide investors decision-useful information as the magnitude of violations could differ wildly. In addition, the inclusion of violations against voluntary standards is inappropriate and discourages companies from going beyond basic regulatory compliance and participating in such programs.

- SASB should withdraw this draft metric as it is an indirect measure, leading to information that will not be decision-useful to investors. Of particular concern is that since violations in one region could be compliance in another region, reported figures could be disproportionate based on geography making the data incomparable. Additionally, since there is no global compliance standard by which companies are held to account, and violations will range from major to minor, comparisons company to company will be nearly impossible.
- If SASB moves forward with this metric, non-compliance in voluntary programs must absolutely be eliminated from reporting.

5. Hazardous Materials Management

a. RT0101-08. Amount of hazardous waste, percentage recycled

ACC recommends disaggregating the two data points proposed in this metric and further modifying the language to address definitional issues with ‘hazardous waste’ and to clarify the focus of reporting.

Currently, SASB defines ‘hazardous waste’ using USEPA definitions, which are inadequate for addressing this impact area globally where significantly different waste definitions apply regionally. The definition of hazardous waste should be more flexible to account for varying definitions that currently exist globally and allow local definitions to dictate the categorization of hazardous waste.

In the US, there are strict regulatory requirements that in most cases do not allow the "recycling" of hazardous waste. Further, the SASB guide uses the terms “waste” and “material” interchangeably, which is technically inaccurate and impossible for would-be reporters to interpret. Therefore, the “percentage recycled” portion of the metric is irrelevant as written and should be re-cast as a separate measure, to include a more expansive look at hazardous materials recycling, which seems more consistent with the impact category identified by SASB. In addition, ACC calls SASB’s attention to EPA’s recent release of its
new final solid waste rule\(^7\), clarifying many of these definitional issues raised by the SASB proposal.

- SASB should include an “Amount of hazardous waste” measure, deferring in the reporting instructions to local and regional definitions to ease workability and global application for companies.
- SASB should establish a second metric of “Percent of hazardous materials recycled” which is more fully aligned with the impact area and allows more meaningful reporting to investors. While reporting of materials reuse and recycling may be important, this cannot be tied to hazardous waste, which in many cases, cannot be recycled according to US law. A good definition of “hazardous material” and “recycled” would be needed for reporters to be able to give appropriate data on this metric.

b. RT0101-09. Number and aggregate quantity of reportable releases and spills, quantity recovered

**ACC recommends withdrawal of this draft metric.**

This metric is redundant with SASB’s draft Operational Safety Metric for process safety incidents, creating overlapping reporting. Counting releases here and additionally collecting process safety incidents could lead to a ‘doubling’ effect when looking for total incidents incurred by a company. While the operational safety metric also includes incidents involving injuries and fires, the vast majority of ACC member company process safety incidents are releases and spills. In fact, over the past 5 years, 83% of ACC member company process safety incidents were releases and spills. The process safety metric uses the amount of material released in a one-hour period threshold to determine whether reporting is triggered and the severity of the incident. These are the type of incidents of most interest to investors. In addition, the reporting basis is US-centric using Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)\(^8\) threshold quantities and cannot be applied globally without significant investment in new systems and processes.

- The metric will capture incidents already reported in other draft metrics, including the Operational Process Safety and Distribution metrics.
- In addition, the CERCLA table is devised for operations in the US, while there are several other such ‘lists’ commonly used by other countries, such as the Globally Harmonized System of Classification and Labeling of Chemicals (GHS)\(^9\). These two lists, for example, vary on the reportable quantity for a substance and it would be difficult for one company to apply the CERCLA table to operations outside of the US where they are currently using GHS. There would be an extraordinary financial burden placed on global companies expected to reclassify and handle hazardous material releases under a single definition.

6. **Employee Health and Safety**
   a. RT0101-10. (1) Total Recordable injury rate and (2) fatality rate for (a) full time employees and (b) contract employees

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\(^8\) The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), 1980 - [http://www.epa.gov/superfund/about.htm](http://www.epa.gov/superfund/about.htm)

\(^9\) Globally Harmonized System of Classification and Labeling of Chemicals (GHS) - [https://www.osha.gov/dsg/hazcom/ghs.html](https://www.osha.gov/dsg/hazcom/ghs.html)
ACC supports this draft metric but requests clarification on definition of ‘contractor’.

Collecting the Total Recordable Injury Rate (TRIR) and fatality information has been a long standing commitment in the chemical industry. ACC member companies have been publically reporting these data points for many years. Responsible Care companies have reduced their TRIR by 80 percent since 1990 for employees\(^10\). ACC Responsible Care companies voluntarily report contractor safety rates independently of employee data, consistent with the proposed SASB metric. However, ACC reporting guidelines include definitions of individuals to be classified as contractors and some additional guidance is also required in the SASB standard.

- SASB should consider allowances for global companies to loosely translate their occupational injury and illness data to US standards, based on regional reporting requirements.
- ACC’s reporting guidelines align with OSHA reporting standards, requiring that companies with fewer than 10 employees are not required to report data. SASB should align with OSHA in this regard and allow for a deminimis reporting level.

b. RT0101-11. Discussion of efforts to assess, monitor, and reduce exposure of employees and contract workers to long-term (chronic) health risks

ACC requests further clarification on reporting expectations with regard to this draft metric.

While no industry reporting standard exists, ACC Responsible Care companies must have a strategy for improving environment, health, safety and security performance, and must track their performance against internal goals. However, given the current description of this metric, it is unclear the level of specificity being requested and whether additional activities or testing/monitoring would be required.

- More information is needed in this area to determine the level of detail requested and the format for the data. For example, participating companies could discuss that risks have been assessed or that there are currently efforts to further monitor workplace exposure and develop risk management programs.
- Likewise, many companies have robust systems to reduce workplace exposure to manage long term health risks. However, these programs are highly variable company to company and therefore the comparability of the reported qualitative information would be very difficult to the subjective observer and require the reader to be well versed in the standard operations of a chemical company.
- Without additional clarification regarding detailed reporting expectations, the comparability of reporting for this draft metric may undermine the value.
- ACC suggests the following clarifying statements be incorporated in the text supporting the metric reporting: “Organizations can provide information regarding their systems to identify, evaluate and manage chronic health risks to employees and contract workers. Organizations can also report any third party certifications they have achieved (e.g. RCMS\(^8\) or RC14001\(^8\)) that verifies implementation of these systems.”

\(^{10}\) American Chemistry Council, 2014 Responsible Care Fact - [http://responsiblecare.americanchemistry.com/Performance-Results/Safety](http://responsiblecare.americanchemistry.com/Performance-Results/Safety)
7. Product Lifecycle Management & Innovation

The chemical industry is a significant contributor to solving the world’s sustainability challenges. From fertilizers and pesticides improving crop yields to disinfection chemistry to light-weighting of vehicles for added fuel efficiency, chemical companies invest in and develop technologies that contribute to enhanced environmental, safety, health, security, quality of life and sustainability of the planet. Chemical water filtration and disinfection systems have helped eradicate waterborne diseases and epidemics. A recent study by McKinsey indicates that for every ton of CO2 emitted by the chemical industry, its products and technologies enable 2-3 tons of CO2 savings. Chemical products such as insulation and silicone weather proofing save energy and reduce carbon emissions. The chemical industry contributes to alleviating world hunger through advances in seeds, crop protection and food stabilizers, leading to better application, higher crop yields, lower prices and more abundant food sources. Chemistry represents 30% of the value of materials used in agriculture production. Chemistry contributes to 10% of the value of a computer; 15% of the value of consumer electronics; 33% of the value of semiconductors; and 34% of photographic equipment, enhancing flow of information and transparency of data. ACC urges SASB to consider these contributions and modify this suite of metrics to allow for companies to showcase their performance in these critical areas. The metrics in their current form do not allow for this reporting.

ACC recommends significant changes to this suite of SASB draft metrics. A summary of the recommendations is as follows:

- RT0101-012 and RT0101-016 should be combined into one metric that allows companies to articulate qualitatively, their products’ sustainability impacts across their lifecycles.
- RT0101-013 should be re-cast as a qualitative metric describing a company’s management approach to minimization product risks across their lifecycles.
- RT0101-014 should be withdrawn
- RT-0101-015 should be withdrawn

a. RT0101-012. Percentage of raw materials from renewable resources and RT0101-016. Total addressable market and share of market for Green Chemistry-based products

ACC recommends re-development of this metric to allow for qualitative reporting of a company’s product sustainability impact across their lifecycles.

Each of the originally proposed metrics aims for positive reporting of reduced sustainability impacts from a reporting company’s products. This approach would be strengthened and more technically sound if it were broadened to allow for companies to articulate their products sustainability impacts across their lifecycles in areas beyond renewables and green chemistry.

As stand-alone measurements, there are serious flaws in the two metrics as proposed. First, with regard to the renewables metric, this proposed approach assumes renewables are superior without the consideration of sustainability impacts throughout the entire lifecycle of a product. In many cases, renewables may perform more poorly across its lifecycle despite the implication from this metric that more renewables is inherently
superior. In addition, reporting a percentage of raw materials from renewable resources requires companies to track all raw material transactions by weight, an exercise generally not undertaken in companies today, and then trace those raw materials – many of which have been passed through multiple marketplace transactions since the origins of the product. Technically, this approach is infeasible today. A broadened approach would allow full qualitative accounting of the lifecycle impacts of companies’ products beyond the simple initial extraction/production process.

Second, the “green chemistry” metric not only contains fundamental definitional flaws, it also creates potential anti-trust implications that may inadvertently result as a product of market forecasting. “Green chemistry-based products” lacks clear definition and the framework for determination provided in the draft metric excludes considerations that exist in other green chemistry definitions. The proposed metric definition, if used, should be further aligned with the American Chemistry Society’s 12 Principles of Green Chemistry\(^\text{11}\). ACC’s proposed alternative qualitative approach would allow companies to explain their product sustainability impacts overall, inclusive of use of green chemistry in its products.

- SASB should adopt a metric that combines concepts in the proposed RT-0101-012 and RT-0101-016, yet allows for companies to provide qualitative information about its products’ sustainability impacts.
- Mainstream investors would most surely be interested in an approach that allows companies to showcase breakthrough technologies and opportunities for opening new markets to the organization through products that contribute to sustainability challenges. This approach would allow for such reporting, while the SASB proposal would not.
- The ACC proposed alternative approach is as follows: “Discussion of product sustainability impacts across their lifecycles, including for example, product sourcing, use of green chemistry as defined by the ACS 12 Principles of Green Chemistry, carbon emissions, energy use, water use, land use and food supply, health effects, availability of clean water, product durability and end of life.

\[ \text{b. RT0101-013. Percentage of products by revenue that qualify as (a) Registration, Evaluation, Authorization and Restriction of Chemical (REACH) substances of very high concern (SVHC) and/or (b) Class I World Health Organization (WHO): Acute Toxicity Hazard Categories} \]

\[ \text{ACC recommends modification to the draft metric to increase materiality and comparability of the reported data.} \]

ACC has concerns over the technical workability and exclusion of proper scientific assessment within this draft metric. From a technical standpoint, for example, there are mismatches between the endpoints of focus in the two referenced lists and no reference criteria for PBTs/CMRs. Furthermore, there is no ability to apply the definition to mixtures, which become more prevalent the further one travels along the chemicals supply chain. ACC believes this draft metric is a misuse of the referenced regulatory lists and advises SASB leverage approaches to this impact area in other industry and SASB standards. In addition, the proposed metric proposal assumes that products reported here are relevant to investors as

\(^{11}\) American Chemistry Society, 12 Principles of Green Chemistry - [http://www.acs.org/content/acs/en/greenchemistry/what-is-green-chemistry/principles/12-principles-of-green-chemistry.html](http://www.acs.org/content/acs/en/greenchemistry/what-is-green-chemistry/principles/12-principles-of-green-chemistry.html)
they are inherently disadvantaged in the marketplace. In fact, there are times when the reverse is true. Markets can be opened by products that contain REACH SVHC or WHO class I substances when sustainability challenges are addressed and the products are demonstrated as safe for their intended use. Taking this farther, at times, products containing REACH SVHC are authorized under REACH when others are not, opening up significant business opportunities to the companies that have authorized uses for these products. To improve the technical accuracy of the proposed metric and address the underlying issue more holistically, ACC recommends the following alternatives:

- Under the Responsible Care Product Safety Code, companies are required to conduct risk characterizations and develop product safety management plans for their products. Completion of these Responsible Care requirements could be measured as a percentage of a company’s product lines.
- Alternatively, SASB could adopt a modified approach to the one taken in its draft Packaging standard, which includes a metric for “Discussion of management approach to minimization of (1) of packaging used and (2) noxious or hazardous constituents in packaging.” This could be adjusted for Chemicals as follows: “Discussion of the management approach to minimization of risks of products across their lifecycle, including the development of new products.”

c. RT0101-014. Percentage of products by revenue that contain genetically modified organisms

*ACC recommends withdrawal of this draft metric as it is not a sustainability issue for the chemical industry.*

ACC advises removal of this draft metric due to its lack of materiality and on the basis that it implies aversion to GMO-related products. The basis for the inclusion of this metric is unclear. GMOs are not regulated substances and there is no evidence of legal or regulatory action being taken in this regard. If SASB is relying on consumer demand regarding GMOs, it should disclose its research fully and indicate consumer sentiment on this issue as compared to other chemical industry concerns to demonstrate relative materiality. ACC strongly believes the inclusion of GMO reporting in the Chemicals sector is unsubstantiated and misplaced given the very few number of chemical companies for which this metric would apply. Further, labeling requirements for product containing GMOs which could affect cost are occurring downstream of the chemicals industry.

In addition, the inclusion of this metric implies a negative sustainability impact from products containing GMOs, which is in contradiction to the science on this issue. Food from GMOs is digested in the body the same as food from non-GM crops. Hundreds of studies have demonstrated and continue to demonstrate that GMOs do not present any health risk—they do not cause new allergies or cancers, infertility, ADHD or any other diseases. In the years that farmers have grown crops from GM seeds (since around 1994), there has not been a single documented instance of harm to human health resulting from genetic modifications, including new allergic reactions. The current language would fail to incentivize innovative strides with GMOs, such as disease-resistance and higher crop yields, because given the negative GMO connotation amplified by this metric to investors. Additionally, the percentage basis for reporting could create comparison difficulties between integrated and non-integrated

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companies. For example, an integrated company with a significant revenue-generating GMO-based agricultural business could underestimate given reporting based on percentages as compared to a small company with a GMO-only business.

- Overall, ACC believes this to be a fundamentally flawed metric with no sustainability materiality, particularly for the Chemical sector and strongly urges its removal from the SASB proposal.

d. **RT0101-015. Amount of regulatory fines and settlements associated with product safety**

*ACC recommends withdrawal of this draft metric.*

This information is already included in SEC reporting and is not material as a separate matter for sustainability reporting. The inclusion of this metric is a serious departure into very indirect measurements of performance and in this case could include even speculative issues based on settlements regardless of finding or cause. Also, since there is no global compliance standard by which companies are held to account, and violations can be assessed dramatically differently across regions and countries, comparisons company to company will be nearly impossible.

