Accounting for Impairment of Property, Plant, and Equipment (US GAAP)
Accounting for Property, Plant, and Equipment (PP&E) can usually be relatively straight forward: The asset is recorded at cost when purchased and then depreciated over its useful life. But what happens if the carrying value of PP&E is not recoverable? What if the asset becomes impaired? What is impairment and how is it determined? ASC Topic, 360, Property, Plant, and Equipment covers the accounting for PP&E and addresses some of these questions. This post discusses the specifics of accounting for impairment of PP&E.

I. US GAAP – PP&E Impairment Evaluation

A. General

The carrying amount of property, plant, and equipment (property) is usually its historical cost net of accumulated depreciation. During the life of an asset there may be conditions or events that indicate that the carrying value of an asset is not recoverable which may result in the impairment of the carrying amount. The carrying value of property is not recoverable when it exceeds the un-discounted cash flows of the property (or asset group). The carrying value of property is impaired when it exceeds the property’s fair value. When this occurs, US GAAP requires that the property’s carrying value is written down to its fair value and that an impairment loss is recognized.

When evaluating impairment, an asset is classified in one of three ways:

1. Held and used in operations

2. Held for sale

3. Held for disposition other than by a sale (e.g., abandonment, exchanges measured using the recorded amount of the property given up in the exchange, or assets to be distributed to owners in a spin-off).

B. Assets to be Held and Used

The carrying value of property that is held and used should be reviewed for recoverability or impairment if it is to be sold or disposed of significantly prior to the end of its useful life; or if there are other circumstances or events that may indicate that the property’s carrying value is impaired.

Following are examples, provided by ASC 360, of events and conditions that may indicate that a property’s carrying value is impaired:

a. A significant decrease in the market value of an asset

b. A significant change in the extent or manner in which an asset is used or a significant change in the physical condition of the asset

c. A significant adverse change in legal factors or in the business climate that could affect the value of an asset, including an adverse action or assessment by a regulator
d. An accumulation of costs significantly in excess of the amount originally expected to acquire or construct an asset

e. A current period operating or cash flow loss combined with a history of operating or cash flow losses or a projection or forecast that demonstrates continuing losses associated with an asset

f. A current expectation that, more likely than not (i.e., greater than 50%), an asset will be sold or otherwise disposed of significantly before the end of its estimated useful life.

These examples are not all inclusive as there may be other events or conditions that may indicate impairment.

When carrying value of an asset that is held and used has been written down to fair value, the fair value becomes the new basis of the property. It cannot be written up or reversed in later periods if the fair value subsequently increases. Going forward the property will be depreciated based on its new basis.

C. Property to be held for sale

Property held for sale should be measured at the lower of its carrying value or fair value less selling costs in the period the held for sale criteria are met. Selling costs are the incremental direct costs incurred as a result of the sale. This includes closing costs, legal fees, broker commissions, etc.

The carrying value should continue to be adjusted until the property is sold. A loss or gain is recognized for subsequent decreases or increases in fair value, respectively. However, any gain recognized cannot exceed accumulated losses recognized. Therefore, property should not be written up to an amount exceeding its carrying value on the date it was classified as held for sale.

Example 1

A forging machine that is held for sale has a carrying value of $500k. The forging machine is written down to its fair value, less selling cost, of $400k. An impairment loss of $100k is recognized in the current year. In the following year, due to a change in the market, fair value of the machine increases significantly to $520k resulting in a potential gain of $120k ($520k - $400k (carrying value)). The entity may only recognize a gain of $100k as it is limited to the previously accumulated losses recognized.

Property classified as held for sale should not be depreciated.
ASC 360 states that property should be classified as held for sale in the period in which all of the following criteria are met:

1. Management with the appropriate authority commits to a plan to sell the asset
2. The property is available for immediate sale in its present condition subject only to terms that are usual and customary for sales of such assets
3. An active program to locate a buyer and other actions required to complete the plan of sale have been initiated
4. The sale of the property or asset within one year is probable and will qualify for accounting purposes as a sale
5. The property is being actively marketed for sale at a price that is reasonable in relation to its current fair value
6. Actions required to complete the plan of sale indicate that it is unlikely that significant changes to the plan will be made or that the plan will be withdrawn.

