



Designation: **E2173–16** **E2173 – 22**

## Standard Guide for Disclosure of Environmental Liabilities<sup>1</sup>

This standard is issued under the fixed designation E2173; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval. A superscript epsilon (ε) indicates an editorial change since the last revision or reapproval.

### 1. Scope

1.1 *Purpose*—The purpose of this guide is to provide a series of options or instructions consistent with good commercial and customary practice in the United States for environmental liability disclosures accompanying audited and unaudited *financial statements*. This guide is consistent with Generally Accepted Accounting Principles (GAAP)<sup>2</sup> issued by *Financial Accounting Standards Board (FASB)*, as well as related statements, rules, regulations, and/or procedures issued by *Government Accounting Standards Board (GASB)*, *Public Company Accounting Oversight Board (PCAOB)*, *Securities and Exchange Commission (SEC)*, and *Federal Accounting Standards Advisory Board (FASAB)*. This guide is intended to be consistent with other national and multinational issuers of accounting standards and practices, including *International Accounting Standards Board (IASB)*.

1.2 *Objectives*—The objectives of this guide are to determine the conditions warranting disclosure and the content of appropriate disclosure to:

1.2.1 Identify the common terminology used in environmental disclosures,

1.2.2 Explain the need for environmental disclosures,

1.2.3 Define the conditions warranting disclosure, and

1.2.4 Illustrate the report formats and content typically used in environmental disclosures.

1.3 *History of development of this guide*—In 1993-1994, a group of insurance companies approached ASTM to request a best practice environmental cost estimation and disclosure standard, as they were experiencing high environmental remediation and asbestos claims from policyholders that were reporting no material liabilities in their annual reports. At the same time, asbestos and environmental liabilities were triggering bankruptcy more frequently, again with little prior disclosure by companies other than boilerplate legal language that costs were too uncertain or not estimable, or that such costs would not be material. Research by the ASTM standard working committee at the time found such shortcomings as (a) rarely attempting to identify a full portfolio of potential liabilities, (b) dividing liabilities into separate sites or claims to avoid aggregated material outcomes that would require disclosure, and (c) relying on “known minimum costs” or “no estimate” to forecast liabilities. This disclosure standard (E2173), initially developed over a seven-year period with its first approval in 2001, was created to cure these shortcomings by providing guidance for best practice disclosure, including aggregation of liabilities before conducting a materiality test, as well as disclosure of the major assumptions and evaluations underlying the disclosure. The companion referenced cost estimation standard (E2137, which was split into a separate standard due to its broader applicability beyond disclosure purposes) provided guidance on a

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<sup>2</sup> This guide alone does not satisfy or include all disclosure requirements under GAAP, SEC, IASB, or any other agency or regulatory body. Appendix X1 provides some examples of where such requirements are contained.

hierarchy of cost estimation methodologies that explicitly address uncertainty and recommend alternative methodologies. Both [E2137](#) and [E2173](#) have been revised over time to reference and incorporate applicable elements of new accounting standards and regulations, consider applicable case law, and incorporate new best-practice examples and years of additional experience with cost estimation and disclosure.

1.4 This international standard was developed in accordance with internationally recognized principles on standardization established in the Decision on Principles for the Development of International Standards, Guides and Recommendations issued by the World Trade Organization Technical Barriers to Trade (TBT) Committee.

## 2. Referenced Documents

### 2.1 ASTM Standards:<sup>3</sup>

[E1527 Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process](#)  
[E2091 Guide for Use of Activity and Use Limitations, Including Institutional and Engineering Controls](#)  
[E2137 Guide for Estimating Monetary Costs and Liabilities for Environmental Matters](#)  
[E2718 Guide for Financial Disclosures Attributed to Climate Change](#)  
[E3123 Guide for Recognition and Derecognition of Environmental Liabilities](#)  
[E3228 Guide for Environmental Knowledge Management](#)

### 2.2 FASB Standard:<sup>4</sup>

[Statement of Financial Accounting Concepts No. 8 “Conceptual Framework for Financial Reporting”, September 2010](#)

### 2.3 IFRS Standard:<sup>5</sup>

[IAS 37 Provisions, Contingent Liabilities and Contingent Assets](#)

## 3. Terminology

### 3.1 Definitions of Terms Specific to This Standard:

3.1.1 *accretion, n*—increase to the present value of a liability solely because of the passage of time, normally a year; also “unwinding the discount.”

3.1.2 *activity and use limitations, AULs, limitations (AUL), n*—legal or physical restrictions or limitations on the use of, or access to, a site or facility to eliminate or minimize potential exposures to chemicals of concern or prevent activities that could interfere with the effectiveness of a response action to ensure maintenance of a condition of “acceptable risk” or “no significant risk” to human health and the environment (see Guide [E2091](#)).

#### 3.1.2.1 Discussion—

These legal or physical restrictions are intended to prevent adverse impacts to individuals or populations that may be exposed to chemicals of concern. **(E2091)**

#### 3.1.2.1 Discussion—

These legally enforceable obligations are intended to prevent adverse impacts to human or ecological receptors that may be exposed to residual chemicals of concern at an environmentally-impaired property.

