Federal Accounting Standards Advisory Board

August 10, 2012

Memorandum

To: Members of the Board

From: Domenic N. Savini, Assistant Director

Through: Wendy M. Payne, Executive Director

Subject: **Draft Statement of Federal Financial Accounting Standards (SFFAS) 44: *Accounting for Impairment of General Property, Plant, and Equipment Remaining in Use* – Tab D**[1]

## MEETING OBJECTIVES

To **review and provide comments** on the pre-ballot draft SFFAS 44, *Accounting for Impairment of General Property, Plant, and Equipment Remaining in Use* so that a ballot draft may be circulated for approval following the meeting.

## BRIEFING MATERIAL

The following materials are attached to this memorandum.

**Attachment 1: Tracked changes version of the draft SFFAS.**

**Attachment 2: Clean version of the draft SFFAS.**

Attachment 1 displays Board member changes since the last version presented at the June meeting. In addition, respondent comments to the Exposure Draft have been retained for your ready-reference and reading ease. Attachment 2 is a clean version of the draft SFFAS wherein all changes have been accepted.

## BALLOTING PROCEDURES

To facilitate production of a ballot draft, we request that you:

[1] The staff prepares board meeting materials to facilitate discussion of issues at the board meeting. This material is presented for discussion purposes only; it is not intended to reflect authoritative views of the FASAB or its staff. Official positions of the FASAB are determined only after extensive due process and deliberations.

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- Raise any technical issues during the August meeting for public discussion.
- Provide any editorial comments by September 5th.
- If you expect to dissent, we ask that you notify staff and provide any written explanation for your dissent as soon as possible. Any draft dissents received will be circulated to other members as soon as possible so that they may consider the views of the member and be prepared to discuss them at the meeting. Any final written dissents would be due with the member's ballot and would be circulated to other members before finalizing the document. Dissents are published in the basis for conclusions.

Following the Board meeting, staff will make agreed upon revisions. Staff anticipates providing a ballot draft by September 14th. Please notify staff if you will be unavailable for voting in September.

With distribution of the ballot draft on September 14th votes would be due September 28th with members not responding by October 4th considered to have abstained.

## BACKGROUND

At the June 27, 2012 meeting the Board agreed not to hold a public hearing and asked staff to begin preparing a final document that further clarified its intent that this Statement not be applied without some advanced management consideration to justify its implementation in light of entity materiality considerations. Additionally, the Board explored distinguishing impairment from depreciation so that for example, entities carefully consider (1) the basis for their useful life and salvage value estimates when developing asset depreciation plans and (2) existing depreciation plans prior to recognizing an impairment loss. Members noted a desire to strike a balance between not requiring entities to search solely for impairments while not incentivizing entities to not identify or communicate material impairments.

Members also agreed that (1) references to the terms *gradual* or *sudden* in the definition should be deleted to avoid confusion with depreciation and not to isolate impairments solely to *sudden* events, (2) the draft standard should not be re-titled to include assets that are under construction because such assets may be immaterial in many instances and have historically been treated as a sub-set of G-PP&E, and (3) merely identifying indicators is not conclusive evidence that impairment exists and does not trigger an impairment loss. This step is the first in a two-step process that must also then consider materiality.

The Board agreed not to waive the proposed requirements for specific G-PP&E categories, classes, or base units because (1) very few, if any G-PP&E will result in a material enough impairment loss to be reported at an entity-wide level, (2) G-PP&E classified as mission critical will rarely be partially and permanently impaired. That is, such assets will typically either be repaired or taken out of service, and (3) entities can document materiality considerations that could result in ascertaining the immateriality of G-PP&E categories, classes, or base units.

Pre-balloting was conducted in July via email and appropriate revisions have been incorporated into the draft SFFAS accompanying this memorandum.

### Next Steps

**September – October 2012**

- ✓ Proceed with final ballot draft
- ✓ Transmit the approved SFFAS to Sponsors (90 calendar days) and Congress (45 Session days) for review
- ✓ Issue final SFFAS

If you require additional information or wish to suggest another alternative not considered in the staff paper, please contact me as soon as possible. If you have any questions or comments, please contact me by telephone at 202.512.6841 or by e-mail at savinid@fasab.gov.

Federal Accounting Standards Advisory Board

# Accounting for Impairment of General Property, Plant, and Equipment Remaining in Use

## Statement of Federal Financial Accounting Standards 44

Month, Day, 2012

## THE FEDERAL ACCOUNTING STANDARDS ADVISORY BOARD

The Secretary of the Treasury, the Director of the Office of Management and Budget (OMB), and the Comptroller General, established the Federal Accounting Standards Advisory Board (FASAB or "the Board") in October 1990. FASAB is responsible for promulgating accounting standards for the United States government. These standards are recognized as generally accepted accounting principles (GAAP) for the federal government.

An accounting standard is typically formulated initially as a proposal after considering the financial and budgetary information needs of citizens (including the news media, state and local legislators, analysts from private firms, academe, and elsewhere), Congress, federal executives, federal program managers, and other users of federal financial information. The proposed standards are published in an exposure draft for public comment. In some cases, a discussion memorandum, invitation for comment, or preliminary views document may be published before an exposure draft is published on a specific topic. A public hearing is sometimes held to receive oral comments in addition to written comments. The Board considers comments and decides whether to adopt the proposed standard with or without modification. After review by the three officials who sponsor FASAB, the Board publishes adopted standards in a Statement of Federal Financial Accounting Standards. The Board follows a similar process for Statements of Federal Financial Accounting Concepts, which guide the Board in developing accounting standards and formulating the framework for federal accounting and reporting.

Additional background information is available from the FASAB or its website:

- "Memorandum of Understanding among the Government Accountability Office, the Department of the Treasury, and the Office of Management and Budget, on Federal Government Accounting Standards and a Federal Accounting Standards Advisory Board."

- "Mission Statement: Federal Accounting Standards Advisory Board", exposure drafts, Statements of Federal Financial Accounting Standards and Concepts, FASAB newsletters, and other items of interest are posted on FASAB's website at: www.fasab.gov.

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## Summary

This Statement establishes accounting and financial reporting standards for impairment of general property, plant, and equipment (G-PP&E) remaining in use, except for internal use software. G-PP&E is considered impaired when there is a significant and permanent decline~~, whether gradual or sudden,~~ in the service utility of G-PP&E or expected service utility for construction work in progress. A decline is permanent when management has no reasonable expectation that the lost service utility will be replaced or restored.

This Statement does not require entities to search for impairments. However, entity management should consider documenting the decisions it makes while determining how to implement the requirements of this Statement. Such decisions should include consideration of materiality. Materiality considerations should include an assessment of the impact to the cost of service(s) before and after the impairment.

Recognition of impairment losses ~~would involve~~is dependent upon a two-step process that entails (a) identifying potential impairments and (b) testing for impairment. The losses should be reasonably estimated by determining the portion of the decline in the net book value of the G-PP&E attributable to the lost service utility.

This Statement improves financial reporting by requiring entities to report the effects of G-PP&E impairments in their financial statements when they occur rather than as a part of the ongoing depreciation expense for the G-PP&E or upon disposal of the G-PP&E. This will enable users of financial statements to discern the cost of impairments when they occur, the financial impact on the reporting entity, and the cost of services provided following the impairment. This Statement also enhances comparability of financial statements between entities by requiring all entities to account for impairments in a similar manner.

**Comment [DNS1]:** Per S. McCall email dated 9 August. Page 4 under Summary, first paragraph second sentence. "G-PP&E is considered impaired when there is a significant and permanent decline in the serviced utility of G-PP&E**, or expected service utility for construction work in progress."**

**Comment [DNS2]:** WP 27 July edit.

**Comment [DNS3]:** 27 June Board meeting; Mr. Allen.

In consult with cold-reader.

**Comment [DNS4]:** Per H. Steinberg email dated 26 June.

## Introduction

### Purpose

1. Statement of Federal Financial Accounting Standards (SFFAS) 6, *Accounting for Property, Plant, and Equipment,* contains principles-based guidance concerning **general property, plant, and equipment (G-PP&E)**[1] that is removed from service due to **total (full) impairment** of G-PP&E or other reasons. SFFAS 6 requires that G-PP&E be removed from G-PP&E accounts along with associated accumulated depreciation/amortization, if prior to disposal, retirement, or removal from service it no longer provides service in the operations of the entity.[2] SFFAS 6 does not address situations where there is less than total (full) impairment of G-PP&E.

2. SFFAS 10, *Accounting for Internal Use Software,* provides guidance for the impairment of **internal use software**.[3] This Statement~~proposal~~ does~~would~~ not alter existing requirements regarding internal use software.

3. This Statement ~~would~~ provides accounting and reporting requirements for all **partial impairments** of G-PP&E remaining in use and construction work-in-process.

### Materiality

4. The provisions of this Statement need not be applied to immaterial items. The determination of whether an item is material depends on the degree to

**Comment [DNS5]:** Cold Read edit.

**Comment [DNS6]:** Cold Read edit.

**Comment [DNS7]:** Per S. McCall email dated 9 August. Page 5 under Introduction, Purpose 2. *SFFAS 10, Accounting for Internal Use Software provides guidance for the impairment of internal use software*. **This statement (strike the word proposal)** does not alter existing requirements regarding internal use software." It seems to me that the issued standard would not have the word "proposal" in the statement.