D. Property to be Abandoned, Exchanged, or Distributed to Owners

When management commits to abandon property prior to the end of its useful life, the life of the property should be adjusted accordingly and depreciation recorded to reflect use of the property over its shortened life.

The property should be measured at the lower of its carrying value or fair value.

Property to be abandoned is disposed of when it ceases to be used. Once the asset is disposed, its carrying value should be written down to its salvage value, if any. Salvage value should not be less than zero.

Property to be abandoned is classified as held and used until it is disposed of.

Property that is temporarily idle should not be accounted for as abandoned property. If previously depreciated on a straight line basis over its useful life, then it should continue to be depreciated in the same manner.
II. Accounting for Lack of Recoverability and Impairment

A. General

**ASC 360-10-35-17** An impairment loss shall be recognized only if the carrying amount of a long-lived asset (asset group) is not recoverable and exceeds its fair value. The carrying amount of a long-lived asset (asset group) is not recoverable if it exceeds the sum of the un-discounted cash flows expected to result from the use and eventual disposition of the asset (asset group). That assessment shall be based on the carrying amount of the asset (asset group) at the date it is tested for recoverability, whether in use or under development. An impairment loss shall be measured as the amount by which the carrying amount of a long-lived asset (asset group) exceeds its value.

When determining if property is impaired the following steps should be followed:

1) Management should consider if any events or conditions exist indicating that property’s carrying cost is not recoverable (see IB above). Management should hold discussions with relevant parties, such as engineers, and as a best practice go through a list of questions or events that may indicate impairment.

2) If management concludes that the carrying value of property to be held and used may not be recoverable, then it must compare the property’s carrying value to the sum of its un-discounted expected future cash flows over its remaining useful life, including cash flows from its eventual disposition. The carrying value of property is not recoverable when it exceeds the sum of its un-discounted expected future cash flows.

3) If the property’s carrying value is not recoverable, then the property’s carrying value is compared to its fair value. If the carrying value exceeds the fair value, then the property is written down to its fair value and an impairment loss is recorded for the difference.

If management concludes that the property is held for sale, then step 2 is not necessary. As previously noted the property is measured at the lower of its carrying value or fair value less selling costs.

Prior to testing property held and used for impairment, the entity should determine if there are other assets that may be impaired. Impairment testing for other assets not covered by ASC 360 should be performed prior to the impairment testing for property (except for good will). The impairment test should be performed in the following order:

1) Test other assets such as accounts receivables, inventory, and indefinite lived intangibles under the applicable US GAAP guidance for impairment
2) Test long-lived tangible assets (property) under ASC 360 for impairment

3) Test goodwill of a reporting unit that includes the aforementioned assets for impairment.

The carrying value is adjusted for the assets at each step prior to moving to the next step.

(For property held for sale, goodwill should be tested prior to the testing of long-lived tangible assets.)

B. Un-discounted Cash Flows (Step 2)

The un-discounted cash flows of property consists of the cash inflows (revenues) produced by the property less the cash outflows (expenses), related to the maintenance of the property and the production of revenues, over the property’s remaining useful life. Cash inflows and outflows include those related to the disposal of the property.

The property’s useful life and cash flows should be based on its existing service potential and should not take into account future improvements that could extend the assets service potential. Cash flows from disposal of the property could be based on the property’s salvage value less any costs to sell.

Principal payments on debt and other obligations are generally not included in cash flows for purposes of the recoverability test if they are not attributable to the property or asset group. However, if the debt is tied to a specific asset, or if the asset group is a business or reporting unit, then it may be appropriate to include principal payments in cash outflows. Interest payments should not be included as they relate to capitalization of the entity and not its operations.

Payment of income taxes are generally not included in cash outflows.

If the property is part of a group of assets and liabilities, then the un-discounted cash flows used should be derived from the lowest level for which identifiable cash flows are largely independent of the cash flows from other groups of assets or liabilities. For purposes of calculating the un-discounted cash flows, the useful life of the primary asset in the group should be used.

An asset group is defined as the unit of accounting for a long-lived asset or assets to be held and used, which represents the lowest level for which identifiable cash flows are largely independent of the cash flows of other groups of assets and liabilities. Determining the lowest level of an asset group requires significant judgement. All relevant facts and circumstances should be considered. If revenues of an asset group are dependent or commingled with the revenues of another, or share a cost structure, then the asset groups should be combined.

