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Helping our world work better

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August 1, 2022

Christopher Kirkpatrick, Secretary
Commodity Futures Trading Commission
Three Lafayette Centre
1155 21st Street NW
Washington, DC 20581

RE: Climate-Related Financial Risk RFI, 87 FR 34856

Dear Mr. Kirkpatrick:

Enclosed is a letter from ASTM International's Executive Subcommittee E50.90 on Environmental Assessment, Risk Management and Corrective Action regarding the Commodity Futures Trading Commission's June 8, 2022 request for information on Climate Related Financial Risk.

The attached letter was written by members of subcommittee E50.90 and the contents were approved by this subcommittee.

Committee E50 on Environmental Assessment, Risk Management and Corrective Action is one of 147 ASTM technical committees composed of technical experts who represent producer, user, consumer, government, and academic stakeholder interests in the development on voluntary consensus standards for materials, products, systems, and services. Committee E50 adheres to well-regarded, industry- recognized, and time-tested principles for the development of consensus standards that reflect current technology and industry practice.

ASTM International is one of the world's largest voluntary standard development organizations. Over 12,900 ASTM standards, which address health, safety, and the environment, are published annually. The standards, and related technical information, are widely used throughout the world as a basis of purchasing and other contracts, codes, and regulations.

If you have any questions regarding this matter, please contact me at (610) 832-9721 or kmorgan@astm.org.

Sincerely,

Katharine E. Morgan

Katharine E. Morgan

cc: M. Lynyak, ASTM Staff Manager

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Washington, DC 20581

RE: Climate-Related Financial Risk RFI, 87 FR 34856

Dear Mr. Kirkpatrick:

ASTM International (ASTM) appreciates the opportunity to comment on the above RFI. Our principal insight into this topic is through the development of voluntary corporate disclosure standards on climate-related financial impacts.

I. ASTM International Background

ASTM is a leading, globally recognized, non-profit organization in the development and delivery of voluntary consensus standards for materials, products, systems, and services. Today, over 12,800 ASTM standards are used in 90 industrial sectors in the United States and around the world to improve product quality, protect the environment, enhance health and safety, and strengthen market access and trade. Over 30,000 individuals from 149 countries, including manufacturers, retailers, consumers, regulators, academics, and researchers serve on ASTM's 147 technical committees.

ASTM has a long history of assisting federal agencies to meet evolving regulatory needs. According to the National Institute of Standards and Technology (NIST), there are over 2,500 ASTM standards incorporated by reference in the U.S. Code of Federal Regulations. A strong and effective reliance on the non-governmental sector for development and maintenance of the standards in use across all sectors of our economy is supported by OMB Circular A119 and codified by Congress through P.L. 104-113 (1996), The National Technology Transfer and Advancement Act (NTTAA).

II. ASTM Standards related to Climate-Related Financial Risks

ASTM Committee E50 on Environmental Assessment, Risk Management and Corrective Action has developed and published four voluntary consensus standards related to the RFI:

- E2137-17, *Standard Guide for Estimating Monetary Costs and Liabilities for Environmental Matters*. First published in 2001, E2137 identifies methods, key variables and report formats to provide comparability, reliability and transparency to liability valuations.
- E2173-22, *Standard Guide for Disclosure of Environmental Liabilities*. Initiated in 1993-1994 at the request of insurers seeking consistency from those with remediation and asbestos claims, E2173 provides instruction in good commercial and customary practice for disclosures to investors and creditors, aligned with guidance from the issuers of generally accepted accounting principles (GAAP). Over 4,000 financial reports (10-K and 20-F) were reviewed to develop the common templates and recommended report formats.