3.1.3 *asset impairment, n*—an accounting revaluation which closes or eliminates any financial gap between the current market value and the book value of a specific asset.

#### 3.1.3.1 Discussion—

Example: an entity plans to sell an underutilized oil pipeline which is also undergoing spill cleanup work; assuming the pipeline’s book value is \$10 and will undergo \$1 in spill cleanup work, the entity will decide whether to adjust the \$10 book value (“book an asset impairment”) prior to an asset’s sale and independent of the liability valuation for the spill cleanup work.

3.1.4 *asset retirement obligation, obligation (ARO), n*—legal or constructive obligations associated with the retirement of a tangible long-lived asset that result from the acquisition, construction, development, or normal operation of a tangible long-lived asset.

#### 3.1.4.1 Discussion—

Activities include, but are not limited to, demolition, decommissioning, decontamination, reclamation, restoration, and abandonment.

<sup>3</sup> For referenced ASTM standards, visit the ASTM website, [www.astm.org](http://www.astm.org), or contact ASTM Customer Service at [service@astm.org](mailto:service@astm.org). For *Annual Book of ASTM Standards* volume information, refer to the standard’s Document Summary page on the ASTM website.

<sup>4</sup> Financial Accounting Standards Board 401 Merritt 7 P.O. Box 5116 Norwalk, Connecticut 06856-5116. <http://www.fasb.org/>

<sup>5</sup> Available from IFRS Foundation Columbus Building 7 Westferry Circus Canary Wharf London E14 4HD UK. <https://www.ifrs.org/>

3.1.5 *claim, n*—demand for payment or compensation.

3.1.6 *commitment, n*—type of liability covering purchase obligations that serve to mitigate environmental liabilities.

3.1.6.1 *Discussion*—

An example is an entity continuing a property lease obligation indefinitely to defer a remediation or *asset retirement obligation* due at the end of the lease. See ASC 440. **(ASC 440)**

3.1.7 *Comprehensive Environmental Response, Compensation and Liability Act of 1980 (as amended, 42 USC Section 9601 et seq.), CERCLA, n*—also known as “Superfund,” a major U.S. Federal environmental law establishing key legal concepts of environmental costs and liabilities.

3.1.8 *Comprehensive Environmental Response, Compensation and Liability Information System, CERCLIS, n*—list of sites compiled by the *EPA* that the *EPA* has investigated or is currently investigating for potential hazardous substance contamination for possible inclusion on the *National Priorities List*; succeeded by *SEMS*.

3.1.9 *constructive obligation, n*—concept that past practice ~~creates and/or public statements create~~ a valid expectation on the part of a third party.

3.1.9.1 *Discussion*—

An example is a company policy to excavate all underground storage tanks once removed from service. See IAS 37:10. **(IAS 37:10)**

3.1.10 *contingency, n*—type of liability dependent on the outcome of one or more events.

3.1.10.1 *Discussion*—

An example is multiparty *CERCLA* liability lacking an allocation among *PRPs*. In 1975, FASB identified environmental liabilities as “contingencies”, but FASB has since published definitions for asset retirement obligations, environmental (remediation) obligations, commitments and guarantees. See ASC 450. **(ASC 440)**

3.1.11 *counterparty risk, n*—entity’s exposure to the nonperformance risk of default by one or more *PRPs* that share a legal or *constructive obligation* in environmental costs and risks; alternatively, one *PRP*’s financial exposure to any other *PRP* on the same environmental cost or risk, especially where another *PRP* bears responsibility to perform, *guarantee*, or indemnify another.

3.1.11.1 *Discussion*—

Also refers to the ability to pay and long-term creditworthiness. (ASC 410-30-30-7, ASC 820-10-35-17/18, GASB 72:62, IFRS 13:42, FRSUK FRS 102:21.9, SOP 96-1 6.20—See ~~Appendix X1~~ Appendix X5 ~~Appendix X1~~)

3.1.12 *current government environmental record source, n*—any environmental record source available from a government or commercial entity, provided the record is updated in accordance with the update requirement of Practice **E1527**.

3.1.13 *engineering controls, EC, n*—physical modifications to a *site* or facility (for example, capping, slurry walls, or point of use water treatment) to reduce or eliminate the potential for exposure to chemicals of concern or petroleum products in the soil or ground water on the property.

3.1.13.1 *Discussion*—

*Engineering controls* are a subset of activity and use limitations.

3.1.14 *EnviroFacts, n*—EPA database search tool that accesses over 20 current and historical environmental record sources, including *CERCLIS* and *RCRAInfo*.

3.1.15 *environmental liabilities, n*—asset retirement obligations, accrued liabilities, commitments, contingencies, and guarantees associated with any natural conditions or manmade incidents, including terrorism, that pose an unacceptable risk to health, safety, property, or the environment that would be the subject of an enforcement action or other legal action. (See Guide **E3123**; ASC 410, 440, 450, and 460; GASB 49 and 83; IAS 37) **(ASC 410, 440, 450, 460, GASB 49, IAS 37)**

3.1.16 *fair value measurement, n*—an accounting term for stating valuations of assets or liabilities under current market conditions and on a comprehensive “exit price” or “arm’s length” basis, using one of three valuation techniques: market, cost and income. (ASC 820, GASB 72, IFRS 13).

