SUSTAINABILITY ACCOUNTING STANDARD
RESOURCE TRANSFORMATION SECTOR

AEROSPACE & DEFENSE

Sustainability Accounting Standard

Sustainable Industry Classification System™ (SICS™) #RT0201

Prepared by the
Sustainability Accounting Standards Board®

OCTOBER 2014
EXPOSURE DRAFT FOR PUBLIC COMMENT

AEROSPACE & DEFENSE

Sustainability Accounting Standard

About SASB

The Sustainability Accounting Standards Board (SASB) provides sustainability accounting standards for use by publicly listed corporations in the U.S. in disclosing material sustainability information for the benefit of investors and the public. SASB standards are designed for disclosure in mandatory filings to the Securities and Exchange Commission (SEC), such as the Form 10-K and 20-F. SASB is an independent 501(c)3 nonprofit organization. Through 2016, SASB is developing standards for more than 80 industries in 10 sectors.

SUSTAINABILITY ACCOUNTING STANDARDS BOARD

75 Broadway, Suite 202
San Francisco, CA 94111
415.830.9220

info@sasb.org

www.sasb.org

Table of Contents

INTRODUCTION

Purpose & Structure

This document contains the SASB Sustainability Accounting Standard (SASB Standard) for the Aerospace & Defense industry.

SASB Standards are comprised of **(1) disclosure guidance and (2) accounting standards on sustainability topics** for use by U.S. and foreign public companies in their annual filings (Form 10-K or 20-F) with the U.S. Securities and Exchange Commission (SEC). To the extent relevant, SASB Standards may also be applicable to other periodic mandatory filings with the SEC, such as the Form 10-Q, Form S-1, and Form 8-K.

SASB's disclosure guidance identifies sustainability topics at an industry level, which may be material— depending on a company's specific operating context— to a company within that industry.

Each 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.

SASB's accounting standards provide companies with standardized accounting metrics to account for performance on industry-level sustainability topics. When making disclosure on sustainability topics, companies adopting SASB's accounting standards will help to ensure that disclosure is standardized, and therefore useful, relevant, comparable, and auditable.

Industry Description

Companies in the Aerospace & Defense industry can be broken down into three main categories: (1) commercial aircraft manufacturing and aircraft parts, (2) aerospace and defense parts manufacturing, and (3) defense primes, which includes the manufacturing of military aircraft, space vehicles, missile systems, ammunition, small arms, naval ships and other commercial and military vehicles. Aerospace and defense companies operate globally and serve both international and domestic customers. Depending on which subset of the industry a company operates in, it may have different customers. Commercial aircraft manufacturers sell mainly to commercial airlines, as well as U.S. and foreign governments. Aerospace and defense parts manufacturers have a similar customer base, but their balance shifts the other way, selling mainly to governments and defense operations. Finally, defense primes' customers consist of various agencies of the U.S. government and related businesses with operations around the world. The defense prime category also includes firearms manufacturers, such as Smith & Wesson, which sell to law enforcement agencies, businesses, distributors, retailers, and consumers. Companies will have to navigate key industry trends, including: safety, fuel economy, emissions control, noise control, chemical use, and compliance with regulations related to government contracting and international trade.

Guidance for Disclosure of Material Sustainability Topics in SEC Filings

1 . Industry-Level Sustainability Disclosure Topics

For the Aerospace & Defense industry, SASB has identified the following sustainability disclosure topics:

Hazardous Materials Management	Materials Efficiency
Data Security	Business Ethics
Product Safety	Supply Chain Management & Materials Sourcing
Fuel Economy & Use-phase Emissions	

2 . Company-Level Determination and Disclosure of Material Sustainability Topics

Sustainability disclosures are governed by the same laws and regulations that govern disclosures by securities issuers generally. According to the U.S. Supreme Court, a fact is material if, in the event such fact is omitted from a particular disclosure, there is "a substantial likelihood that the disclosure of the omitted fact would have been viewed by the reasonable investor as having significantly altered the 'total mix' of the information made available."[1,2]

SASB has attempted to identify those sustainability topics that it believes may be material for all companies within each SICS industry. SASB recognizes, however, that each company is ultimately responsible for determining what is material to it.

Regulation S-K, which sets forth certain disclosure requirements associated with Form 10-K and other SEC filings, requires companies, among other things, to describe in the Management's Discussion and Analysis of Financial Condition and Results of Operations (MD&A) section of Form 10-K "any known trends or uncertainties that have had or that the registrant reasonably expects will have a material favorable or unfavorable impact on net sales or revenues or income from continuing operations. If the registrant knows of events that will cause a material change in the relationship between costs and revenues (such as known future increases in costs of labor or materials or price increases or inventory adjustments), the change in the relationship shall be disclosed."[2]

Furthermore, Instructions to Item 303 state that the MD&A "shall focus specifically on material events and uncertainties known to management that would cause reported financial information not to be necessarily indicative of future operating results or of future financial condition."[2]

In determining whether a trend or uncertainty should be disclosed, the SEC has stated that management should use a two-part assessment based on probability and magnitude:

First, a company is not required to make disclosure about a known trend or uncertainty if its management determines that such trend or uncertainty is not reasonably likely to occur.

Second, if a company's management cannot make a reasonable determination of the likelihood of an event or uncertainty, then disclosure is required unless management determines that a material effect on the registrant's financial condition or results of operation is not reasonably likely to occur.

[1] TSC Industries v. Northway, Inc., 426 U.S. 438 (1976).

[2] C.F.R. 229.303(Item 303)(a)(3)(ii).

3. Sustainability Accounting Standard Disclosures in Form 10-K

a. Management's Discussion and Analysis

Companies should consider making disclosure on sustainability topics as a complete set in the MD&A, in a subsection titled **"Sustainability Accounting Standards Disclosures."**[3]

b. Other Relevant Sections of Form 10-K

In addition to the MD&A section, companies should consider disclosing sustainability information in other sections of Form 10-K, as relevant, including:

Description of business—Item 101 of Regulation S-K requires a company to provide a description of its business and its subsidiaries. Item 101(c)(1)(xii) expressly requires disclosure regarding certain costs of complying with environmental laws:

> Appropriate disclosure also shall be made as to the material effects that compliance with Federal, State and local provisions which have been enacted or adopted regulating the discharge of materials into the environment, or otherwise relating to the protection of the environment, may have upon the capital expenditures, earnings and competitive position of the registrant and its subsidiaries.

Legal proceedings—Item 103 of Regulation S-K requires companies to describe briefly any material pending or contemplated legal proceedings. Instructions to Item 103 provide specific disclosure requirements for administrative or judicial proceedings arising from laws and regulations that target discharge of materials into the environment or that are primarily for the purpose of protecting the environment.

