



# Standard Practice for Addressing and Reporting Losses of Tangible Property<sup>1</sup>

This standard is issued under the fixed designation E2131; 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 reappraisal. A superscript epsilon ( $\epsilon$ ) indicates an editorial change since the last revision or reappraisal.

## 1. Scope

1.1 This practice focuses on addressing and reporting losses of tangible property.

1.2 Loss occurrences are key aspects of risk management. Projecting the possibility or probability of losses, discovering, disclosing, reporting, managing, and minimizing losses to a reasonable extent is a critical economic factor in the success of the owning or holding entity. This practice also establishes acceptable levels of losses.

1.3 Losses are often discovered as a result of an occurrence, a physical inventory, property custodian or entity self-assessment, or external audit. An actual loss occurrence can be at any time during the property life cycle.

1.4 Assessing and determining financial liability for losses is not addressed in this practice; such assessments are generally subject to individual contracts or other arrangements.

1.5 *This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use.*

## 2. Referenced Documents

2.1 *ASTM Standards:*<sup>2</sup>

[E2132 Practice for Inventory Verification: Electronic and Physical Inventory of Assets](#)

[E2135 Terminology for Property and Asset Management](#)

[E2279 Practice for Establishing the Guiding Principles of Property Asset Management](#)

[E2378 Practice for the Recognition of Impaired or Retired Personal Property](#)

[E2608 Practice for Equipment Control Matrix \(ECM\)](#)

<sup>1</sup> This practice is under the jurisdiction of ASTM Committee E53 on Asset Management and is the direct responsibility of Subcommittee E53.04 on Reutilization and Disposal.

Current edition approved April 1, 2016. Published May 2016. Originally approved in 2001. Last previous edition approved in 2009 as E2131-09. DOI: 10.1520/E2131-16.

<sup>2</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.

[E3015 Guide for Management of Customer-Owned Property Assets in Possession of Supplier, Contractor or Subcontractor](#)

2.2 *ISO Standard:*<sup>3</sup>

[ISO 31000 Risk Management](#)

2.3 *Federal Standard:*<sup>4</sup>

[FAR Federal Acquisition Regulations](#)

2.4 *Other Document:*<sup>5</sup>

[Risk Management Guide for DOD Acquisition, Sixth Edition](#)

## 3. Terminology

3.1 *Definitions*—For definitions relating to property and asset management, refer to Terminology [E2135](#).

3.2 *Definitions of Terms Specific to This Standard:*

3.2.1 *acquisition cost, n*—cost to buy goods, services, or assets, minus discounts and adding relevant costs based upon accounting standards.

3.2.2 *entity, n*—an agency, company, or institution.

3.2.3 *equipment, n*—tangible item that is functionally complete for its intended purpose, durable, nonexpendable, and needed for the performance of a contract. Equipment is not intended for sale, and does not include material, real property, special test equipment, or special tooling. **FAR Part 45**

3.2.4 *loss of property, n*—unintended, unforeseen or accidental loss, damage, or destruction of property that reduces the expected economic benefits of the property.

3.2.4.1 *Discussion*—Loss of property does not include occurrences such as purposeful destructive testing, obsolescence, normal wear and tear, or manufacturing defects. Loss of property includes, but is not limited to:

(1) Items that cannot be found after a reasonable search;

(2) Theft;

(3) Damage resulting in unexpected harm to property requiring repair to restore the item to usable condition; or

<sup>3</sup> Available from National Institute of Standards and Technology (NIST), 100 Bureau Dr., Stop 1070, Gaithersburg, MD 20899-1070, <http://www.nist.gov>.

<sup>4</sup> Available from <http://farsite.hill.af.mil>.

<sup>5</sup> Available from Defense Acquisition University, 9820 Belvoir Road, Fort Belvoir, VA 22060-5565, <http://www.dau.mil/publications/publicationsDocs/RMG%20Ed%20Aug06.pdf>.