**3.1.16.1 Discussion—**

Entities disclosing environmental liabilities work under the expectations of owners, management and counterparties that valuations and disclosures comply with GAAP and are audited on a regular basis; key assumptions – which may vary from site to site - include inflation rate, discount rate, forecast duration, and loss contingencies. For certain environmental liabilities, fair value measurement is mandatory (for asset retirement obligations see ASC 410-20-25-4)

3.1.17 *Federal Accounting Standards Advisory Board, FASAB, n*—U.S. accounting standard-setting body focused on federal entities; established and funded by Secretary of the Treasury, the Director of the Office of Management and Budget, and the Comptroller General of the United States.

~~3.1.16 *Federal Register, FR, n*—publication of the U.S. Government published daily (except for federal holidays and weekends) containing all proposed and final regulations and some other activities of the federal government.~~

**3.1.16.1 Discussion—**

~~When regulations become final, they are included in the Code of Federal Regulations (CFR), as well as published in the *Federal Register*.~~

3.1.18 *Financial Accounting Standards Board, FASB, n*—U.S. accounting standard-setting body focused on private sector entities; a part of the Financial Accounting Foundation,

3.1.19 *financial statements, n*—include, but are not limited to, statements associated with shareholder reporting, managerial accounting, financial accounting, tax accounting, registration statements, loans, mergers, acquisitions, or divestitures. Examples include the balance sheet, income statement and cash flow statement.

**3.1.19.1 Discussion—**

*Financial statements* may include statements outside of SEC filings.

3.1.20 *Generally Accepted Accounting Principles, GAAP, n*—~~framework of guidelines for US~~ accounting and financial reporting.

3.1.21 *Government Accounting Standards Board, GASB, n*—U.S. accounting standard-setting body focused on non-federal government units, such as state, county, and municipal governments; a part of the Financial Accounting Foundation.

3.1.22 *guarantee, n*—assurance issued by a guarantor that remains in effect; examples include, (but are not limited to, financial and performance guarantees and indemnifications, “joint and several liability” under *CERCLA*, and an irrevocable letter of credit from a mining company to a state agency assuring eventual completion of reclamation work. (See ASC 460 and GASB 70.) ~~(ASC~~

**460 and GASB 70)**

3.1.23 *historical government environmental record sources, n*—any environmental record source available from a government or commercial entity that is older than the most recent *current government environmental record source*.

3.1.24 *historical use information, n*—those sources of information about the history of uses of a property.

**3.1.24.1 Discussion—**

*Historical use information* is available from local libraries, historical societies, private resellers, or commercial entities. Some examples of the sources are specified and defined in Practice **E1527**.

3.1.25 *IAS 37, n*—accounting standard titled “Provisions, Contingent Liabilities and Contingent Assets” issued by *IASB* in September 1998.

~~3.1.25 *institutional controls, n*—administrative or legal mechanisms or both that minimize the potential exposure(s) of human and ecological receptors to chemicals of concern by limiting land use or resource use; see also 3.1.2.~~

3.1.26 *International Accounting Standards Board, IASB, n*—independent multinational accounting standard setting body which issues International Financial Reporting Standards (IFRS), International Accounting Standards (IAS), interpretations and other pronouncements.

3.1.27 *interperiod equity, n*—from GASB Concepts Statement 1, the concept that current taxpayers pay for current services and further that burden of payment for service today is not transferred to future taxpayers. (Also *intergenerational equity*.)

3.1.28 *leaking underground storage tank, LUST, n*—common cause of environmental costs and liabilities.

3.1.29 *legal obligation, n*—duty to carry out what the law requires or a contract asks.

3.1.30 *materiality, n*—significance of an item to users of a financial statement that considers all relevant and surrounding circumstances.

3.1.30.1 *Discussion*—

A material item is one that its omission or misstatement is of such a magnitude in the surrounding circumstances that either the judgment of a reasonable person relying on the financial statement would have been changed or influenced by its inclusion or correction or there is a substantial likelihood that the item, after assessing the inferences and their significance drawn from the given set of facts associated with the financial statement, would be viewed as significantly altering the information made available to the investor or shareholder. Relevant sources of information and references are included in [Appendix X2](#). Note that this definition is not intended to supersede the definition of *materiality* in SEC Staff Accounting Bulletin Topic 1.M, Financial Statements—Materiality (See [Appendix X1X2.3](#) and [Appendix X2](#).)

3.1.31 *National Priorities List, NPL, n*—list compiled by the *EPA* pursuant to *CERCLA* 42 USC § 9605(a)(8)(B) of properties with the highest priority for cleanup pursuant to the *EPA*'s Hazard Ranking System. (See 40 CFR Part 300.)—~~(40 CFR Part 300)~~

3.1.32 *obligating event, n*—past outcome that confirmed a financially recognizable obligation. (See GASB 49:11.) ~~(GASB 49:11)~~

3.1.33 *pollution remediation obligations, n*—obligations to address the current or potential detrimental effects of existing pollution by participating in pollution remediation activities such as *site* assessments and remediation, as stated in GASB Statement 49 (November 2006) for non-federal governmental ~~units~~units in the US.