Risk factors—Item 503(c) of Regulation S-K requires filing companies to provide a discussion of the most significant factors that make an investment in the registrant speculative or risky, clearly stating the risk and specifying how a particular risk affects the particular filing company.

c. Rule 12b-20

Securities Act Rule 408 and Exchange Act Rule 12b-20 require a registrant to disclose, in addition to the information expressly required by law or regulation, "such further material information, if any, as may be necessary to make the required statements, in light of the circumstances under which they are made, not misleading."

More detailed guidance on disclosure of material sustainability topics can be found in the **SASB Conceptual Framework**, available for download via http://www.sasb.org/approach/conceptual-framework/.

[3] SEC [Release Nos. 33-8056; 34-45321; FR-61] Commission Statement about Management's Discussion and Analysis of Financial Condition and Results of Operations: "We also want to remind registrants that disclosure must be both useful and understandable. That is, management should provide the most relevant information and provide it using language and formats that investors can be expected to understand. Registrants should be aware also that investors will often find information relating to a particular matter more meaningful if it is disclosed in a single location, rather than presented in a fragmented manner throughout the filing."

Guidance on Accounting of Material Sustainability Topics

For sustainability disclosure topics in the Aerospace & Defense industry, SASB identifies accounting metrics.

SASB recommends that each company consider using these sustainability accounting metrics when disclosing its performance with respect to each of the sustainability topics it has identified as material.

As appropriate—and consistent with Rule 12b-20[4]—for each sustainability topic, companies should consider including a narrative description of any material factors necessary to ensure completeness, accuracy, and comparability of the data reported. Where not addressed by the specific accounting metrics, but relevant, the registrant should discuss the following, related to the topic:

- The registrant's **strategic approach** to managing performance on material sustainability issues;
- The registrant's competitive positioning;
- The **degree of control** the registrant has;
- Any measures the registrant has undertaken or plans to undertake to improve performance; and
- Data for the registrant's **last three completed fiscal years** (when available).

SASB recommends that registrants use SASB Standards specific to their primary industry as identified in the Sustainable Industry Classification System (SICS™). If a registrant generates significant revenue from multiple industries, SASB recommends that it consider the materiality of the sustainability issues that SASB has identified for those industries and disclose the associated SASB accounting metrics.

Users of the SASB Standards

The SASB Standards are intended for companies that engage in public offerings of securities registered under the Securities Act of 1933 (the Securities Act) and those that issue securities registered under the Securities Exchange Act of 1934 (the Exchange Act),[5] for use in SEC filings, including, without limitation, annual reports on Form10-K (Form 20-F for foreign issuers), quarterly reports on Form 10-Q, current reports on Form 8-K, and registration statements on Forms S-1 and S-3. Nevertheless, disclosure with respect to the SASB Standards is not required or endorsed by the SEC or other entities governing financial reporting, such as FASB, GASB, or IASB.

[4] SEC Rule 12b-20: "In addition to the information expressly required to be included in a statement or report, there shall be added such further material information, if any, as may be necessary to make the required statements, in the light of the circumstances under which they are made, not misleading."

[5] Registration under the Securities Exchange Act of 1934 is required (1) for securities to be listed on a national securities exchange, such as the New York Stock Exchange, the NYSE Amex, and the NASDAQ Stock Market, or (2) if (A) the securities are equity securities, and are held by more than 2,000 persons (or 500 persons who are not accredited investors) and (B) the company has more than $10 million in assets.

Scope of Disclosure

Unless otherwise specified, SASB recommends:

That a registrant disclose on sustainability issues and metrics for itself and for entities in which the registrant has a controlling interest and therefore are consolidated for financial reporting purposes (controlling interest is generally defined as ownership of 50% or more of voting shares);[6]

That for consolidated entities, disclosures be made, and accounting metrics calculated, for the whole entity, regardless of the size of the minority interest; and

That information from unconsolidated entities not be included in the computation of SASB accounting metrics. A registrant should disclose, however, information about unconsolidated entities to the extent that the registrant considers the information necessary for investors to understand its performance with respect to sustainability issues (typically, this disclosure would be limited to risks and opportunities associated with these entities).

Reporting Format

Activity Metrics and Normalization

SASB recognizes that normalizing accounting metrics is important for the analysis of SASB disclosures.

SASB recommends that a registrant disclose any basic business data that may assist in the accurate evaluation and comparability of disclosure, to the extent that they are not already disclosed in the Form 10-K (e.g., revenue, EBITDA, etc.).

Such data—termed "activity metrics"—may include high-level business data, such as total number of employees, quantity of products produced or services provided, number of facilities, or number of customers. It may also include industry-specific data, such as plant capacity utilization (e.g., for specialty chemical companies), number of transactions (e.g., for Internet media and services companies), hospital bed days (e.g., for health care delivery companies), or proven and probable reserves (e.g., for oil and gas exploration and production companies).

Activity metrics disclosed should:

Convey contextual information that would not otherwise be apparent from SASB accounting metrics.

Be deemed generally useful for users of SASB accounting metrics (e.g., investors) in performing their own calculations and creating their own ratios.

Be explained and consistently disclosed from period to period to the extent they continue to be relevant. However, a decision to make a voluntary disclosure in one period does not obligate a continuation of that disclosure if it is no longer relevant or if a better metric becomes available.

[6] See U.S. GAAP consolidation rules (Section 810).

Where relevant, SASB recommends specific activity metrics that—at a minimum—should accompany SASB accounting metric disclosures.

ACTIVITY METRIC	CATEGORY	UNIT OF MEASURE	CODE
Number of units produced by product category[7]	Quantitative	Number	RT0201-A
Number of employees, percentage in manufacturing role	Quantitative	Number, Percentage (%)	RT0201-B

Units of Measure

Unless specified, disclosures should be reported in International System of Units (SI units).

Uncertainty

SASB recognizes that there may be inherent uncertainty when disclosing certain sustainability data and information. This may be related to variables such as the imperfectness of third-party reporting systems or the unpredictable nature of climate events. Where uncertainty around a particular disclosure exists, SASB recommends that the registrant should consider discussing its nature and likelihood.

Estimates

SASB recognizes that scientifically-based estimates, such as the reliance on certain conversion factors or the exclusion of *de minimis* values, may be necessary for certain quantitative disclosures. Where appropriate, SASB does not discourage the use of such estimates. When using an estimate for a particular disclosure, SASB expects that the registrant discuss its nature and substantiate its basis.

Timing

Unless otherwise specified, disclosure shall be for the registrant's fiscal year.

Limitations

There is no guarantee that SASB Standards address all sustainability impacts or opportunities associated with a sector, industry, or company, and therefore, a company must determine for itself the topics—sustainability-related or otherwise—that warrant discussion in its SEC filings.

Disclosure under SASB Standards is voluntary. It is not intended to replace any legal or regulatory requirements that may be applicable to user operations. Where such laws or regulations address legal or regulatory topics, disclosure under SASB Standards is not meant to supersede those requirements. Disclosure according to SASB Standards shall not be construed as demonstration of compliance with any law, regulation, or other requirement.