**Comment [DNS8]:** Cold Read edit.

[1] Terms defined in the Glossary are shown in **bold-face** the first time they appear.

[2] Refer to Technical Release 14, *Implementation Guidance on the Accounting for the Disposal of General Property, Plant, & Equipment,* which provides implementation guidance that clarifies existing SFFAS 6 requirements and is intended to help differentiate between permanent and other than permanent removal from service of G-PP&E. The implementation guidance also recognizes the many complexities involved in the disposal of G-PP&E, as well as delineates events that trigger discontinuation of depreciation and removal of G-PP&E from accounting records.

[3] SFFAS 10, at paragraphs 28 through 31, provides additional procedures for recognizing and measuring impairment related to internal use software. The provisions in SFFAS 10 and SFFAS 6 are the same regarding situations where the software or G-PP&E is impaired and will be removed from service in its entirety. Both standards provide that the loss is measured as the difference between the book value and the net realizable value, if any. However, SFFAS 10 also provides for instances where (1) operational software is only partly impaired and (2) developmental software becomes impaired.

which omitting or misstating information about the item makes it probable that the judgment of a reasonable person relying on the information would have been changed or influenced by the omission or the misstatement.

**Effective Date**

5. The standards are effective for reporting periods beginning after September 30, 2014. Earlier implementation is encouraged.

## Standards

### Scope and Applicability

6. This Statement applies to federal entities that present general purpose federal financial reports, including the consolidated financial report of the U.S. Government (CFR), in conformance with generally accepted accounting principles, as defined by paragraphs 5 through 8 of Statement of Federal Financial Accounting Standards (SFFAS) 34, *The Hierarchy of Generally Accepted Accounting Principles, Including the Application of Standards Issued by the Financial Accounting Standards Board*.

7. This Statement applies to G-PP&E[4] except internal use software. This Statement establishes guidance on accounting for the impairment of G-PP&E remaining in use, including construction work in process. The provisions of this Statement are to be applied when indicators of potential impairment, as specified in this Statement, are identified by the entity. The entity is not required to conduct an annual or other periodic survey solely for the purpose of applying these standards. Existing processes may ~~result in~~include routine assessments regarding the continued operational and functional capacity of G-PP&E, entity mission requirements, impacts of significant events or changes in circumstances, and deferred maintenance and repairs. The results of such processes may serve as the basis for applying these standards.

### Definition of Impairment

8. **Impairment** is a significant[5] and permanent decline~~, whether gradual or sudden,~~ in the **service utility** of G-PP&E, or expected service utility for construction work in process. Entities generally hold G-PP&E because of

**Comment [DNS9]:** Respondent #9 suggested that we clarify the assets subject to this impairment standard.

Staff suggests clarifying that G-PP&E excludes HA and SL.

**Comment [DNS10]:** Per H. Steinberg email dated 16 June.

Page 7, paragraph 7, 7th line—Change "may result" to "may include" or "typically include." The processes do not result in the assessments. They include the assessments.

**Comment [DNS11]:** Respondent #10 states that the footnote does not sufficiently define "significant".

Staff advises using the same wording we have in paragraph 16a.

**Comment [DNS12]:** Pursuant to June's Board meeting in addressing Respondents #10 and #15 question whether impairments can in fact be "gradual", the Board decided to remove both terms – gradual and sudden – from the definition.

[4] G-PP&E is any property, plant, and equipment (PP&E) used in providing goods or services and includes, among other types of PP&E, multi-use heritage assets, capitalized improvements to stewardship land, and construction work-in-process. PP&E includes land and land rights that are acquired for or in connection with items of G-PP&E used to provide government services or goods. G-PP&E does not include heritage assets, such as historic and national landmarks, and stewardship land; reporting for these assets should be in accordance with SFFAS 29, *Heritage Assets and Stewardship Land*. The cost of G-PP&E is capitalized, i.e. recorded as assets on the balance sheet. For detailed characteristics of and accounting for G-PP&E, see SFFAS 6, par. 23 through 45.

[5] The determination of whether or not an item is significant is a matter of professional judgment. Such judgments may be based on: (1) the relative costs of providing the service before and after the decline, (2) the percentage decline in service utility, or (3) other considerations. Determining if a decline in service utility is significant is separate and distinct from materiality considerations that include considering the likely influence that such disclosure could have on judgments or decisions of financial statement users.

the services they provide or will provide in the future; consequently, impairments affect the service utility of the G-PP&E. The events or changes in circumstances that lead to impairments are not considered normal and ordinary.[6] That is, at the time the G-PP&E was acquired, the event or change in circumstance would not have been (a) expected to occur during the useful life of the G-PP&E or, (b) if expected, sufficiently predictable to be considered in estimating the useful life.

9. The service utility of G-PP&E is the usable capacity that at acquisition was expected to be used to provide service, as distinguished from the **level of utilization**, which is the portion of the usable capacity currently being used. The current usable capacity of G-PP&E may be less than its original usable capacity due to the normal or expected decline in useful life or to impairing events or changes in circumstances, such as physical damage, obsolescence, enactment or approval of laws, or regulations or other changes in environmental or economic factors, or change in the manner or duration of use. Usable capacity may be different from maximum capacity[7] in circumstances in which surplus capacity (the excess capacity over the usable capacity) is needed for safety, economic, operational readiness or other reasons. G-PP&E that experience decreases in utilization and the simultaneous existence of or increases in surplus capacity not associated with a decline in service utility are not considered impaired.

**Comment [DNS13]:** Respondent #20.

**Identification ~~and Recognition~~ of Impairment – A Two-step Process**

**Comment [DNS14]:** Per H. Steinberg email 16 June.

10. Generally, G-PP&E remaining in use is impaired if the ~~sudden~~ decline ~~, whether gradual or sudden,~~ in the service utility of the G-PP&E is significant and deemed permanent.

11. The determination of whether G-PP&E remaining in use is impaired, as defined in paragraph 8 above, includes (a) identifying potential impairment indicators and (b) testing for impairment. G-PP&E would be identified as potentially impaired as a result of the occurrence of significant events or changes in circumstances, or routine asset management processes.

[6] Normal and ordinary are defined as events or circumstances that fall within the expected useful life of the PP&E such as standard maintenance and repair requirements.

[7] Maximum capacity is the usable capacity plus any surplus capacity.

### Step 1 – Identify Indicators of Potential Impairment

12. Some common indicators of potential impairment include those listed below. The indicators identified are not conclusive evidence that a measurable or reportable impairment exists. Entities should carefully consider the surrounding circumstances to determine if a test of potential impairment is necessary given the circumstances.

    a. evidence of physical damage,
    b. enactment or approval of laws or regulations which limit or restrict G-PP&E usage,
    c. changes in environmental or economic factors,
    d. technological changes or evidence of obsolescence,[8]
    e. changes in the manner or duration of use of G-PP&E,
    f. construction stoppage or contract termination, and
    g. G-PP&E ~~scheduled or awaiting disposal (i.e.,~~ idled or unserviceable~~), retirement, or removal~~ for excessively long periods.[9]

### G-PP&E Identified From Significant Events or Changes in Circumstances

13. Events or changes in circumstances affecting G-PP&E that may indicate impairment are sometimes significant. Significant events or changes in circumstances are conspicuous or known to the entity's management or

**Comment [DNS15]:** Respondent #5 concurred with the staff recommendation. Also, some respondents expressed concern over the indicators. Concerns ranged from the indicators being viewed as conclusive evidence of impairment necessitating an impairment loss test to the indicators being too vague and in need of expansion to address magnitude, permanence, and materiality.

Staff advises that we mark these as indicators of ***potential impairment***.

**Comment [DNS16]:** Respondent #4. Pursuant to a subsequent discussion concerning the 12g indicator, staff advises that language in BFC A7 be brought forward to make it clear that indicators are not conclusive evidence of impairment.

**Comment [DNS17]:** Per H. Steinberg email 16 June.

The paragraph states that the indicators are not conclusive indicators first, and then says they are common indicators. Accepted and more easily understood practice is to state the positive first, and then the qualifier.

**Comment [DNS18]:** In general, respondents #4, #11, #15, # 20 and #21 expressed concern that this indicator could conflict with SFFAS 6, para. 39. Staff advises that we rephrase paragraph 12g so that it clarifies its focus on "excessively long periods" and not SFFAS 6 paragraph 39 language. The proposed change would be as follows:

g. G-PP&E idled or unserviceable for excessively long periods.

[8] Technological changes or evidence of obsolescence should be considered along with other factors when assessing impairment. For example, if obsolete PP&E continues to be used, the ~~usable capacity~~service utility expected at acquisition may not be diminished. Further, when obsolescence is expected, PP&E that is subject to obsolescence can be addressed through depreciation, particularly by using accelerated methods that yield a lower capital cost per year as the asset's utility diminishes when compared to that of later versions of the same asset.