3.1.34 *Potentially Responsible Party, also PRP, n*—any individual, legal entity, or government—including owners, operators, transporters, or generators—potentially responsible for, or contributing to, conditions that present an unacceptable risk of harm to human health or the environment and that would be the subject of an enforcement action or other legal action.

3.1.35 *Public Company Accounting Oversight Board, PCAOB, n*—nonprofit corporation established by the U.S. Congress (Sarbanes-Oxley Act of 2002) to oversee the audits of public companies to protect the interests of investors and further the public interest in the preparation of informative, accurate, and independent audit reports.

3.1.35.1 *Discussion*—

The *PCAOB* subjects auditors to external and independent oversight, a change from self-regulation.

~~3.1.36 *RCRAInfo, n*—*EPA* database of current and historical environmental records about a facility's compliance with *Resource Conservation and Recovery Act (RCRA)*.~~

3.1.36 *reasonably possible, adv*—likelihood, or probability, associated with a given event occurring that lies in the range between remote (less likely) and probable (defined as more likely than “*reasonably possible*”).

3.1.36.1 *Discussion*—

The probability values assigned to remote, *reasonably possible* and probable will depend on the industry, the aggregate number of sites, observations, and possible outcomes, and the uncertainty associated with estimating probabilities.

3.1.37 *recognition benchmark, n*—stages in the assessment and remediation process which create the expectation of a more comprehensive or robust estimate. (See GASB 49:12-13, ASC 410-30-25-15.)—~~(GASB 49:12-13, ASC 410-30-25-15)~~

3.1.38 *release, n*—any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the environment.

3.1.39 *remedial or corrective action, n*—all environmental response activities to an environmental liability.

3.1.40 *reporting entity, n*—any business or public agency preparing a financial statement.

3.1.41 *Resource Conservation and Recovery Act*, also *RCRA*, *n*—as amended 42 USC Section 6901 et seq., a major U.S. Federal environmental law.

3.1.42 *Securities and Exchange Commission*, *SEC*, *n*—U.S. Federal regulator of the securities industry and their related exchanges

3.1.43 *site*, *n*—real property affected by an environmental liability or a multi-property area defined for a regulatory purpose.

3.1.45 *Superfund Enterprise Management System*, *SEMS*, *n*—successor to the *EPACERCLIS* database in 2016.

3.1.44 *U.S. Environmental Protection Agency*, *EPA*, *n*—Federal agency implementing environmental laws and regulations.

### 3.2 Acronyms and Initialisms:

3.2.1 *ARO*—Asset Retirement Obligation

3.2.2 *ASC*—Accounting Standards Codification, issued by FASB

3.2.3 *CERCLA*—Comprehensive Environmental Response, Compensation and Liability Act of 1980

3.2.4 *CERCLIS*—Comprehensive Environmental Response, Compensation and Liability Information System

3.2.5 *ESG*—Environmental, Social, and Governance

3.2.6 *FASB*—Financial Accounting Standards Board

3.2.7 *GAAP*—Generally Accepted Accounting Principles

3.2.8 *GASB*—Governmental Accounting Standards Board

3.2.9 *IASB*—International Accounting Standards Board <https://standards.iteh.ai/astm-e2173-22>

3.2.10 *LUST*—Leaking Underground Storage Tank

3.2.11 *NPL*—National Priorities List

3.2.12 *NPV*—Net Present Value

3.2.13 *PRP*—Potentially Responsible Party

3.2.14 *PCAOB*—Public Company Accounting Oversight Board

3.2.15 *RCRA*—Resource Conservation and Recovery Act

3.2.16 *SEC*—Securities and Exchange Commission

3.2.17 *SEMS*—Superfund Enterprise Management System

3.2.18 *TRI*—Toxics Release Inventory

3.2.19 *USEPA*—United States Environmental Protection Agency

## 4. Significance and Use

4.1 ~~Significance—Since the release of this guide provides additional guidance to preparers of FASB Environmental Statement 5—Accounting for Contingencies—in March 1975, the regulatory disclosures; these materials are needed to address changing audience needs, the increased regulatory and accounting complexity around environmental matters has increased due to matters, and the emergence of a variety of long-term trends and factors, including but not limited to:~~

4.1.1 ~~Number and scope of federal, state, local, and non-U.S. environmental and financial reporting—domestic, and foreign environmental laws and their implementing regulations;~~

4.1.2 ~~Number and scope of treaties signed by the United States, treaties, as well as the implementing laws and regulations; parties in these treaties include multilateral organizations and Native American tribes; indigenous peoples;~~

4.1.3 ~~Judicial decisions clarifying the impact of laws, regulations, and treaties;~~

4.1.4 ~~Costs to comply of compliance with environmental regulations;~~

4.1.5 ~~Number of known chemical compounds (see Chemical Abstracts Service REGISTRY<sup>SM</sup>, which contains over 43193 million unique organic and inorganic substances);~~