Examples of asset group include assets of a production line, assets of a manufacturing plant, or assets of a retail store.
Other assets and liabilities such as trade receivables, inventory and payables should be included in the asset group. These assets should also be part of the carrying value of the group and their cash effects should be included in the cash flows when testing recoverability.

We believe that, the carrying value of an individual machine can be tested for recoverability if it generates identifiable cash flows independent of other assets. However, if other machines or assets are necessary to produce a saleable product(s), for example, that generate revenues, then these assets should be grouped.

As noted above, the un-discounted cash flow projections should be based on the property’s (asset group) existing service potential. Management should also consider historical cash flows, the timing of disposal, and other relevant factors. The projections should be reasonable and based on management's best estimated outcome from a range of outcomes.

When considering recoverability of carrying value for as subsidiary company that sells to another subsidiary, the question arises as to whether the un-discounted cash inflows should be based on the cash inflows received by the subsidiary (at the subsidiary level) or on the cash inflows received for the product when it is finally sold to external customers (at the consolidated level). We believe that the cash inflows should be based on the sales made at the subsidiary level as this is consistent with using the lowest level cash flows generated by the asset group. Furthermore, this approach provides for a more conservative and practical analysis of the recoverability of the asset's carrying value.

C. Fair Value and Impairment loss (Step 3)

If the carrying value of the property (asset group) is not recoverable then the next step is to compare it to its fair value. If the carrying value exceeds the fair value, then the property is written down to fair value and an impairment loss is recorded for the difference between carrying value and fair value. The impairment loss should be included in income from continuing operations before income taxes and with income from operations. The adjusted carrying amount is depreciated over the property's remaining useful life.

Financial statement disclosure should be made for impaired property classified as held and used, which includes a description of the property and the facts and circumstances leading to impairment, the amount of impairment loss if not separately presented on the income statement, and the method(s) used to determine fair value.

Fair value should be determined in accordance with Topic ASC 820, Fair Value Measurement. It defines fair value as “the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date.” Fair value is a market-based measurement and not an entity-specific measurement. A fair value measurement requires assumptions (including assumptions about risk) that market participants would use.

The fair value measurement of property should consider relevant factors such as whether there is a market for the asset, the highest and best use of the asset by market participants, and the appropriate valuation technique.
According to paragraph 820-10-35-10B of **Topic 820 Fair Value Measurement**, a fair value measurement of a non-financial asset considers “a market participant’s ability to generate economic benefits by using the asset in its highest and best use or by selling it to another market participant that would use the asset in its highest and best use.”

According to ASC 820, the valuation technique used to determine fair value should be consistent with the three widely used valuation techniques which include the market approach, cost approach, or income approach. It may be necessary to obtain an independent valuation for the property if its carrying value is significant and the impact on the financial statements could be material.

**ASC 820-10-35-24** A reporting entity shall use valuation techniques that are appropriate in the circumstances and for which sufficient data are available to measure fair value, maximizing the use of relevant observable inputs and minimizing the use of unobservable inputs.

**35-24A** The objective of using a valuation technique is to estimate the price at which an orderly transaction to sell the asset or to transfer the liability would take place between market participants at the measurement date under current market conditions. Three widely used valuation approaches are the **market approach**, **cost approach**, and **income approach**. An entity shall use valuation techniques consistent with one or more of those approaches to measure fair value.

There may be occasions where the un-discounted cash flow analysis may indicate that an asset is not recoverable (i.e. its carrying value exceeds the un-discounted cash flows) but where the asset is not impaired because its fair value is greater than its carrying value.

As previously noted, when testing an asset group for impairment, the value of other assets in the group, that are not long-lived assets covered by ASC 360, should be included in the carrying value of the asset group. The un-discounted cash flow analysis and fair value should also take into consideration the effect of these assets. The assets not covered by ASC 360, such as accounts receivables and inventory, should first be tested for impairment under the respective US GAAP topic. Then, the fair value should be measured for the asset group under ASC 360. The fair value impairment loss for the group should only be allocated to the long-lived assets (property). However, if the individual fair value is readily determinable for a long-lived asset in the group, then the carrying value should not be reduced to an amount lower than its fair value.

Please contact us at info@lhfcpa.com for more information.