

# CONSUMPTION

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Have you ever tried to define the consumption process and its effects on property accountability to anyone? Simple, right? It may not be as easy as you think.

Identifying how and when property is actually consumed depends on both the interpretation of the terminology used to define the processes involved and the physical act of consuming an item.

In this article, we will focus on two of the definitions used in the consumption process provided in ASTM Standard E 2135-04<sup>1</sup>, Standard Terminology for Property and Asset Management.

It is interesting to note the use of action words, both present and past tense, in the following definitions

such as *incorporated, performance, expend, use, etc.* *Italic type* is used to emphasize the importance of these keywords throughout this article.

**“Consumption** – (1) the process of incorporating material into an end item or otherwise using it in the performance of a documented business objective. (2) The measurement of actual use of consumable items against planned use.”

**“Consumed** – the loss of identity of an item by incorporation into a higher assembly or through use and ultimate disappearance as a known item or substance.

**“End item**” – deliverable or product” (for clarification purposes).

Just for contrast, I went to the American Heritage® Dictionary<sup>2</sup> which defines the word **consume** as: “2) to expend; use up.”

At first glance, one may assume that consumption equates to:

- 1) once a small item is added or attached to a larger item, it automatically *loses its identity* and therefore is no longer required to be accounted for, or
- 2) when an item is *used up*, there is nothing left, i.e., “no residue” or other accounting requirements to contend with, or
- 3) if, *through use*, an item has exceeded its useful life to the current user, it is considered consumed and all normal accounting requirements are automatically

- reduced or ceased, or
- 4) the *ultimate disappearance* as a known item . . . means “it was lost, can’t be found, so therefore it *ultimately disappeared* which means it was *consumed* and thus is accounted for!”

No, I’m not picking on the definitions or the authors, just demonstrating how easily these definitions can be misinterpreted and how complex the terminology can be. In fact, under certain circumstances any of these assumptions could be correct, though I won’t attempt to define nor defend either in this article.

Armed with these definitions and their possible interpretations, it is the property professional’s responsibility to ensure, that in addition to addressing the consumption process, definitions, where plausible, are included in any written property control system. A common error in property management is to assume that the financial accounting system will define or direct these procedures, which all too often leaves consumption undefined altogether.

The act of consuming an item has nothing to do with the assigned property accounting requirements or any other property control designations for that matter.

In most property management systems, items are assigned an accounting classification such as non-expendable, durable, expendable, etc., based on any number of characteristics and or fiscal concerns. These classifications are used to define the accounting procedures and level of control used before, during, and after the items’ intended use, incorporation into an end item, etc. Contrary to popular belief, these accounting classifications have absolutely no bearing on the consumption process itself.

I’ll use the following scenario to further explain the relationships between property accounting and

consumption process.

A small company receives a purchase order to build 50 Wooden Storage Sheds, 8’x10’ for delivery to a local client.

The Company Estimator compiles a bill of materials consisting of lumber, plywood, nails, glue, etc., including a 10% allowance for scrap. His estimate includes several small tools including several drill bits, 25’ tape measures, an electric drill (\$340), two pneumatic nail guns (\$550) and an Industrial Grade Power Saw (\$2,200). According to company policy, the CEO approves the estimate, authorizes the expenditure of funds and the building process begins.

Upon delivery to the company warehouse, the materials are identified, inventoried, and marked with the job order number in accordance with the property control system. The materials (lumber, plywood, nails, glue, etc.,) are accounted for as expendable items and stored appropriately. The drill, and nail guns are considered “pilferable” durable items, properly marked and then secured in accordance with the company property control policy. The power saw exceeds the company’s \$1,000 expenditure threshold and therefore is considered a non-expendable (fixed) asset. It is appropriately marked, secured, and assigned an estimated lifecycle of 4 years for depreciation purposes in the company’s’ fixed asset management program.

As production begins, the tools are issued and the materials are drawn as needed. From a warehousing standpoint, accountability for the materials ends upon issue to the job order (*planned use*).

However, even though the warehousing accountability has ceased, the materials are not actually consumed until they are either *expended* in the building process or physically become part of the

structure through the process of *incorporation into an end item*.

In this case, the incorporating process is easy to follow:

Lumber is cut to length to create the frame for the floor section; plywood is then glued and nailed over the lumber frame creating the floor section. The process continues as the “individual wall sections” are constructed, stood up, and nailed to the floor section to form the “outer walls.” Notice the floor and individual wall sections are now one item and have lost their individual identities as they take the form a larger item. The process continues with the addition of the roof section thus completing the *end item* – 1 of 50 sheds.