8. **Political Spending**

a. **RT0101-017. Amount of political campaign spending, lobbying expenditures, and contributions to tax-exempt groups, including trade associations**

*ACC recommends withdrawal of this draft metric.*

ACC has serious concerns with this draft metric and believes the framework may lead to unintended qualitative assessment of reporting companies, based on limited information, and is redundant to reporting requirements under the United States Lobbying Disclosure Act (LDA). It is also unclear why this metric is uniquely and arbitrarily identified to only two sectors of the many for which SASB has set provisional standards. Many of the industry sectors for which SASB has set reporting standards did not identify this area as material — quite appropriately — even when these sectors, such as healthcare and automotive, engage in significant lobbying and political contributions.

Reporting in this area would mislead mainstream investors by inferring that any such activities are inherently negative. In fact, when aligned with strategic business objectives, they can be a positive factor in long-term company performance. Further, chemical companies often lobby for more sustainable policy and candidate outcomes. In this draft metric’s preamble, SASB states that, “Companies with a well-articulated strategy for engaging with policymakers and regulators—one that is aligned with their goals and activities for long-term sustainable outcomes and also accounts for societal externalities—could benefit from a stronger, long-term license to operate. Such companies will likely be better prepared for medium- to long-term regulatory adjustments that deal with global, high-impact issues.” (pg. 27). This suggests that companies should have a qualitative, well-articulated strategy. However, the draft metric is focused only on the quantitative expenditure and is poorly suited

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to determine any such qualitative approach.

b. RT0101-18. Five Largest political, lobbying, or tax exempt group expenditures

*ACC recommends withdrawal of this draft metric.*

Like the previous metric, ACC asserts that collection of this data is redundant with LDA reporting requirements related to contributions to candidates and organizations, specific lobbying issues, and ballot measures. SASB’s proposed metric implies that any such activities are inherently negative. As commented above, SASB’s targeted determination of materiality in the Chemicals and Non-Renewables sectors seems arbitrary, given significant lobbying activities of other sectors where this metric was not identified. Operating under the assumption that any such activities are a negative reflection of the reporting company deters exercising this right and transitively implies a negative connotation to the industry itself. This will wrongfully imply to investors that any engagement in the policy-making or political process is damaging.


a. RT0101-19. Process Safety Incidents Count (PSIC), Process Safety Total Incident Rate (PSTIR), Process Safety Incident Severity Rate (PSISR)

*ACC supports this draft metric.*

Collecting and reporting lagging process safety data points is a key practice that demonstrates industry’s commitment to keeping our facilities and communities safe as a top priority. While not all of this information is reported publically as a rate by ACC, all of the information to develop the rate is collected and many companies report this information already. ACC member companies have reduced total process safety incidents by 55% since 1995, and in 2013 more than half of ACC member companies did not experience a single process safety incident. While supporting this metric, ACC also calls SASB’s attention to other process safety protocols available internationally. For example, some European companies track and report to a European Process Safety Centre (EPSC) standard. Additionally, an international activity through the ICCA is underway for the past several years to develop a globally accepted definition for process safety incident reporting. ACC encourages SASB to allow for flexible reporting so that a new globally adopted approach could be used to report in this area.

b. RT0101-20. Challenges to the Safety Systems indicator rate (Tier 3)

*ACC recommends withdrawal of this draft metric.*

The current ANSI API RP 754 process safety metric, which SASB references as the criteria for a Tier 3 incident, specifically states that is does not recommend Tier 3 incident data be reported publically. Tier 3 incidents are only recommended for internal company use and tracking and not recommend for public reporting. ACC strongly objects to inclusion of this metric.

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14 American Chemistry Council, 2014 - [http://responsiblecare.americanchemistry.com/Performance-Results/Safety](http://responsiblecare.americanchemistry.com/Performance-Results/Safety)
Publicly reporting Tier 3 data is inconsistent with the ANSI API RP 754 reporting standard recommendations.

Tier 3 data is meant to aid companies by providing a level of leading information about a company’s process safety program, commonly referred to as a ‘near miss’. Near misses are commonly reported internally for occupation incidents as well. However, in this impact area it is appropriately not recommended for public reporting. It should not be reported publicly in this discipline either.

c. RT0101-21. Number of transport incidents

*ACC supports this metric approach with definitional clarifications.*

For most chemical companies, the actual transportation and in-transit storage and handling are conducted by third parties, not by the chemical companies themselves. However, product stewardship and safe distribution of chemicals are important areas of management for Responsible Care companies, which currently report on the number of DOT 5800 incidents associated with their companies and their products. For global applicability, however, we support SASB’s proposal to allow for reporting against other protocols that exist in the EU and through ICCA. As a clarification, ACC recommends that SASB limit the scope of these DOT 5800 incidents to the types listed in 49 CFR 171.15 (immediate notice of certain hazardous materials incidents) and not include 49 CFR 171.16 (detailed hazardous material incident reports) as this would incorporate an element of severity to the reporting, making it more meaningful and more consistent with SASB’s intent to identify incidents which may affect a company’s long term financial sustainability. Further, SASB should apply similar definitions in other regions for equivalent (i.e. more significant incident) level of incident reporting.

d. Note to RT0101-21. ‘Description of transport incidents including corrective actions taken’

*ACC recommends that this metric be recast to allow for narrative descriptions of emergency response and preparedness activities, consistent to the metric category.*

Considering that many transport incidents happen with third party shippers, corrective actions taken are also by those third party shippers and in many cases those shippers are not required to report that information to the company. Reporting the root cause analysis and corrective action taken for each incident is an unmanageable amount of data to report to SASB. Uneven reporting would also be very likely, limiting company to company and incident to incident comparisons. This metric should be modified to allow companies to describe their efforts on emergency preparedness and planning activities when incidents do occur, consistent with the intent of this SASB impact category.

- Considering the amount of data being requested for this metric, which in some cases could take months or years to collect, this metric should be modified to allow companies to report on the numerous ways they prepare for and respond to emergencies involving their products and operations. ACC’s proposed alternative is “Description of activities undertaken to prepare for and respond to emergencies involving the company’s products and operations.

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Activity Metrics

1. RT0101-A Amount of chemical production

   ACC requests additional guidance on the units of measure for this draft metric.

   Not all chemical companies calculate output in cubic meters or tons. As many chemical companies have diverse product lines, output could be measured in units or ‘widgets’. Forcing companies to determine output in weight or volume would misrepresent the final product. SASB should provide additional guidance for the units of measure for this draft metric which should be more specific in regards to how companies should report when they do not measure output in cubic meters or tons. In addition many companies consider their actual production output confidential information, and disclose rated capacity as an alternative. SASB should consider this as an alternative.

2. RT0101-B Number of employees, percentage in manufacturing role

   ACC recommends this withdrawal of this draft metric.

   Assuming that SASB intends to use this figure for normalization purposes, there is no relevance to the manufacturing role that employees assume in the process. Most companies could accurately report that 100% of employees are in a role that supports the operations of its manufacturing. This draft metric becomes more irrelevant given the role automation plays in industry today and compounded with the variety of ways industry manufactures products, the number of employees in a manufacturing role is irrelevant. SASB correctly did not identify this normalizing factor for other sectors, and it is likewise not relevant to the Chemical sector. ACC strongly recommends that SASB address the detailed comments provided prior to release of the provisional standard.

   Thank you for consideration of ACC’s comments. Please feel free to contact me at 202.249.6185 with any questions you may have.

Respectfully submitted,

Debra Phillips
Vice President, Responsible Care® and Value Chain Outreach
American Chemistry Council
January 15, 2015

Sustainability Accounting Standards Board
75 Broadway
Suite 202
San Francisco, CA 94111

Dear Sustainability Accounting Standards Board,

MeadWestvaco (MWV) appreciates the opportunity to comment on the Sustainability Accounting Standards Board’s (SASB) draft standard in the Resource Transformation Sector for Chemicals. MWV urges SASB to adjust their draft standard to ensure that it is relevant and decision useful for investors. MWV believes that there are areas of the draft standard that should be adjusted so that sustainability reporting remains relevant, useful and cost effective for all companies in the Resource Transformation Sector. MWV urges SASB to harmonize their standard with existing frameworks (e.g. Responsible Care, CDP, GRI) to reduce the burden and cost of reporting obligations. Additionally, MWV believes it is critical to the integrity of the standard that SASB continue to embrace the idea that each company is ultimately responsible for determining which topics are material for reporting. MWV looks forward to continuing the conversation with SASB and hopes that it will carefully consider the following substantive, constructive comments.

Detailed Comments:

Section: Guidance for Disclosure
Page: 3
MWV believes that the creation of a MD&A section entitled “Sustainability Accounting Standards Disclosures” is an appropriate measure.

Section: Guidance for Accounting
Page: 4
In order to get comparable data there will have to be further guidance provided by SASB on how to normalize metrics. The data provided in this industry will not be comparable unless SASB somehow resolves this issue.

Section: Reporting format
Page: 5
MWV does not think that “number of employees” or “customers” are relevant activity metrics.

Section: Assurance
Page: 7
It is not reasonable to expect the same level of rigor and accuracy for sustainability data as it is for financial data in current SEC filings. Measuring sustainability data is in its infancy when compared to financial data, and financial data has better systems and resources. Though this is a noble goal that companies should strive for, it is currently an unreasonable expectation for sustainability reporting and this language should be dropped from the standard.

Section: Greenhouse Gas Emissions
Metric: RT0101-01
Page: 10
There is no mention of disclosing gross global scope 1 emissions per the United States Environmental Protection Agency’s greenhouse gas reporting protocol. Many (if not all) companies in the Chemical Industry have a regulatory
requirement to report gross global scope 1 emissions using this framework. Requiring companies that are already reporting this information to the EPA to re-report in a separate format in the 10-K places an unnecessary burden on those companies covered by the EPA's GHG regulatory framework. EPA's reporting protocol should be added to the standard as an option for reporting gross global scope 1 emissions and also as one of the regulatory programs under 03.

Additionally, MWV strongly encourages SASB to establish diminishis reporting levels that exclude small operations and office buildings. SASB should also exclude emissions data from mobile sources in their standard. These emission sources are minor when compared to the industry's stationary operations.

Lastly, Scope 2 GHG emissions should be a material topic. If scope 2 emissions are not required to be reported then this could portray an inaccurate picture to investors. Requiring disclosure on both scope 1 and scope 2 is the only way to get useful and comparable data on chemical manufacturers.

Section: Energy Management
Metric: RT0101-03
Page: 13
MWV agrees with the American Chemistry Council's (ACC) comments for this metric. Please refer to the ACC's comment letter for more details on MWV's position for this metric.

Section: Air Quality
Metric: RT0101-04
Page: 15
MWV agrees with the American Chemistry Council's (ACC) comments for this metric. Please refer to the ACC's comment letter for more details on MWV's position for this metric.

Section: Air Quality
Metric: RT0101-05
Page: 15
MWV agrees with the American Chemistry Council's (ACC) comments for this metric. Please refer to the ACC's comment letter for more details on MWV's position for this metric.

Section: Water Management
Metric: RT0101-06
Page: 17
Reporting on water consumption is more reflective of how companies in the Chemical industry use water as a resource. Typically, when water is used in manufacturing it is not taken out of the water cycle, so water consumption is a better metric than water use. If water availability is the risk driving the materiality of this disclosure then water consumption is the most accurate indicator of that risk. SASB should remove water use from the standard as a metric and replace it with water consumption.

Reporting water recycling data to current 10-K reporting standards will be a challenge. This metric can currently be quantified, but it has a large margin of error associated with current calculations. As such, water recycling is not a cost-effective or auditable metric and should be removed from the standard.

Section: Water Management
Metric: RT0101-07
Page: 17
An incident of non-compliance with water quality permits is an indirect measure of water quality. As such, MWV believes that this metric is not decision-useful information for investors. SASB should adopt a direct measure for water quality or remove this metric from its standard.

Additionally, including violations against voluntary standards would discourage companies from participating in beyond-compliance programs. This provision must be removed from the standard if SASB continues with this metric.

Section: Hazardous Materials Management
Metric: RT0101-08
Page: 19
MWV agrees with the American Chemistry Council’s (ACC) comments for this metric. Please refer to the ACC’s comment letter for more details on MWV’s position for this metric.

Section: Hazardous Materials Management
Metric: RT0101-09
Page: 19
MWV agrees with the American Chemistry Council’s (ACC) comments for this metric. Please refer to the ACC’s comment letter for more details on MWV’s position for this metric.

Furthermore, MWV would like stress to SASB that the inclusion of this metric would place a very large financial burden on reporting companies.

Section: Product Lifecycle Management & Innovation
Metric: All
Page: 23
MWV agrees with the American Chemistry Council’s (ACC) comments for this suite of metrics. We believe that significant changes should be made to this suite of metrics including:
- RT0101-012 and RT0101-016 should be combined into one metric that allows companies to articulate qualitatively, their products' sustainability impacts across their lifecycles.
- RT0101-013 should be re-cast as a qualitative metric describing a company’s management approach to minimization of product risks across their lifecycles.
- RT0101-014 should be withdrawn
- RT-0101-015 should be withdrawn

Please refer to the ACC’s comment letter for more details on MWV’s position for this suite of metrics.

Section: Political Spending
Metric: All

MWV agrees with the American Chemistry Council’s (ACC) comments for this metric. MWV believes that this metric should be removed from the standard. Please refer to the ACC’s comment letter for more details on MWV’s position for this metric.

Section: Operational Safety, Emergency Management & Response
Metric: All

MWV agrees with the American Chemistry Council’s (ACC) comments for this suite of metrics. Please refer to the ACC’s comment letter for more details on MWV’s position for this suite of metrics.

Sincerely,

Doug Sharo
Lead Sustainability Specialist
MeadWestvaco (MWV) Corporation
January 15, 2015

Sustainability Accounting Standards Board®
75 Broadway
Suite 202
San Francisco, CA 94111

Dear Sustainability Accounting Standards Board,

SABIC appreciates the opportunity to comment on the Sustainability Accounting Standards Board’s (SASB) draft standard in the Resource Transformation Sector for Chemicals. SABIC participated in drafting, and supports the American Chemistry Council’s (ACC) detailed comments. We urge SASB to make adjustments to the draft standard to address issues of materiality, relevance, decision-usefulness for the mainstream investor, technical deficiencies with certain metrics and associated definitions, and in some cases extraordinary financial burden associated with the proposed reporting.

SABIC values a strong working relationship between the chemical industry and SASB, and appreciates the efforts made by staff to inform ACC and its members throughout the draft standard development process. With that in mind, we are concerned that several important issues are not adequately addressed in the draft standard and revisions should be incorporated prior to releasing the provisional draft. SABIC would also like to take this opportunity to outline a number of concerns related to SASB’s process to develop this draft chemical standard. There has been a lack of transparency in the decision-making process regarding which comments to incorporate, and it appears that very little of the industry’s feedback in the earlier stages has been incorporated into this draft standard. It would be appreciated if SASB would provide more information to stakeholders regarding these processes and decisions.