SASB Standards are intended to be aligned with the principles of materiality enforced by the SEC. However, SASB is not affiliated with or endorsed by the SEC or other entities governing financial reporting, such as FASB, GASB, or IASB.

[7] Note to RT0201-A – The registrant shall indicate the number of units produced during the fiscal year whether they were manufactured in its own facilities or they were produced by contract manufacturers or suppliers. Disclosure shall be made for each of the following production categories that apply, which correspond to Level 4 of the Bloomberg Industry Classification System (BICS) as mapped to the Resource Transformation sector in the Sustainable Industry Classification System (SICS): Aircraft Parts Manufacturing, Military Armored Vehicle/Tank Manufacturing, Military Aircraft Manufacturing, Missile & Space Vehicle Manufacturing, Munitions and Small Arms Manufacturing, Naval Ship Building, Rotary Wing Aircraft—Commercial..

Forward-looking Statements

Disclosures on sustainability topics can involve discussion of future trends and uncertainties related to the registrant's operations and financial condition, including those influenced by external variables (e.g., environmental, social, regulatory, and political). Companies making such disclosures should familiarize themselves with the safe harbor provisions of Section 27A of the Securities Act and Section 21E of the Exchange Act, which preclude civil liability for material misstatements or omissions in such statements if the registrant takes certain steps, including, among other things, identifying the disclosure as "forward-looking" and accompanying such disclosure with "meaningful cautionary statements identifying important factors that could cause actual results to differ materially from those in the forward-looking statements."

Assurance

In disclosing to SASB Standards, 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.

SASB encourages registrants to use independent assurance (attestation); for example, an Examination Engagement to AT Section 101.

Table 1. Sustainability Disclosure Topics & Accounting Metrics

TOPIC	ACCOUNTING METRIC	CATEGORY	UNIT OF MEASURE	CODE
Hazardous Materials Management	Amount of hazardous waste, percentage recycled	Quantitative	Tons (t), Percentage (%)	RT0201-01
	Number and aggregate quantity of reportable releases and spills, quantity recovered	Quantitative	Number, Kilograms (kg)	RT0201-02
Data Security	Number of data security breaches and percentage involving customers' confidential business information or sensitive national security information[8]	Quantitative	Number, Percentage (%)	RT0201-03
	Discussion of management approach to identifying and addressing data security risks within (a) company operations and (b) products	Discussion and Analysis	n/a	RT0201-04
Product Safety	Number of recalls and total units recalled [9]	Quantitative	Number	RT0201-05
	Amount of legal and regulatory fines and settlements associated with product safety [10]	Quantitative	U.S. Dollars ($)	RT0201-06
	Revenue from production of controversial weapons or key components of controversial weapons	Quantitative	U.S. Dollars ($)	RT0201-07
Fuel Economy & Use-phase Emissions	Fleet fuel efficiency for: (1) terrestrial vehicles, (2) ships and marine systems, and (3) aircraft and other aerospace vehicles, for (a) passenger and (b) cargo vehicle types	Quantitative	Gallons per mile (gal/mile), Gallons per ton-mile (gal/ton-mile), 1/SAR	RT0201-08
	Revenue from alternative fuel vehicles	Quantitative	U.S. Dollars ($)	RT0201-09
Materials Efficiency	Percentage of products from remanufactured or reused parts	Quantitative	Percentage (%)	RT0201-10
	Amount of waste, percentage recycled	Quantitative	Tons (t), Percentage (%)	RT0201-11
	Ratio of weight of high value metals procured to the weight utilized in finished goods	Quantitative	Ratio	RT0201-12

[8] Note to RT0201-03 – Disclosure shall include a description of the corrective actions taken in response to specific incidents.
[9] Note to RT0201-05 – Disclosure shall include a discussion of notable recalls, such as those that affected a significant number of units of one model or those related to a serious injury or fatality.
[10] Note to RT0201-06 – Disclosure shall include a description of fines and settlements and corrective actions implemented in response to events.

Table 1. Sustainability Disclosure Topics & Accounting Metrics (cont.)

TOPIC	ACCOUNTING METRIC	CATEGORY	UNIT OF MEASURE	CODE
Business Ethics	Description of the management system for prevention of corruption and bribery, throughout the value chain, including disclosure of highest risk areas	Discussion and Analysis	n/a	RT0201-13
	Amount of legal and regulatory fines and settlements associated with charges of bribery or corruption [11]	Quantitative	U.S. Dollars ($)	RT0201-14
	Amount of legal and regulatory fines and settlements associated with violations of export control regulations [12]	Quantitative	U.S. Dollars ($)	RT0201-15
Supply Chain Management & Materials Sourcing	Number of counterfeit parts, percentage avoided	Quantitative	Number, Percentage (%)	RT0201-16
	Percentage of materials costs for items containing critical materials	Quantitative	Percentage (%) by COGS	RT0201-17
	Percentage of tungsten, tin, tantalum, and gold smelters within the supply chain that are verified conflict-free	Quantitative	Percentage (%)	RT0201-18
	Discussion of the management of risks associated with the use of critical materials and conflict minerals	Discussion and Analysis	n/a	RT0201-19

[11] Note to RT0201-14 – Disclosure shall include a description of fines and settlements and corrective actions implemented in response to events.
[12] Note to RT0201-15 – Disclosure shall include a description of fines and settlements and corrective actions implemented in response to events.

Hazardous Materials Management

Description

The manufacturing of aircraft and defense equipment generates hazardous waste that must be properly managed according to EPA and other regulatory guidelines. For example, the Resource Conservation and Recovery Act (RCRA), regulates generation, transport, treatment, storage, and disposal of hazardous and solid waste. Hazardous wastes generated by manufacturing include metals, spent acids, caustics, solid catalysts, and wastewater treatment sludge. Proper processing and disposal of hazardous waste materials is essential to limiting risk of remediation liabilities, fines, regulations, and possible loss of contracts. In addition, companies that are able to limit the waste of input materials and recycle the waste generated may achieve significant cost savings and improve profitability.

Accounting Metrics

RT0201-01. Amount of hazardous waste, percentage recycled

.01 The amount of hazardous waste shall be calculated in metric tons, where:

- Waste is generally defined as anything for which the registrant has no further use and which would otherwise be discarded or released to the environment.
- Hazardous waste includes any Subtitle C Hazardous Waste as defined by the Resource Conservation and Recovery Act (RCRA) (40 CFR § 261). Hazardous wastes include those that display the following characteristics: ignitability, corrosivity, reactivity, or toxicity.