[9] Refer to Technical Release 14, *Implementation Guidance on the Accounting for the Disposal of General Property, Plant, & Equipment*, which provides implementation guidance that clarifies existing SFFAS 6 requirements and is intended to help differentiate between permanent and other than permanent removal from service of G-PP&E. The implementation guidance also recognizes the many complexities involved in the disposal of G-PP&E, as well as delineates events that trigger discontinuation of depreciation and removal of G-PP&E from accounting records.

oversight entities. This Statement does not require that entities conduct an annual or periodic survey solely ~~perform procedures solely~~ to identify potential impairments of G-PP&E. Rather, significant ~~Events~~ events or changes in circumstances affecting G-PP&E that may indicate impairment are conspicuous or known to the entity's management or oversight entities and are generally expected to have prompted consideration[10] by management, oversight entities, or others (e. g., the media).~~generally expected to have prompted consideration[11] by oversight entities, management, or others (e.g., the media).~~

**G-PP&E Identified from Asset Management Reviews (e.g., portfolio surveys)**

14. Existing asset management processes may include portfolio surveys that consider matters such as the continued operational and functional capacity of G-PP&E, entity mission requirements, or deferred maintenance and repairs assessments. Potentially impaired G-PP&E may be identified from such surveys and further evaluated through the two-step process.

**Reduced demand should not be considered a discrete or sole indicator of impairment**

15. As explained in paragraph 9 above, r~~R~~educed demand for the services of G-PP&E should not be considered a discrete or sole indicator of impairment. Instead, there should also be evidence of an underlying potential impairment resulting in the reduced demand. In these circumstances, the causes behind such changes in demand should be evaluated in light of the indicators listed in paragraph 12 and the G-PP&E should be tested for impairment.

**Step 2 - Impairment Test**

16. G-PP&E identified through the processes described in paragraphs 10 through 15 should be tested for impairment by determining whether the following two factors are present:

[10] Consideration might include but is not limited to management discussions, internal managerial analyses or reviews, conferences or consultations with experts, media or public relations interviews, or external industry scrutiny.

**Comment [DNS19]:** Respondents #10 and #15 are concerned that entities will misinterpret the intent of this language by believing that they are not required to any perform procedures to identify and report impairments.

Staff suggests the change as it in fact embodies the Board's intent – the Board has presumed that entities, as part of their internal controls, have systems in place that would identify and communicate impairments.

**Comment [DNS20]:** Per H. Steinberg email 16 June.

I think the change makes the paragraph awkward. How about,

"This statement does not require that entities conduct an annual or periodic survey solely to identify potential impairments of G-PP&E. Rather, significant events or changes in circumstances affecting G-PP&E that may indicate impairment are conspicuous or known to the entity's management or oversight entities and are generally expected to have prompted consideration by oversight entities, or others (e. g., the media), as well as by management."

Staff: Concur with an editorial change that makes it clear we do not require that both oversight entities **and** management must **consider together** what is either *significant or changes in circumstances.* (WP)

a. **The magnitude of the decline in service utility (as defined in par. 9) is significant**. The costs associated with the original or other previously established~~previous~~ service utility are significantly greater than the costs that would otherwise be associated with the new expected service utility. Such costs should include operational and maintenance costs. Judgment is required to determine whether the decline is significant. Such judgments may be based on: (1) the relative costs of providing the service before and after the decline, (2) the percentage decline in service utility, or (3) other considerations.

b. **The decline in service utility is expected to be permanent.** The decline is considered permanent when management has no reasonable expectation that the lost service utility will be replaced or restored. That is, management expects that the G-PP&E will remain in service so that its remaining service utility will be utilized. In contrast, reasonable expectation may exist when management has (1) specific plans to replace or restore the lost service utility of this G-PP&E, (2) committed or obligated funding for remediation efforts, or (3) a history of remediating lost service utility in similar cases or for similar G-PP&E.

17. For construction work in process, the testing of impairment discussed in paragraph 16 above should be performed over the expected future service utility rather than current service utility.

**Determining the Appropriate Measurement Approach**

~~17.~~18. Impairment losses on G-PP&E that will continue to be used by the entity[12] should be estimated using a measurement method that reasonably[13] reflects the diminished service utility of the G-PP&E. The goal of the measurement ~~approaches~~ methods discussed below is to reasonably estimate the portion of the net book value associated with the diminished service utility of the G-PP&E. A specific method, including one of the methods listed below, would not be considered appropriate if it would result in an unreasonable net book value associated with the remaining service utility of the G-PP&E. Within an entity, one method may not be appropriate for measuring all impairments. Also, a reasonable methodology may

**Comment [DNS21]:** Respondent #13 – Subsequent discussions with this DCFO have yielded this suggested wording which might be worth considering subject to some polishing:

"The costs associated with the original or other previously established service utility are significantly greater than the costs that would otherwise be associated with a revised estimate of expected service utility, after the decline is realized."

Staff Recommendation – Terms such as "estimate" and "realize" could cause confusion that we are (1) requiring management to make estimates and (2) what does realizing a decline mean and how will it be interpreted? I'd avoid these terms. However, respondent #13 has a good alternative to work with and I propose the following:

The costs associated with the original or other previously established service utility are significantly greater than the costs that would otherwise be associated with the new expected service utility."

**Comment [DNS22]:** Respondent #20

**Comment [DNS23]:** Respondent #20 - there is an inconsistency between the ED and SFFAS No. 6's definition of G-PP&E. Paragraph 34 of SFFAS No. 6 states "In the case of constructed PP&E, the PP&E shall be recorded as construction work in process until it is placed in service, at which time the balance shall be transferred to general PP&E". We recommend that these inconsistencies in the scope of the ED be clarified.

**Comment [DNS24]:** Per H. Steinberg email 16 June.

**Comment [DNS25]:** Respondent #20 - We recommend the following change to the second sentence of paragraph 17 to be consistent with the remainder of the paragraph.

[12] See SFFAS 6, *Accounting for Property, Plant, and Equipment,* paragraphs 38 and 39 for guidance regarding PP&E that will not continue to be used by the entity.

[13] Given a choice among comparable methods, entities should adopt the most efficient and practical method available under the circumstances.

nonetheless result in no impairment loss to be recognized. While using any method, if the method results in an impairment loss greater than an asset's net book value, recognition of the loss should be limited to the asset's net book value. Widely recognized methods for measuring impairment include:

**Comment [DNS26]:** Respondents #9 and #17noted that in some cases an impairment loss might be greater than an asset's NBV and that our statement was silent in this regard.

Staff suggests including language that limits an impairment loss to the asset's NBV.

a. **Replacement approach.** Impairment of G-PP&E with physical damage generally may be measured using a replacement approach. This approach uses the estimated cost to replace the lost service utility of the G-PP&E at today's standards[14] to identify the portion of the historical cost of the G-PP&E that should be written off. For federal real property purposes, this cost can be derived from the plant replacement value (PRV). This estimate can be converted to historical cost by restating (i.e., deflating) the estimated cost to replace the diminished service utility using an appropriate cost index. Alternatively, it may be appropriate to apply the ratio of the estimated cost to replace the diminished service utility over total estimated cost to replace the G-PP&E, to the net book value of the G-PP&E.

b. **Restoration approach.** Impairment of improvements made to stewardship land and multi-use heritage assets with physical damage may generally be measured by using a restoration approach. This approach uses the estimated cost to restore the diminished service utility of the G-PP&E to identify the portion of the historical cost of the G-PP&E that should be written off. This approach does not include any amounts attributable to improvements and additions to meet today's standards. The estimated restoration cost can be converted to historical cost by restating (i.e., deflating) the estimated restoration cost using an appropriate cost index. Alternatively, it may be appropriate to apply the ratio of estimated restoration cost to restore the diminished service utility over total estimated restoration cost to the net book value of the G-PP&E.

c. **Service units approach.** Impairment of G-PP&E that are affected by enactment or approval of laws or regulations or other changes in environmental/economic factors or are subject to technological changes or obsolescence generally may be measured using a service units approach. This approach compares the service units provided by the G-PP&E before and after the impairment event or change in circumstance to isolate the historical cost of the service utility of the G-PP&E that cannot be used due

[14] For example, *"at today's standards"* would generally mean the use of current market prices for materials, labor, manufactured items and equipment using current building, manufacturing, or fabrication techniques in compliance with current statutory, regulatory, or industry standards.

to the impairment event or change in circumstance. The amount of impairment is determined by evaluating the service provided by the G-PP&E - either maximum estimated service units or total estimated service units throughout the life of the G-PP&E - before and after the event or change in circumstance.

d. **Deflated depreciated current cost approach.** Impairment of G-PP&E that are subject to a change in manner or duration of use generally may be measured using a deflated depreciated current cost approach. This approach quantifies the cost of the service currently being provided by the G-PP&E and converts that cost to historical cost. A current cost for a G-PP&E to replace the current level of service is estimated. This estimated current cost is then depreciated to reflect the fact that the G-PP&E is not new, and then is subsequently deflated to convert it to historical cost dollars. A potential impairment loss results if the net book value of the G-PP&E exceeds the estimated historical cost of the current service utility (i.e., deflated depreciated current cost).

e. **Cash flow approach**. Impairment of cash or revenue generating G-PP&E, such as those used for business or proprietary-type activities, may be assessed using a cash flow approach. Under this approach, an impairment loss should be recognized only if the net book value of the G-PP&E (1) is not recoverable and (2) exceeds the higher of its net realizable value[15] or value-in-use estimate.[16] The net book value of the G-PP&E is not recoverable if it exceeds the sum of the undiscounted cash flows expected to result from the use and eventual disposition of the G-PP&E. That assessment should be based on the net book value of the G-PP&E at the date it is tested for recoverability, whether in use or under development. If the net book value is not recoverable, the impairment loss is the amount by which the net book value of the G-PP&E exceeds the

[15] Net realizable value is the estimated amount that can be recovered from selling, or any other method of disposing of an item less estimated costs of completion, holding and disposal.