(4) Destruction resulting from incidents that render the item useless for its intended purpose or beyond economical repair, and

(5) Significant loss variances beyond contractual arrangements within a material management and accounting system.

**Adapted from FAR Part 45.101**

3.2.5 *low-risk property, n*—assets that are monitored and controlled at the discretion of asset managers and typically consists of low risk tagged items, for example children of equipment, special tools, and children of special test equipment valued under \$5000, excluding sensitive, controlled, customer serially managed, or mission essential property.

3.2.5.1 *Discussion*—Low-risk property does not include expendable or expended material—in that these items are expected to be depleted during performance. (Be aware, the \$5000 threshold may be increased based upon internal policy or arrangements with customers.) The definition and management of low-risk property should be included in the entity’s property plan and procedures. Many factors may contribute for an item to be determined low risk. For example, a \$700.00 laptop computer with its data appropriately encrypted and its essential data properly backed up should be a low-risk property item. If, on the other hand, this item’s data are not encrypted or backed up, it is probably not low-risk property and as it may be sensitive property. Within a property plan, when discussing low-risk or low-value property, entities may establish different thresholds for entity property versus customer property.

3.2.6 *normal wear and tear, n*—wear on a property item that takes place with normal or reasonable use for which the item is intended or provided.

3.2.7 *not found status, n*—status of an item during an inventory, or otherwise, that has not been located and a reasonable reconciliation or search has not been performed and this determination of when an item changes from a “not found” status to a “loss” status is made by asset managers based upon facts, circumstances, schedule, materiality, and the professional judgment and certainty of the asset manager.

3.2.7.1 *Discussion*—Items in a not found status (frequently referred to with like type terms (for example, missing and cannot locate) are not a loss, nor should clerical errors or omissions be reported as a loss. For an item to be reported as a loss there should be a reasonable certainty that the item, based upon facts and circumstances, is a valid (more than 80 % certainty) loss. (See Practice E2279 regarding reports.) Careful consideration should be used in some circumstances to determine if a loss has occurred, for example: A unique special tooling item under contact closeout is at a warehouse awaiting proper disposal. Somehow between a warehouse worker and the scrap dealer the item was inadvertently taken as scrap and was not recoverable. There is no known future use for the item as special tooling. The item was expected to be scrapped eventually but not in this manner, as standard processes were not followed. Is this a reportable loss? No, as there is no economic harm. The incident may result however, in notifying the property’s owner and an internal corrective action request being issued. The timing and the resources used to locate items not found is determined upon the facts and circumstances of the situation, including costs, schedule, criticality of identified

use and business rhythm. In any event, practices and cost should remain reasonable.

3.2.8 *reasonable, n*—action is reasonable if, in its nature and amount, it does not exceed that which would be incurred by a prudent person in the conduct of competitive business.

**Adapted from FAR Part 31**

3.2.9 *representation, n*—statement made by one of two contracting parties to the other, before or at the time of making the contract, in regard to some fact, circumstance, or state of facts pertinent to the contract, which is influential in bringing about the agreement.

**Black’s Law Dictionary<sup>6</sup>**

3.2.10 *risk, n*—concept that denotes a potential negative impact.

3.2.11 *risk assessment, n*—determination of quantitative or qualitative value of risk related to a concrete situation and a recognized threat.

3.2.12 *risk management, n*—structured approach to managing uncertainty through risk assessment, developing strategies to manage it, and mitigation of risk using managerial resources.

3.2.12.1 *Discussion*—A good primer on risk management that should be considered is the *Risk Management Guide for DOD Acquisition*.

#### 4. Summary of Practice

4.1 This practice pertains to the reporting of losses of tangible property. Owners of property are entitled to be properly and accurately notified of losses to or of their property. These reports are important for accounting, possible replacement, recovery, and managerial and owner decision making. For internal control purposes, accurate reporting is necessary to achieve effective and efficient operations, reliable financial and operational reporting, and compliance to applicable laws and regulations.