.02 The percentage recycled shall be calculated as the weight of waste material that was reused, plus the weight recycled, reclaimed, or remanufactured (through treatment or processing) by the registrant, plus the amount sent externally for further reuse, recycling, or remanufacturing, divided by the total weight of waste material, where:

- A hazardous waste is recycled if it is used, reused, or reclaimed. Furthermore, RCRA hazardous waste regulation makes an important distinction between materials that are used or reused without reclamation, and those that must be reclaimed before reuse. A material is *reclaimed* if it is processed to recover a usable product, or if it is regenerated. Common hazardous waste reclamation activities involve recovery of spent solvents (e.g., recovery of acetone) or metals (e.g., recovery of lead).[13]
- Reused materials are defined as those recovered products or components of products that are used for the same purpose for which they were conceived.
- Recycled and remanufactured materials are defined as waste materials that have been reprocessed or treated by means of production or manufacturing processes and made into a final product, or made into a component for incorporation into a product.
- The scope of recycled and remanufactured products includes primary recycled materials, co-products (outputs of equal value to primary recycled materials), and by-products (outputs of lesser value to primary recycled materials).

[13] http://www.epa.gov/solidwaste/hazard/recycling/index.htm

- Portions of products and materials that are disposed of in landfills are not considered recycled; only the portions of products that are directly incorporated into new products, co-products, or by-products shall be included in the percentage recycled.

- Materials sent for further recycling include those materials that are transferred to a third party for the expressed purpose of reuse, recycling, or refurbishment.

- Materials incinerated, including for energy recovery, are not considered reused or recycled. Energy recovery is defined as the use of combustible waste as a means to generate energy through direct incineration, with or without other waste, but with recovery of the heat.

.03 Electronic waste material (e-waste) shall be considered recycled only if the registrant can demonstrate that this material was transferred to entities with third-party certification to a standard for e-waste recycling, such as Basel Action Network's e-Steward® standard or the U.S. EPA's Responsible Recycling Practices (R2) standard.

- The registrant shall disclose the standard(s) to which the entities it has transferred e-waste are compliant.

RT0201-02. Number and aggregate quantity of reportable releases and spills, quantity recovered

.04 The registrant shall disclose the total number and quantity (in kilograms) of reportable releases, where:

- Reportable releases are defined as any release of a hazardous substance in an amount equal to or greater than the reportable quantity defined by the U.S. Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA).

- The number of releases shall represent any spills, leaks, emissions, discharges, injections, disposals, and abandonment releases over time, counted once at the time identified, consistent with CERCLA.

- The aggregate quantity reported shall represent the total estimated quantity released that reached the environment, and shall not be reduced by the amount of such hazardous substance subsequently recovered, evaporated, or otherwise lost, consistent with CERCLA.[14]

.05 The registrant may choose to disclose releases to soil and water separately. A release that qualifies as a release to both soil and water should be reported as a single release to water, with the volume properly apportioned to soil and water.

.06 The registrant shall calculate the quantity of releases recovered as the quantity of released hazardous substances (in kilograms) removed from the environment through short-term release response activities, excluding:

- Amounts that were recovered during longer-term remediation at spill sites.

- Amounts that evaporated, burned, or were dispersed.

[14] http://www.epa.gov/superfund/policy/release/rq/index.htm#info

Data Security

Description

Companies in the Aerospace & Defense industry have access to highly classified information and play a critical role in the execution and protection of military strategy. As such, companies in this industry are prime targets for hackers motivated to gain military secrets. A data security breach can be costly for a company, their clients, and the public when government operations are compromised. This issue also applies to aircraft manufacturers as technological advances may leave aircraft susceptible to cyber attackers. Ensuring data security may require aerospace and defense companies to increase CapEx in the short- to medium-term in order to improve the security of their facilities, or invest in research and development to improve the security of products. Significant disruptions or security breaches are also likely to impair intangible assets through reputational damage, and lead to a loss in customer confidence. Subsequently, companies could lose market share and revenue as customers switch to less risky service providers.

Accounting Metrics

RT0201-03. Number of data security breaches and percentage involving customers' confidential business information or classified national security information

.07 The registrant shall calculate and disclose the total number of data security breaches, which are defined as instances of unauthorized acquisition, access, use, or disclosure of protected information.

.08 The scope of disclosure shall be limited to data security breaches, cyber security risks, and incidents that resulted in the registrant's business processes deviating from its expected outcomes for confidentiality, integrity, and availability.

- The scope of disclosure shall include incidents of unauthorized acquisition or acquisition without valid authorization, resulting from people, process, or technology deficiencies or failures.

- The scope of disclosure shall exclude disruptions of service due to equipment failures.

.09 The registrant shall disclose the percentage of data security breaches in which customers' confidential business information or classified national security information was breached, where:

- Confidential Business Information (CBI) is defined as information that concerns or relates to the trade secrets, processes, operations, identification of customers, inventories, or other information of commercial value, the disclosure of which is likely to have the effect of causing substantial harm to the competitive position of the person, firm, partnership, or corporation from which the information was obtained.[15] The term "confidential business information" includes "proprietary information" within the meaning of section 777(b) of the Tariff Act of 1930 (19 U.S.C. 1677f(b)).

- Classified national security information is defined as information that has been determined pursuant to Executive Order 13526 or any predecessor order to require protection against unauthorized disclosure and is marked to indicate its classified status when in documentary form.[16]

- The scope of disclosure is limited to breaches in which customers were notified of the breach, either as required contractually or by law, or disclosures made voluntarily by the registrant.

[15] 19 CFR 201.6

[16] Executive Order 13526- Classified National Security Information, available online: http://www.whitehouse.gov/the-press-office/executive-order-classified-national-security-information

- Disclosure shall include incidents in which encrypted data were acquired with an encryption key that was also acquired.

- The registrant may delay disclosure if a government agency or law enforcement agency has determined that notification of the breach impedes a criminal investigation until the agency determines that such notification does not compromise such investigation.

.10 Disclosure shall be additional but complementary to the U.S. Security and Exchange Commission's (SEC) CF Disclosure Guidance: Topic No. 2, Cybersecurity.

- At a minimum, this includes instances when the costs or other consequences associated with one or more known incidents – or the risk of potential incidents – represents a material event, trend, or uncertainty that is reasonably likely to have a material effect on the registrant's results of operations, liquidity, or financial condition, or would cause reported financial information not to be necessarily indicative of future operating results or financial condition (e.g., theft of intellectual property, reduced revenue, increased cybersecurity protection expenditure, litigation costs, etc.).

Note to **RT0201-03.**

.11 The registrant shall describe the corrective actions taken in response to specific incidents, such as changes in operations, management, processes, products, business partners, training, or technology.

.12 All disclosure shall be sufficient such that it is specific to the risks the registrant faces, but disclosure itself will not compromise the registrant's ability to maintain data privacy and security.

RT0201-04. Discussion of management approach to identifying and addressing data security risks within (a) company operations and (b) products

.13 The registrant shall discuss its management approach to identifying and addressing data security risks in both its own operations, as well as the data security risks associated with its products.

.14 For data security risks within company operations, the registrant shall identify vulnerabilities in its information systems that pose a data security threat, where:

- A data security threat is defined as any circumstance or event with the potential to adversely impact organizational operations (including mission, functions, image, or reputation), organizational assets, individuals, other organizations, or national security through an information system via unauthorized access, destruction, disclosure, or modification of information, and/or denial of service.