4.1.6 ~~Cost and accuracy of soil, sediment, air, soil vapor, surface water and groundwater testing equipment and procedures;~~

4.1.7 ~~Knowledge about benefits and effects of chemical compounds on human health, ecological receptors, and the environment; such as toxicology studies (see National Library of Medicine’s TOXNET database at [www.nlm.nih.gov](http://www.nlm.nih.gov)); environment;~~

4.1.8 ~~Number and efficacy of remedial technologies;~~

4.1.9 ~~Experience with assessing and remediating environmental conditions;~~

4.1.10 ~~Assumptions regarding impacts of environmental conditions, through modeling and other forecasting tools;~~

4.1.11 ~~Number of environmental, social and governance (ESG) metrics and their pace of adoption;~~

4.1.12 ~~Financial—Frequency and financial impact of counterparty failure; and~~

4.1.13 ~~Development of comparable accounting standards by other authorities; and~~

4.1.14 ~~Investor interest in the impact of these trends and factors on their investments.~~

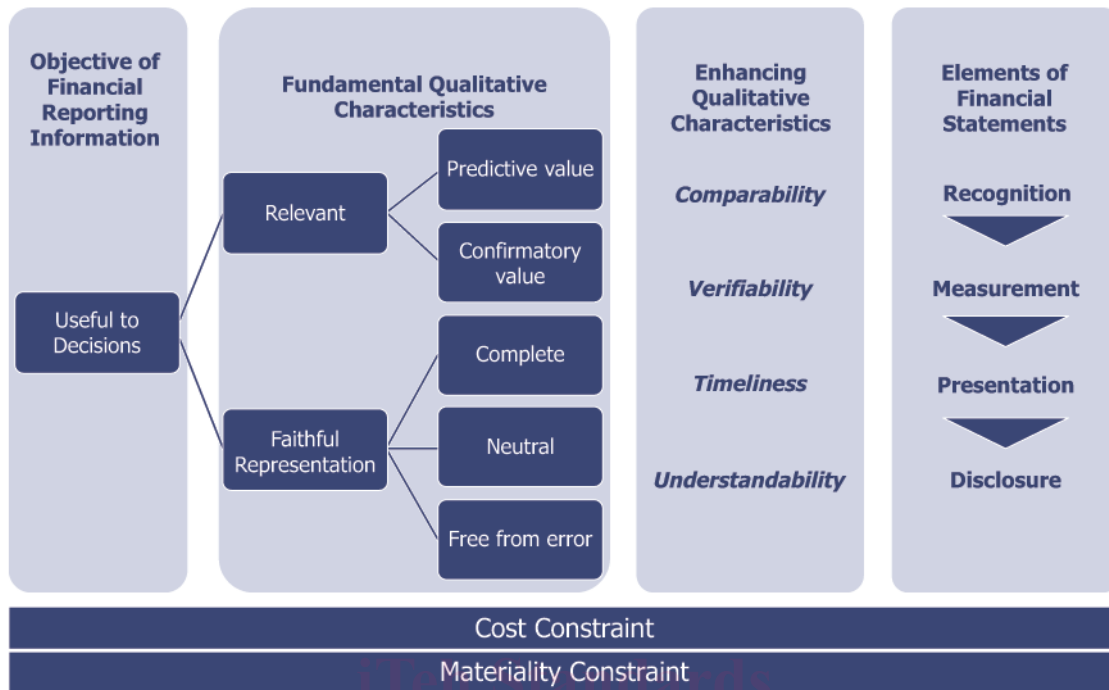
4.2 ~~Concurrently, the issuers of generally accepted accounting principles (GAAP) and financial reporting standards have been evolving. While the Securities and Exchange Commission (SEC) was established in 1934, FASB was created in 1973, GASB in 1984, FASAB in 1990, and IASB in 2001. As part of Sarbanes-Oxley Act of 2002 (Public Law 107–204, 116 Stat. 745), PCAOB was founded in 2002.~~

~~NOTE 1—Many of these trends and factors, as well as the changes to GAAP, have occurred slowly. For example, users of this guide will likely be aware that chemicals that were not regulated or considered contamination yesterday may be deemed so tomorrow.~~

4.2 ~~Uses—This guide is intended for use on a voluntary basis by a reporting entity that provides financial and qualitative disclosure regarding environmental liabilities. Disclosure is integrated with preceding elements of financial statements, namely recognition, measurement, and presentation of environmental liabilities, as noted in Fig. 1. (Full explanation of this framework can be found in FASB Concepts Statement 8, September 2010.) With the long-term trends and factors in 4.1, the issuers of environmental disclosures have found it useful to regularly report material environmental topics to the public through filings to the Securities and Exchange Commission (SEC), Form 10-K or 20-F.~~

~~NOTE 1—Many of these trends and factors, as well as the changes to GAAP, have occurred gradually. For example, users of this guide will likely be aware that chemicals that were not regulated or considered contamination yesterday may be deemed so tomorrow.~~