There is considerable overlap between this draft standard and current industry practices already implemented by the chemical industry’s Responsible Care® program. Failure to recognize the overlap and to harmonize the two will create needless, burdensome and expensive reporting obligations. As background, Responsible Care is the chemical industry’s commitment to enhance performance, improve employee health and safety, the health of the communities in which they operate and the environment as a whole. Since 1988, when the initiative launched in the US, our industry has made dramatic performance improvements and public reporting demonstrates our commitment to sustainability, transparency and systems to produce continual improvement. Today, Responsible Care is practiced in over 60 economies worldwide through the International Council of Chemical Associations¹ and is noted as the premier example in the world of industry aligning under one performance program. One of the eight Fundamental Features of Responsible Care is public reporting of performance; both trade associations and member companies alike report above and beyond regulatory standards as a cornerstone feature of the program, and have developed reporting standards in areas such as process safety, where no existing protocols, regulatory or otherwise, exist. Globally, chemical industry associations whose members practice Responsible Care report member data that shows considerable

improvements in environment, health and safety performance\textsuperscript{2}. In the United States, ACC member companies operate nearly six times safer than the average of the U.S. manufacturing sector, and three times as safe as the business of chemistry overall, and we voluntarily disclose both company-specific and aggregate industry performance results across a range of environment, health and safety indicators\textsuperscript{3}. The chemical industry, under Responsible Care, operates what is widely viewed as the broadest, most robust and successful voluntary industry performance reporting program. Indeed, 53% of ACC’s members that implement Responsible Care report to the US Securities and Exchange Commission (SEC). We urge SASB to leverage this commonality to fully align with industry standards such as Responsible Care to minimize financial burden on reporting companies as well as strengthen the materiality of information collected.

The chemical industry has embarked on a long-term and successful journey with voluntary reporting standards. We support such voluntary mechanisms to share performance data with interested stakeholders. However, establishing a robust performance reporting program has taken decades of investment and significant sector-specific expertise. Given the complex and serious nature of this reporting, SABIC believes that if the SEC were to adopt sustainability standards reporting, those standards must be set through a transparent process that provides an opportunity for broad stakeholder input and that fully accounts for materiality, relevance, decision-usefulness and cost-effectiveness. We believe that the SASB process is inadequate in these areas. Further, as SASB states in the draft standard introduction, SABIC agrees that each company is ultimately responsible for determining which information is material to its company and operations, and thus which information should be included in any reporting, voluntary or mandatory. Materiality is not “one size that fits all”.

SASB, while seeking to apply its reporting globally, takes a US-centric approach to issues and related definitions of some metrics in its draft reporting standard. If SASB seeks to apply its standards globally, SABIC believes that the ability to report for worldwide operations is critically important. Where broadly used global reporting standards exist (e.g. GHG Protocol), SASB should leverage these protocols. Where such global definitions do not exist, SASB should allow flexibility for regional requirements and definitions until such globally harmonized approaches are developed; until that time, SASB should not arbitrarily require use of US reporting criteria and definitions on a global scale.

Additionally, there are a number of metrics within the draft standard that are unsubstantiated, implicate disclosure of Confidential Business Information (CBI), and/or create incomparable data points. SABIC urges SASB to reconsider these draft metrics. We participated in the

\textsuperscript{2} Responsible Care Leadership Group Progress Report, 2012 - \url{http://www.icca-chem.org/ICCADocs/RC%20annual%20report.pdf}

\textsuperscript{3} American Chemistry Council, 2014 - \url{http://responsiblecare.americanchemistry.com/Performance-Results}
development of detailed comments by ACC that elaborate on these issues and identify suggestions for improvement. We look forward to SASB’s consideration of the substantive and constructive comments that follow.

Thank you for consideration of SABIC’s comments. Please feel free to contact me at 413.448.4658 with any questions you may have.

Respectfully submitted,

Dr. Matthew Morrison
Sr. Manager, Corporate Sustainability
SABIC

1 Plastics Ave.
Pittsfield, MA 01201
Detailed Comments

1. Greenhouse Gas Emissions (GHG)
   
a. RT0101-01. Gross global Scope 1 emissions, percentage covered under regulatory program.

   ACC recommends modification to the draft metric to improve materiality and comparability of the reported data.

   There are several existing protocols that the chemical industry, and Responsible Care® companies in particular, use to report carbon emissions. The proposed metric should be further aligned with these protocols, and adjusted for additional comparability and ease of reporting. Protocols with which the proposed metric should be further aligned include the ACC Responsible Care GHG emissions reporting guidance\(^4\), and the Environmental Protection Agency’s (EPA) Greenhouse Gas Reporting Program (GHGRP)\(^5\). The second part of the proposed metric referencing regulatory coverage should be withdrawn.

   - SASB should expand reporting to include Scope 2 emissions, consistent with EPA’s GHGRP. SASB’s inclusion of only Scope 1 emissions limits comparability between companies by failing to distinguish between a company who may purchase most of its energy and another who generates energy on site. Additionally, by including only Scope 1 emissions certain companies in this sector, such as compressed gas companies, would be divulging CBI. Inclusion of Scope 2 emissions would alleviate this issue, while allowing for greater comparability between reporting companies.

   - SASB should exclude emission data from mobile sources from this draft metric, as it is not included in the scope of Responsible Care or EPA’s GHGRP (Subpart C). Currently, most ACC member companies are not required to track GHG emissions from mobile sources. In addition, these sources are generally minor in terms of scope given this industry’s stationary operations. The inclusion of mobile sources in this reporting will add extraordinary financial burden with little to no actionable data produced.

   - SASB should include a definition for the facilities expected to be covered by this reporting. Currently, the draft metric references production

\(^4\) ACC’s Greenhouse Gas Reporting Guidance – The guidance will be submitted to SASB staff, as it is not available publically.

facilities, offices and mobile sources, but does not address R&D centers, distribution centers, laboratories, etc. Clarity should be provided at a minimum, and ACC recommends establishing *deminimis* reporting levels to exclude very small operations and office buildings. ACC recommends the *deminimis* levels included in its Responsible Care reporting guidelines of 5,000 tons total equivalent net CO$_2$ emission per individual greenhouse gas, or the equivalent of a typical package boiler used in the manufacturing setting.

- Requiring disclosure of percentage of Scope 1 emissions covered under a regulatory program is immaterial and ACC recommends its removal from this metric.

b. **RT0101-02. Description of long-term and short-term strategy or plan to manage Scope 1 emissions, emissions reduction targets, and an analysis of performance against those targets**

*ACC recommends this draft metric be modified to focus on assessing risks and opportunities associated with carbon emissions, as well as performance improvement over time.*

ACC has concerns over comparability of information submitted under this draft metric, as well as possible disclosure of CBI. Greater alignment with the Responsible Care management systems and reporting in assessing and managing risks as well as driving continuous performance improvements would leverage activities and reporting under an existing standard.

- Responsible Care requires participating companies to assess and managing environmental, health, safety and security risks. ACC suggests that this metric should be modified as “Description of systems to assess and manage risks and opportunities associated with carbon emissions.”
- Additionally, SASB’s metric should focus on emissions reduction over time rather than the analysis of performance against targets. Normalization in reporting to account for acquisitions and divestitures would be particularly important in this area. ACC suggests that SASB modify this part of the metric to read “emissions reductions achieved over a rolling 5-year timeframe.”
2. Energy Management
c. RT0101-03. Total energy consumed, percentage grid electricity, percentage renewable

ACC recommends modification to the draft metric to increase materiality and comparability of the reported data.

There are several existing protocols that the chemical industry, and Responsible Care® companies in particular, use to report energy consumption. The draft metric should be further aligned with these protocols and adjusted for additional comparability and ease of reporting. SASB should be further aligned to include the ACC Responsible Care energy consumption reporting guidance.

- As with the GHG emissions metric, ACC recommends instating a *deminimis* value for reporting in line with industry standards of 100 billion Btu for total energy use, or the equivalent of a typical package boiler used in the manufacturing setting.
- ACC requests clarification on the materiality of percent grid electricity reporting as a separate metric rather than simply considering purchased and non-purchased energy together. Many chemical facilities produce power onsite through combined heat and power units and their treatment within this metric is not obvious. Some credit for this efficient technology should be given.
- SASB should exclude emission data from mobile sources from this draft metric. These sources are generally minor in terms of scope given this industry’s stationary operations. The inclusion of mobile sources in this reporting will add extraordinary financial burden to reporting with little to no actionable data produced.
- Inclusion of renewable energy sources may falsely depict a sense of “greenness” by failing to account for full lifecycle impacts. Lifecycle assessments have shown that manufacturing from renewable resources can be done in both environmentally advantaged and disadvantaged ways. This metric shows bias that renewables are superior without consideration of sustainability impacts. We also question whether a mainstream investor is interested in this data, and if so, would not the investor also be interested in any associated cost premium paid for the renewable energy. ACC notes that SASB should particularly exclude the use of renewable certificates, where the certificate – as opposed to actual renewable energy - is used as an offset.
3. Air Quality

a. RT0101-04. Air emissions for the following pollutants: NO\textsubscript{x} (excluding N\textsubscript{2}O), SO\textsubscript{x}, and volatile organic compounds (VOCs)

ACC recommends modification to the draft metric to increase materiality and comparability of the reported data.

SASB should align with Responsible Care industry reporting standards that define reportable emissions as those tracked under regional operating permits, such as US EPA Title V permit reporting under the Clean Air Act\(^6\). It should also allow for reporting of VOCs as defined by local authorities globally.

- Many companies track SO\textsubscript{x}, NO\textsubscript{x} and VOC emissions only under permit requirements within specific production units. The draft metric implies that all emissions must be calculated and reported. Installing monitoring devices to accurately report emissions across all sources would require significant capital expenditures and in some cases is technologically infeasible. This investment would generate small scale data that is not decision-useful to investors. To make reporting manageable and financially viable, Responsible Care reporting guidelines for air emissions specify that companies report on substances consistent with their local permit requirements, such that no new reporting is triggered. SASB should align this draft metric with these reporting requirements allowing companies to report for those operations required to track emissions under local permitting requirements to reduce additional financial burden brought on by this draft metric.

- ACC urges SASB to adopt the following language to clarify that SO\textsubscript{x} and NO\textsubscript{x} reporting be limited to emissions required to be tracked/reported under local permitting obligations: “Reporting of VOCs, NO\textsubscript{x} and SO\textsubscript{x} shall be limited to those sources within facilities that would otherwise be required to prepare and submit annual emissions inventory as per their respective permitting / regulatory requirements. Although state reporting requirements for emissions vary in terms of scope (e.g. some regions require SO\textsubscript{x} reporting while others require only SO\textsubscript{2}), ACC’s reporting defers to the regional reporting requirement.”

- Due to the variance of VOC definitions globally, ACC strongly urges SASB to include a broad definition of VOCs that allows for regional differences in criteria. It is not appropriate for SASB to push a US-centric definition globally, nor to attempt to facilitate global reporting protocols. Applying

\(^6\) US EPA Clean Air Act, Title V - [http://www.epa.gov/air/caa/title5.html](http://www.epa.gov/air/caa/title5.html)
US VOC definitions is not currently executed by companies and would require new analysis and tracking systems.

b. RT0101-05. Number of production facilities in or near areas of dense population

ACC recommends this draft metric be modified to include a qualitative description of company prioritization and management of overall operational risk. We believe this revised metric is best captured in the “Operational Safety, Emergency Management and Response” section.

Proximity of facilities to areas of dense population is just one factor that can be used to communicate overall operational risk. ACC believes this draft metric is an incomplete accounting of operational risk and is arbitrarily placed in the “Air Quality” section. Certainly proximity to dense populations could also be a factor in looking at water quality and waste issues as well. Therefore, ACC suggests that the metric be recast in the “Operational Safety, Emergency Management and Response” section.

- ACC’s alternative proposal is “A description of the company’s prioritization of operational risks and mitigation measures being taken or planned.” This would allow for consideration of issues such as facility citing in relation to natural resources and dense populations, process risks at facilities, transportation routes for key products, layers of risk mitigation, operational controls, etc.

4. Water Management

a. RT0101-06. Total water withdrawn, percentage recycled, percentage in regions with High or Extremely High Baseline Water Stress

ACC recommends modification to the draft metric to increase materiality and comparability of the reported data.

This draft metric requires companies to report both water withdrawn and water recycled rather than allowing for companies to report ‘net water consumption’ which ACC asserts is a better measure of performance. ‘Net’ water consumption is more environmentally relevant and consistent with ACC’s Responsible Care Net Water Consumption metric, which allows companies to take credit for water returned to its original source. The first two reporting terms should therefore be combined. The third reporting term of percentage of water in high water stress regions may have the effect of establishing a single tool (WRI Aqueduct) and its
underlying database as the standard for defining water stress, though no consensus on this point currently exists, and doing so may invalidate other useful third-party tools that companies currently use. Experience shows that the Aqueduct tool, like other global tools, is a useful risk tool for management but a potentially misleading performance metric for shareholders, as it may provide a far different result from actual site conditions obtained in a more granular local water analysis. Moreover, results can depend sensitively on boundary definitions, and may not be comparable across industries (different results may be obtained for different industry-specific weighting schemes). A reporting metric in this area will be burdensome for some organizations and does not take into account whether or not the organization is taking water from the stressed source.

- SASB should adopt a ‘net water consumption’ metric, which is the appropriate joining of its first two proposed metrics.
- Reporting ‘percentage in regions with High or Extremely High Baseline Water Stress’ makes use of the World Resources Institute’s Aqueduct tool, but the definitions of ‘water stressed’ are not standardized. In addition, the Aqueduct tool uses complex indicators which may not take into account that companies could be located in a high stress environment, yet draw water from a non-stressed location. Finally, ACC notes that a number of smaller and medium-sized companies currently do not use the Aqueduct Tool and mandated use place extraordinary financial burden on these companies. Companies should be allowed to analyze water stress using the tool of their choice as an advanced reporting option.

b. RT0101-07. Number of incidents of non-compliance with water-quality permits, standards, and regulations

**ACC recommends withdrawal or modification of this draft metric.**

Non-compliance in this area seems out of balance with other impact areas, as it is the only metric of its type in the SASB draft. As such, it is unclear why SASB chose to apply this type of metric only in the water area. As an indirect measure of performance, ACC believes it does not provide investors decision-useful information as the magnitude of violations could differ wildly. In addition, the inclusion of violations against voluntary standards is inappropriate and discourages companies from going beyond basic regulatory compliance and participating in such programs.

- SASB should withdraw this draft metric as it is an indirect measure, leading to information that will not be decision-useful to investors. Of particular
concern is that since violations in one region could be compliance in another region, reported figures could be disproportionate based on geography making the data incomparable. Additionally, since there is no global compliance standard by which companies are held to account, and violations will range from major to minor, comparisons company to company will be nearly impossible.

- If SASB moves forward with this metric, non-compliance in voluntary programs must absolutely be eliminated from reporting.

5. Hazardous Materials Management
   a. RT0101-08. Amount of hazardous waste, percentage recycled

   ACC recommends disaggregating the two data points proposed in this metric and further modifying the language to address definitional issues with ‘hazardous waste’ and to clarify the focus of reporting.

   Currently, SASB defines ‘hazardous waste’ using USEPA definitions, which are inadequate for addressing this impact area globally where significantly different waste definitions apply regionally. The definition of hazardous waste should be more flexible to account for varying definitions that currently exist globally and allow local definitions to dictate the categorization of hazardous waste.

   In the US, there are strict regulatory requirements that in most cases do not allow the “recycling” of hazardous waste. Further, the SASB guide uses the terms “waste” and “material” interchangeably, which is technically inaccurate and impossible for would-be reporters to interpret. Therefore, the “percentage recycled” portion of the metric is irrelevant as written and should be re-cast as a separate measure, to include a more expansive look at hazardous materials recycling, which seems more consistent with the impact category identified by SASB. In addition, ACC calls SASB’s attention to EPA’s recent release of its new final solid waste rule\(^7\), clarifying many of these definitional issues raised by the SASB proposal.