During the building process, an engineering change is made reducing the material requirement allowing for a higher profit margin. After the last shed is complete, the foreman reports he has an assortment of serviceable materials left over equal to about 21% of the originally acquired materials. He also states that all of the drill bits, the electric drill and the pneumatic nail guns are completely worn out, broken or otherwise no longer useable for their intended purpose and are not economically repairable.

The CEO reviews the results and is pleased with the outcome of the overall project. In this case, the *measurement of actual use of consumable items against the planned use* is acceptable. In short, they met their cost and profit objectives.

What’s next? The foreman returns the unused items to the warehouse. The property professional ensures an accurate inventory of the materials is completed and documented. These items will require either the reestablishment of accountability in the property control system (such as a “stock return”) or return to the vendor for credit or other appropriate use depending on company policy. The

tools are collected and disposed of accordingly and everyone is happy.

But what if this was a fixed price or cost reimbursement contract instead of a purchase order?

Generally speaking, nothing! The process of consumption has virtually nothing to do with the type of contract used. The contract (an agreement of terms between two parties) would stipulate the terms for payment, delivery, right to title of the end items, excess materials, control of residue, etc.

For instance, if the sheds were deliverable items on a contract and the materials were provided by the client, the process (or act) of incorporating the *planned* quantities of materials into the sheds, would constitute the proper consumption of materials so long as the terms of the contract were met. In this case, the client may retain title to the excess materials created from the engineering change depending on the terms of the contract.

The consumption of materials through a manufacturing process is just one of countless examples of the process of consumption.

So far, we've discussed the "*planned*" consumption of property (specifically material), but what about the unintentional consumption of an item.

It's easy to understand the process of consuming a perishable item. For instance, your local coffee shop offers fresh baked cookie specials daily. If the cookies aren't sold before they become stale (*consumed due to environmental conditions*), the café owner loses not only the cost to make them but any potential profit as well.

The same applies to those six remaining boxes of now dried out yellow highlighters sitting in the supply cabinet you bought on sale three years ago. Expired supplies that can not be used for their intended purpose are considered expended or consumed – wasted – but still

consumed. Not only is this an unnecessary loss of product but an absolute waste of procurement funds and the associated administrative effort and costs. Thus, it can be said that the lack of proper or timely consumption can result in the unintentional or unplanned consumption of property.

Excessive stockage (known better as hoarding) and the lack of stock rotation are the two most common causes of unplanned consumption. This type of waste is easily corrected with the implementation and enforcement of a demand based procurements and a viable First-In-First-Out (FIFO) shelf life or other material usage program.

In the case of equipment, the term "consumed" takes on yet another meaning. Generally, the "lifecycle of equipment" ends with the *ultimate consumption* or reduced usefulness of an item to its current user. Consumption of equipment can result from a multitude of actions ranging from normal wear and tear, operator neglect, damage, and a host of others; too many forms to discuss here.

For example, a company buys a \$250,000 Bulldozer expecting the useful life to be 8 years based on *planned use*. The company intends to depreciate the item over the same 8 years for tax purposes. If the equipment is properly used and maintained, this is an attainable goal.

For accounting purposes, at the end of the depreciation period (expected lifecycle) the "book value" of the bulldozer would effectively be zero; or said another way, the value of the item would be viewed as "*consumed*" for asset valuation purposes regardless of the item still being physically on hand, and would be disposed of according to the company business model.

However, if misused or not afforded the proper maintenance, the lifecycle may be reduced significantly requiring unplanned capital

expenditures for repairs or replacement and unrealized depreciation benefits and additional costs.

Confused?

Imagine trying to explain this process to your "non-property" management folks. How often have you heard this kind of statement . . . "property, it's not my job" or "it's consumable, just throw it away!" Or better yet... "expendable property requires little, if any, administrative effort and is not an area of concern." That is, until the company or business unit realizes a monetary loss due to *unplanned* property consumption or better yet, they fail a Property Control System Analysis due to lackadaisical managerial support or oversight!

To a property professional, the term "consumption" is more than just a word in the dictionary, and not just another administrative term that few understand. It is a process that can literally make or break the effectiveness of a property control system and significantly affect the bottom line of any business.

The next time you write a procedure or review a property control system, look closely for the definition or discussion of how and what will be consumed and the methods used to control these processes. We as property professionals share the burden of both controlling property and ensuring our peers (and superiors alike) understand the significance of the property consumption process and its ramifications to the bottom line! ■

#### References

<sup>1</sup>ASTM Standard E2135-04

<sup>2</sup>American Heritage® Dictionary, on-line search

#### Biography

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