- E2718-21, *Standard Guide for Financial Disclosures Attributed to Climate Change*. Initiated with the 2010 SEC interpretive release on climate change disclosure, E2718 provides clear financial reports for filers with simple or complex proof that climate change adaptation is or isn't a material issue. In reviewing more than 500 climate change adaptation statements, the committee task group found the extensive use of qualifications instead of concise quantifications rendered disclosures impossible to verify, compare to peers or track against spending or time.
- E3123-18, *Standard Guide for Recognition and Derecognition of Environmental Liabilities*. Initiated in 2016, E3123 defines the five types of environmental liabilities and criteria for separating know from unknown costs, and liabilities from capital expenditures, operating expenses, and reimbursed expenses. This standard also provides a watch list template for pending (future) liabilities and procedures for maintaining a reliable system of environmental liability recognition and derecognition consistent with US and international GAAP.

E2173 and E2718 were updated in the last twelve months, and E2137 and E3123 are currently being revised for update in late 2022 or 2023.

III. Focus on E2718-21 Standard Guide for Financial Disclosures Attributed to Climate Change

In developing the *E2718-21, Standard Guide for Financial Disclosures Attributed to Climate Change*, an ASTM E50 task group reviewed over 500 examples of current climate change disclosures in order to determine best practices and lessons learned. Along with the 2020 CFTC report "Managing Climate Risk in the US Financial System", our task group reviewed and considered the recent findings and guidance of the following agencies and organizations:

- Sustainability Accounting Standards Board
- Task Force on Climate-related Financial Disclosures
- Climate Disclosure Standards Board
- International Accounting Standards Board
- US Securities and Exchange Commission

The task group found that the proliferation of Environmental, Social and Governance (ESG) metrics and detachment from rigorous financial analysis left both the producers and users of climate change adaptation disclosures short of a reliable answer to one simple question about materiality:

How will a reader of environmental disclosures be able to conclude if recent and upcoming climate change adaptation impacts (both good and bad) will be immaterial, or manageable, or unaffordable to a given enterprise?

E2718-21 was updated and published in 2021, outlining two approaches to climate change adaptation disclosures: "low impact" and "high impact." These approaches (see Section IV of this letter) concisely communicate the relevant findings in a short reporting form tied to a company's or agency's current balance sheet, income statement and cash flow statement.

Non-GAAP measures are not created.

Instead, the *E2718-21* approaches offer clear data on such topics as offsetting revenue and tax credits, recent operating and capital spending, and forecasted climate change adaptation impacts on revenues.

E2718-21 is designed for use by a discloser for internal and external audiences. Our work group found several related challenges in reliably identifying and measuring *all* financial impacts; the working list includes cash flow, liquidity, operating profitability, capital expenditures, asset retirements, recoverability of costs, and opportunities for new products and services.

Currently, a gap exists when a reporting entity is simply providing confirmatory data about the past. Was there an interruption to business from extreme weather, sea level rise, fires, and power reliability? Were these losses quantifiable? Insured? With a simple statement of three-to-five years of historic data, investors and creditors can begin to form their own opinion about materiality and debt-carrying capacity of the business or governmental agency.

IV. Responses to Topics Raised in the RFI.

While the RFI sought comments on ten topics, ASTM Committee E50 wishes to respond to three, in the form of excerpts from *E2718-21* below (note: in the following excerpts, use of *italics* indicates a definition exists in E2718):

<u>RFI Topic: Data</u>

In *E2718-21* contains this guidance on "Content of the Disclosure Accompanying Financial Statements":