## FASB Conceptual Framework



Source: FASB Statement of Financial Accounting Concepts No. 8, September 2010

FIG. 1 FASB Conceptual Framework

## Document Preview

4.2.1 Typical environmental disclosures to the public include, but are not limited to:

4.2.1.1 Book value of current environmental liabilities, such as asset retirement obligations, pollution remediation obligations, and natural resource damage claims;

4.2.1.2 Book value of product liability costs (for example, recalls) and other litigation related to human health and the environment;

4.2.1.3 Counts of projects or legal matters, especially over time, which provide a metric to track if the rate of liability settlements align with or vary from the rate of incoming liabilities;

4.2.1.4 Indirect costs such as project and legal services to oversee liabilities, and guarantees on the long-term performance of counterparties;

4.2.1.5 Costs and income associated with contracts and commitments, such as purchase and sale agreements, insurance contracts, and merger transactions;

4.2.1.6 Voluntary costs to comply with environmental laws, regulations and treaties;

4.2.1.7 Contingencies and non-financial metrics related to the above items; and

4.2.1.8 Note to financial statements confirming that a booked environmental liability conforms to the accounting definition of a liability, namely that a loss has been incurred which will result in future spending that is both probable and reasonably estimable. See E3123 for further detail.

4.2.2 The degree and type of disclosure depends on the scope and objective of the financial statements. Such statements may not always be audited and/or prepared for the public domain.



4.2.3 For example, users of this guide may need to make non-public disclosures for the benefit of investors, prospective asset purchasers, lenders, regulators, insurers, tax authorities, key customers, and joint venture partners.

4.2.4 Users of this guide should be aware that shareholder concerns, contractual obligations, financial assurance requirements, court decisions, and regulatory directives may affect their flexibility in the use of this guide.

4.2.5 Some larger entities may publish their environmental, social and governance (ESG) metrics to communicate company policies, progress in meeting emission goals, sustainability of individual products and services, and the impact of subsidies and taxes. The user should note that ESG metrics are not a part of generally-accepted accounting principles. ESG metrics may lack comparability (see Fig. 1 above) from industry to industry, and sometimes company to company. While these ESG metrics constitute a form of environmental disclosure, they are excluded from this Guide. These metrics are published by several organizations, including the Sustainability Accounting Standards Board. See Guide E2718 for further information.

4.3 Principles: The following principles are an integral part of this Guide and are intended to be referred to in resolving ambiguities or disputes regarding the interpretation of disclosures regarding environmental liabilities.

4.3.1 Faithful representation—The following principles are an integral part of this guide and are intended to be referred to in resolving any ambiguity or dispute regarding the interpretation of disclosures regarding environmental liabilities to be useful to the decisions of those receiving environmental disclosures, the information provided must be reliable and trusted. Users of this Guide should note the “Enhancing Qualitative Characteristics” in Fig. 1:

(a) disclosures should be comparable with similar disclosures from competing or peer entities; the use of non-standard measurements or terminology should be avoided

(b) disclosures should be verifiable through cost accounting and auditing specialists

(c) disclosures should consist of timely information, reflecting an entity’s quarterly financial reporting to its officers

(d) disclosures should be understandable through using the common reporting terminology in GAAP; for example, an entity should not describe asset retirement obligations (ASC 410-20 and GASB 83) with entity-specific project labels.

4.3.2 Continuous Improvement—just as environmental liabilities generally accrue across time and with strategic transactions, any entity should disclose gradual improvements in addressing environmental matters as the scope and scale of issues evolve. A newly-formed entity may find no reason to disclose hypothetical losses or describe risks which have not occurred; however, an entity with 100 years of operations may find it essential to disclose an historical review of brands, facilities and waste disposal practices.

4.3.3 Transparency—entities will find it useful to supplement financial disclosures with performance metrics, including but not limited to:

4.3.3.1 Number of properties awaiting reuse and/or sale because of environmental contamination concerns, including those with AULs (see Guide E2091)

4.3.3.2 Number of sites successfully completing regulator-directed remediation; portion of the liability portfolio in either early or final stages of regulator-directed remediation

4.3.3.3 Relevance of emerging contaminants to current and historical production

4.3.3.4 Relevance of climate adaptation expenses to future operations

4.3.3.5 Relevance of pending court cases

4.3.3.6 Limitations to reliably calculating current liabilities

4.3.3.7 Comprehensive impact of long-term trends of booked liabilities – generally available by combining a decade or more of historical disclosures – to avoid the impression of “remediation theater” where environmental reserves are booked and expended roughly equally without any sense of progress or achievement in addressing contamination.

4.3.4 Uncertainty Not Eliminated—Although a reporting entity, as of the time when its financial statements are prepared, may hold a certain position with regard to the existence and extent of its environmental liabilities, there remains uncertainty with regard to the final resolution of factual, technological, regulatory, legislative, and judicial matters, which could affect its valuation of

environmental liabilities. Under the constraints of preparation cost and *materiality* (noted in [Fig. 1 \(FIG-1\)](#)), users needing reliable information may experience additional limitations, such as unaudited cost projections, draft scientific findings, or the bounds of attorney-client privilege. Users may encounter decisions identified as uncertainties and observe liabilities priced solely through the costs to implement potential remedial strategies; information on cognitive biases in valuing environmental costs and liabilities may be found in Guide [E2137](#).