4.2 This practice recognizes the process by which an item is neither accounted for nor lost but in a not found status until the item is found or determined lost.

#### 5. Significance and Use

5.1 Losses of property are indicators of the effectiveness of operations. Excessive losses can indicate poor internal management and controls, policy or procedural weaknesses, or lack of compliance, any one of which can have a negative impact on profitability, mission, performance, or reputation.

5.2 Addressing and reporting losses provides indicators of needed potential action by decision makers.

5.3 Though the term *equipment* is used consistently throughout this practice, this process may be used for the other classes of property, for example, raw material in inventory.

5.4 This practice does not change any requirements that may be imposed through law, regulations, contract terms, and conditions.

NOTE 1—When this practice is submitted in response to a contract solicitation and evaluated as part of a contract award process, this practice may be deemed a representation.

<sup>6</sup> Available from <http://www.thelawdictionary.org>.

## 6. Procedure

6.1 Entities adopting this practice shall establish entity specific policies and procedures implementing this practice. These policies and procedures shall be established in light of Practices [E2132](#), [E2279](#), [E2378](#), [E2608](#), Guide [E3015](#), and Terminology [E2135](#).

6.2 Entity policies and procedures will be developed with special attention to Practice [E2608](#). Practice [E2608](#) establishes *equipment control classes* (ECCs)—five classifications or groupings of equipment based on the consequences of the loss of control of the equipment:

6.2.1 *Equipment Control Class 1*—Consequence of loss of control is a societal safety/security impact, which is characterized by negative societal safety or security impact.

6.2.2 *Equipment Control Class 2*—Consequence of loss of control is a personal safety/security impact, which is characterized by negative personal safety or security impact that does not rise to the level of a societal safety or security impact.

6.2.3 *Equipment Control Class 3*—Consequence of loss of control is an operational impact, which is characterized by negative operational impact that does not rise to the level of a personal or societal safety or security impact.

6.2.4 *Equipment Control Class 4*—Consequence of loss of control is a compliance impact, which is characterized by negative compliance with applicable laws, regulations, or other relevant internal or external guidance that does not rise to the level of an operational impact.

6.2.5 *Equipment Control Class 5*—Consequence of loss of control is not discernible, which is characterized by having no visible or recognizable impact on the organization.

6.3 Entity policies and procedures will, in light of Practice [E2608](#):

6.3.1 Establish specific guidelines for evaluating and measuring losses,

6.3.2 Define when and how investigations are conducted,

6.3.3 Define when and how corrective action is appropriate, and

6.3.4 Define the property loss reporting process.

## 7. Calculation of LDD Ratios

7.1 *Method 1*—Divide the annual (fiscal year) losses by the average amount of like property (ECC1, ECC2, and so forth, or as defined in entity procedures) on hand (annual losses/average amount of like property).

7.1.1 For example, if the average monthly amount during the fiscal year of ECC3 assets on hand is 10 000 line items at \$140 million and losses for the same year equal 100 items at \$200 000, the loss ratio for ECC3 assets is 1 % line items and 0.14 % dollars.

7.2 *Method 2*—Calculate losses at the end of a physical inventory by comparing physical inventory results with custodial records. Include this analysis as part of the inventory reconciliation process. This method can be applied to the various types of property inventoried or to any one particular type or item of inventory (such as a particular line item of material).

## 8. Acceptable Loss Ratios

8.1 The following are firm criteria:

8.1.1 The acceptable loss ratio for property in ECC1 is 0 %.

8.1.2 The acceptable loss ratio for property in ECC2 is 0.5 % (dollar value or quantity).

8.1.3 The acceptable loss ratio for property in ECC3 is 2 % (dollar value or quantity).

8.1.4 Entities shall establish acceptable loss ratios for ECC4 in accordance with applicable law, regulation, or contractual requirements, otherwise 3 % (dollar value or quantity).

8.1.5 Entities should establish acceptable ratios for ECC5 based upon internal or disclosed property plans or internal procedures, otherwise 10 % (dollar or quantity).