- Vulnerability is defined as a weakness in an information system, system security procedures, internal controls, or implementation that could be exploited by a data security threat source.

.15 The registrant shall describe how it addresses the threats and vulnerabilities it has identified, including but not limited to, through operational procedures, management processes, structure of products, selection of business partners, employee training, or use of technology.

.16 The registrant should discuss trends it has observed in type, frequency, and origination of attacks to its data security and information systems.

.17 Disclosure shall be additional but complementary to the disclosure of preparation, detection, containment, and post-incident activity according to the U.S. Security and Exchange Commission's (SEC) CF Disclosure Guidance: Topic No. 2, Cybersecurity.

- At a minimum this includes when the costs or other consequences associated with one or more known incidents – or the risk of potential incidents – represents a material event, trend, or uncertainty that is reasonably likely to have a material effect on the registrant's results of operations, liquidity, or financial

condition or would cause reported financial information not to be necessarily indicative of future operating results or financial condition (e.g., reduced revenue, increased cybersecurity protection expenditure, litigation costs, etc.).

.18 All disclosure shall be sufficient such that it is specific to the risks the registrant faces but disclosure itself would not compromise the registrant's ability to maintain data privacy and security.

.19 The registrant may choose to describe the degree to which its management approach is aligned with an external standard or framework for managing data security, such as:

- ISO/IEC 27001:2013 – Information technology – Security techniques – Information security management systems – Requirements
- "Framework for Improving Critical Infrastructure Cybersecurity, Version 1.0," February 12, 2014, National Institute of Standards and Technology (NIST).

.20 For data security risks within products, the registrant shall discuss its strategic approach to managing data security risks to its products.

- Discussion shall focus on all stages of the product lifecycle, as relevant, including product design, the manufacturing supply chain, product distribution, the product use phase, and end-of-life management.

.21 The registrant should discuss how it identifies and mitigates data security risks that may be present within the manufacturing supply chain, where:

- Examples of data security risks in the supply chain may include, but are not limited to, weaknesses in supplier information systems, risk of "backdoors" being inserted into products, or counterfeit products, components, or parts that create a data security risk.
- Examples of mitigation strategies may include, but are not limited to, hardware-based security considerations integrated into the product design and development process, management systems required of suppliers, the use of cyber security specialists, "ethical hacking," and supply chain controls.

.22 The registrant should discuss how it manages security flaws, bugs, and systems weaknesses that are detected in its products after they have been sold and are in use.

- Disclosure should include a discussion of the effects of such incidents, including costs for remediation and impacts on future business.
- Disclosure should include a discussion of the management process for corrective actions.

.23 Where relevant, the registrant should describe its products and services that specifically enable enhanced data security for customers or features that it integrates into existing products to specifically enhance data security.

.24 Examples of security-related products and services include hardware-based encryption products, multi-factor authentication devices (such as security tokens or biometric scanners), information assurance systems, secure communications systems, intelligence-driven computer network defense systems, penetration testing, and threat monitoring.

Product Safety

Description

Aerospace and defense products expose users and civilians to dramatic risk, through either the low probability, but high impact, of product malfunctions or the civilian casualties of weapon use. Defense companies and nation states can experience significant reputational risk as a result of their involvement with controversial weapons. Actions against defense companies involved in the manufacturing of controversial weapons have included treaties and conventions aimed at eliminating their usage, as well as divestment and refusal to provide financial services. At the same time, for commercial aircraft manufacturing and parts companies, passenger safety is paramount. Through proper design, as well as ongoing customer engagement involving maintenance and accident investigations, companies in this industry can position themselves for top performance. Companies with poor product quality and safety may experience revenue loss due to damaged reputation, recalls, or fines.

Accounting Metrics

RT0201-05. Number of recalls and total units recalled

.25 The registrant shall disclose the number of unique recalls and the total number of units recalled, where:

- A recall is defined as any repair, replacement, refund, or notice/warning program intended to protect consumers from products that present a safety risk.[17]
- Total number of units recalled refers to the combined quantity of products that were recalled as part of any recall during the fiscal year.
- The scope of disclosure includes voluntary recalls initiated by the registrant, as well as involuntary recalls mandated by regulatory agencies. Excluded from the scope of disclosure are products provided to customers for the explicit purpose of testing.
- Involuntary recalls are those required by regulatory agencies, and are issued when a product does not comply with regulatory safety standards, or when there is a safety-related defect in a product.
- Governmental agencies with regulatory oversight include, but are not limited to, the following:
    - Consumer Product Safety Commission (CPSC)
    - Food and Drug Administration (FDA), (e.g. for electronic product radiation)
    - Occupational Safety & Health Administration (OSHA), (e.g. for industrial and commercial electrical and electronic products)

.26 The registrant may choose, in addition to total units recalled, to disclose the percentage of recalls that were (1) voluntarily and (2) involuntarily issued.

Note to **RT0201-05**

.27 The registrant shall discuss notable recalls, such as those that affected a significant number of products or those related to serious injury or fatality.

[17] Consistent with the U.S. Consumer Product Safety Commission's Recall Handbook, available online at: http://www.cpsc.gov/PageFiles/106141/8002.pdf

.28 For such recalls, the registrant should provide:

- description and cause of the recall issue
- the total number of units recalled
- cost to remedy the issue (in U.S. dollars)
- whether the recall was voluntary or involuntary
- corrective actions
- any other significant outcomes (e.g. legal proceedings, fatalities)

RT0201-06. Amount of legal and regulatory fines and settlements associated with product safety

.29 The registrant shall disclose the amount (excluding legal fees) of all fines or settlements associated with incidents relating to product safety, including, but not limited to, violations of the Consumer Product Safety Act, the Electronic Product Radiation Control Provisions of the Federal Food, Drug, and Cosmetic Act, the U.S. National Electrical Code, and OSHA Safety Standards (such as the requirement for testing and certification by a Nationally Recognized Testing Laboratory [NRTL] under 29 CFR Part 1910 or by a Qualified Testing Laboratory [QTL] under 29 CFR Part 1926).

.30 Disclosure shall include civil actions (e.g., civil judgment, settlements, or regulatory penalties) and criminal actions (e.g., criminal judgment, penalties, or restitutions) taken by any entity (government, businesses, or individuals).

Note to **RT0201-06**

.31 The registrant shall briefly describe the nature (e.g., guilty plea, deferred agreement, or non-prosecution agreement) and context (e.g., inadequate testing or certification, etc.) of fines and settlements.

.32 The registrant shall describe any corrective actions it has implemented as a result of each incident. These may include, but are not limited to, specific changes in operations, management, processes, products, business partners, training, or technology.

.33 All disclosure shall be sufficient such that it is specific to the risks the registrant faces, but disclosure itself will not compromise the registrant's ability to maintain data privacy and security.