**4.3.5 Disclosure Dependent on Circumstances**—Not every environmental liability warrants the same level of detail in its disclosure. Disclosure will be guided by the scope and objective of the financial statement, and accordingly, by the *materiality* of the environmental liability and the level of information available.

**4.3.6 Comparison with Subsequent Disclosures**—Subsequent disclosures that convey different information regarding the extent or magnitude of the *reporting entity's* exposures should not be construed as indicating the initial disclosures were inappropriate or incorrect. Disclosures shall be evaluated on the reasonableness of judgments and inquiries made at the time and under the circumstances in which they were made. Subsequent disclosures should not be considered valid standards to judge the appropriateness of any prior disclosure based on hindsight, new information, use of developing analytical techniques, or other factors. However, information on trends may be of value to a user of *financial statements*.

**4.3.7 Not Exhaustive**—Appropriate disclosure does not necessarily mean an exhaustive disclosure; discretion and professional judgment ~~is~~ are used by estimators, auditors, and the *reporting entity's* management in setting limits on the preparation cost, *materiality*, and volume of information worth disclosing as environmental liabilities.

NOTE 2—For each entity, there is a tradeoff between displaying detailed information and identifying reliable and accurate insights that are useful to user decisions.

**4.3.8 Assessment of Risk**—As the *reporting entity* becomes aware of an environmental liability, the condition or issue should be evaluated to assess the actual or potential risk to human health and environment and resources. The degree of risk is evaluated in context of the current regulatory environment, an understanding of the specifics of the condition or issue, potential future uses, and asset retirement obligations.

**4.3.9 Improved Capital Stewardship**—Disclosure, along with the preceding steps of recognition, measurement, and presentation, provides context for environmental liabilities and may improve the defensible allocation of capital to resolving those liabilities as efficiently as possible. Over time, an entity may find it valuable or even essential to demonstrate leadership in cost efficiency for understanding, controlling, preventing, and reducing environmental liabilities. The need for intermittent internal presentations may transform into the need for regular public disclosures as an entity acquires environmentally impaired assets or other environmental liabilities. An entity may prefer to make the ongoing investment in competent and continuous data collection and interpretation to draw internal managerial attention toward measuring and ensuring progress in discharging the liabilities as efficiently as possible.

**5. Determining Whether a Disclosure is Warranted**—The following are circumstances known to lead to disclosure of environmental liabilities:

**5.1 Circumstances Associated with Environmental Liabilities**—The following are major circumstances that might give rise to Enforcement of environmental laws or regulations regarding investigation, cleanup, maintenance of *engineering controls* or land use controls or both, and other costs. Such circumstance arises if the *EPA*, a state agency, or a local government has named the *reporting entity* a *PRP* on a *site*, or the *reporting entity* is required to perform corrective action under *RCRA* or is required to assess (and potentially remediate) a property under any other environmental law or is required to conduct a natural resources damage assessment and associated mitigation. Degree of enforcement (federal, state, local, or via third-party tort *claim*) may also impact the timing of expenditures;

**5.1.1 Enforcement of environmental laws or regulations regarding investigation, cleanup, maintenance of *engineering controls* or land use controls or both, and other costs.** Such circumstance arises if the *EPA*, a state agency, or a local government has named the *reporting entity* a *PRP* on a *site*, or a *reporting entity* is required to perform corrective action under *RCRA* or is required to assess (and potentially remediate) a property under any other environmental law or is required to conduct a natural resources damage assessment and associated mitigation. Degree of enforcement (federal, state, local, or via third-party tort *claim*) may also impact the timing of expenditures;

**5.1.2 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;

~~5.1.3 Commencement of litigation or assertion of a *claim* or assessment by a party alleging legal liability on the part of the *reporting entity*.~~

~~5.1.4 Information is known by the *reporting entity* that indicates an environmental liability has been incurred;~~

~~5.1.5 Asset retirement obligations (GASB 18, ASC 410-20, IAS 37); and~~

~~5.1.6 Ability to pay analysis, a routine determination that a *reporting entity* possesses the capacity to honor commitments, guarantees, contingencies, and obligations. This is also termed nonperformance risk of default and *counterparty risk*. Where a *reporting entity* determines an environmental liability valuation rests solely on a counterparty's ability to pay, valuation requires an understanding of that counterparty's ability to pay, especially in light of the *reporting entity's* own ability to pay. (See definition of *counterparty risk* in 3.1.10.)~~

5.2 Contractual assumption of risk, risk transfer agreements, and financial assurance requirements. The most familiar forms of risk transfer agreements are merger agreements, spinoff agreements, purchase and sale agreements, insurance contracts, captive insurer incorporation forms, remediation trust agreements, hold-harmless agreements, and indemnity agreements, often concurrent with contracts for the transfer of property;

5.3 Commencement of litigation or assertion of a *claim* or assessment by a party alleging legal liability on the part of the *reporting entity*, or vice versa;

5.4 Information is known by the *reporting entity* that indicates an environmental liability has been incurred;

5.5 Acquisition or construction of assets which commonly require asset retirement costs at the end of their useful life (GASB 18 & 83, ASC 410-20, IAS 37);

5.6 Counterparty risk analysis, a routine determination that a *reporting entity* has one or more counterparties which lack the capacity to honor commitments, guarantees, contingencies, and obligations involving the *reporting entity*. This is also termed nonperformance risk of default. Where a *reporting entity* determines an environmental liability valuation rests solely on a counterparty's ability to pay, valuation requires an understanding of that counterparty's ability to pay, especially in light of the *reporting entity's* own ability to pay. (See definition of *counterparty risk* in 3.1.11.)