[16] Statement of Federal Financial Accounting Concepts (SFFAC) 7, *Measurement of the Elements of Accrual-Basis Financial Statements in Periods After Initial Recording*, paragraph 50, defines value-in-use as "…the benefit to be obtained by an entity from the continuing use of an asset and from its disposal at the end of its useful life." Paragraph 51 further states that "Value in use is a remeasured amount for assets used to provide services. It can be measured at the present value of future cash flows that the entity expects to derive from the asset, including cash flows from use of the asset and eventual disposition. Value in use is entity specific and differs from fair value. Fair value is intended to be an objective, market-based estimate of the exchange price of an asset between willing parties. Value in use is an entity's own estimation of the service potential of an asset that it holds to provide a specific service." (underscoring added for emphasis)

higher of its net realizable value or value-in-use estimate. No impairment loss exists if the net book value is less than the higher of the G-PP&E's net realizable value or value-in-use estimate.

f. **Lower of (1) Net Book Value or (2) Higher of Net Realizable Value or Value-in-Use ~~A~~approach~~Construction stoppage / contract termination~~.** G-PP&E impaired from either construction stoppages or contract terminations, which are expected to provide service, should be reported at their recoverable amount; the lower of (1) the G-PP&E's net book value or (2) the higher of its net realizable value or value-in-use estimate. Impaired G-PP&E, which are not expected to provide service, should be accounted for and reported in accordance with SFFAS 6.

**Comment [DNS27]:** Cold read edit.

### Recognizing and Reporting Impairment Losses

~~18.~~19. The loss from impairment should be recognized and reported in the statement of net cost when management concludes that the impairment is (1) a significant decline in service utility and (2) expected to be permanent. Such loss ~~and~~may be included in program cost(s) or cost(s) not assigned to programs consistent with SFFAS 4, *Managerial Cost Accounting Standards and Concepts*. However, in cases where an entity decides that an impairment loss is immaterial, it should consider the need for adjustments to the G-PP&E's depreciation methods, useful life or salvage value estimates.

**Comment [DNS28]:** Respondent #11 - the language in the standard should be strengthened to make it clear when "impairment losses" are actually realized.

Staff advises that we clearly indicate in this paragraph that impairments are reported when management makes its determination regarding significance and permanence.

**Comment [DNS29]:** Respondent #19 - The Board describes these alternatives in paragraph A.5 on page 21 of the Basis for Conclusions and we believe that these alternatives should appear in the accounting standard as well as the Basis for Conclusions. If these alternatives are considered, then we believe that the recognition of an impairment loss would tend to be infrequent.

Staff suggests adopting the last sentence of BFC paragraph A5.

~~19.~~20. The impairment loss should be recognized and reported regardless of whether the G-PP&E remaining in use is being depreciated individually or as part of a composite group. The impairment loss may be reported as a separate line item or line items on the statement of net cost. Deciding to display a separate line item or items on the statement of net cost requires judgment. The preparer should consider quantitative and qualitative criteria. Acceptable criteria include but are not limited to quantitative factors such as the percentage of the reporting entity's cost that resulted from the impairment and the size of the impairment loss relative to the G-PP&E; and qualitative factors including whether the loss would be of interest to decision makers and other users.

~~20.~~21. A general description of the ~~impaired~~ G-PP&E remaining in use for which an impairment loss is recognized, the nature (e.g., damage or obsolescence) and amount of the impairment, measurement methods used in recognizing the impairment amount and the financial statement classification of the impairment loss should be disclosed in the notes to the financial statements. Such disclosures should be made in the period the impairment loss is recognized.

**Comment [DNS30]:** WP 27 July edit.

**Comment [DNS31]:** Respondent #10 and #20.

Staff suggests edit to be consistent with paragraph 24.

**Comment [DNS32]:** Respondent #10.

Staff suggests that note that disclosures should be made in the period that the loss is recognized. (WP).

### Diminished Service ~~Capacity~~ Utility Without Recognized Impairment Loss

~~21.~~22. Events, changes in circumstances, or asset management reviews might indicate that the future service utility of G-PP&E remaining in use has been adversely affected. However, if future service utility has been adversely affected but the impairment test determines that a loss need not be recognized, a change to the estimates used in depreciation calculations such as estimated useful life and salvage value should be considered.

### G-PP&E That ~~Is~~No Longer~~Being Used~~ Provides Service

~~22.~~23. G-PP&E that ~~is~~no longer provides service or in the case of construction work in process where there is no expectation to future service ~~being used~~ by the entity should be accounted for in accordance with SFFAS 6, paragraphs 38 and 39, and Technical Release 14, *Implementation Guidance on the Accounting for the Disposal of General Property Plant, & Equipment.*~~.~~

### ~~Reversing~~ Remediating Previously Reported Impairments

~~23.~~24. Subject to the entity's capitalization policies, if an entity later remediates the previously impaired G-PP&E remaining in use, the costs incurred to replace or restore the lost service utility should be accounted for in accordance with applicable standards. For example, costs to prepare the site and install replacement facilities would be recognized in accordance with SFFAS 6, *Accounting for Property, Plant, and Equipment*.

### Recoveries

~~24.~~25. The impairment loss should be reported net of any associated recovery when the recovery and loss occur in the same year. Recoveries reported in subsequent years should be reported as revenue or other financing source as appropriate. ~~Recoveries should be recognized only when realized or realizable.~~ If not otherwise apparent in the financial statements, the amount and financial statement classification of recoveries should be disclosed in the notes. The accounting for recoveries should be in accordance with SFFAS 7, *Accounting for Revenue and Other Financing Sources and Concepts for Reconciling Budgetary and Financial Accounting.*

### Consolidated Financial Report of the U.S. Government

~~25.~~26. The U.S. government-wide financial statements need not disclose the measurement methods used in recognizing impairment losses. If impairment of G-PP&E remaining in use is recognized, the following information should be disclosed:

**Comment [DNS33]:** Respondent #20

**Comment [DNS34]:** . Respondent #13 - Paragraphs 23 and A20 need clarification. These paragraphs are confusing and almost seem contradictory.

Staff suggests re-titling both paragraphs.

**Comment [DNS35]:** Respondent #20.

a. a general description of what constitutes G-PP&E impairment,

b. the consolidated G-PP&E impairment losses recognized by component entities, and

c. a reference(s) to component entity report(s) for additional information.

**Effective Date**

~~26.~~27. The requirements of this Statement are effective for reporting periods beginning after September 30, 2014. Earlier implementation is encouraged.

The provisions of this Statement need not be applied to immaterial items.

## Appendix A: Basis for Conclusions

This appendix discusses some factors considered significant by Board members in reaching the conclusions in this Statement. It includes the reasons for accepting certain approaches and rejecting others. Individual members gave greater weight to some factors than to others. The standards enunciated in this Statement–not the material in this appendix–should govern the accounting for specific transactions, events, or conditions.

### Project History

A1. In Statement of Federal Financial Accounting Standards (SFFAS) 23, *Eliminating the Category National Defense Property, Plant, and Equipment,* issued in May 2003, the Board identified impairment as one of three areas (the other two being depreciation and deferred maintenance) that it desired to consider integrating into a comprehensive project. Complete impairment was addressed in SFFAS 6, *Accounting for Property, Plant, and Equipment,* through the requirements that general PP&E "…*be removed from general PP&E accounts along with associated accumulated depreciation/amortization, if prior to disposal, retirement or removal from service, it no longer provides service in the operations of the entity. This could be either because it has suffered damage, becomes obsolete in advance of expectations, or is identified as excess."* However, SFFAS 6 does not address partial impairment, even though the effects of partial impairment may be material in some cases. The Board decided to address asset impairment at the time it addressed deferred maintenance. Subsequent to the issuance of Statement of Federal Financial Accounting Standards 40: *Definitional Changes Related to Deferred Maintenance and Repairs: Amending Statement of Federal Financial Accounting Standards 6, Accounting for Property, Plant, and Equipment* in May 2011, the Board initiated work on addressing potential enhancements to existing FASAB guidance regarding impairment.