   - SASB should include an “Amount of hazardous waste” measure, deferring in the reporting instructions to local and regional definitions to ease workability and global application for companies.
   - SASB should establish a second metric of “Percent of hazardous materials recycled” which is more fully aligned with the impact area and allows more meaningful reporting to investors. While reporting of materials

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reuse and recycling may be important, this cannot be tied to hazardous waste, which in many cases, cannot be recycled according to US law. A good definition of “hazardous material” and “recycled” would be needed for reporters to be able to give appropriate data on this metric.

b. RT0101-09. Number and aggregate quantity of reportable releases and spills, quantity recovered

*ACC recommends withdrawal of this draft metric.*

This metric is redundant with SASB’s draft Operational Safety Metric for process safety incidents, creating overlapping reporting. Counting releases here and additionally collecting process safety incidents could lead to a ‘doubling’ effect when looking for total incidents incurred by a company. While the operational safety metric also includes incidents involving injuries and fires, the vast majority of ACC member company process safety incidents are releases and spills. In fact, over the past 5 years, 83% of ACC member company process safety incidents were releases and spills. The process safety metric uses the amount of material released in a one-hour period threshold to determine whether reporting is triggered and the severity of the incident. These are the type of incidents of most interest to investors. In addition, the reporting basis is US-centric using Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)\(^8\) threshold quantities and cannot be applied globally without significant investment in new systems and processes.

- The metric will capture incidents already reported in other draft metrics, including the Operational Process Safety and Distribution metrics.
- In addition, the CERCLA table is devised for operations in the US, while there are several other such ‘lists’ commonly used by other countries, such as the Globally Harmonized System of Classification and Labeling of Chemicals (GHS)\(^9\). These two lists, for example, vary on the reportable quantity for a substance and it would be difficult for one company to apply the CERCLA table to operations outside of the US where they are currently using GHS. There would be an extraordinary financial burden placed on global companies expected to reclassify and handle hazardous material releases under a single definition.

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\(^8\) The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), 1980 - [http://www.epa.gov/superfund/about.htm](http://www.epa.gov/superfund/about.htm)

\(^9\) Globally Harmonized System of Classification and Labeling of Chemicals (GHS) - [https://www.osha.gov/dsg/hazcom/ghs.html](https://www.osha.gov/dsg/hazcom/ghs.html)
6. Employee Health and Safety
   a. RT0101-10. (1) Total Recordable injury rate and (2) fatality rate for (a) full time employees and (b) contract employees

   ACC supports this draft metric but requests clarification on definition of 'contractor'.

   Collecting the Total Recordable Injury Rate (TRIR) and fatality information has been a long standing commitment in the chemical industry. ACC member companies have been publically reporting these data points for many years. Responsible Care companies have reduced their TRIR by 80 percent since 1990 for employees. ACC Responsible Care companies voluntarily report contractor safety rates independently of employee data, consistent with the proposed SASB metric. However, ACC reporting guidelines include definitions of individuals to be classified as contractors and some additional guidance is also required in the SASB standard.
   - SASB should consider allowances for global companies to loosely translate their occupational injury and illness data to US standards, based on regional reporting requirements.
   - ACC's reporting guidelines align with OSHA reporting standards, requiring that companies with fewer than 10 employees are not required to report data. SASB should align with OSHA in this regard and allow for a deminimis reporting level.

   b. RT0101-11. Discussion of efforts to assess, monitor, and reduce exposure of employees and contract workers to long-term (chronic) health risks

   ACC requests further clarification on reporting expectations with regard to this draft metric.

   While no industry reporting standard exists, ACC Responsible Care companies must have a strategy for improving environment, health, safety and security performance, and must track their performance against internal goals. However, given the current description of this metric, it is unclear the level of specificity being requested and whether additional activities or testing/monitoring would be required.

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10 American Chemistry Council, 2014 Responsible Care Fact - [http://responsiblecare.americanchemistry.com/Performance-Results/Safety](http://responsiblecare.americanchemistry.com/Performance-Results/Safety)
More information is needed in this area to determine the level of detail requested and the format for the data. For example, participating companies could discuss that risks have been assessed or that there are currently efforts to further monitor workplace exposure and develop risk management programs.

Likewise, many companies have robust systems to reduce workplace exposure to manage long term health risks. However, these programs are highly variable company to company and therefore the comparability of the reported qualitative information would be very difficult to the subjective observer and require the reader to be well versed in the standard operations of a chemical company.

Without addition clarification regarding detailed reporting expectations, the comparability of reporting for this draft metric may undermine the value.

ACC suggests the following clarifying statements be incorporated in the text supporting the metric reporting: “Organizations can provide information regarding their systems to identify, evaluate and manage chronic health risks to employees and contract workers. Organizations can also report any third party certifications they have achieved (e.g. RCMS® or RC14001®) that verifies implementation of these systems.”

7. Product Lifecycle Management & Innovation

The chemical industry is a significant contributor to solving the world’s sustainability challenges. From fertilizers and pesticides improving crop yields to disinfection chemistry to light-weighting of vehicles for added fuel efficiency, chemical companies invest in and develop technologies that contribute to enhanced environmental, safety, health, security, quality of life and sustainability of the planet. Chemical water filtration and disinfection systems have helped eradicate waterborne diseases and epidemics. A recent study by McKinsey indicates that for every ton of CO2 emitted by the chemical industry, its products and technologies enable 2-3 tons of CO2 savings. Chemical products such as insulation and silicone weather proofing save energy and reduce carbon emissions. The chemical industry contributes to alleviating world hunger through advances in seeds, crop protection and food stabilizers, leading to better application, higher crop yields, lower prices and more abundant food sources. Chemistry represents 30% of the value of materials used in agriculture production. Chemistry contributes to 10% of the value of a computer; 15% of the value of consumer electronics; 33% of the value of semiconductors; and 34% of photographic equipment, enhancing flow of information and transparency of data. ACC urges SASB
to consider these contributions and modify this suite of metrics to allow for companies to showcase their performance in these critical areas. The metrics in their current form do not allow for this reporting.

ACC recommends significant changes to this suite of SASB draft metrics. A summary of the recommendations is as follows:

- RT0101-012 and RT0101-016 should be combined into one metric that allows companies to articulate qualitatively, their products’ sustainability impacts across their lifecycles.
- RT0101-013 should be re-cast as a qualitative metric describing a company’s management approach to minimization product risks across their lifecycles.
- RT0101-014 should be withdrawn
- RT-0101-015 should be withdrawn

a. RT0101-012. Percentage of raw materials from renewable resources and RT0101-016. Total addressable market and share of market for Green Chemistry-based products

ACC recommends re-development of this metric to allow for qualitative reporting of a company’s product sustainability impact across their lifecycles.

Each of the originally proposed metrics aims for positive reporting of reduced sustainability impacts from a reporting company’s products. This approach would be strengthened and more technically sound if it were broadened to allow for companies to articulate their products sustainability impacts across their lifecycles in areas beyond renewables and green chemistry.

As stand-alone measurements, there are serious flaws in the two metrics as proposed. First, with regard to the renewables metric, this proposed approach assumes renewables are superior without the consideration of sustainability impacts throughout the entire lifecycle of a product. In many cases, renewables may perform more poorly across its lifecycle despite the implication from this metric that more renewables is inherently superior. In addition, reporting a percentage of raw materials from renewable resources requires companies to track all raw material transactions by weight, an exercise generally not undertaken in companies today, and then trace those raw materials – many of which have been passed through multiple marketplace transactions since the origins of the product. Technically, this approach is infeasible today. A
broadened approach would allow full qualitative accounting of the lifecycle impacts of companies’ products beyond the simple initial extraction/production process.

Second, the “green chemistry” metric not only contains fundamental definitional flaws, it also creates potential anti-trust implications that may inadvertently result as a product of market forecasting. “Green chemistry-based products” lacks clear definition and the framework for determination provided in the draft metric excludes considerations that exist in other green chemistry definitions. The proposed metric definition, if used, should be further aligned with the American Chemistry Society’s 12 Principles of Green Chemistry\textsuperscript{11}. ACC’s proposed alternative qualitative approach would allow companies to explain their product sustainability impacts overall, inclusive of use of green chemistry in its products.

- SASB should adopt a metric that combines concepts in the proposed RT-0101-012 and RT-0101-016, yet allows for companies to provide qualitative information about its products’ sustainability impacts.
- Mainstream investors would most surely be interested in an approach that allows companies to showcase breakthrough technologies and opportunities for opening new markets to the organization through products that contribute to sustainability challenges. This approach would allow for such reporting, while the SASB proposal would not.
- The ACC proposed alternative approach is as follows: “Discussion of product sustainability impacts across their lifecycles, including for example, product sourcing, use of green chemistry as defined by the ACS 12 Principles of Green Chemistry, carbon emissions, energy use, water use, land use and food supply, health effects, availability of clean water, product durability and end of life.

b. \textbf{RT0101-013. Percentage of products by revenue that qualify as (a) Registration, Evaluation, Authorization and Restriction of Chemical (REACH) substances of very high concern (SVHC) and/or (b) Class I World Health Organization (WHO): Acute Toxicity Hazard Categories}

\textit{ACC recommends modification to the draft metric to increase materiality and comparability of the reported data.}

\textsuperscript{11} American Chemistry Society, 12 Principles of Green Chemistry - \url{http://www.acs.org/content/acs/en/greenchemistry/what-is-green-chemistry/principles/12-principles-of-green-chemistry.html}
ACC has concerns over the technical workability and exclusion of proper scientific assessment within this draft metric. From a technical standpoint, for example, there are mismatches between the endpoints of focus in the two referenced lists and no reference criteria for PBTs/CMRs. Furthermore, there is no ability to apply the definition to mixtures, which become more prevalent the further one travels along the chemicals supply chain. ACC believes this draft metric is a misuse of the referenced regulatory lists and advises SASB leverage approaches to this impact area in other industry and SASB standards. In addition, the proposed metric proposal assumes that products reported here are relevant to investors as they are inherently disadvantaged in the marketplace. In fact, there are times when the reverse is true. Markets can be opened by products that contain REACH SVHC or WHO class I substances when sustainability challenges are addressed and the products are demonstrated as safe for their intended use. Taking this farther, at times, products containing REACH SVHC are authorized under REACH when others are not, opening up significant business opportunities to the companies that have authorized uses for these products. To improve the technical accuracy of the proposed metric and address the underlying issue more holistically, ACC recommends the following alternatives:

- Under the Responsible Care Product Safety Code, companies are required to conduct risk characterizations and develop product safety management plans for their products. Completion of these Responsible Care requirements could be measured as a percentage of a company’s product lines.
- Alternatively, SASB could adopt a modified approach to the one taken in its draft Packaging standard, which includes a metric for “Discussion of management approach to minimization of (1) of packaging used and (2) noxious or hazardous constituents in packaging.” This could be adjusted for Chemicals as follows: “Discussion of the management approach to minimization of risks of products across their lifecycle, including the development of new products,”

**c. RT0101-014. Percentage of products by revenue that contain genetically modified organisms**

*ACC recommends withdrawal of this draft metric as it is not a sustainability issue for the chemical industry.*

ACC advises removal of this draft metric due to its lack of materiality and on the basis that it implies aversion to GMO-related products. The basis for the inclusion of this metric is unclear. GMOs are not regulated substances and there is no evidence of legal or regulatory action being taken in this regard. If SASB is relying
on consumer demand regarding GMOs, it should disclose its research fully and indicate consumer sentiment on this issue as compared to other chemical industry concerns to demonstrate relative materiality. ACC strongly believes the inclusion of GMO reporting in the Chemicals sector is unsubstantiated and misplaced given the very few number of chemical companies for which this metric would apply. Further, labeling requirements for product containing GMOs which could affect cost are occurring downstream of the chemicals industry.

In addition, the inclusion of this metric implies a negative sustainability impact from products containing GMOs, which is in contradiction to the science on this issue. Food from GMOs is digested in the body the same as food from non-GM crops. Hundreds of studies have demonstrated and continue to demonstrate that GMOs do not present any health risk—they do not cause new allergies or cancers, infertility, ADHD or any other diseases. In the years that farmers have grown crops from GM seeds (since around 1994), there has not been a single documented instance of harm to human health resulting from genetic modifications, including new allergic reactions. The current language would fail to incentivize innovative strides with GMOs, such as disease-resistance and higher crop yields, because given the negative GMO connotation amplified by this metric to investors. Additionally, the percentage basis for reporting could create comparison difficulties between integrated and non-integrated companies. For example, an integrated company with a significant revenue-generating GMO-based agricultural business could underestimate given reporting based on percentages as compared to a small company with a GMO-only business.

- Overall, ACC believes this to be a fundamentally flawed metric with no sustainability materiality, particularly for the Chemical sector and strongly urges its removal from the SASB proposal.

d. RT0101-015. Amount of regulatory fines and settlements associated with product safety

ACC recommends withdrawal of this draft metric.

This information is already included in SEC reporting and is not material as a separate matter for sustainability reporting. The inclusion of this metric is a serious departure into very indirect measurements of performance and in this case could include even speculative issues based on settlements regardless of finding or cause. Also, since there is no global compliance standard by which companies are held to account, and violations can be assessed dramatically differently across regions and

countries, comparisons company to company will be nearly impossible.

8. Political Spending
   a. RT0101-017. Amount of political campaign spending, lobbying expenditures, and contributions to tax-exempt groups, including trade associations

   ACC recommends withdrawal of this draft metric.

   ACC has serious concerns with this draft metric and believes the framework may lead to unintended qualitative assessment of reporting companies, based on limited information, and is redundant to reporting requirements under the United States Lobbying Disclosure Act (LDA)\(^\text{13}\). It is also unclear why this metric is uniquely and arbitrarily identified to only two sectors of the many for which SASB has set provisional standards. Many of the industry sectors for which SASB has set reporting standards did not identify this area as material – quite appropriately - even when these sectors, such as healthcare and automotive, engage in significant lobbying and political contributions.

   Reporting in this area would mislead mainstream investors by inferring that any such activities are inherently negative. In fact, when aligned with strategic business objectives, they can be a positive factor in long-term company performance. Further, chemical companies often lobby for more sustainable policy and candidate outcomes. In this draft metric’s preamble, SASB states that, “Companies with a well-articulated strategy for engaging with policymakers and regulators—one that is aligned with their goals and activities for long-term sustainable outcomes and also accounts for societal externalities—could benefit from a stronger, long-term license to operate. Such companies will likely be better prepared for medium- to long-term regulatory adjustments that deal with global, high-impact issues.” (pg. 27). This suggests that companies should have a qualitative, well-articulated strategy. However, the draft metric is focused only on the quantitative expenditure and is poorly suited to determine any such qualitative approach.

   b. RT0101-18. Five Largest political, lobbying, or tax exempt group expenditures

   ACC recommends withdrawal of this draft metric.