> 6.2.2.3 The *reporting entity's* estimated likelihood, magnitude, and timing of its *financial impacts attributed to climate change* assessed using 5.3 (estimation of financial impact) and 5.4 (estimation of materiality), a description of the approach used to quantify the impacts, a discussion of the approach for assessing materiality, and for liabilities, the amounts accrued by the *reporting entity*.
> *(1) financial impacts attributed to climate change* should be stated prior to reduction for amounts anticipated to be recovered from any third parties (for example, recoveries from insurance). Any such recoveries should be reported separately.
> *(2)* The *reporting entity* should disclose the techniques used for data measurement. Major uncertainties, assumptions, and estimates should be disclosed. In addition, the methodology employed for estimating *financial impacts attributed to climate change* and for determining materiality should be disclosed.
> *(3)* In a situation where a *reporting entity* believes it has *financial impacts attributed to climate change* but cannot quantify all or part of them, a written statement should be included that describes the conditions or problems associated with estimation.
> *(4)* The *reporting entity* should provide a balanced assessment of both the positive and negative financial impacts attributed to climate change to the company.
> *(5)* To the extent feasible, disclosures should be calculated and reported consistently over time so that historical trends and changes can be analyzed. If changes are made to the methodology for reporting, these changes should be disclosed and reporting entities should, to the extent feasible, restate historical data to reflect the same methodological approach so that trends analysis and comparisons can be made with minimal data interpretation error.
> *(6)* Disclosures should be made on a regular, consistent schedule. The time period covered by the disclosure should be clearly indicated.
> *(7)* Data and information should be presented in a clear, accessible manner that can be easily understood and interpreted by users of the information. Graphics, summary data tables, trend analysis, and benchmarking comparisons can assist with improving clarity of the disclosure. Technical terminology and abbreviations should be clearly defined.
> *(8)* The information developed for the disclosure should be supported by documentation that has been reviewed for quality control. The steps used to gather, interpret, and summarize data should be documented, and the metrics and targets clearly defined.

<u>RFI Topic: Risk Management</u>

E2718-21 contains guidance on disclosures related to risk management, including this example of major circumstances subject to disclosure:

> 5.1.1.5 Contractual assumption of risk or risk transfer agreements. The most familiar forms of risk transfer agreements are insurance contracts, hold harmless agreements, indemnity agreements, and similar terms within contracts for the transfer of property or liabilities.

Also, E2718-21 recommends drafting and potential disclosure around these seven types of impacts:

> 6.2.2 The following disclosures should be made by the *reporting entity* for material circumstances described in 6.2.1:
> 6.2.2.1 Statement concerning management's strategic analysis of the company's *financial impacts attributed to climate change*, including but not limited to:
> *(1)* An assessment of regulatory risks and opportunities (for example, *greenhouse gas* emission limits or reduction, taxation, trading systems, resource limitations, *greenhouse gas* emissions allowances and/or credits),
> *(2)* An evaluation of physical risk to company's facilities (for example, asset impairment) and operations,
> *(3)* A discussion of risk/opportunities related to the *reporting entity's* resources,
> *(4)* An assessment of risks related to financing,
> *(5)* An evaluation of risks/opportunities (both positive and negative impacts) related to the company's products or services,
> *(6)* An assessment of legal proceedings (including legislative and common law developments creating new bases of liability relating to past and future greenhouse gas emissions),
> *(7)* A discussion of the company's current management position on and strategic activities related to climate change, with a description of where in the corporate governance structure the responsibility lies for addressing these issues.

RFI Topic: Disclosure

For the RFI Disclosure topic, we would like to share *E2718-21*, Section 5 in its entirety:

> **5. Determining Whether a Disclosure is Warranted**
> 5.1 *Circumstances Associated with Financial Impacts Attributed to Climate Change:*
> 5.1.1 The following are examples of major circumstances that might give rise to *financial impacts attributed to climate change* that may be subject to disclosure:
> 5.1.1.1 Enforcement of laws or regulations regarding greenhouse gas emission levels (for example, caps, trade systems, emission taxes), investigations, controls, resource use, technology use, compliance, reporting, and other costs attributed to climate change. This includes predicted changes in federal, state, and local regulations that are anticipated to have a material effect upon the capital expenditures, earnings and competitive position of the company and its subsidiaries, as well as statutory and common law developments imposing liability for past emissions of greenhouse gases
> 5.1.1.2 Predicted changes/trends in resource costs or availability that may change a company's products, processes, and/or markets or services (including both positive and negative impacts).
> 5.1.1.3 Predicted changes in a company's assets due to *financial impacts attributed to climate change*, including but not limited to changes in weather, sea levels, disease and pest levels, drought and fires, stranded assets, and resource availability (for example, food, labor, energy, water).
> 5.1.1.4 Predicted changes in the value of a company's assets due to societal or market forces (for example the price of energy, sales boycotts).
> 5.1.1.5 Contractual assumption of risk or risk transfer agreements. The most familiar forms of risk transfer agreements are insurance contracts, hold harmless agreements, indemnity agreements, and similar terms within contracts for the transfer of property or liabilities.
> 5.1.1.6 Commencement of litigation or assertion of a claim or assessment by a party alleging legal liability related to *climate change* on the part of the *reporting entity*.
> 5.1.1.7 Information known by the *reporting entity* indicating that *financial impacts attributed to climate change* have been incurred or are likely to be incurred.