A2. In evaluating an approach applicable to federal G-PP&E, the Board considered the approaches used in the following documents:

- *Financial Accounting Standards Board (FASB) Statement of Financial Accounting Standards (SFAS) 144, Accounting for the Impairment or Disposal of Long-Lived Assets (Superseded by FASB Accounting Standards Codification (ASC) 360)*

- Governmental Accounting Standards Board (GASB) Statement (GASBS) 42, *Accounting and Financial Reporting for Impairment of Capital Assets and for Insurance Recoveries*[17]

- International Public Sector Accounting Standard (IPSAS) 21, *Impairment of Non-Cash Generating Assets*

- IPSAS 26, *Impairment of Cash-Generating Assets*

A working group was organized to assist the Board in analyzing the impairment standards promulgated by the FASB, GASB, and the International Public Sector Accounting Standards Board (IPSASB). The working group's analysis was initially screened by the Deferred Maintenance and Asset Impairment (DM-AI) Task Force and subsequently tested with a broader community beyond the task force to get other points of view. The consensus recommendation was to use the GASBS 42 approach as a baseline for the development of a federal asset impairment standard.

**Significant and Permanent Decline in Service Utility**

A3. This Statement requires recognizing a potential impairment loss only when there is a significant and permanent decline ~~(gradual or sudden)~~ in the G-PP&E's service utility. In reaching this decision, the Board considered and weighed (a) the need for relevant, reliable, and consistent financial reporting and (b) entity burden.

a. For financial reporting to be:

(i) relevant - a logical relationship must exist between the information provided and the purpose for which it is needed. G-PP&E impairment information is relevant because it is capable of making a difference in a user's assessment of how well the entity is meeting its federal asset stewardship responsibilities.

(ii) reliable - information needs to be comprehensive and nothing material should be omitted nor should anything be included that would likely cause the information to be misleading. The reporting of G-PP&E impairments

[17] © Financial Accounting Foundation, Governmental Accounting Standards Board, 401 Merrit 7, Norwalk, CT. All Rights Reserved. GASBS 42, November 2003.

significantly adds to the informational value and reliability of ~~asset~~ amounts presented in the entity's balance sheet and statement of net cost.

(iii) consistent over time - an accounting principle or reporting method should be used for all similar transactions and events unless there is good cause to change. Establishing G-PP&E impairment standards significantly adds to consistent financial reporting.

b. The Board is aware of the increased demands that entities confront due to initiatives that attempt to better align and integrate entity mission, budget, and performance objectives. As such, the Board desires to issue a G-PP&E impairment standard that entities can effectively adopt without undue administrative burden while still satisfying the objectives of federal financial reporting.

**Comment [DNS36]:** Cold Read edit 27 June.

### Recognizing Impairments

A4. As discussed in paragraphs 13 and 14, impairments can be identified and brought to management's attention in a variety of ways. Although a presumption exists that there are existing processes and internal controls in place to ensure such identification and communication, this standard does not require that entities conduct an annual or other periodic survey solely for the purpose ~~entities to alter existing assessment methods solely for the purpose~~ of applying these standards.

**Comment [DNS37]:** Respondents #10 and #15 are concerned that entities will misinterpret the intent of this language by believing that they are not required to perform any procedures to identify and report impairments.

Staff suggests the change as it in fact embodies the Board's intent – the Board has presumed that entities, as part of their internal controls, have systems in place that would identify and communicate impairments.

A5. The Board notes that not all significant events and/or changes in circumstances discussed by oversight bodies, management, or the media would necessarily be considered material to an entity's financial statements. Consequently, an entity must exercise judgment in this regard considering whether omitting or misstating information about the significant event and/or changes in circumstances makes it probable that the judgment of a reasonable person relying on the information would be changed or influenced by the omission or the misstatement. However, in cases where an entity decides that a significant event or change in circumstance is immaterial, it should consider the need for adjustments to the G-PP&E's depreciation methods, useful life or salvage value estimates.

The Board also notes that common indicators of potential impairment can be discovered during different types of asset management reviews that include the following types of G-PP&E assessments:

a. Condition assessments revealing evidence of physical damage, deterioration, and/or distresses such as for a building (1) damaged by fire or flood, (2) not adequately maintained or repaired, (3) associated with significant amounts of deferred maintenance and repairs and/or (4) exhibiting signs of advanced degradation that might adversely impact expected duration of use, each requiring remedial or replacement/restoration efforts to restore service utility.

b. Functionality assessments revealing evidence of reduced capacity, inadequate configuration, change in entity mission, change in the manner or expected use, and enactment or approval of laws, regulations, codes or other changes in environmental factors, such as new water quality standards that a water treatment plant does not meet (and cannot be modified to meet).

c. Obsolescence assessments revealing evidence of technological development or obsolescence, such as that related to a major piece of diagnostic or research equipment (for example, a magnetic resonance imaging machine or a scanning electron microscope) that is rarely or never used because newly acquired equipment provides better service.

**Common Indicators of Potential Impairment**

A6. The Board considered the general approaches used by other standards-setters regarding the issues of impairment identification and testing. The DM-AI Task Force identified the GASB approach as being the most germane for federal application and recommended adopting its use with appropriate modifications. As a result, this Statement consists of a two-step process of (a) identifying potentially impaired G-PP&E through indictors of impairment and (b) testing to determine whether a potential impairment exists by comparing the net book value of the G-PP&E to a valuation reflecting the current state of the G-PP&E.

A7. Recognizing the administrative burden and costs involved in applying a test of potential impairment, the Board desires to make clear that the indicators identified at paragraph 12 in and of themselves are not conclusive evidence that a measurable or reportable impairment exists. Entities should carefully consider the surrounding circumstances to determine if a test of potential impairment may be unnecessary given the circumstances.

A8. In order to limit the universe of G-PP&E tested for potential impairment because of cost-benefit considerations, the Board proposes two modifiers to the indicators: (a) the magnitude of the ~~gradual or sudden~~decline in service utility is

significant and (b) the decline in service utility is permanent. The first modifier would limit testing for potential impairment to only G-PP&E that have experienced a significant decline ~~, gradual or sudden,~~ in~~of~~ the asset's service utility. The second modifier would limit testing to only those G-PP&E where the decline in lost service utility is expected to be permanent. The decline is considered permanent when management has no reasonable expectation that the lost service utility will be replaced or restored and that the G-PP&E's remaining service utility can continue providing value.

A9. ~~Only when both of these two modifiers are present, is~~ G-PP&E is to be considered impaired only when both of these two modifiers are present. When either of these conditions is not present, the decline in the service utility of the G-PP&E may be recognized through other methods such as changing useful life or salvage value estimates.

**Comment [DNS38]:** Cold Read edit 27 June.

**Determining if Magnitude of Decline in Service Utility is Significant**

A10. Because measurement of a potential impairment is not required unless a significant decline in service utility occurs, management should assess the magnitude of the service decline. In cases where there is physical damage to G-PP&E, the significance can often be objectively assessed because the costs of remediation (i.e., replacement or restoration) may be relatively easy to determine, at least within a range of estimates. In circumstances other than those involving physical damage, significance may be discerned by less objective assessments such as:

(1) Whether management acts to address the situation. Management decisions may be indicative of a potential decline in service utility. For example, a specific action taken by management after a service decline may confirm that expenses exceed future benefit. Likewise, a decision by management to not address a service decline may be an indication the decline is not significant and a test of impairment is not required.

(2) Costs associated with the previous service utility are significantly greater than the costs that would otherwise be associated with the new expected service utility. For example, when comparing the benefits and related costs associated with the new expected service utility after the impairment with those benefits and related costs existing prior to the impairment, management may confirm that costs exceed future

benefit. As a result, the decline is significant and a test of impairment is required.

**Selecting a Measurement Approach**

A11. Professional judgment should be used when selecting a method to measure the decline in service utility of G-PP&E. Generally, potential impairments:

a. reflecting degradation or physical damage may be measured using a replacement ~~cost~~ approach or, for multi-use heritage assets, a restoration ~~cost~~ approach.

b. reflecting a change resulting from enactment or approval of laws or regulations or other changes in environmental/economic factors or from technological development or obsolescence generally may be measured using a service units approach.

c. reflecting a change in manner or duration of use or change in mission generally may be measured using deflated depreciated current cost approach.

d. for cash or revenue~~-~~-generating ~~assets~~ G-PP&E may be measured using the cash flow approach.

e. arising from construction stoppages or contract terminations which are expected to provide service, should be reported at their recoverable amount; the lower of (1) the G-PP&E's net book value or (2) the higher of its net realizable value or value-in-use estimate.

A12. The Board emphasizes that in estimating the diminished service utility of the G-PP&E, the measurement approach chosen should yield a reasonable estimate reflecting the diminished service capacity of the G-PP&E. Before using a specific method a determination should be made that it will result in (1) a reasonable estimate of diminished service capacity for the specific asset and (2) a reasonable net book value associated with the remaining service utility of the G-PP&E. There should not be a presumption of reasonableness attached to the use of any of these methods if the resultant calculations reflect an unreasonable estimate of the remaining service utility of the G-PP&E. For example, if using the replacement approach, cost estimates to remediate the

damage to an asset is equal to or greater than the asset's total replacement cost, the resultant calculation would lead to a full write-down of the carrying value. However, if the asset is to remain in use, the full write-down would be inappropriate because some service potential remains. In such a case, management should look to another method such as the deflated depreciated~~ion~~ current cost approach to estimate the historical cost of the asset's residual service capacity that will continue to be used. Additionally, within an entity, one method may not be appropriate for measuring asset impairments across all categories or classes of assets. The Board notes that a reasonable methodology may not result in the recognition of an impairment loss.