<https://standards.iteh.ai/catalog/standards/sist/7ba82a0-4444-40b5-9136-3a80295eba1/astm-e2173-22>

5.7 Sources of Information—This guide identifies standard sources that should be reviewed by a *reporting entity* to properly determine if conditions warrant disclosure. disclosure, similar in nature to the sources in Guide E3228 – Environmental Knowledge Management. These sources should be reasonably ascertainable, which is defined as information that is (1) publicly available, (2) obtainable from its source within reasonable time and cost constraints, and (3) practically reviewable. Such sources may include but are not limited to the following categories:

5.7.1 Current Government Environmental Record Source—Any environmental record source available from a government or commercial entity, provided the record is updated in accordance with the update requirement of Practice E1527. These sources include, but are not limited to, the standard environmental record sources specified and defined in Practice E1527. Current government environmental record sources may identify responsible parties, environmental suits and costs, environmental claims, releases, groundwater contamination, permits, asset retirement obligations, activity and use limitations, institutional control and engineering control registries, registrations, and other environmental conditions warranting disclosure. Examples of current government environmental record sources include, but are not limited to:

5.7.1.1 EPA National Priorities List (NPL) site list,

5.7.1.2 EPA Superfund Enterprise Management System (SEMS), or predecessor database, CERCLIS,

5.7.1.3 Published list of sites and identified responsible parties under state or local environmental laws,

5.7.1.4 Published list of PRPs,

5.7.1.5 Lists of leaking underground storage tanks (LUSTs),

5.7.1.6 EPA Databases, such as RCRAInfo, Envirofacts, database, or financial assurance tracking,

5.7.1.7 Filings to the US Securities and Exchange Commission,

5.7.1.8 EPA Envirofacts database, and Toxic Release Inventory (TRI),

5.7.1.9 Bureau of Safety and Environmental Enforcement decommissioning estimates for Outer Continental Shelf platforms and pipelines

5.7.1.10 US Department of Justice – Environmental Enforcement Section status reports of ongoing litigation and recent settlements

5.7.1.11 National Oceanic and Atmospheric Administration – Damage Assessment, Remediation and Restoration Program

5.7.1.12 US Department of Interior – Abandoned Mine Land Program

5.7.1.13 US Department of Agriculture – Rural Abandoned Mine Program

5.7.1.14 ~~TOXNET database hosted by the U.S. National Library of Medicine, part of the National Institutes of Health.~~ US Department of Transportation - Pipeline and Hazardous Materials Safety Administration

5.7.1.15 US Coast Guard – Oil Spill Liability Trust Fund

5.7.2 *Historical Government Environmental Record Sources*—Any environmental record source available from a government or commercial entity that is older than the most recent *current government environmental record source*. *Historical government environmental record sources* may identify responsible parties, historical releases, historical groundwater contamination, asset retirement obligations, and other historical environmental conditions.

5.7.3 *Historical Use Information*—Those sources of information about the history of uses of a property. *Historical use information* is available from local libraries, historical societies, private resellers, or commercial entities. *Historical use information* may identify responsible parties, historical releases, historical groundwater contamination, asset retirement obligations, and other historical environmental conditions warranting disclosure. Some examples of *historical use information* are specified and defined in Practice **E1527**.

5.7.4 *Internal Reporting Entity Records*—The *reporting entity*'s internal environmental records regarding environmental conditions. It is prudent for reporting companies to corroborate internal environmental records with publicly available data when available. Examples of internal *reporting entity* records include, but are not limited to:

5.7.4.1 Lists of *PRPs* (and any other potentially liable parties) and their allocated shares, their current financial condition, and details on any financial instrument, insurance, or entity *guarantee* validating the long-term viability of their allocation;

5.7.4.2 Environmental suits involving the *reporting entity*,

5.7.4.3 Environmental claims or demands involving the *reporting entity*, other than filed suits,

5.7.4.4 Lists of leaking underground storage tanks (*LUSTs*),

5.7.4.5 Title searches of at least 50 years on known sites that are currently or were previously owned or operated by the *reporting entity* or predecessor entities;

5.7.4.6 Known payments by the *reporting entity* for environmental claims and costs,

5.7.4.7 Environmental claims or demands involving the *reporting entity*, other than filed suits,

5.7.4.8 Lease agreements, purchase and sale agreements, and other contractual ~~documents~~, documents (described in 5.2),