   Like the previous metric, ACC asserts that collection of this data is redundant with LDA reporting requirements related to contributions to candidates and organizations, specific lobbying issues, and ballot measures. SASB’s proposed metric implies that any such activities are inherently negative. As commented

above, SASB’s targeted determination of materiality in the Chemicals and Non-Renewables sectors seems arbitrary, given significant lobbying activities of other sectors where this metric was not identified. Operating under the assumption that any such activities are a negative reflection of the reporting company deters exercising this right and transitively implies a negative connotation to the industry itself. This will wrongfully imply to investors that any engagement in the policymaking or political process is damaging.


a. RT0101-19. Process Safety Incidents Count (PSIC), Process Safety Total Incident Rate (PSTIR), Process Safety Incident Severity Rate (PSISR)

*ACC supports this draft metric.*

Collecting and reporting lagging process safety data points is a key practice that demonstrates industry’s commitment to keeping our facilities and communities safe as a top priority. While not all of this information is reported publically as a rate by ACC, all of the information to develop the rate is collected and many companies report this information already. ACC member companies have reduced total process safety incidents by 55% since 1995, and in 2013 more than half of ACC member companies did not experience a single process safety incident.\(^\text{14}\)

While supporting this metric, ACC also calls SASB’s attention to other process safety protocols available internationally. For example, some European companies track and report to a European Process Safety Centre (EPSC) standard. Additionally, an international activity through the ICCA is underway for the past several years to develop a globally accepted definition for process safety incident reporting. ACC encourages SASB to allow for flexible reporting so that a new globally adopted approach could be used to report in this area.

b. RT0101-20. Challenges to the Safety Systems indicator rate (Tier 3)

*ACC recommends withdrawal of this draft metric.*

The current ANSI API RP 754 process safety metric, which SASB references as the criteria for a Tier 3 incident, specifically states that is does not recommend Tier 3 incident data be reported publically. Tier 3 incidents are only recommended for internal company use and tracking and not recommend for public reporting. ACC strongly objects to inclusion of this metric.

\(^{14}\) American Chemistry Council, 2014 - [http://responsiblecare.americanchemistry.com/Performance-Results/Safety](http://responsiblecare.americanchemistry.com/Performance-Results/Safety)
• Publicly reporting Tier 3 data is inconsistent with the ANSI API RP 754 reporting standard recommendations.

• Tier 3 data is meant to aid companies by providing a level of leading information about a company’s process safety program, commonly referred to as a ‘near miss’. Near misses are commonly reported internally for occupation incidents as well. However, in this impact area it is appropriately not recommended for public reporting. It should not be reported publicly in this discipline either.

c. RT0101-21. Number of transport incidents

ACC supports this metric approach with definitional clarifications.

For most chemical companies, the actual transportation and in-transit storage and handling are conducted by third parties, not by the chemical companies themselves. However, product stewardship and safe distribution of chemicals are important areas of management for Responsible Care companies, which currently report on the number of DOT 5800 incidents associated with their companies and their products. For global applicability, however, we support SASB’s proposal to allow for reporting against other protocols that exist in the EU and through ICCA. As a clarification, ACC recommends that SASB limit the scope of these DOT 5800 incidents to the types listed in 49 CFR 171.15 (immediate notice of certain hazardous materials incidents) and not include 49 CFR 171.16 (detailed hazardous material incident reports) as this would incorporate an element of severity to the reporting, making it more meaningful and more consistent with SASB’s intent to identify incidents which may affect a company’s long term financial sustainability\(^\text{15}\). Further, SASB should apply similar definitions in other regions for equivalent (i.e. more significant incident) level of incident reporting.

d. Note to RT0101-21. ‘Description of transport incidents including corrective actions taken’

ACC recommends that this metric be recast to allow for narrative descriptions of emergency response and preparedness activities, consistent to the metric category.

Considering that many transport incidents happen with third party shippers, corrective actions taken are also by those third party shippers and in many cases those shippers are not required to report that information to the company.

Reporting the root cause analysis and corrective action taken for each incident is an unmanageable amount of data to report to SASB. Uneven reporting would also be very likely, limiting company to company and incident to incident comparisons. This metric should be modified to allow companies to describe their efforts on emergency preparedness and planning activities when incidents do occur, consistent with the intent of this SASB impact category.

- Considering the amount of data being requested for this metric, which in some cases could take months or years to collect, this metric should be modified to allow companies to report on the numerous ways they prepare for and respond to emergencies involving their products and operations. ACC’s proposed alternative is “Description of activities undertaken to prepare for and respond to emergencies involving the company’s products and operations.

Activity Metrics

1. **RT0101-A Amount of chemical production**

   ACC requests additional guidance on the units of measure for this draft metric.

   Not all chemical companies calculate output in cubic meters or tons. As many chemical companies have diverse product lines, output could be measured in units or ‘widgets’. Forcing companies to determine output in weight or volume would misrepresent the final product. SASB should provide additional guidance for the units of measure for this draft metric which should be more specific in regards to how companies should report when they do not measure output in cubic meters or tons. In addition many companies consider their actual production output confidential information, and disclose rated capacity as an alternative. SASB should consider this as an alternative.

2. **RT0101-B Number of employees, percentage in manufacturing role**

   ACC recommends this withdrawal of this draft metric.

   Assuming that SASB intends to use this figure for normalization purposes, there is no relevance to the manufacturing role that employees assume in the process. Most companies could accurately report that 100% of employees are in a role that supports the operations of its manufacturing. This draft metric becomes more irrelevant given the role automation plays in industry today and compounded with the variety of ways industry manufactures products, the number of employees in a manufacturing role is irrelevant. SASB correctly did not identify this normalizing factor for other sectors, and it is likewise not relevant to the Chemical sector. ACC strongly recommends that SASB address the detailed comments provided prior to release of the provisional standard.
Subject: Comments on the Draft SASB Accounting Standard for Chemicals, Draft Version, October 2014:

The following initial comments are submitted for the above-mentioned draft standard.

Overall Comments:

- Chemical industry value chains are increasingly global – thus indicating a global network of suppliers, customers and operations. Metrics that cite OSHA, RCRA, CERCLA, etc. will therefore have to be modified to account for the global context as well.
- Main focus is on environment, safety and operations and less on community impacts (positive or negative) and employee development and satisfaction (less worker activism, higher retention and disruptions).
- Eliminate need for redundant disclosures – for example, companies may already be disclosing legal fines, compliance, reportable releases etc.
- Supplier aspect: While raw material is discussed, the performances of suppliers in social, environmental and labor areas are not addressed. This could be especially material to the sustainability of a business when considering their global nature and evolving regulatory standards in various parts of the world.

Section-specific:

- Product safety: One suggestion would be to incorporate all aspects of Product Safety into a dedicated section? Currently, parts of it are addressed in the Product Lifecycle Management section.
- RT0101-16: Total addressable market (TAM) and share of market for green chemistry-based products: TAM and market share are market research areas and are estimates based on several assumptions. Therefore, for any given market, one cannot expect a consistent approach or comparable numbers to be reported by two different companies. Even for existing markets, multiple numbers are often given for total market and market shares by market research companies. Therefore, TAM may not be an appropriate metric. An alternate approach could be to report revenue for products (and initiatives) that improve efficiencies or reduce emissions. The reduction or improvement impact can also be quantified and reported. This approach is being followed by leading chemical companies in some instances.
- RT0101-05: Number of production facilities in or near densely populated areas. Impacts may not be fully characterized with just the # of facilities. Another possible indicator could be the size of the production facility and/or types of hazardous chemicals present above certain thresholds (comparable to EPCRA or TSCA requirements).

Please do not hesitate to contact me at [redacted] for additional information or clarifications.
Sustainability Accounting Standards Board  
75 Broadway, Suite 202  
San Francisco, CA  
94111

RE: WBCSD Reaching Full Potential Chemicals Project - submission for public comment on SASB Resource Transformation Sector – Chemicals

Dear Ms. Katie Schmitz Eulitt,

Thank you for the opportunity to provide comments on the Exposure Draft on the Resource Transformation Sector – Chemicals (October 2014). The World Business Council for Sustainable Development’s (WBCSD) Reaching Full Potential (RFP) chemical sector project, is a coalition of 11 global companies leading on developing collaborative solutions along the chemical sector value chain. Reaching Full Potential is chaired by the CEOs of AkzoNobel, Royal DSM, Evonik and Solvay and also include the participating companies: Aditya Birla Group; BASF; Eastman Chemical; Henkel; Mitsubishi Chemical Holdings Corporation; Sabic; and SCG Chemicals. In addition we collaborate with sector associations such as the International Council of Chemical Associations (ICCA) and the European Chemical Industry Association (Cefic).

The RFP project has been active since 2012 and a key pillar of the work program is developing aligned approaches to sustainability metrics and reporting. We believe that it is important to compete on sustainability performance, not on methodology. This will enable more credible, consistent communication to customers and stakeholders on the sustainability performance of our products. Thus far, we have collaborated to develop three guidance documents focused on environmental impacts, and engaged with stakeholders to provide feedback throughout the development processes. The guidance documents we have developed so far include:

- **Addressing the Avoided Emissions Challenge** – guidelines for accounting and reporting of avoided GHG emissions from the use of
chemical products in the value chain. This guide was done in collaboration with the International Council of Chemical Associations (ICCA)


Reaching Full Potential is currently developing a guideline on Product Social Metrics to measure and report on the social impact and benefit of chemical products in the value chain. It is expected that this guide will be completed by the end of 2015.

Based on these collaborative efforts, Reaching Full Potential would like to make the following comments on the SASB Exposure Draft for Chemicals. Please note that these comments are based on the agreed approaches we have developed collaboratively thus far, and therefore do not fully reflect all comments many individual companies will submit.

Lastly, we would very much welcome the opportunity to discuss in greater detail our feedback, or engage in this process with SASB further.

Comments based on Reaching Full Potential guidelines:

**General Comments:**

1. **Definitions and Principles** – many definitions and reporting principles are still unclear on several topics. We suggest to define key topics and principles clearly, using existing global standards and best practices where possible (e.g. Global Reporting Initiative, GHG Protocol, etc.).

2. **Relationship to existing standards** – as global companies, it is imperative to have sustainability measurement and reporting be based on global standards and best practices. This helps to avoid duplication and enable greater focus on improving sustainability performance. Whenever possible, we would suggest aligning with existing global standards and best practices.

**Accounting Metrics**

3. **RT0101-01 (Gross global Scope 1 emissions)** Please see the *Guideline for Accounting and Reporting GHG Emissions in the Chemical Sector Value Chain* for more information on the requirements for Scope 1, 2 and 3 that we have agreed
(Section 2.0 and the requirements outlined in The GHG Protocol: A Corporate Accounting and Reporting Standard (March 2004). In general, the alignment with GHG Protocol standards, the Carbon Disclosure Project and the Carbon Disclosure Standards Board is supported by the guidance we have also developed.

4. **RT0101-03 (Total energy consumed)** – In addition, the Guideline for Accounting and Reporting GHG Emissions in the Chemical Sector Value Chain identifies how to report on upstream fuel and energy related activities and resale of energy across Scope 1, 2 and 3 (Sections 2.2 and 2.3). These specific challenges for accounting for energy-related activities may be useful for SASB to consider.

5. **Product Lifecycle Management and Impact** – For information, the WBCSD Life Cycle Metrics for Chemical Products guideline outlines a number of impact categories that shall be reported on when following the guide and communicating a product life cycle assessment. For more information on these, please refer to section 4.5.

Thank you again for the opportunity to comment on the SASB draft exposure document on chemicals. We would welcome further discussions and engagement as the process moves forward.

Kind regards,

Andrea Brown
Director,
Reaching Full Potential Chemical Sector Project
Monday, 12 January 2015

To Whom It May Concern

Sustainability Accounting Standards Board
rt_comments@sasb.org

Dear Sir or Madam,

EcoVadis appreciates the effort that the SASB has put forth to assess materiality sector by sector. EcoVadis itself provides a collaborative sustainability performance management platform covering thousands of suppliers in more than 100 countries across more than 150 industry sectors. Our experience shows materiality tests are key differentiators when assessing CSR practices. This trend is evidenced by the increased focus in the GRI G4 Guidelines on materiality and the current uptake in integrated reporting. We are aware that the definition of materiality from a financial perspective and its use by the Global Reporting Initiative differ fundamentally in essence and reflects the ‘shareholders vs. stakeholders’ debate. The goal of our present comment is not to take a position in this debate; however, we consider that key CSR issues not explicitly referred to in the standard do have direct material financial impacts.

After a review of the ‘Resource Transformation Standards’ we argue that some fundamental topics, particularly on “Human Capital” are lacking. Indeed only one sector (Chemicals) retains a Human Capital issue, Employee Health & Safety. The fact that other Human Capital Issues are totally absent of four majors sectors raises question as to whether the methodology & process to produce the table of issues is indeed appropriate. In the Electrical/Electronic Equipment sector, issues such as working conditions, hours, wages and benefits are deemed crucial to prevent major disruptions and mitigate potentially adverse financial impacts. In addition, a range of 10-K or 20-F forms already cover defined contributions and pension plans and their roll-out across global operations, when applicable. We believe the standard could propose a more consistent format to tackle those issues (e.g. in the Business or Risk Factor sections). Social dialogue is another example. A search on the SEC website shows more than 3000 results containing the expression “We consider our employee relations to be good”. We therefore find it surprising that the draft standard proposal for Resource Transformation does not build on existing disclosures in 10-K or 20-F forms with a focus on employee relations (‘Employees’ section) in an attempt to streamline current reporting practices.

Besides, we welcome the fact that the Electrical & Electronic Equipment Standard focuses on selected human capital issues within the supply chain (i.e. employee health & safety among contractors, materials sourcing addressing conflict minerals issues). However, we believe this coverage is not
sufficient, especially in the context of a range of OEM companies outsourcing their manufacturing activities in emerging markets. Evidence of interest on working conditions in supply chains appears to be robust as demonstrated through a wide range of sources including the public media (e.g. Partnership between Apple Inc. and the Fair Labor Association). This example also shows some potential Evidence of Financial Impact for example supported by a financial research firm. Forward-Looking Impacts on a similar topic are considered as major, with negative externalities being scrutinized by a range of external stakeholders. For example, in December 2014, the U.S. Department of Labor listed electronics products from Malaysia as being produced with forced labor.

Lastly, we would like to issue a noteworthy comment on fair business practices. Choice was made for only one sector (out of four) to focus on anti-competitive issues. We believe the chemical sector is also prone to important liabilities and massive fines when collusion, price-fixing, agreements and other anti-competitive practices are uncovered. A quick analysis of search results on the SEC website displays more than 11,500 occurrences for the word “cartel” only. A recent article from the Financial Times ‘Global fines for price-fixing hit $5.3bn record high’ also reinforces our assumption that anti-competitive issues impact a range of sectors.

Thank you for offering us the opportunity to comment on the SASB standard development process. We are available to meet on the phone to clarify any questions you might have.

Kind regards,

Simon Gargonne - Senior CSR Analyst
EcoVadis - Sustainable Supply Management

EcoVadis strives to improve environmental and social practices of companies by leveraging the influence of global supply chains. EcoVadis operates the 1st collaborative network enabling companies to manage the Sustainability performance of their suppliers, across 150 sectors and 100 countries. EcoVadis reliable ratings and easy to use monitoring tools allow companies to manage risks and drive eco-innovations in their global supply chains.

More than 120 Global Multinational companies have selected the EcoVadis solution, including Fortune 500 such as Axa, Alcatel-Lucent, Bayer, BASF, Coca Cola Enterprises, Deutsche Telekom, Heineken, Orange, Johnson & Johnson, Lafarge, Renault-Nissan, Schneider Electric, and Vodafone.
Containers & Packaging Industry: MeadWestvaco’s Formal Comments

Section: Introduction
Page: 1
Comment: MWV believes that it is critical to the integrity of the standard that SASB continue to embrace their idea that each company is ultimately responsible for determining which topics are material.

Section: Guidance for Disclosure
Page: 3
Comment: MWV believes that the creation of a MD&A section entitled “Sustainability Accounting Standards Disclosures” is an appropriate measure.

Section: Guidance for Accounting
Page: 4
Comment: In order to get comparable data there will have to be further guidance provided on how to normalize metrics. One potential way to get comparable data would be to have companies report by business platform or sub-sector (e.g. plastic packaging, glass packaging, paper packaging, and metal packaging). The data provided in this industry will not be comparable unless SASB somehow resolves this issue.