RT0201-07. Revenue from production of controversial weapons or key components of controversial weapons.

.34 The registrant shall disclose its revenue associated with production of controversial weapons and key components of controversial weapons, where:

- Controversial weapons are defined as cluster bombs, landmines, depleted uranium weapons, chemical and biological weapons, and 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.

Fuel Economy & Use-phase Emissions

Description

Customer demand for energy-efficient and cutting-edge technologies that drive sustainability in the Aerospace & Defense industry is strong, and growing. As the designers and manufacturers of most of the global aerospace and defense transportation fleet, companies in this industry have a unique opportunity to support many industries and government agencies striving to meet greenhouse gas and fuel management goals and imperatives. The price of fuel is a key driver in the profitability of the airline industry; therefore, increasing oil prices cut directly into airline profits. Recent regulatory efforts are also aiming to curb aviation emissions, which would add more costs to airlines operating inefficient aircraft. Given these market dynamics, companies that are innovative in increasing fuel economy and use-phase emissions will be better positioned to expand market share and manage changing regulations around fuel economy.

Accounting Metrics

RT0201-08. Fleet fuel efficiency for: (1) terrestrial vehicles, (2) ships and marine systems, and (3) aircraft and other aerospace vehicles, for (a) passenger and (b) cargo vehicle types

.35 The registrant shall disclose the sales-weighted average fleet fuel efficiency for each of the following vehicle types:

- Passenger terrestrial vehicles,
- Cargo terrestrial vehicles,
- Passenger ships and marine systems,
- Cargo ships and marine systems,
- Passenger aircraft and other aerospace vehicles,
- Cargo aircraft and other aerospace vehicles.

.36 Vehicle/vessel fuel efficiency is calculated as a full mission metric (i.e. Block Fuel / Range), which measures the fuel burn of a vehicle over an entire mission,[18] measured as:

- Gallons per mile, for passenger vehicles
- Gallons per ton-mile, for cargo vehicles

.37 Vehicle/vessel fuel efficiency calculations shall be based on typical operating parameters for each model (e.g. payload, use of ancillary systems, idling, etc.).

.38 Fleet fuel efficiency is calculated as a sales-weighted average of all vehicles/vessels sold during the fiscal year.

.39 For aircraft and other aerospace vehicles, the fleet fuel efficiency shall also be disclosed as an instantaneous performance metric, which measures the incremental air distance an aircraft can travel for a unit amount of fuel

[18] This approach is consistent with the PARTNER Project 30 methodology. PARTNER — the Partnership for AiR Transportation Noise and Emissions Reduction — is a leading aviation cooperative research organization. An FAA Center of Excellence, PARTNER is sponsored by the FAA, NASA, Transport Canada, the U.S. Department of Defense, and the U.S. Environmental Protection Agency. The metric is further discussed in a PARTNER study, available online: http://web.mit.edu/aeroastro/partner/reports/proj30/proj30-interim.pdf

at a cruise condition, measured as 1/Specific Air Range (SAR). SAR is calculated by dividing true air speed (measured in km/s) by fuel flow (measured in kg/s).[19]

RT0201-09. Revenue from alternative fuel vehicles

.40 The registrant shall disclose the total revenue from its alternative fuel vehicles, where alternate fuel vehicles are defined, consistent with Section 301 of the U.S. Energy Policy Act (EPACT), as expanded by the U.S. National Defense Authorization Act of 2008,[20] to include:

- Biodiesel
- Denatured alcohol
- Electricity
- Hydrogen
- Methanol
- Mixtures containing up to 85 percent methanol or denatured ethanol
- Natural gas
- Propane (liquefied petroleum gas)
- Any vehicle achieving a significant reduction in petroleum consumption
- Advanced lean burn technology vehicles
- Fuel cell vehicles
- Hybrid electric vehicles

.41 For the purpose of this disclosure, electric vehicles are also explicitly included in the scope of "alternative fuel vehicles."

.42 The registrant may choose to discuss its research and development (R&D) investments in alternative fuel vehicle technologies.

[19] "When measured in steady-level conditions, 1/SAR primarily depends only on aircraft weight, altitude, air speed, and ambient temperature…1/SAR also encapsulates fundamental parameters that directly influence airplane fuel efficiency including: propulsion system efficiency, aerodynamic efficiency, and airplane weight." From a PARTNER study, available online: http://web.mit.edu/aeroastro/partner/reports/proj30/proj30-interim.pdf

[20] http://www.gsa.gov/portal/content/104442?utm_source=FAS&utm_medium=print-radio&utm_term=afv&utm_campaign=shortcuts

Materials Efficiency

Description

The aerospace and defense manufacturing process involves the use of significant amounts of alloys, including: aluminum, steel, titanium, and other super alloys and composites. A significant portion of aerospace and defense manufacturers' revenue is spent on the cost of materials, particularly on high value metals. Due to constrained resources, material prices are likely to increase in the future. Therefore, companies that are able to manage their inputs through reducing and recycling manufacturing waste are likely to be better protected from price volatility. Moreover, aerospace and defense manufacturers can achieve substantial savings and improve operational efficiency by increasing the amount of waste that is recycled.

Accounting Metrics

RT0201-10. Percentage of products from remanufactured or reused parts

.43 The registrant shall disclose the percentage of its raw materials (by cost of goods sold) that are remanufactured or reused, where:

- Reused materials are defined as those recovered products, or components of products, that are used for the same purpose for which they were previously used.
- Remanufactured materials are defined as recovered products, or components of products, that have been reprocessed and made into a final product, or made into a component for incorporation into a product.
- Portions of products and materials that are disposed are not considered reused or remanufactured; only the portions of products or components that are directly incorporated into new products shall be included in the percentage from remanufactured or reused parts.
- The scope of disclosure is products sold during the fiscal year.

.44 The percentage from remanufactured or reused parts is calculated as the total cost of remanufactured or reused parts, divided by the total cost of goods sold for all products, including those products that do not contain any remanufactured or reused parts.

RT0201-11. Amount of waste, percentage recycled

.45 The amount of total waste shall be calculated in metric tons, where waste is defined as anything for which the registrant has no further use, and that would otherwise be discarded or released to the environment.

- The scope includes both hazardous and nonhazardous wastes.
- Nonhazardous waste includes any Subtitle D Solid Waste, as defined by the Resource Conservation and Recovery Act (RCRA) (40 CFR § 261.2), which includes, but is not limited to, durable goods, nondurable goods, containers and packaging, and miscellaneous inorganic wastes.[21]
- Hazardous waste includes any Subtitle C Hazardous Waste as defined by RCRA. Hazardous wastes include those that display the following characteristics: ignitability, corrosivity, reactivity, or toxicity.