**Among Comparable Methods – Choose the Most Efficient**

A13. The Board recognizes that there may be cases where more than one comparable method could be used to measure the decline in an asset's~~'~~ service utility. In such cases, the entity should use whichever method most reasonably reflects the diminished service utility. In cases where the methods under consideration are expected to yield similar results, management should adopt the most efficient method available given the circumstances.

**Reduced Demand**

A14. The Board notes that reduced demand for the services of G-PP&E should not be considered as a discrete or sole indicator of potential impairment. That is, reduced demand absent evidence of an underlying potential impairment resulting in that reduced demand is not an indicator of impairment. For example, decreased demand for the processing services of a mainframe computer because former users of the mainframe have transitioned to PC and server-based systems should be considered a change in demand not requiring impairment testing. However, if associated with an indicator of potential impairment such as evidence of obsolescence, then the mainframe should be tested for potential impairment.

A15. In addition, a decrease in demand solely resulting from the conclusion of a special project requiring large amounts of processing time on a mainframe computer that runs other applications should not be considered for impairment testing.

A16. A decrease in occupancy is another example of a change in demand. If a decrease in the occupancy of hospital beds prompts management to close a hospital, a change in manner or duration of use has also resulted and a test for impairment should be performed. However, a test for impairment is not required if the decrease in hospital beds results solely because the hospital is changing from an overcrowded condition to one in which occupancy rates are now below the maximum allowed. However, care should be taken to ensure that there is not a potential indicator of impairment that could require testing.

**Estimating Potential Impairment Losses**

A17. Measuring the cost of the lost service utility generally requires the use of estimates or approximations. According to Statement of Federal Financial Accounting Concepts (SFFAC) 5, *Definitions of Elements and Basic Recognition Criteria for Accrual-Basis Financial Statements*, to be recognized an item must be measurable, meaning that a monetary amount can be determined with reasonable certainty or is reasonably estimable (underscoring added for emphasis). For this reason, the Board notes that it (1) does not seek exact precision in determining the lost service utility of the asset and (2) does not intend to direct or prescribe the use of any particular approach~~method~~ listed in paragraph 18.

A18. However, the Board notes that care should be taken when estimating potential impairment losses. For example, if a multi-use heritage asset requires testing for potential impairment, the restoration ~~cost~~ approach and not the replacement approach should be used. Although these approaches may appear to be identical, they are not. The replacement approach estimates the cost to replace the lost service utility of the G-PP&E at today's standards whereas the restoration ~~cost~~ approach does not. In either case, the required estimates used for the calculation inputs are different and can significantly affect the potential impairment loss measurement. Differences will arise because the replacement approach uses estimates reflecting today's current labor and material options and costs, modern standards, and installation methods whereas the restoration ~~cost~~ approach uses estimates that generally require using historically accurate (e.g., aesthetic or historic) materials and construction methods approved by an historic architect or historic preservationist to preserve the historic nature and value of the multi-use heritage asset.

A19. Entities should also ensure that impairment loss calculations exclude improvements or betterments. For example, assume that a portion of an old

warehouse currently not being used suffers roof damage due to heavy snowfall. The entity decides not to repair the roof and to contain the damage by securing the adjoining area ensuring that there are no safety hazards. In this case, estimates for the construction of a new warehouse, including its roof should not include amounts for new types of roof ventilation systems, solar panel features, or green energy improvements, etc. Including such improvements or betterments might significantly affect the potential impairment loss measurement.

**G-PP&E Impairment Loss Reversals and Remediation ~~Not Allowed~~**

A20. Some previously recognized impairments may no longer exist or may have been ~~reduced~~remediated in ~~future~~subsequent periods. In such cases, the losses recognized in prior periods have been reversed such that a gain might be recognized and the G-PP&E book value increased. The Board concluded that reversals of G-PP&E impairment losses should not be recognized. In reaching the decision not to allow for reversals of G-PP&E impairment losses, the Board concluded that because reversal events are expected to be rare occurrences, there is no compelling need for complexity or increased burden as benefits do not appear to justify costs.

~~Further, the~~The Board concluded ~~it is not a reversal~~remediation of a previously reported impairment loss, is~~but rather~~ a change ~~in facts~~that ~~resulting~~ results in an addition to the cost basis. Specifically, should management~~events~~ later ~~change and~~decide to replace or restore an asset's lost service utility ~~is replaced or restored,~~ the ~~resultant~~ ~~incurred~~ costs incurred to ~~place the replaced or restored lost service utility into service~~do so become~~s~~ part of the G-PP&E's new cost basis. It is the Board's opinion that such a practice is consistent with the operating performance objective of federal financial reporting; users will be able to evaluate the service efforts, costs, and accomplishments of the reporting entity based on the revised cost basis.

**Comment [DNS39]:** Respondent #13 - Paragraphs 23 and A20 need clarification. These paragraphs are confusing and almost seem contradictory.

Staff suggests re-titling this paragraph along with the highlighted edits. (WP)

**Comment [DNS40]:** Per H. Steinberg email dated 5 August. Page 25, paragraph A-20, 1st line. The term "may have been reduced in future period" is self-contradictory. How can something have been reduced (which is in the past) in the future? Perhaps "may have been reduced in subsequent periods" would work.

Staff concurs. I replaced "reduced" with "remediated" and "future" with "subsequent." Please note that I specify that the impairments were "previously recognized."

**Comment [DNS41]:** Cold read edit 27 July.

**Recoveries**

A21. Recoveries can be accounted for as either exchange or non-exchange transactions. In accordance with SFFAS 7, *Accounting for Revenue and Other Financing Sources and Concepts for Reconciling Budgetary and Financial Accounting:*

a. Exchange revenues should be recognized when goods or services are provided to the public or another government entity at a price. An example would be commercial insurance purchased in connection with G-PP&E belonging to a public-private arrangement.

b. Non-exchange revenues should be recognized when a specifically identifiable, legally enforceable claim to resources arises, to the extent that collection is probable (more likely than not) and the amount is reasonably estimable. For example, if a manufacturer or contract operator has admitted or acknowledged warranty or contract liability, a non-exchange recovery could be recognized. However, if the manufacturer or contract operator has denied liability, the non-exchange recovery generally would not be recognized unless the entity could impose monetary requirements such as fines or civil monetary penalties. Where the collecting and reporting entities are different, it is important to note that non-exchange revenue amounts should be measured by the collecting entities and recognized for financial statement reporting by the entities legally entitled to the revenue. ~~It is important to note that non-exchange revenue should be measured by the collecting entities and recognized by the entities legally entitled to the revenue.~~

**Distinguishing between Depreciation and Impairment**

A22. Depreciation systematically and rationally allocates the historical cost of the G-PP&E's service utility to the benefitting periods. The asset's costs are allocated (i.e., the asset is depreciated) across multiple periods based on asset management plans and formulas, including such variables as expected useful life of the asset, usage patterns, and residual or salvage value, if any. Costs are allocated because: (1) the G-PP&E is expected to benefit more than one period and (2) generally, there is no other practical or efficient way to directly assign or associate cause (i.e., entity activity or event) and effect (i.e., service utility consumption). That is, depreciation is allocated, because specific causation cannot be ascertained.

A23. On the other hand, impairment occurs when there is a significant and permanent decline in the service utility during the depreciation period of G-PP&E remaining in use, and that decline is reasonably estimable in monetary terms. Essentially, an event or circumstance alters the utility and/or value of the asset such that the systematic and rational allocation process noted in

**Comment [DNS42]:** Per S. Showalter 20 June email.

A 21b - Consider rewording last sentence to say "non-exchange revenue should be measured by the collecting entities and recognized by the entities legally entitled to the revenue."

**Comment [DNS43]:** Per H. Steinberg email dated 5 August. Page 26, paragraph A21-b, last sentence. Will most readers appreciate what "measured" means and the distinction of that term from "recognized" in the context. Perhaps an "i. e." would help.

Staff: See suggested edits to rephrase last sentence to read:

Where the collecting and reporting entities are different, it is important to note that non-exchange revenue amounts should be measured by the collecting entities and recognized for financial statement reporting by the entities legally entitled to the revenue.

**Comment [DNS44]:** Respondents #10 and #21.

Respondent #10 –requests additional information on how the Board distinguishes between depreciation and impairment.

Respondent #21 – asks that we avoid mistaking routine or anticipated decline s for impairment.

Staff notes: Language in A22-A24 developed in consultation with M. Reger via email dated 20 July.

**Comment [DNS45]:** Per H. Steinberg email dated 5 August. Page 26, paragraph A22, 4th to last line. Insert "other" before "practical" to avoid confusion.

paragraph A22 above can no longer be reasonably applied and must be also altered accordingly. Moreover, primarily due to the significant nature of the event or changed circumstances, an entity can directly assign or associate cause (the event or circumstance) and effect (change in anticipated utility and/or value of the asset). As a result, the lost or diminished service utility (arising from the impairment) can be directly assigned in a practical and efficient manner.