Section: Reporting format
Page: 5
Comment: MWV does not think that “number of employees” or “customers” are relevant activity metrics.

Section: Reporting format
Page: 6
Comment: Tons of packaging material produced is not measured for all packaging substrates (some use units), so it is not a relevant activity metric for all companies in the industry. Activity metrics must be broken down by substrate otherwise the data will not be comparable. For example, plastic packaging tends to be measured in units rather than tons.

Section: Assurance
Page: 7
Comment: It is not reasonable to expect the same level of rigor and accuracy for sustainability data as it is for financial data in current SEC filings. Measuring this data is in its infancy when compared to financial data, and financial data has better systems and resources. This language should be dropped from the standard.

Section: Table 1. Sustainability Disclosure Topics & Accounting Metrics
Page: 8, GHG
Metric/Disclosure Code: RT0204-01
Comment: Scope 2 emissions should be a material topic. If scope 2 emissions are not required to be reported then this could portray an inaccurate picture of coated recycled board (CRB) vs virgin mills to investors. CRB mills tend to have a higher scope 2 than scope 1 footprint, and vice-versa for virgin mills. Requiring disclosure on both scope 1 and scope 2 mills is only way to get useful and comparable data on both virgin and recycled paperboard manufacturers.

Section: Table 1. Sustainability Disclosure Topics & Accounting Metrics
Page: 8, Water
Metric/Disclosure Code: RT0204-05
Comment: Reporting on water consumption is more reflective of how companies in the Containers and Packaging industry use water as a resource. When we use water we do not take it out of the water cycle, so water consumption is a better metric than both water use and water effluent. If water availability is the risk driving the materiality of this disclosure then water consumption is the most accurate indicator of that risk. For example, the paperboard industry’s water use is “in the conversation” with agriculture’s water use; however, if you compare the two industries on water consumption then the paperboard industry’s water consumption is much lower than agriculture because we are returning most of our used water back to its source and also back to the same watershed. SASB should remove water use from the standard as a metric and replace it with water consumption.

Reporting water recycling data to current 10-K reporting standards will be a challenge. This metric can currently be quantified, but it has a large margin of error associated with current calculations. As such, water recycling is not a cost-effective or auditable metric and should be removed from the standard.

Section: Table 1. Sustainability Disclosure Topics & Accounting Metrics
Page: 8, Hazardous Materials Management
Metric/Disclosure Code: RT0204-07
Comment: There is some confusion around why the exposure draft focuses solely on hazardous materials management when the industry brief also focused on non-hazardous materials management. Can SASB communicate on why non-hazardous materials management became immaterial? Non-hazardous materials management is more material to the Containers & Packaging Industry than hazardous materials management.

Section: Table 1. Sustainability Disclosure Topics & Accounting Metrics
Page: 8, Product Lifecycle Management & Innovation
Metric/Disclosure Code: RT0204-10
Comment: In order for percentage of raw materials from recycled content and renewable resources to be comparable, this metric would have to be reported by packaging substrate.

Section: Table 1. Sustainability Disclosure Topics & Accounting Metrics
Page: 8, Product Lifecycle Management & Innovation
Metric/Disclosure Code: RT0204-11
Comment: Reporting on percentage of products that are reusable, recyclable, and compostable to current 10-K reporting standards will be a challenge. These percentages can be estimated, but MWV has 1000s of product lines, some of which reside in multiple / integrated business platforms; or are converted (e.g. paperboard rolls) by another business or customer prior to printing & labelling determinations, thus making it difficult or impossible for MWV to make a determination on their labelling claims in accordance with the FTC Green Guides. Given current systems and resources, this metric would place an undue burden on companies and should be removed from the standard.

Section: Greenhouse Gas Emissions
Page: 9
Metric/Disclosure Code: RT0204-01
Comment: There is no mention of disclosing gross global scope 1 emissions per the United States Environmental Protection Agency’s greenhouse gas reporting protocol. Many (if not all) companies in the Containers & Packaging Industry have a regulatory requirement to report gross global scope 1 emissions using this framework. Requiring companies that are already reporting this information to the EPA to re-report in a separate format in the 10-K places an unnecessary burden on those companies covered by the EPA’s GHG regulatory framework. EPA’s reporting protocol should be added to the standard as an option for reporting gross global scope 1 emissions and also as one of the regulatory programs under .03.

Section: Energy Management
Page: 12
Metric/Disclosure Code: RT0204-03
Comment: Electricity consumption makes up a large percentage (roughly 33%) of energy consumed by the Pulp and Paper industry. SASB conveys that this electricity consumption indirectly contributes to climate change and air pollution, and thus the industry faces regulatory risks and cost pressures. This notion seems to further prove the already mentioned point that scope 2 greenhouse gas emissions are a material issue. Based on SASB’s own research, and in addition to our own, we believe that scope 2 emissions should be added to the standard.

Section: Air Quality
Page: 14
Metric/Disclosure Code: RT0204-04
Comment: Requiring reporting of air pollutants for office buildings and mobile sources would place an undue burden on reporting companies. Office buildings and mobile sources are typically exempt from reporting in energy intensive industries because the emissions are minuscule when compared to manufacturing emissions. Requiring reporting from office buildings and mobile sources should be removed from the standard for the Containers and Packaging industry.

Section: Air Quality
Page: 14
Metric/Disclosure Code: RT0204-04
Comment: SASB should be consistent in citing regulatory frameworks. SASB cites the EPA for VOCs, but not GHG emissions. SASB should cite the EPA’s standards for all emissions measurements.

Section: Water Management
Page: 15
Metric/Disclosure Code: RT0204-05
Comment: Reporting on water consumption is more reflective of how companies in the Containers and Packaging industry use water as a resource. When we use water we do not take it out of the water cycle, so water consumption is a better metric than both water use and water effluent. If water availability is the risk driving the materiality of this disclosure then water consumption is the most accurate indicator of that risk. For example, the paperboard industry’s water use is “in the conversation” with agriculture’s water use; however, if you compare the two industries on water consumption then the paperboard industry’s water consumption is much lower than agriculture because we are returning most of our used water back to its source and also back to the same watershed. SASB should remove water use from the standard as a metric and replace it with water consumption.

Section: Water Management
Page: 15
Metric/Disclosure Code: RT0204-05
Comment: Reporting water recycling data to current 10-K reporting standards will be a challenge. This metric can currently be quantified, but it has a large margin of error associated with current calculations. As such, water recycling is not a cost-effective or auditable metric and should be removed from the standard.

Section: Hazardous Materials Management
Page: 17
Metric/Disclosure Code: RT0204-07
Comment: SASB states that “companies that are able to limit the waste of input materials and recycle the waste generated, may achieve significant cost savings and improve profitability.” Based off of this statement, we are confused as to why the exposure draft focuses solely on hazardous materials management when the industry brief also focused on non-hazardous materials management. Can SASB communicate on why non-hazardous materials management is immaterial when the standard implies that it is material? Non-hazardous materials management is more material to the Containers & Packaging Industry than hazardous materials management.

Additionally, SASB’s standard should reflect the fact that definitions of hazardous waste differ around the world.

Section: Product Lifecycle Management & Innovation
Page: 21-22
Metric/Disclosure Code: RT0204-11
Comment: Reporting on percentage of products that are reusable, recyclable, and compostable to current 10-K reporting standards will be a challenge. These percentages can be estimated, but MWV has 1000s of product lines, some of which reside in multiple / integrated business platforms; or are converted (e.g. paperboard rolls) by another business or customer prior to printing & labelling determinations, thus making it difficult or impossible for MWV to make a determination on their labelling claims in accordance with the FTC Green Guides. Given current systems and resources, this metric places an undue burden on reporting companies.

Section: Product Lifecycle Management & Innovation
Page: 22
Metric/Disclosure Code: RT0204-12
Comment: MWV believes that SASB should re-evaluate the following language for inclusion in the standard:

- Discussion of management approach to minimization of weight and volume of packaging used
- “such as reducing packaging weight and volume”

This language is potentially problematic if it makes it into the standard. This language could be misconstrued as a mandate for packaging minimization. This creates a slippery slope for unnecessarily reducing packaging. The goal should be to get the packaging “right” with healthy, non-toxic, and sustainable materials; and in many cases this will include reducing packaging weight and size by becoming more efficient in our use of raw materials. However, having a specific disclosure on minimization of packaging misses the mark. SASB should remove this language from the standard. MWV suggests a disclosure on management approach to innovation and design that is consistent with the referenced Sustainable Packaging Coalition framework and its supporting terminologies.

Section: Product Lifecycle Management & Innovation
Page: 22
Metric/Disclosure Code: RT0204-12
Comment: It remains unclear why SASB cites a European Union Directive when the exposure draft is meant for disclosure in the US. This should be removed from .52 as a relevant disclosure. The Sustainable Packaging Coalition’s referenced Indicators and Metrics Framework provides a good outline of what could be relevant for disclosure. Please note that this framework makes no mention of “packaging minimization” as a relevant indicator or metric and nor should SASB.

Section: Material Sourcing
Page: 24
Metric/Disclosure Code: RT0204-13
Comment: Disclosing “total weight of wood fiber-based raw materials” would create competitive issues amongst the industry. This disclosure should be removed from the standard.
Comment: Disclosing on certified fiber on a cost basis would provide false information on how effective a company is in terms of sourcing certified fiber. If a company increased its costs of certified fiber then this metric could show improvement without actually increasing the amount of certified fiber a company is sourcing. This is not how the industry discloses on certified fiber. This metric must be on a volume (tons) basis, not a cost basis. SASB should change their language to reflect this.

Section: Material Sourcing
Page: 24
Metric/Disclosure Code: RT0204-13
Comment: SASB’s use of the terms “certified” and “responsible sourcing” within the exposure draft are not consistent and in some cases incorrect. Please consult relevant experts (e.g. FSC, SFI, PEFC) to ensure language is consistent, definitions are accurate, and relevant references are cited in the standard. Current references for RT0204-13 are insufficient. SASB should reference FSC, SFI, and PEFC frameworks in their standard.

Section: Material Sourcing
Page: 24
Metric/Disclosure Code: RT0204-13
Comment: SASB should add the American Tree Farm System (ATFS) to its list on .57 of responsible sourcing standards. The ATFS is recognized by both SFI and PEFC which are standards recognized by SASB as legitimate responsible sourcing standards.

Section: Material Sourcing
Page: 25
Metric/Disclosure Code: RT0204-14
Comment: “Percentage of non-wood raw materials sourced in conformance with responsible sourcing standards” has the same underlying issue of disclosing on a cost basis as accounting metric RT0204-13. If a company increases cost then the metric could show improvement without actually improving their sourcing. This metric should be on a volume basis, not a cost basis. SASB should change their language to reflect this.

Section: Material Sourcing
Page: 25
Metric/Disclosure Code: RT0204-14
Comment: Within accounting metric RT0204-14 underneath .61, SASB states that “registrant shall indicate the sourcing standards to which its product are conformant.” However, no standards are cited or referenced. Many companies have their own internal responsible sourcing standards that were developed through industry association memberships such as AIM-Progress, or have standards that loosely adhere to voluntary frameworks such as the Supplier Ethical Data Exchange (Sedex). As such, MWV recommends changing this to a disclosure on management approach rather than a specific accounting metric.
Hello:

United Technologies Corporation (UTC) is pleased to provide our comments for the “Aerospace & Defense Sustainability Accounting Standard, Exposure Draft for Public Comment, dated October 2014”. Are comments are:

**Hazardous Materials Management – Accounting Metrics**

RT0201-01 Amount of hazardous waste, percent recycled

- The standard should make clear if hazardous waste definitions per 40 CFR261 should be applied to all wastes generated worldwide. SASB should understand this application would in many cases require non-US sites to incur additional expense to characterize wastes already identified as hazardous by local country regulation, and that will limit adaptation of this metric. Since hazardous waste risk is a local phenomenon, SASB should consider replacing the definition based on RCRA with one using governing local or national regulation. There is enough similarity in global hazardous waste regulatory programs to make this option applicable.

- SASB should eliminate the hazardous waste percentage recycled metric. Typically hazardous waste does not comprise a significant percentage of overall waste, and the percentage that is recycled is often less than 20% of total volume. Measuring a small percentage of a small percentage would result in a metric that provides no indication of material risk.

RT0201-02 Number and aggregate quantity of reportable releases and spills, quantity recovered

- UTC does not believe the amount of waste recovered during long-term remediation at spills sites provides any meaningful information. The legacy, number and type of sites requiring remediation differ substantially from corporation to corporation, and a quantified amount of recovered waste will provide no meaningful point of comparison or an indication of corporate risk. Corporations with CERCLA and other material environmental clean-up obligations are required to report the scope and estimated cost of this obligation within a 10-K, and we believe those are useful summary indicators for this topic.

**Data Security – Accounting Metrics**

- UTC does not believe that corporations will provide data on data security programs, which by their very nature are designed to remain confidential within the organization. American Aerospace and defense companies have been identified as prime targets for
non-US data incursions, including those sponsored by foreign governments, and it is the theft of trade and national security sensitive information that is the key concern of the industry. The data requested by the standard has not historically been a material concern for the industry, nor does it represent a material risk.

Product Safety – Accounting Metrics

RT0201-05 Number of recalls and total units recalled

- Product recalls are not a common occurrence in the Aerospace and Defense industry, as compared to consumer product organizations. Consequently UTC believes the standard’s emphasis on recall statistics would not result in a useful depiction of material risk. SASB should consider requesting data on the number of accidents associated with the respondent’s products, and the number and scope of regulatory safety events where the respondent’s products were involved in a mandatory aircraft grounding or immediate safety inspection requirement, as those represent commercial, legal and regulatory risk.

Fuel Economy and Use-phase Emissions – Accounting Metrics

RT0201-08 Fleet fuel efficiency

- As written the standard would exempt jet and other transportation engine manufacturers from reporting engine fuel efficiency, since the engine is only a part (albeit an important one) of an aircraft, cargo ship and terrestrial vehicle. SASB should clarify if they expect only aircraft manufacturers to comply with this fleet efficiency reporting, or if they also expect operators (airlines, cargo companies, etc.) to include emissions from their fleet. In this latter case fleet fuel efficiency would be a telling indicator of commercial risk and environmental sustainability, especially when comparing carrier to carrier.

Materials Efficiency – Accounting Metrics

RT0201-12 Ratio of weight of high value metals procured vs weight in finished goods

- It is UTC’s experience that the “Buy-to-Fly” ratio for specialty aerospace materials is typically considered business confidential information, and is unlikely to be reported. If SASB’s intent is to assess respondent’s risk in the use of expensive/rare metals, we don’t believe this metric will illuminate that risk.

We appreciate the opportunity to comment on the proposed standard. Should you have any questions, please don’t hesitate to contact me at [redacted].

Sincerely,

Richard A. Love
Manager, Environmental Sustainability
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We appreciate the opportunity to comment on the proposed standard. Should you have any questions, please don’t hesitate to contact me at [redacted].