5.2 *Sources of Information*—This guide identifies standard sources that should be reviewed by a *reporting entity* to properly determine if conditions warrant disclosure. Such sources may include but are not limited to the following categories:
5.2.1 *Publicly Available Environmental Record Sources*— Any environmental record available from a government agency or commercial entity.
5.2.2 *Internal Reporting Entity Records*—The *reporting entity's* internal records regarding greenhouse gas emissions and *financial impacts attributed to climate change* (for example, see management and planning records in Guide E2725 and Guide E3032.)
5.2.3 Current and proposed foreign, national, state, and local environmental laws or rules related to *climate change*.
5.2.4 Publicly available and internal studies on benchmarking, modeling, trends, and forecasts.
5.3 *Estimation of Financial Impact Attributed to Climate Change*—Once a *reporting entity* has identified potential *financial impacts attributed to climate change*, it should determine whether these impacts (1) have a likelihood that is more than remote, (2) could have a severe impact that would disrupt the normal functioning of the entity or the entity's financial position, cash flows, or operations, and (3) are near-term, occurring during the next year. If these criteria apply, the reporting entity should estimate the likelihood, magnitude, and timing of potential impacts to the entity's financial position, including assets, liabilities, and income. (For additional guidance on estimating environmental costs and liabilities, see Guide E2137). Note that if the level of uncertainty or the time horizon of the financial impact is determined to be too great to allow meaningful estimation, disclosure may still be warranted as described below in Section 6.
NOTE 1—For longer-term *financial impacts attributed to climate change*, the company should, when possible, estimate the likelihood, magnitude, and timing of potential impacts.
5.4 *Estimation of Materiality*—The materiality of the *financial impacts attributed to climate change* should be evaluated in the aggregate to determine whether disclosure is warranted. While there currently is no bright-line or simple formulaic test for materiality, guidelines for this analysis are provided in the appendix of Guide E2173. In general, FASB states in Statement of Accounting Concepts No. 2 that an item is material if "the judgment of a reasonable person relying on the information would have been changed or influenced by the omission or misstatement." The U.S. Supreme Court ruled in 1976 that a disclosure is material if 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 information made available" or if there is "a substantial likelihood that a reasonable shareholder would consider it important in deciding how to vote."

In addition to Section 5, *E2718* Section 6 contains two proposed disclosure templates (low and high impact):

6.3 Common Format of Disclosures under E2718
E2718 is focused on identifying disclosures to the three common financial statements (balance sheet, income statement and cash flow statement), although entities are free to make other financial statements which may address the financial impacts of climate change adaptation.

Section 6.3.1 of E2718-21 provides a sample form for Low Impact Disclosure Format – where an entity finds the impact of climate change adaptation to be immaterial, this low impact disclosure report provides succinct, timely and auditable evidence that – while the entity is aware of the impact of climate change scenarios – the impact is believed to be immaterial:

Sample Low Impact Disclosure ($ millions)

Climate change adaptation impacts ($ millions)	Avg of Last 3 years	Current Year	Avg of next 3 years	Trend beyond 3 years
Dollar value of "material" used in this table	**$100**	**$110**	**$120**	**$125**
A. Impact to shareholders equity	($10)	($10)	($10)	Same
A.i. Impact to above caused by asset impairments alone	($10)	($10)	($10)	Same
B. Impact to net income	$10	$10	$10	same
B.i. Impact to above caused by change in *revenues* alone, including pass-through of costs to customers	$20	$20	$20	Stable
B.ii. Impact to net income caused by change in *expenses* alone	($10)	($10)	($10)	Stable
B.iii. Impact to net income caused by purchase or creation of emission credits, GHG offsets and similar regulated assets	$0	$0	$0	$0
C. Changes in capital expenditures	($60)	($50)	P10: $10 P50: ($30) P90: ($60)	Declining
D. Claims from discontinued products	($50)	($50)	($25)	Declining