8.2 Entities may establish criteria more stringent than those shown in [8.1](#). Based upon risk, materiality, and cost-benefit considerations, contracts may also modify the acceptable loss ratio.

8.3 Entities should minimize losses to the extent that costs remain reasonable.

## 9. Reporting Loss Occurrence

9.1 Reporting losses of tangible property to the owners of ECC1, ECC2, ECC3, or ECC4 is required in the appropriate form and under appropriate contract or accounting entity. Entity policies and procedures shall establish how, when, and within what timeframes losses are to be reported.

9.2 For reporting losses of customer property, entity policies and procedures shall establish how, when, what format, and in what timeframes losses are to be reported, particularly the process by which an item is inventoried and reconciled including going through a not-found status and a final loss determination.

9.3 Information to be considered for inclusion in loss reports includes, but is not limited to:

9.3.1 Description of loss(es) along with applicable contract number, identification number(s), last known location, based upon the custodial or property records (see Terminology [E2135](#));

9.3.2 Whether the item(s) need to be repaired or replaced and why, based upon stated current and future need;

9.3.3 Age and condition of the item(s), if known;

9.3.4 Cost and quantity data if actual cost data is unavailable, provide reasonable estimates at time of acquisition;

9.3.4.1 Estimated economic harm from the item(s) loss;

9.3.4.2 Acquisition cost of the item(s) and book value, if applicable;

9.3.4.3 Replacement cost of the item(s), at fair value, if replacement is indicated.

9.3.4.4 Repair cost of the item(s), if repair is indicated.

9.3.4.5 The fair value of the item(s) at time of occurrence, and

9.3.4.6 Associated costs, such as damage to collocated/adjacent items, the environment, potential cleanup costs, potential delay(s) in performance, and so forth.

9.3.5 Date and time of occurrence, probable cause, actions taken and corrective actions taken;

9.3.6 Known interests in commingled property (when property not owned by the entity is involved);

9.3.7 Insurance considerations, if any, concerning the losses;

9.3.8 Information to determine if the occurrence was or was not reasonably preventable as well as suggested actions, or actions taken, if any, to prevent any future, similar occurrence;

9.3.9 Means by which the entity came into possession of property to which the entity did not have title, for example, a bailment agreement; and

9.3.10 Any other contract requirements, pertinent facts, or extenuating circumstances relevant to decision making, including facts to determine liability and responsibility for repair or replacement.

## **10. Keywords**

10.1 damage; destruction; equipment; LDD; LDDT; loss; losses; low risk property; LTDD; reasonable cost; risk management; tangible property

*ASTM International takes no position respecting the validity of any patent rights asserted in connection with any item mentioned in this standard. Users of this standard are expressly advised that determination of the validity of any such patent rights, and the risk of infringement of such rights, are entirely their own responsibility.*

*This standard is subject to revision at any time by the responsible technical committee and must be reviewed every five years and if not revised, either reapproved or withdrawn. Your comments are invited either for revision of this standard or for additional standards and should be addressed to ASTM International Headquarters. Your comments will receive careful consideration at a meeting of the responsible technical committee, which you may attend. If you feel that your comments have not received a fair hearing you should make your views known to the ASTM Committee on Standards, at the address shown below.*

*This standard is copyrighted by ASTM International, 100 Barr Harbor Drive, PO Box C700, West Conshohocken, PA 19428-2959, United States. Individual reprints (single or multiple copies) of this standard may be obtained by contacting ASTM at the above address or at 610-832-9585 (phone), 610-832-9555 (fax), or [service@astm.org](mailto:service@astm.org) (e-mail); or through the ASTM website ([www.astm.org](http://www.astm.org)). Permission rights to photocopy the standard may also be secured from the Copyright Clearance Center, 222 Rosewood Drive, Danvers, MA 01923, Tel: (978) 646-2600; <http://www.copyright.com/>*