A24. To the extent that an entity's depreciation policies and practices reflect a pattern of service utility consumption that reasonably accounts for discrete events and/or changed circumstances, impairment losses may not apply. For example, if an entity operates in multiple climates within a country or maintains a global presence, its regular and on-going depreciation may account for lost or diminished service utility resulting from damages likely to arise from reasonably anticipated climate or other environmental conditions. This could be evidenced by an entity deriving its useful life estimates from current and historical fixed asset records or maintenance and repair accounts, which include such events and/or circumstances. In such cases, the entity might shorten the useful life estimate, alter the anticipated consumption pattern, or reduce its salvage value estimate. Consequently, depreciation would inherently consider the conditions giving rise to the impairment, thus avoiding the need to recognize an impairment loss.

**Perceived costs versus benefits**

A25. The Board believes that the benefits of implementing this Statement outweigh its administrative costs of implementation. The Board has clarified the Statement so that users understand that they are not required to search out impairments or to apply the Statement to immaterial items. Entities should consider G-PP&E impairments in the context of their existing practices and apply this Statement only when there is an indicator of significant impairment present. Although GASB, IPSASB, and FASB pronouncements are available to provide federal preparers with guidance relative to impairments, issuance of a Statement by FASAB will eliminate the need, time, and effort to search principles from another standard-setter or consider analogous entity transactions. Other perceived benefits include: reporting impairments when they occur rather than through depreciation expense or disposal, providing management with information useful for capital investment decisions, discerning the cost of impairments and impact on the entity and the cost of services provided following the impairment, and lastly, enhancing comparability between entities.

**Summary of Outreach Efforts**

A26. The Exposure Draft (ED), *Accounting for Impairment of General Property, Plant, and Equipment Remaining in Use,* was released on February 28, 2012, with comments requested by May 28, 2012.

A27. Upon release of the ED, notices and press releases were provided to the FASAB email listserv, the Federal Register, *The Journal of Accountancy, AGA Today, the CPA Journal, Government Executive, the CPA Letter, Government Accounting and Auditing Update*, the CFO Council, the Council of Inspectors General on Integrity and Efficiency, and the Financial Statement Audit Network, and committees of professional associations generally commenting on exposure drafts in the past (e.g., Greater Washington Society of CPAs, AGA Financial Management Standards Board).

A28. This broad announcement was followed by direct e-mailings of the press release to:

a) Relevant congressional committees: Senate Committee on Homeland Security and Governmental Affairs and House Committee on Oversight and Government Reform;

b) Public interest groups: The *Institute for Responsible Infrastructure Stewardship* and the *National Academy of Sciences' Federal Facilities Council*;

c) Respondents to SFFAS 42, *Deferred Maintenance and Repairs Amending Statements of Federal Financial Accounting Standards 6, 14, 29 and 32*.

A29. Twenty-three (23) responses were received. Table 1.0 summarizes responses by respondent type.

**Table 1.0 - Summary of Respondent Types to Exposure Draft**

| RESPONDENT TYPE | FEDERAL (Internal) | NON-FEDERAL (External) | TOTAL |
|---|---|---|---|
| **Preparers and financial managers** | **16** | **0** | **16** |
| | | | |

| | | | |
|---|---|---|---|
| **Users, academics, others** | **2** | **2** | **4** |
| **Auditors** | **2** | **1** | **3** |
| **Total** | **20** | **3** | **23** |

A30. The Board did not rely on the number in favor of or opposed to a given position. Information about the respondents' majority view is provided only as a means of summarizing the comments. The Board considered the arguments in each response and weighed the merits of the points raised. The following paragraphs discuss significant issues identified by respondents followed by Board decisions.

**Respondents' Comments on the Exposure Draft**

A31. The Exposure Draft was very well received. By a 9-to-1 ratio respondents agreed with the Board's proposal to recognize impairment losses. Additionally, 22 of the 23 respondents agreed with the Board that entities are not expected to alter existing assessment methods as a direct consequence of this Statement. Some respondents offered suggestions that the Board adopted and revised the Exposure Draft accordingly. The most significant changes made to the proposed standard include: (1) simplifying the definition of impairment by not referencing either "gradual or sudden" and (2) clarifying entity reporting requirements. The most significant additions made to the Basis for Conclusions include (1) clarifying that recoveries take the form of exchange or non-exchange revenues and (2) a discussion concerning what distinguishes depreciation from impairment. Highlighted below are some respondent concerns that the Board decided to address.

**Identifying Indicators of Potential Impairment**

A32. Some respondents expressed concern over the indicators. Concerns ranged from the indicators being viewed as conclusive evidence of impairment necessitating an impairment loss test to the indicators being too vague and in need of expansion to address magnitude, permanence, and materiality. As stated at paragraph A7, the Board desires to make clear that the indicators identified at paragraph 12 in and of themselves are not conclusive evidence

that a measurable or reportable impairment exists. Furthermore, they are the first step in a two-step process and as a result cannot be deemed conclusive. Entities should carefully consider the surrounding circumstances to determine if a test of potential impairment may be unnecessary given the circumstances. Furthermore, as stated at paragraphs A6 through A9 in the section entitled *Common Indicators of Potential Impairment*, the paragraph 12 indicators are not meant to be definitive in nature nor a fully inclusive list. Therefore, management must still exercise discretion and judgment when assessing potential impairment losses.

**Comment [DNS46]:** 27 June Board meeting. Mr. Dacey.

A33. Other respondents shared a concern that their auditors would require specific reviews or that the audit community could not determine the extent of additional audit procedures that could result from this ~~standard~~Statement. The Board believes that this issue gets back to internal controls and processes. The Board is of the opinion that in most cases management would not have to apply additional or separate procedures to identify potential impairments. Management might have to do more work to document (1) linkage to asset management systems (refer to paragraphs A4 and A5) that identify and communicate potential impairments and (2) materiality so that auditors would accept that the financial statements are presented fairly. At a minimum, management can be expected to document how it interprets and expects to apply this Statement.

**Comment [DNS47]:** 27 June Board meeting. Messrs Dacey, Reger, and Schumacher.

**Materiality**

A34. Some respondents sought clarification concerning materiality. The Board has made clear that this matter depends on the degree to which omitted or missing information could influence a reasonable person's judgment and that this Statement is not to be applied to immaterial items. The Board notes two important matters in this regard. First, when assessing materiality management should consider the impact of the potential impairment to the entity's cost of service(s). It is not the Board's intent to direct application of this Statement to those G-PP&E assets (e.g., lower operating level assets, administrative support equipment, etc.) that have an immaterial impact on cost of service(s). Second, entities that determine they have an amount of G-PP&E such that no impairment could have a material ~~ea~~effect would not have to be concerned with the implementation of the Statement. Each entity should undertake some advanced consideration to tailor and justify its implementation in light of materiality considerations specific to the entity.

**Comment [DNS48]:** 27 June Board meeting. Messrs Allen and Dacey.

**Measurement**

A35. Some respondents expressed concern over the measurement approaches. Concerns ranged from the approaches not being appropriate for real property asset classes to the Statement having too many methods to select from. As stated at paragraphs 18 and A17, impairment losses should use an approach that reasonably estimates the asset's diminished service utility. The Board has made clear that it does not seek precision nor is it prescribing any particular approach. Preparers are not restricted to the approaches shown at paragraph 18~~7~~ and may use other approaches that accomplish the following two (2) objectives: (1) reasonably estimate the diminished service utility and (2) reasonably estimate net book value associated with the remaining service utility.

**Comment [DNS49]:** Per S. Showalter 20 June email.

In 4th line, suggest changing "choose" to "select". Also change reference to paragraph 17 to paragraph 18.

**G-PP&E Exemptions**

A36. Some respondents noted that provisions of this Statement should not apply to certain G-PP&E categories, classes, or base units. The Board explored the respondents' rationales for seeking to waive the requirements and determined that no exemptions would be warranted. A careful reading and implementation of the standard would preclude application of this Statement to some G-PP&E classes. Specifically, as stated at paragraph 8, the events or changes in circumstances that lead to impairments are not considered normal and ordinary. That is, at the time the G-PP&E was acquired, the event or change in circumstance would not have been (a) expected to occur during the useful life of the G-PP&E or, (b) if expected, sufficiently predictable to be considered in estimating the useful life. For example, in the case of military equipment "normal and ordinary" would come with the expectation that the G-PP&E would be responding to contingencies and entering into combat operations at some future time. As a result, lost service utility arising from such events or circumstances could not be considered unanticipated and would fall outside the ~~remit~~ realm of this standard. Additionally, G-PP&E classified as mission critical will rarely be partially and permanently impaired as its service utility would generally be replaced or restored and if not, the asset would be removed from active service because it would no longer be mission capable.

**Comment [DNS50]:** 27 June Board meeting.

Mr. Allen

**Comment [DNS51]:** Per H. Steinberg email dated 5 August. Page 31, paragraph A36, 5th to last line. "Remit" is not a commonly used term for this context. "Realm" might be better.