6.3.2 High Impact Disclosure Format – where an entity expects that the impact of climate change adaptation to be material, this high impact disclosure report should provide timely and reliable evidence that the entity is aware of the impact of climate change scenarios and has made efforts to quantify current valuations in three tables: impacts to the balance sheet, income statement and cash flow statement.

6.3.3 High Impact to the Balance Sheet

Balance Sheet Impacts Due to Climate Change Adaptation	Avg of Last 3 years	Current Year	Avg of next 3 years	Trend in Scenario A	Trend in Scenario B
Definitions Applied	*Describe method of defining "materiality" from allowable options*			*Identify source of Scenario A*	*Identify source of Scenario B*
Dollar Value of Materiality Definition	$	$	$		
A. Current Assets					
B. Property, Plant and Equipment					
C. Investments in Equity Interests					
D. Goodwill					
E. Intangible Assets					
F. Current Liabilities					
G. Long-term Debt					
H. Other Non-Current Liabilities					
I. Commitments and Contingencies					
J. Total Stockholder's Equity					

6.3.3.1 Definitions Applied
(1) For "materiality", identify the method ("5% of prior year's net income" or "2% of current year's shareholder equity") as briefly as possible
(2) For climate adaptation scenarios, provide the author and simplified label of the scenarios ("Intergovernmental Panel on Climate Change, IPCC AR5" or "Special Report on Global Warming of 1.5 °C)
6.3.3.2 Dollar Value of Materiality Definition: list the dollar value used for each column, identify if discontinued or acquired operations make the three-year-averaging complex.
6.3.3.3 Examples of Financial Impacts
(1) A. Current Assets- were such items as cash and equivalents and accounts receivable affected
(2) B. Property, Plant and Equipment – were such items as PP&E aging or accumulated depreciation affected
(3) C. Investments in Equity Interests – were investments in partnerships, subsidiaries or unrelated businesses were deemed impaired due to climate change adaptation
(4) D. Goodwill – was the long-term viability of a business line affected materially by climate change adaptation costs
(5) E. Intangible Assets – were patents, trademarks and other intellectual property affected
(6) F. Current Liabilities – were accounts payable affected
(7) G. Long-term Debt – was the value of long-term debt adjusted for climate change adaptation costs, commonly through tax incentives.
(8) H. Other Non-Current Liabilities- were forecasted asset retirement or product termination costs affected by climate change adaptation
(9) I. Commitments and Contingencies – was litigation filed or were claims asserted
(10) J. Total Stockholder's Equity – summing the changes to assets and liabilities, what is the net impact to shareholders.

6.3.3.4 Common points to address in the narrative for the Balance Sheet Table: has the recent impact of climate change adaptation been material to the company in some way? Is liquidity, credit rating and the ability to fund ongoing operations being impacted? Is the entity's access to capital impacted? Is the customer base impacted? Finally, are commitments and contingencies being affected?

6.3.3.5 Entities should complete regular annual analysis, and periodically complete an independent verification, to be reliably answer these concerns. Special care is commonly needed to distinguish the broader impacts of environmental, social and governance metrics

6.3.4 High Impact to the Income Statement

Financial Impacts Due to Climate Change: Income Statement	Avg of 3 Prior Years	Current Year	Avg of next 3 years	Trend in Scenario A	Trend in Scenario B
Definitions Applied	*Describe method of defining "materiality" from allowable options*			*Identify source of Scenario A*	*Identify source of Scenario B*
Dollar Value of Materiality Definition	$	$	$		
A. Changes to Revenues					
B. Changes to Cost of Sales					
C. Changes to Research and Development					
D. Changes to Selling, General and Administrative					
E. Changes to Amortization of Assets (tangible and intangible)					
F. Changes to Impairment of Assets (tangible and intangible)					
G. Restructuring Charges					
H. Disaster Recovery Costs					
I. Acquisition, Disposition and Related Charges					
J. Changes to Interest Expense					
K. Changes to Tax Rates					