Sincerely,

Richard A. Love
Manager, Environmental Sustainability
### Public Comments Submitted

**COMPILATION OF PUBLIC COMMENT SUBMITTED VIA COMMENT PORTAL & E-MAIL**

<table>
<thead>
<tr>
<th>Industry SICS number</th>
<th>Name and/or Affiliation of Respondent</th>
<th>Topic (Metric Code)</th>
<th>Comment Excerpts</th>
</tr>
</thead>
<tbody>
<tr>
<td>RT0202</td>
<td>Flextronics</td>
<td>General Comment</td>
<td>Having looked at several SASB standards now, it appears there is greater emphasis on describing management approaches than I previously expected. I think that is a reasonable expectation from investors, but I question whether and how that sort of disclosure is going to be made. Discussion of management approaches is already a major part of the GRI framework and the discussions can be quite lengthy and are often accompanied by graphics and other material. I do not see that easily being worked into Annual Reports or other financial disclosures. I would recommend rethinking how reporters are going to discuss &quot;strategic approaches&quot; and perhaps make the guidance more specific and more prescriptive in order to make disclosures both more manageable and to enhance comparability.</td>
</tr>
<tr>
<td>RT0101</td>
<td>Mark Weick Dow Chemical</td>
<td>Operational Safety, Emergency Management &amp; Response (RT0101-21)</td>
<td>Number of transport incidents. The lack of normalization by shipment count (or some other means) as well as the use of variable reporting definitions will limit the ability to make valid company to company or regional/country comparisons. It should be clearly stated by SASB that the intent of this reporting is not to make or publish comparisons between companies, countries, or regions.</td>
</tr>
<tr>
<td>RT0101</td>
<td>Mark Weick Dow Chemical</td>
<td>General Comment</td>
<td>The Dow Chemical Company (Dow) appreciates the opportunity to comment on the Sustainability Accounting Standards Board’s (SASB) draft standard in the Resource Transformation Sector for Chemicals. Dow participated in the development of comments submitted by the American Chemistry Council (ACC), and wishes to reinforce the comments made by ACC. Dow supports ACC’s call to urge SASB to make adjustments to the draft standard to address issues of materiality, relevancy, decision-usefulness for the mainstream investor, technical deficiencies with certain metrics and associated definitions, and in some cases extraordinary financial burden. Please see attached file for the ACC comments, which you should also have from ACC directly as well as from other ACC member company sources. It is my personal pleasure to serve on the SASB Advisory Council. Please feel free to contact me if you have questions.</td>
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<tr>
<td>RT0201</td>
<td>Jessica Synkoski Lockheed Martin</td>
<td>Hazardous Materials Management (RT0201-01)</td>
<td>The Hazardous Material topic’s Hazardous Waste metric RT0201-01 is not Relevant/Useful, Cost-effective, or Comparable. Reporting in metric tons is counter to the current EPA reporting requirements for hazardous waste which allow a variety of input that capture the required data element, generation of hazardous waste. Would recommend adapting to an approach similar to the prescribed RCRA approach since SASB is referencing the RCRA statute. Per the RCRA statute if a beneficial reuse is found for a waste stream it would not meet the definition of a hazardous waste. Therefore, the ability to calculate hazardous waste recycled would not be applicable. In addition, the statute is prescriptive in allowable methods of recycle/reuse/treatment for hazardous waste and the SASB approach should conform with the statute being cited. This metric, as proposed, is flawed. Conversion to metric tons is not trivial and is not aligned to hazardous waste reporting as required by statute. It is presumed the frequency SASB is proposing is an annual reporting which, again, is not in conformance with RCRA statutes which differ from region to state. In some instances, this data is collected annually and in others biannually so there is an increased burden on data collection and reporting. Alignment with existing frameworks and reporting cycles should be incorporated. From a Lockheed Martin perspective, this data is not captured at the corporate level as hazardous waste generation reporting is done per EPA ID and the generating location. An entire new set of processes, both at the local and corporate level would have to be put in place for a non-regulatory driven reporting scheme. Would recommend a better focus on the part of SASB would be a focus on the reduction of hazardous waste.</td>
</tr>
<tr>
<td>RT0201</td>
<td>Jessica Synkoski Lockheed Martin</td>
<td>Materials Efficiency (RT0201-10)</td>
<td>The Materials Efficiency topic’s Reused Product Parts metric RT0201-10 is not Relevant/Useful, Cost-effective, Comparable, or Auditable.</td>
</tr>
<tr>
<td>RT0201</td>
<td>Jessica Synkoski Lockheed Martin</td>
<td>Business Ethics (RT0201-14)</td>
<td>The Business Ethics topic’s Bribery Fines metric RT0201-14 is Relevant/Useful, Cost-effective, Comparable, and Auditable. The metric should be clarified to state &quot;Number of enforcement actions by governmental authorities resulting in fines and settlements, and total amount of such fines and settlements, citing violations of anti-bribery or anti-corruption law.&quot; The footer #8 should be clarified to state &quot;Disclosure shall include a description of fines and settlements and corrective actions implemented in response to enforcement actions by governmental authorities.&quot;</td>
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<tr>
<td>RT0201</td>
<td>Jessica Synkoski Lockheed Martin</td>
<td>Business Ethics (RT0201-15)</td>
<td>The Business Ethics topic’s Export Control Fines metric RT0201-15 is Relevant/Useful, Cost-effective, Comparable, and Auditable. This question is limited to exports from the United States. It would have greater materiality if inclusive of all applicable import and export control laws, globally. The metric should be clarified to state “Number of enforcement actions by governmental authorities resulting in fines and settlements, and total amount of such fines and settlements, citing violations of import and export control laws.” The footer #9 should be clarified to state “Disclosure shall include a description of fines and settlements and corrective actions implemented in response to enforcement actions by governmental authorities.”</td>
</tr>
<tr>
<td>RT0201</td>
<td>Jessica Synkoski Lockheed Martin</td>
<td>Data Security (RT0201-03)</td>
<td>The Data Security topic’s Breaches metric RT0201-03 is Relevant/Useful and Cost-effective, but is not Comparable, or Auditable. We recommend against publishing the Data Security topic’s Breaches metric externally. There are many reasons for this recommendation. For example, the ability of different companies to identify and respond appropriately to cyber security attacks varies greatly. A company that has advanced capabilities may report more incidents than a company that has minimal capabilities as this sends the wrong message to external stakeholders. In addition, there is currently no cross-sector methodology for analyzing attacks and the clearly identifying something as a “breach”. We use the Cyber Kill Chain to describe the phases of an attack. This is widely adopted by large DIB members and increasingly by Government agencies, but it is not universal. The lack of a standard analysis framework may cause some companies to report a breach, when a similar occurrence in another company goes unreported. We recommend that companies track these type of metrics internally until more universal standards are widely implement that would allow a reliable apples to apples comparison for investors.</td>
</tr>
<tr>
<td>RT0201</td>
<td>Jessica Synkoski Lockheed Martin</td>
<td>Data Security (RT0201-04)</td>
<td>The Data Security topic’s Security Discussion metric RT0201-04 is Relevant/Useful and Cost-effective, but is not Comparable, or Auditable. As this metric was initially proposed, it would not be cost-effective to execute this analysis “throughout customer’s use of products and services”.</td>
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<tr>
<td>RT0201</td>
<td>Jessica Synkoski Lockheed Martin</td>
<td>Energy Management</td>
<td>The Energy Management topic is Relevant/Useful, Cost-effective, Comparable, and Auditable.</td>
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<tr>
<td>RT0201</td>
<td>Jessica Synkoski Lockheed Martin</td>
<td>Fuel Economy &amp; Use-phase Emissions (RT0201-08)</td>
<td>The Fuel Economy topic’s Fuel Efficiency metric RT0201-08 is Relevant/Useful, but is not Cost-effective, Comparable, or Auditable. As described, this data would be considered sensitive and cannot be publicly disclosed. Recommended alternative: fuel efficiency percentage improvement over generations of aircraft by type (e.g., cargo, fighter, etc. and not specific programs).</td>
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<tr>
<td>RT0201</td>
<td>Jessica Synkoski Lockheed Martin</td>
<td>Fuel Economy &amp; Use-phase Emissions (RT0201-09)</td>
<td>The Fuel Economy topic’s Fuel Efficiency Revenue metric RT0201-09 is not Relevant/Useful, Cost-effective, Comparable, or Auditable. Our industry’s fuel/energy solutions go beyond just vehicles and should be included in the revenue reporting for this metric. Alternative for this metric: Revenue from products/services that drive and improve efficiency for our customers (e.g., energy efficiency, renewable energy product offerings, and climate monitoring).</td>
</tr>
<tr>
<td>RT0201</td>
<td>Jessica Synkoski Lockheed Martin</td>
<td>Hazardous Materials Management (RT0201-02)</td>
<td>The Hazardous Material topic’s Hazardous Spills metric RT0201-02 is Relevant/Useful, Cost-effective, or Comparable. Spill recovery may take multiple years for complete recovery, depending on the sort of consent order that is assigned to the release condition. Presuming SASB is looking for an annual reporting of this data there is concern about misrepresentation regarding proper clean up and commitment on the part of this company to mitigate any release. Numerically, it may look like there is little to no progress when that is not the case and is not in keeping with the technological solution deployed to mitigate the event. In addition, reporting in kg does not align wholly with recognized methods of reporting under CERCLA. (See similar comment above re: RCRA) We currently track any releases at or above the RQ level. However, data related to the amount recovered is not tracked at the corporate level. Reporting this data would require an entire new set of processes, both at the local and corporate level. This activity would have to be put in place for a non-regulatory driven reporting scheme. Would recommend SASB to define what key data is not derived from CERCLA reporting for a proper gap analysis and review.</td>
</tr>
<tr>
<td>RT0201</td>
<td>Jessica Synkoski Lockheed Martin</td>
<td>Materials Efficiency (RT0201-12)</td>
<td>The Materials Efficiency topic’s Weight of Metals metric RT0201-12 is not Relevant/Useful, Cost-effective, Comparable, or Auditable.</td>
</tr>
<tr>
<td>RT0201</td>
<td>Jessica Synkoski Lockheed Martin</td>
<td>Materials Efficiency (Water)</td>
<td>The Materials Efficiency topic’s Water metric is Relevant/Useful, Cost-effective, Comparable, and Auditable. Application of this metric should apply only to regions with High or Extremely High Baseline Water Stress.</td>
</tr>
<tr>
<td>RT0201</td>
<td>Jessica Synkoski Lockheed Martin</td>
<td>Product Safety (RT0201-06)</td>
<td>The Product Safety topic’s Fines metric RT0201-06 is Relevant/Useful, Cost-effective, Comparable, and Auditable. Metric should be clarified to state “Number of enforcement actions by governmental authorities resulting in fines and settlements, and total amount of such fines and settlements, citing violations of product safety law”. The footer #4 should be clarified to state “Disclosure shall include a description of fines and settlements and</td>
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<td>corrective actions implemented in response to enforcement actions by governmental authorities.“</td>
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<td>RT0201</td>
<td>Jessica Synkoski Lockheed Martin</td>
<td>Product Safety (RT0201-05)</td>
<td>The Product Safety topic's Recall metric RT0201-05 is Relevant/Useful, Cost-effective, and Auditable, but is not Comparable. Metric should be clarified to state “Number of quality- and safety-based recalls, and total units addressed per recall, issued to customers”. Comparability may not be possible without a common denominator or impact of recall.</td>
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<tr>
<td>RT0201</td>
<td>Jessica Synkoski Lockheed Martin</td>
<td>Product Safety (RT0201-07)</td>
<td>The Product Safety topic's Weapons metric RT0201-07 is Relevant/Useful, Cost-effective, Comparable, and Auditable. The footer #5 should be clarified to state ”Controversial weapons are defined as any weapons covered under Protocols I, II, and IV of the United Nations Convention on Certain Conventional Weapons (CCCW), under the Chemical Weapons Convention (CWC), or under the Biological Weapons Convention.”</td>
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<tr>
<td>RT0201</td>
<td>Jessica Synkoski Lockheed Martin</td>
<td>Supply Chain Management &amp; Materials Sourcing (RT0201-16)</td>
<td>The Supply Chain topic's Counterfeit Parts metric RT0201-16 is Relevant/Useful, but is not Cost-effective, Comparable, or Auditable. While counterfeit electronic components is a relevant subject, there is sensitivity in reporting incidents outside of the impacted customer, and tracking/auditing percent avoided is neither cost effective, comparable, nor auditable. As a systems integrator, accounting for counterfeits in our multi-tier is complex and not comparable to all manufacturers in our industry.</td>
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<tr>
<td>RT0201</td>
<td>Jessica Synkoski Lockheed Martin</td>
<td>Supply Chain Management &amp; Materials Sourcing (RT0201-17)</td>
<td>The Supply Chain topic's Critical Material metric RT0201-17 is Auditable, but is not Relevant/Useful, Cost-effective, or Comparable. The definition of ”Critical materials” as written is too broad and would change over time. This metric is not relevant, cost-effective, or comparable. Understanding critical material volume and sustained source of supply may be of value, but is complicated by the multi-tiered supply chain of a large systems integrator. Procurement in many cases is not of raw materials, but rather components and parts. This metric is also dependent on the cost of the critical material for the product, regardless of amount of materials; if de minimis, it may not be a concern. Costs of materials may fluctuate throughout a year making comparability dependent on time of purchase.</td>
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<tr>
<td>RT0201</td>
<td>Jessica Synkoski Lockheed Martin</td>
<td>Supply Chain Management &amp; Materials Sourcing (RT0201-18)</td>
<td>The Supply Chain topic’s Conflict Mineral Smelters metric RT0201-18 is Auditable, but is not Relevant/Useful, Cost-effective, or Comparable. To the extent our supply chain identifies 3TG smelters, and they state or are certified as conflict-free (CFSI CSP), this metric can be reported. However, if the percent of smelters identified from our supply chain is statistically insignificant, there is nominal value.</td>
</tr>
<tr>
<td>RT0201</td>
<td>Jessica Synkoski Lockheed Martin</td>
<td>Supply Chain Management &amp; Materials Sourcing (RT0201-19)</td>
<td>The Supply Chain topic’s Conflict Minerals Discussion metric RT0201-19 is Relevant/Useful, Cost-effective, and Auditable, but is not Comparable. The SEC rule addresses the use of conflict minerals that originate from the Democratic Republic of the Congo. The use of 3TG alone is not a risk. The SEC rule requires due diligence. If the discussion and analysis requires quantification of critical material content, this will be neither cost effective nor auditable.</td>
</tr>
<tr>
<td>RT0201</td>
<td>Jessica Synkoski Lockheed Martin</td>
<td>Workplace Safety- Day Away Case Rate</td>
<td>Workplace safety as measured by day away case rate is Relevant/Useful, Cost-effective, Comparable, and Auditable. While it is well managed in the A&amp;D sector, it is no less critical to the productivity and the ability to meet customer demands, both in the short- and long-term. Additionally, there are legal consequences and monetary fines for safety violations that are relevant to investors. Workplace safety is a foundational component of talent management. An investor would reasonably want to know of changes in and status of workplace safety. This metric should follow OSHA standards of reporting, which are already universally used in the US in this industry and would keep the metric reporting cost-effective, comparable, and auditable.</td>
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<tr>
<td>RT0201</td>
<td>Jessica Synkoski Lockheed Martin</td>
<td>Workplace Safety- Recordable Rate</td>
<td>Workplace safety as measured by recordable rate is Relevant/Useful, Cost-effective, Comparable, and Auditable. While it is well managed in the A&amp;D sector, it is no less critical to the productivity and the ability to meet customer demands, both in the short- and long-term. Additionally, there are legal consequences and monetary fines for safety violations that are relevant to investors. Workplace safety is a foundational component of talent management. An investor would reasonably want to know of changes in and status of workplace safety. This metric should follow OSHA standards of reporting, which are already universally used in the US in this industry and would keep the metric reporting cost-effective, comparable, and auditable.</td>
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<tr>
<td>RT0201</td>
<td>Jessica Synkoski Lockheed Martin</td>
<td>Workplace Safety- Severity (lost days) rate</td>
<td>Workplace safety as measured by severity (lost days) rate is Relevant/Useful, Cost-effective, Comparable, and Auditable. While it is well managed in the A&amp;D sector, it is no less critical to the productivity and the ability to meet customer demands, both in the short and long-term. Additionally, there are legal consequences and monetary fines for safety violations that are relevant to investors. Workplace safety is a foundational component of talent management. An investor would reasonably want to know of changes in and status of workplace safety. This metric should follow OSHA standards of reporting, which are already universally used in the US in this industry and would keep the metric reporting cost-effective, comparable, and auditable.</td>
</tr>
<tr>
<td>RT0101-01</td>
<td>Thorsten Pinkepank BASF</td>
<td>Greenhouse Gas Emissions (RT0101-01)</td>
<td>Please see below our feedback regarding the Exposure Draft for Public Comment of SASB regarding the Chemicals Sector. In general:</td>
</tr>
<tr>
<td></td>
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<td>Air Quality (RT0101-04)</td>
<td>• Definitions: Definitions regarding several topics are still unclear. See it necessary to clarify definitions to help making sure that reports are more comparable. Hence, we suggest considering established standards and/or guidelines, e.g. referring to existing Standards like G4 of GRI.</td>
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<td>Water Management (RT0101-07)</td>
<td>• Assurance: What level of assurance is expected?</td>
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<td>Political Spending (RT0101-017 &amp; RT0101-18)</td>
<td>• Materiality context: Based on different sites, materiality and business models, it would be helpful for companies to have the possibility to explain why an indicator is not material</td>
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<td>Operational Safety, Emergency Management &amp; Response (RT0101-20)</td>
<td>• In Principle: Within the current standard some topics are generalized over &quot;products&quot;. We suggest differentiating between application and product (e.g. GMO, renewables) with a focus on application. Indicator specific:</td>
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<td>• RT0101-01: Use the current standard of the IPCC, not from 1995.</td>
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<td>• RT0101-04: The registrant shall disclose its emissions of air pollutants that are released to the atmosphere as a result of its activities with the same boundaries defined in Scope 1 for GHG emissions.</td>
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<td>• RT0101-07: The indicator should not consider voluntary standards or the like. Based on the variety of standards, numbers between companies might differ and comparability doesn’t exist. Therefore, regulations should be the basis. Could also discourage engagement regarding voluntary standards. Parameters/Indicators mentioned in Definition should be cross-checked with established (reporting)standards.</td>
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<td>• RT0101-17 and RT0101-18: It is probably not relevant, how much companies spend. It is more important to understand the lobbying position regarding material topics. Therefore it makes more sense to ask for transparency and consistency regarding the content of advocacy, rather than the amount of expenses.</td>
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<td>Industry SICS number</td>
<td>Name and/or Affiliation of Respondent</td>
<td>Topic (Metric Code)</td>
<td>Comment Excerpts</td>
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| RT0101               | Elizabeth Connors (Michigan State University) | Product Lifecycle Management & Innovation (RT0101-13) | • RT0101-20: Unclear definition of near misses. Thus, different definitions generate different numbers and therefore comparability is not given. Topic could discourage reporting and therefore make companies less safe.  
• Do not hesitate to contact me in case of further questions.  
Mit freundlichen Grüßen/Kind Regards  
Thorsten Pinkepank  
Director Sustainability Relations  
Sustainability Strategy  
Ludwigshafen, Germany  
150 years  
BASF - We create chemistry  
BASF SE, Registered Office: 67056 Ludwigshafen, Germany  
Registration Court: Amtsgericht Ludwigshafen, Registration No.: HRB 6000 |
| RT0202               | Agnes De Jesus | Hazardous Materials Management (RT0202-02)  
Materials Sourcing (RT0202-15) | Comment on Material Sourcing  
The guidelines identify the critical materials based on relevant regulations now. I suggest that we add the phrase “and other critical materials and chemicals that may be identified as critical in future regulations”.  
Hazardous Materials Management  
I suggest that in addition to the questions on reused, recycled and reclaimed wastes, we add “treated” so that there will be a complete material balance at a glance.  
On the aspect of emissions and spills, it is expected that the industry monitors waterways or airsheds in their manufacturing areas. Can we ask them if despite of the releases, the ambient environment remained compliant with standards? |
Dr. Jean Rogers  
Sustainable Accounting Standards Board  
75 Broadway, Suite 202  
San Francisco, CA 94111  

