

Designation: E2607 - 21

Standard Practice for Cannibalization/Reclamation of Serviceable Equipment Components to Support Demand Requirements¹

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1. Scope

1.1 This practice covers the process by which open production and failure related demand requirements are fulfilled using existing equipment components.

Note 1—Differing approval requirements are generally dictated by ownership issues. For example, approvals for cannibalization/reclamation of company-owned property assets may vary substantially from that required for customer-owned assets. In all cases, the specific approach to approvals and the levels of approval required are prescribed by the entity with title to/ownership of the asset. These requirements are internal to the owning entity. In general, company-owned assets are handled in accordance with established practice specific to each individual entity while customer-owned property is handled based upon established practices specific to each entity or as specified within a contractual document.

- 1.2 This practice is intended to be applicable and appropriate for all asset-holding entities.
- 1.3 This practice covers property assets categorized as equipment.
- 1.4 This practice can be applied to an individual asset, groupings of assets, or to all, or a subset of an entity's assets.
- 1.5 This practice clarifies and enables effective and efficient support of assets in accordance with the provisions of Practice E2279.
- 1.6 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, health, and environmental practices and determine the applicability of regulatory limitations prior to use.
- 1.7 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.

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2. Referenced Documents

2.1 ASTM Standards:²

E2135 Terminology for Property and Asset Management E2279 Practice for Establishing the Guiding Principles of Property Asset Management

3. Terminology

- 3.1 *Definitions*—For definitions relating to property and asset management, refer to Terminology E2135.
- 3.1.1 acquisition—obtaining hardware, supplies, or services through purchase, lease, or other means, including transfer or fabrication, whether the supplies or services are already in existence or must be created, developed, demonstrated, and evaluated.
- 3.1.2 *cannibalization*—removal of serviceable components from one item of equipment in order to install them on another item of equipment. The removal of components from one item of equipment for the purpose of repairing other similar equipment.
- 3.1.3 *component*—a part of a mechanical or electrical complex.
 - 3.1.4 *entity*—agency, company, organization, or institution.
- 3.1.5 *reclamation*—removal of serviceable components from excess equipment.

4. Significance and Use

- 4.1 This practice establishes a standard control methodology to aid in fulfillment of shortages derived from production requirements or equipment failures.
- 4.2 This practice encourages an inclusive understanding and communication of the control and tracking of assets, and enables meaningful discussion between parties with interest in the asset.
- 4.3 This practice is intended to foster and enable additional standard practices related to or based on these terms and concepts.

¹ 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.

² For referenced ASTM standards, visit the ASTM website, www.astm.org, or contact ASTM Customer Service at service@astm.org. For *Annual Book of ASTM Standards* volume information, refer to the standard's Document Summary page on the ASTM website.



5. Cannibalization and Reclamation Processes

- 5.1 General:
- 5.1.1 Generate a demand requirement by means of either an open production requirement, a failed item, or (for reclamation only) a future requirement.
- 5.1.2 Determine whether removal of component(s) from existing equipment might be the most feasible method to fulfill the demand requirement.
- 5.1.2.1 Document the demand requirement and present to the organization responsible for material fulfillment.
- 5.1.2.2 Screen existing inventories and acquisition sources as prescribed by the entity's policies and procedures.
- 5.1.2.3 Determine whether cannibalization or reclamation are appropriate methods/sources for meeting the existing requirement.
- 5.1.2.4 Identify available source candidates and related parts available for fulfillment.
- 5.1.2.5 Validate cost benefits of using a component in good condition from surveying available equipment instead of procurement. All impacts and risk factors must be evaluated to ensure that any decisions made concerning part or end-item removal will have the least adverse effect on delivery schedules and costs.
- 5.1.2.6 Obtain authority as prescribed by policies and procedures advising customer of the repair/reclamation that would be required.
 - 5.2 Cannibalization:
- 5.2.1 Perform cannibalization only when the need is urgent, in-house sources have been exhausted, and verification of unavailability of parts has been confirmed by the material fulfillment entity.
- 5.2.2 Perform cannibalization by removing the replacement component.
 - 5.2.3 Install cannibalized part to meet existing requirement.
 - 5.2.4 Determine if source candidate equipment is repairable.
- 5.2.5 Requisition replacement part if required through the material fulfillment entity, or arrange for scrap disposition or retention of source candidate asset if not repairable.
- 5.2.6 Update records of source candidate asset to reflect change of condition code or disposition.
- 5.2.7 Install cannibalized part on recipient asset when replacement part is obtained through acquisition channels.

- 5.2.8 Reinstall cannibalized part on source candidate. If source candidate asset has been dispositioned, follow established practice to determine handling for cannibalized part.
 - 5.2.9 Update records to reflect all actions taken.
 - 5.3 Reclamation:
- 5.3.1 Perform reclamation when source candidate assets have been evaluated and it is determined that parts should be reclaimed and placed into inventory to meet an anticipated future requirement. In circumstances where this evaluation has not been performed but the need is urgent, in-house sources have been exhausted, and verification of unavailability of parts has been confirmed by the material fulfillment entity, reclamation is appropriate.
- 5.3.2 Perform reclamation by removing the replacement component.
 - 5.3.3 Install reclaimed part to meet existing requirement.
- 5.3.4 Determine whether source candidate asset is a potential supply source for meeting additional requirements.
 - 5.3.4.1 Determine present or future requirements, or both.
- 5.3.4.2 Catalog serviceable equipment components available for reclamation.
- 5.3.4.3 Obtain authority for further reclamation as prescribed by contract terms and conditions or entity's policies and procedures.
- 5.3.5 Perform reclamation of asset for immediate use, removal of all usable components for future use, or place source candidate asset in storage for parts removal at a later date.
 - 5.3.6 Update inventory/supply records.
- 5.3.7 Process final disposition for source candidate item if is not to be held in storage for future reclamation.

6. Usage

- 6.1 An entity may use this practice as a guideline to determine how to better control equipment repair activity.
- 6.2 This practice may suggest additional related or derivative standards based on this concept.

7. Keywords

7.1 cannibalize; equipment; moveable property; property; reclamation

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