[21] http://www.epa.gov/reg3wcmd/solidwastesummary.htm#waste

.46 The percentage recycled shall be calculated as the weight of waste material that was reused, plus the weight recycled, reclaimed, or remanufactured (through treatment or processing) by the registrant, plus the amount sent externally for further reuse, recycling, or remanufacturing, divided by the total weight of waste material, where:

- A hazardous waste is recycled if it is used, reused, or reclaimed. Furthermore, RCRA hazardous waste regulation makes an important distinction between materials that are used or reused without reclamation and those that must be reclaimed before reuse. A material is *reclaimed* if it is processed to recover a usable product, or if it is regenerated. Common hazardous waste reclamation activities involve recovery of spent solvents (e.g., recovery of acetone) or metals (e.g., recovery of lead).[22]

- Reused materials are defined as those recovered products or components of products that are used for the same purpose for which they were conceived.

- Recycled and remanufactured materials are defined as waste materials that have been reprocessed or treated by means of production or manufacturing processes, and made into a final product or a component for incorporation into a product.

- The scope of recycled and remanufactured products includes primary recycled materials, co-products (outputs of equal value to primary recycled materials), and by-products (outputs of lesser value to primary recycled materials).

- Portions of products and materials that are disposed of in landfills are not considered recycled; only the portions of products that are directly incorporated into new products, co-products, or by-products shall be included in the percentage recycled.

- Materials sent for further recycling include those materials that are transferred to a third party for the expressed purpose of reuse, recycling, or refurbishment.

- Materials incinerated, including for energy recovery, are not considered reused or recycled. Energy recovery is defined as the use of combustible waste as a means to generate energy through direct incineration, with or without other waste, but with recovery of the heat.

.47 Electronic waste material (e-waste) shall be considered recycled only if the registrant can demonstrate that this material was transferred to entities with third-party certification to a standard for e-waste recycling, such as Basel Action Network's e-Steward® standard or the U.S. EPA's Responsible Recycling Practices (R2) standard.

- The registrant shall disclose the standard(s) to which the entities it has transferred e-waste are compliant.

RT0201-12. Ratio of weight of high value metals procured to the weight utilized in finished goods

.48 The registrant shall disclose the ratio of weight of high value metals procured to the weight utilized in finished goods, where:

- High value metals include, but are not limited to, stainless steels, cobalt alloys, nickel alloys, copper nickel alloys, tantalum, and titanium alloys

.49 The ratio is calculated as the weight of high value metals materials procured, divided by the weight of the high value metals in finished goods.

- Materials procured refers to the amount of purchased raw materials (by weight) that were used as inputs to processes during the fiscal year.

[22] http://www.epa.gov/solidwaste/hazard/recycling/index.htm

- Finished goods refers to the amount of high value metals (by weight) in products that were produced during the fiscal year.

Business Ethics

Description

Aerospace and defense companies are particularly vulnerable to regulatory scrutiny of business ethics because of their exportation practices and frequent interactions with U.S. and government clients. The contract bidding process can provide opportunities for cooperative behavior to assist in obtaining or retaining business; however, these same processes may also result in bribery. Companies have been found in violation of corruption and anti-bribery laws such as the Foreign Corrupt Practices Act and the U.K. Bribery Act. Companies are under increasing pressure to ensure that their governance structures and practices can address corruption and participation—whether willful or unintentional—in illegal or unethical payments to government officials, or exertion of unfair influence through gifts or other means. Operating in corruption-prone countries can exacerbate these risks. These unethical practices may jeopardize future revenue growth due to reputational risks, and can result in significant fines and costs that may be considered material to investors.

Accounting Metrics

RT0201-13. Description of the management system for prevention of corruption and bribery, throughout the value chain, including disclosure of highest risk areas

.50 The registrant shall discuss its management system and due diligence procedures for assessing and managing corruption and bribery risks, internally and associated with business partners, in its value chain.

- Relevant business partners include customers, suppliers, contractors, subcontractors, and JV partners.

.51 Relevant aspects of a management system include employee awareness programs, internal mechanisms for reporting and following up on suspected violations, anti-corruption policies, and participation in the International Forum on Business Ethical Conduct (IFBEC).

.52 The registrant may choose to discuss the implementation of one or more of the following:

- Defense Industry Initiative on Business Ethics and Conduct (DII) principles
- Key Organization for Economic Co-operation and Development (OECD) guidelines
- International Chamber of Commerce (ICC): Rules of Conduct against Extortion and Bribery
- Transparency International: Business Principles for Countering Bribery
- United Nations Global Compact: 10th Principle
- World Economic Forum (WEF): Partnering Against Corruption Initiative (PACI)
- TRACE International: TRACEstandard

.53 The registrant shall discuss areas of its operations that are at the highest risk for corruption and bribery occurrences, such as those operations in countries with the lowest rankings on the Transparency International Corruption Perception Index.[23]

[23] http://cpi.transparency.org/cpi2013/results/

RT0201-14. Amount of legal and regulatory fines and settlements associated with charges of bribery or corruption

.54 The registrant shall disclose the amount (excluding legal fees) of all fines or settlements associated with incidents relating to bribery and corruption, including, but not limited to, violations of the Foreign Corrupt Practices Act of 1977 (FCPA) (15 U.S.C. § 78dd-1, *et seq.*).

.55 Disclosure shall include civil actions (e.g., civil judgment, settlements, or regulatory penalties) and criminal actions (e.g., criminal judgment, penalties, or restitutions) taken by any entity (government, businesses, or individuals).

Note to **RT0201-14**

.56 The registrant shall briefly describe the nature (e.g., guilty plea, deferred agreement, or non-prosecution agreement) and context (e.g., bribing an official, etc.) of fines and settlements.

.57 The registrant shall describe any corrective actions it has implemented as a result of each incident. This may include, but is not limited to, specific changes in operations, management, processes, products, business partners, training, or technology.

.58 All disclosure shall be sufficient such that it is specific to the risks the registrant faces, but disclosure itself will not compromise the registrant's ability to maintain data privacy and security.

RT0201-15. Amount of legal and regulatory fines and settlements associated with violations of export control regulations

.59 The registrant shall disclose the amount (excluding legal fees) of all fines or settlements associated with violations of export control regulations including, but not limited to, the following:

- Arms Export Control Act (AECA)
- Export Administration Regulations (EAR), 15 C.F.R. Parts 730–774
- Immigration and Customs Enforcement (ICE)
- International Traffic in Arms Regulations (ITAR), 22 C.F.R. Parts 120–130
- U.S. Munitions List (USML) (ITAR Part 121)[24]

.60 Disclosure shall include civil actions (e.g., civil judgment, settlements, or regulatory penalties) and criminal actions (e.g., criminal judgment, penalties, or restitutions) taken by any entity (government, businesses, or individuals).

Note to **RT0201-15**

.61 The registrant shall briefly describe the nature (e.g., guilty plea, deferred agreement, or non-prosecution agreement) and context (e.g., unauthorized arms sales, etc.) of fines and settlements.