January 15 2015,

Dr. Jean Rogers,  

Re: Containers and Packaging: Sustainability Accounting Standard—Exposure Draft for Public Comments  

Thank you for the opportunity to provide comments on the Sustainability Accounting Standard Board’s (SASB) “Exposure Draft Containers and Packaging: Sustainability Accounting Standard”. AMERIPEN has submitted general comments on the overall standard as part of collective response made by our industry associations. This letter is intended to articulate the specific concerns our membership has identified with the proposed metrics found within the Proposed Standard.

As one of the few industry trade associations that is material neutral, AMERIPEN is in a unique position to represent all packaging types and substrates. This diversity also poses significant challenges. In many cases we found inconsistency in how each of our members quantified metrics, what metrics or standards might apply to different materials and categories as well as regulatory and consumer differences. We’ve done our best to highlight these challenges within our assessment. In undertaking this process we wish to re-state one of our concerns documented in our previous collective industry submission, **SASB must use caution in encouraging the use of these metrics as a means to normalize sustainability data between companies and packaging types.** There are simply too many variables between different packaging types, materials and substrates to provide any meaningful comparisons. We strongly advise SASB to consider this challenge and communicate clearly with users of the standard the risks in doing so.

With that said, the following concerns were identified within the metrics section of the Proposed Draft Standard.

**Disclosure Topic: Greenhouse Gas Emissions**  
**Accounting Metric Code: RT0204-01**

We are confused by SASB’s interest in disclosing Greenhouse Gas emissions here when the SEC has already deemed disclosure on Greenhouse Gases as material. Since the SEC provides a few avenues on how and where to report, we seek clarification on how this will blend with SASB’s expectations? Will
this require duplicative reporting within the SEC filings or will companies only be required to report once? Further clarification on how SASB views greenhouse gas disclosures within the current context of SEC reporting should be provided. It should also be noted depending on the material used for packaging, scope 2 may be greater than scope 1 emissions. We recommend SASB require both Scope 1 & 2 GHGs. This will also help to create better alignment on required reporting scope as defined by the CDP and EPA.

Disclosure Topic: Greenhouse Gas Emissions
Accounting Metric Code: RT0204-02
We support the addition of the long-term and short-term strategy or plan to manage emissions, reductions targets and performance. We believe this addition helps bring carbon reporting into alignment with those who are voluntarily reporting this per their CDP disclosure and with SEC guidelines. Consistency across reporting formats would be preferred. We do, however, caution that this is a metric that is not subject to financial level assurance. This reinforces our previous concern, documented within our collective industry response, about SASB’s desire to seek financial level assurance.

Disclosure Topic: Energy Management
Accounting Metric Code: RT0204-03
SASB notes: “For the Pulp and Paper Manufacturers (the largest segment), approximately one third of their energy emissions is from electricity, while the rest comes from fuel combustion from other sources”. We do not feel this statement is value added for a standard that includes all material types and substrates, nor does it reflect the diversity within the pulp and paper industry where virgin versus recycled mills use energy differently. We recommend SASB remove this statement from the standard.

We also caution against SASB’s use of third party voluntary standards to define renewable energy and REC credits. We believe SASB should request companies to disclose their source of renewable energy and provide definition but not restrict it to specific standards which have: a) not been reviewed through an ANSI process b) may not reflect an industry standard. In restricting how companies may report on the use of renewable energy SASB opens up the risk of misleading public statements made by companies and filed in numerous different public formats.

Disclosure Topic: Air Quality
Accounting Metric Code: RT0204-04
As it is currently drafted, SASB is requesting reporting on Air Emissions above and beyond that required by the USEPA. As USEPA thresholds vary according to geographical location, we recognize the adoption of a particular threshold would be difficult and result in a specific cost burden on companies. We recommend SASB either remove this metric altogether or simply request that locations report on air quality emissions as per the regulatory requirements within their various jurisdictions. We caution again, this is not comparable data due to the geographic differentials in thresholds.
Disclosure Topic: Water Management
Accounting Metric Code: RT0204-05
For the majority of our member companies, water consumption, versus water withdrawn and effluent discharge, is a more accurate metric of measurement. As many of the packaging material types do not use substantial amounts of water in their production process, the ability to report on water recycled would be irrelevant or pose a substantial cost burden. Additionally, this metric is often subject to fluctuate and is widely variable depending upon technologies used. It would therefore not be easily auditable, nor comparable. We recommend SASB adopt total water consumed as the key metric and remove the reference to recycled.

Disclosure Topic: Water Management
Accounting Metric Code: RT0204-06
While we do not object to the disclosure of regulatory violations for water discharge, we do not support the use of voluntary standards for reporting water quality violations. We believe this opens the door to reporting unsubstantiated complaints and is simply too variable across the industry and companies to provide a meaningful normative comparison for investors.

Disclosure Topic: Hazardous Material Management
Accounting Metric Code: RT0204-07
SASB defines ‘hazardous waste’ using USEPA definitions, which are inadequate for addressing this impact area globally. There are significantly different waste definitions applied globally. We believe the definition of hazardous waste should be more flexible to account for the varying global definitions that currently exist. To assist with the reporting burden of classifying waste we encourage SASB to allow local definitions to dictate the categorization of hazardous waste. Requiring global operations to meet US standards for hazardous waste would be a reporting and cost burden.

In the US, there are strict regulatory requirements related to the recycling of hazardous waste. Further, SASB’s Proposed Standard uses the terms ‘waste’ and ‘material’ interchangeably, which is technically inaccurate and impossible for would-be-reporters to interpret. We note therefore, the ‘percentage recycled’ portion of the metrics is irrelevant as written and encourage SASB to redraft this as a separate measure, to include a more expansion look at hazardous materials recycling. On Tuesday January 13, 2015, the USEPA released a new solid waste rule clarifying many of these definitional issues raised by the SASB Proposal Standard. We encourage SASB to reference this latest update in future revisions.

Disclosure Topic: Product Safety
Accounting Metric Code: RT0204-09
Found within the description statement, SASB states: “Some packaging and containers may present problems when they contact food, and have even been found to leach small amounts of chemicals into the food or beverage.” In many cases, subsequent research on claims of food contamination as a result
of chemical migration has been proven insubstantial. Additionally, there is no recognition of the role the FDA plays in regulating food packaging. *As this statement may be considered misleading and only applies to a small subset of packaging types, we recommend it be removed. We believe the subsequent statement about “uncertainties and new findings” adequately reflects what SASB is seeking to communicate.*

**Disclosure Topic:** Product Lifecycle Management & Innovation  
**Accounting Metric Code:** RT0204-10  
Percentage of recycled material applicable to packaging substrates and types varies by category. We believe the use of this metric will require specific qualifications on the risk of comparisons between industries. For example, paper packaging can create a 100 percent recycled carton without any structural risk but foam tray packaging faces significant risk of structural defect should the rate of recycled material increase beyond 30 percent. Additionally, recycled content for metals like aluminum and steel may be infinite; as a result the industry does not have reliable means to quantify and track recycled content. Without providing insight into the industry availability and structural needs by material substrate or packaging type, we believe this metric misleads investors seeking to understand the true sustainability and material risk of recycled content. *We recommend SASB remove this metric altogether, or provide industry specific data on standard recycled content rates, accompanied by a strong caution on the risk of drawing comparisons between materials and packaging type.*

**Disclosure Topic:** Product Lifecycle Management & Innovation  
**Accounting Metric Code:** RT0204-11  
Companies produce numerous SKU’s of packaging; in some cases their packaging is then sent for further conversion by additional peers to add more material. We believe this metric is cost prohibitive for companies to accurately report on. Not only does it require assessment of all product lines but unless there is a defined boundary it suggests companies need to communicate across the supply chain for insight into the final packaging, including possible assessment on how consumers are utilizing packaging. This is not a realistic measurement. Nor is it auditable. *We recommend SASB remove this metric altogether.*

**Disclosure Topic:** Product Lifecycle Management & Innovation  
**Accounting Metric Code:** RT0204-12  
There is no definition of hazardous or noxious material within this metric, nor does it recognize the role of approved thresholds for hazardous materials. This needs to be defined. While we recognize consumer concern over toxics in materials, we believe a statement should be made clear that it is the role of the US EPA to regulate toxics in packaging.

Additionally, there are a few places where references to industry standards are outdated. Specifically, the metric references the SPC’s Packaging Indicators & Metrics Framework (2009). This was supplanted by the Global Protocol on Packaging Sustainability 2.0 (2011). Europe’s ‘Essential Requirements” has
also been adopted into a new ISO 186XX framework—Packaging and the Environment. This change will replace the use of the term ‘noxious or hazardous constituents’ with language in accordance with the Globally Harmonized System of Classification and Labelling of Chemicals (GHS) adopted in 2013. We recommend SASB remove this metric altogether.

**Disclosure Topic:** Materials Sourcing  
**Accounting Metric Code:** RT0204-13

The paper industry is the only association that currently has defined Chain of Custody procedures. *Should this metric be applied, we recommend SASB clearly state this is applicable to pulp and paper packaging only. This is another example where we believe SASB need to help investors understand the diverse nature of the industry and the risk in attempting to draw comparisons between packaging types and materials.*

We also note that the unit of measurement aligned with FSC, SFI and PEFC reporting requirements quantify volume sold by “tons sold” not “cost of goods sold”. Cost of goods sold may be misleading as it could reflect a surcharge, or competitor fees, on paperboard. *We recommend SASB adopt the same unit of measurement as those required by the Chain of Custody Organizations.*

Lastly, it should be noted that the amount of certified content used is not necessarily reflective of the company’s overall sustainability performance but rather of consumer demand for certified content. In many cases, companies are certified and prepared to produce certified material, but customers do not desire certification. *We recommend SASB may wish to provide opportunity to discuss this demand challenge or consider removing the metric altogether.*

**Disclosure Topic:** Materials Sourcing  
**Accounting Metric Code:** RT0204-14

Many packaging material substrates do not have responsible sourcing standards. We believe this metric may be irrelevant. For example, we note that SASB references BES 6001 as a sourcing standard. BES 6001 was developed for materials used in the construction industry and is not appropriate for materials used in the packaging and containers destined for the variety of regulated segments to which we serve e.g. food products, pharmaceuticals, children’s toys, dangerous materials and chemicals etc. *We recommend SASB remove this metric altogether or consider amending it to reflect a disclosure on management approach to materials sourcing.*

*If SASB considers making this a disclosure, we would encourage them to include the opportunity for companies to address initiatives to improve sourcing, including means to increase recycling. Packaging companies engaged in initiatives to increase infrastructure, education and policy to increase recovery and drive cost effective and sustainable sourcing markets should be recognized for their leadership in addressing systemic sustainability challenges faces our industry. We believe companies taking*
leadership with recycling and/or other sourcing challenges are demonstrating forward thinking and risk management.

On behalf of AMERIPEN we thank you for the opportunity to submit our comments on the “Exposure Draft Containers and Packaging: Sustainability Accounting Standard”. Should you wish further clarification we would welcome the opportunity to assist.

Sincerely,

Donna Dempsey
Executive Director, AMERIPEN