V. ASTM Proposal to Collaborate Further With CFTC

Later this year, rulemaking by the Securities and Exchange Commission (SEC) from File No. S7-10-22 will lead E50 to update *E2718*. ASTM welcomes interested CFTC team members to join our E2718 task group. Our experience has been that securities registrants can more efficiently comply with reporting requirements when the standards we develop cast a wide net over a range of goals, objectives, principles, terminology, and process flows. At the moment, our E2718 task contemplates these issues:

1. Given more than 100 climate models exist, there is little consistency, no industry-accepted minimum definition of reliability or accuracy, and no consensus on which model(s) will be the more reliable tool in ten or fifty years. *E2718* currently expects users to state their model selection.

2. Several competing disclosure frameworks exist (SEC, Sustainability Accounting Standards Board (SASB), Climate Disclosure Standards Board (CDSB), International Sustainability Standards Board (ISSB), etc.), and the resulting reports lack comparability. Within some industries, similar data is already yielding dissimilar reports and conclusions. In other words, disclosure preparers began at "divergence of practice" and now have publicly-traded companies (followed soon by non-Federal governmental agencies) unable to justify their conclusions that spending is improving outcomes.

3. CFTC expectations are important to securities registrants and their logistic partners. Spending and prospective taxation related to climate change adaptation will continue to bring distortions into the economy. Registrants will benefit from understanding the CFTCs expectations for climate risk assessments. Towards that end, the CFTC could consider referencing industry standard approaches to measuring and disclosing climate risk while contributing expertise to the workgroup writing future definitive updates to *E2718-21*. Registrants will find it challenging to comply with conceptual requirements for which no standard is referenced.

VI. Federal Agency Use of ASTM Standards

Returning to our framework for collaboration (National Technology Transfer and Advancement Act of 1995 and White House OMB Circular A-119), we thought it would be useful to share examples of Federal agencies relying on ASTM standards for guidance or instruction:

- US EPA's active participation in the initial development and subsequent revisions of ASTM E1527-21, *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process* and ASTM E2247-16, *Phase I Standard for Assessing Forestland or Rural Property* to conform with the requirements of the CERCLA "All Appropriate Inquiries" rule codified in *40 CFR Part 312*.
- Department of Homeland Security funding for the development of E2770-17, *Standard Guide for Operational Guidelines for Initial Response to Suspected Biological Agents and Toxins;* ASTM E3243-21, *Standard Specification for Field Detection Equipment and Assays Used for Fentanyl and Fentanyl-Related Compounds;* ASTM E3289-21, *Standard Guide for Using Equipment and Assays for Field Detection of Fentanyl and Fentanyl-Related Compounds;* and ASTM E3290-21, *Standard Test Method for Establishing Performance of Equipment and Assays for Field Detection of Fentanyl-Related Compounds.*
- FEMA's active participation in the development and revision of ASTM *E2601-15, Standard Practice for Radiological Emergency Responses*;
- OSHA's incorporation of ASTM Standard *F2413-18* for protective footwear.

VII. Conclusion

ASTM International's members represent a significant voice for consensus building related to the emerging field of climate-related financial risks disclosures. ASTM Committee E50 has developed four standards which relate directly to the objectives of the RFI, with the E2718-21 Standard Guide for Financial Disclosures Attributed to Climate Change having particular relevance. We welcome this opportunity to provide these insights and invite the participation of CFTC members in our future standards development. Please contact Ms. Molly Lynyak, ASTM E50 Committee Staff Manager, at mlynyak@astm.org, or (610) 832-9743, if you have any questions or desire additional information.

Sincerely,

Tim Haley

Tim Haley

Committee E50 Chair