.62 The registrant shall describe any corrective action it has implemented as a result of each incident. This may include, but is not limited to, specific changes in operations, management, processes, products, business partners, training, or technology.

.63 All disclosure shall be sufficient such that it is specific to the risks the registrant faces, but disclosure itself will not compromise the registrant's ability to maintain data privacy and security.

[24] http://friedfrank.com/siteFiles/Publications/ITAR%20Enforcement%20Digest.pdf

Supply Chain Management & Materials Sourcing

Description

Aerospace and defense companies are exposed to supply chain risks when rare earth or "conflict" minerals and metals are used in products, and when counterfeit or compromised products enter their supply chain. Counterfeit components can lead to product malfunctions and compromised safety and security. The Department of Defense is currently developing a tool to verify counterfeit components, so companies with counterfeit parts in their supply chain may quickly be exposed. Additionally, proactive supply chain audits and management will help insulate companies from reputational or regulatory risk. There are material sourcing risks associated with rare metals and conflict minerals due to a low substitution ratio, concentration of deposits in only a few countries, and geopolitical considerations. Companies in this industry also face competition from increasing global demand for these minerals from other sectors that can result in significant price increases and supply chain risks. Companies that are able to limit the use of critical and conflict materials, as well as securing their supply, would not only minimize environmental and social externalities related to extraction, but also protect themselves from supply disruptions and volatile input prices.

Accounting Metrics

RT0201-16. Number of counterfeit parts, percentage avoided

.64 The registrant shall disclose the total number of counterfeit parts detected in its operations, including those parts that were detected before purchase, and therefore avoided.

.65 The percentage avoided is calculated as the number of counterfeit parts that were detected prior to the parts procurement (and were therefore avoided), divided by the total number of counterfeit parts, where:

- Percentage avoided includes any part that could have been purchased, except for the fact that it was detected and the purchase decision was based on the detection. Specifically, a part that the registrant had a need to purchase and which was available from a supplier that the registrant might use.

.66 The registrant should discuss at what point in its production process it detected the purchased counterfeit parts (e.g. whether the parts were detected by the registrant's testing systems prior to production or after production, or if the registrant was notified by its customers, etc.).

- The scope includes known or suspected counterfeit parts, regardless of the final disposition of the parts and/or system that contained the parts, including any parts that were ultimately recalled or replaced.

RT0201-17. Percentage of material costs for items containing critical materials

.67 The registrant shall calculate the percentage as the cost of raw materials that contain critical materials, divided by total materials cost of goods sold.

- The scope of disclosure includes materials costs for parts, components, commodities, associated freight, and storage, and excludes those for overhead, labor, recalls, warrantees, or other costs of goods sold.

.68 A critical material is defined as one that is both essential in use and subject to the risk of supply restriction.[25]

[25] National Research Council. *Minerals, Critical Minerals, and the U.S. Economy*. Washington, DC: The National Academies Press, 2008.

.69 At a minimum, the scope of critical materials includes the following minerals and metals defined by the National Research Council, as well as materials specifically identified by the Department of Defense for potential shortfall in defense-related applications.[26]

- Antimony, cobalt, fluorspar, gallium, germanium, graphite, indium, magnesium, niobium, tantalum, and tungsten;
- Platinum group metals (platinum, palladium, iridium, rhodium, ruthenium and osmium);
- Rare earth elements, which include yttrium, scandium, lanthanum and the lanthanides (cerium, praseodymium, neodymium, promethium, samarium, europium, gadolinium, terbium, dysprosium, holmium, erbium, thulium, ytterbium and lutetium).
- In addition to the above, defense-related critical materials include: tin, aluminum oxide-fused crude, silicon carbide, bismuth, manganese metal electrolytic, beryllium metal, and chromium metal; as well as Department of Defense proprietary materials (e.g. specific types of carbon fiber, and a specialty rare earth oxide).

RT0201-18. Percentage of tungsten, tin, tantalum, and gold smelters within the supply chain that are verified conflict-free

.70 The registrant shall calculate the percentage as: the number of tungsten, tin, tantalum, and gold smelters and/or refineries within its supply chain that are verified to be conflict-free, divided by the total number of tungsten, tin, tantalum, and gold smelters and/or refineries within its supply chain.

.71 A smelter or refiner is considered to be conflict-free if it can demonstrate compliance with:

- The Electronic Industry Citizenship Coalition (EICC) and Global e-Sustainability Initiatives (GeSI) Conflict-Free Smelter Program (CFSP) assessment protocols.
- The Responsible Jewellery Council's (RJC) Chain-of-Custody (CoC) Standard.

.72 A smelter or refinery is considered to be within the registrant's supply chain if it supplies, or is approved to supply, tungsten, tin, tantalum, or gold that is contained in any product the registrant manufactures or contracts to be manufactured.

- The scope includes smelters or refineries that supply material directly to the registrant, as well as those that supply material to any of its suppliers of raw materials, components, or subassemblies.

RT0201-19. Discussion of the management of risks associated with the use of critical materials and conflict minerals

.73 The registrant shall discuss its strategic approach to managing its risks associated with usage of critical materials and conflict minerals in its products, including physical limits on availability, access, price, and reputational risks, where:

- Critical material is defined as one that is both essential in use and subject to the risk of supply restriction.[27] At a minimum, the scope of critical materials includes the following minerals and metals:
  - Antimony, cobalt, fluorspar, gallium, germanium, graphite, indium, magnesium, niobium, tantalum, and tungsten;
  - Platinum group metals (platinum, palladium, iridium, rhodium, ruthenium and osmium);

[26] Strategic and Critical Materials 2013 Report on Stockpile Requirements, available online: http://www.cecd.umd.edu/publications/Argonne%20Lab/Report%20Nat%20Def%20Stockpile%20Requirements%202013.pdf

[27] National Research Council. *Minerals, Critical Minerals, and the U.S. Economy*. Washington, DC: The National Academies Press, 2008.

    - Rare earth elements, which include yttrium, scandium, lanthanum and the lanthanides (cerium, praseodymium, neodymium, promethium, samarium, europium, gadolinium, terbium, dysprosium, holmium, erbium, thulium, ytterbium and lutetium).
- Conflict minerals are defined as tungsten, tin, tantalum, and gold.

.74 The registrant should identify which materials and minerals present a risk to its operations, which type of risk they represent, and the strategies the registrant uses to mitigate the risk.

.75 For critical materials, relevant strategies to discuss include diversification of suppliers, stockpiling of materials, expenditures in R&D for alternative and substitute materials, and investments in recycling technology for critical materials.

.76 For conflict minerals, relevant strategies to discuss include due diligence practices, supply chain auditing, supply chain engagement, and partnerships with industry groups or nongovernmental development organizations.

DRAFT

SUSTAINABILITY ACCOUNTING STANDARDS BOARD®

75 Broadway, Suite 202
San Francisco, CA 94111
415.830.9220
info@sasb.org

www.sasb.org