A37. The Board notes that in those cases where an entity considers certain G-PP&E to be non-mission critical or immaterial, management ~~should~~can (1) read the views of the Board concerning materiality as detailed in paragraph A34 above, and (2) reevaluate its capitalization threshold and depreciation policies and procedures. For example, under the requirements of this standard, office furniture and fixtures that have been capitalized could become impaired. However, management may determine that any resultant impact to

its cost of service(s) would be immaterial. In such cases, an entity may elect to prospectively change its capitalization criteria and/or alter its depreciation policies.

**Board Approval**

~~A34.~~A38. This Statement was approved for issuance by all members of the Board. The written ballots are available for public inspection at the FASAB's offices.

Appendix B: Flowcharts, Decision Table and Illustrations

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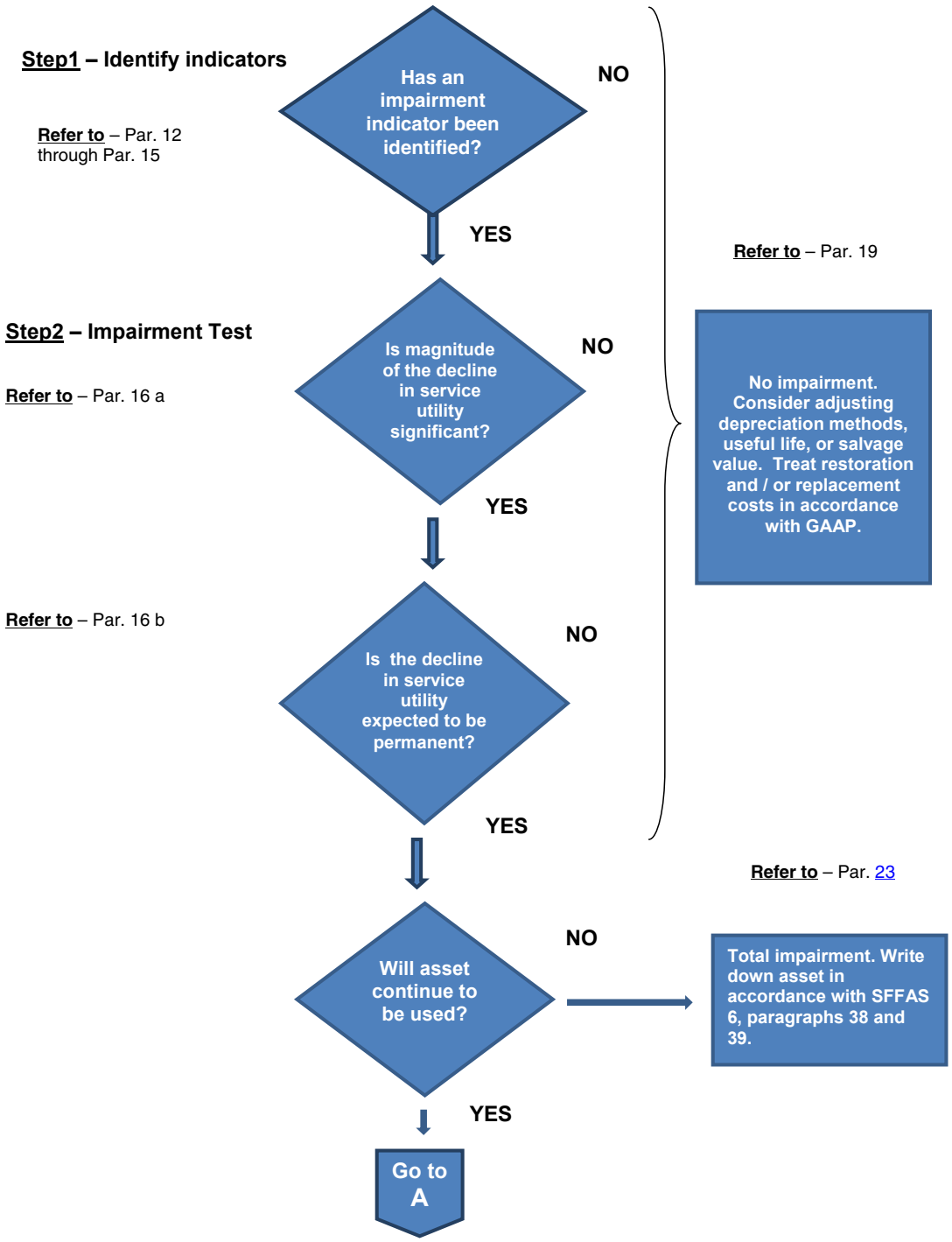
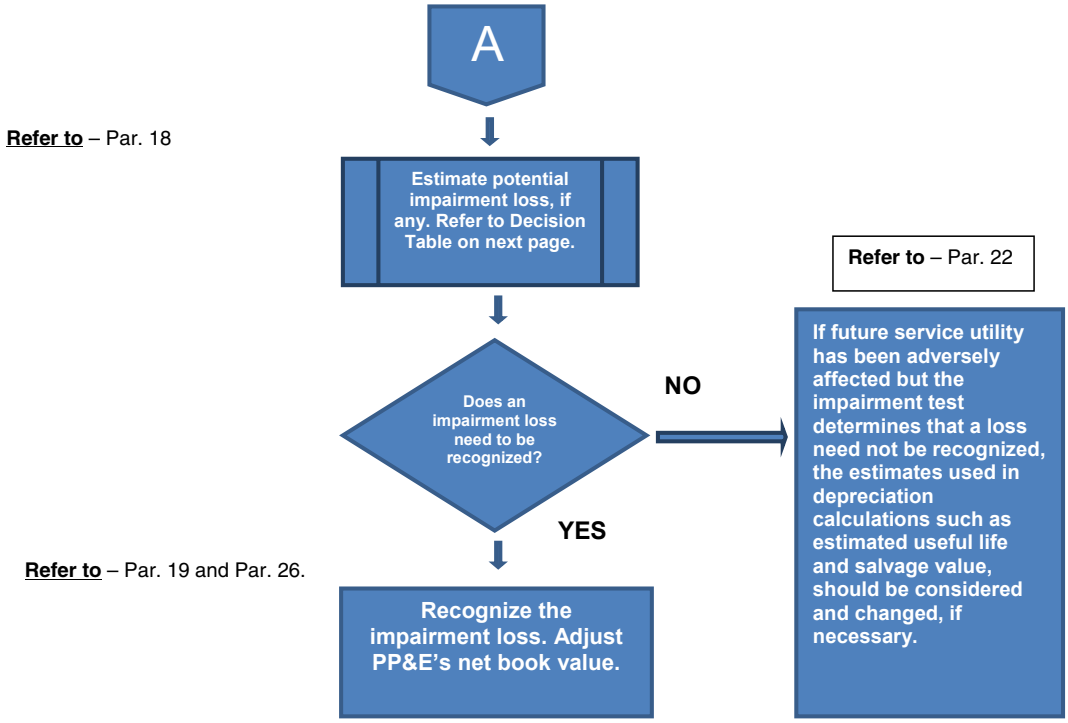

Step1 – Identify indicators
Refer to – Par. 12 through Par. 15
Has an impairment indicator been identified?
NO
YES
Refer to – Par. 19
Step2 – Impairment Test
Refer to – Par. 16 a
Is magnitude of the decline in service utility significant?
NO
YES
No impairment. Consider adjusting depreciation methods, useful life, or salvage value. Treat restoration and / or replacement costs in accordance with GAAP.
Refer to – Par. 16 b
Is the decline in service utility expected to be permanent?
NO
YES
Refer to – Par. 23
Will asset continue to be used?
NO
Total impairment. Write down asset in accordance with SFFAS 6, paragraphs 38 and 39.
YES
Go to A


A
Refer to – Par. 18
Estimate potential impairment loss, if any. Refer to Decision Table on next page.
Does an impairment loss need to be recognized?
NO
Refer to – Par. 22
If future service utility has been adversely affected but the impairment test determines that a loss need not be recognized, the estimates used in depreciation calculations such as estimated useful life and salvage value, should be considered and changed, if necessary.
YES
Refer to – Par. 19 and Par. 26.
Recognize the impairment loss. Adjust PP&E's net book value.

**Select a method that reasonably represents diminished service utility by considering potential indicators and type of PP&E.**

**If more than one method is reasonable, select the most efficient and practicable method.**

| Measurement Methods[18] | Potential Indicators | Type of PP&E * | Reference | Illustrations that may be appropriate |
|---|---|---|---|---|
| Replacement Approach | • Physical Damage | All G-PP&E | Par. 18 a | 1c |
| Restoration Approach | • Physical Damage | Multi-use Heritage PP&E | Par. 18 b | 2b |
| Service Units Approach | • Physical Damage<br>• Enactment or approval of laws/regulations<br>• Changes in environmental or economic factors<br>• Technological changes or obsolescence | All G-PP&E | Par. 18 c | 1d, 3a, 3b |
| Deflated Depreciated Current Cost Approach | • Change in manner or duration of use. | All G-PP&E | Par. 18 d | 4a |
| Cash Flow Approach | • Any of the indicators as listed at Paragraph 12 (a through g) | Cash or Revenue Generating G-PP&E | Par. 18 e | 7a, 7b, 7c, 7d |
| Lower of (1) Net Book value or (2) Higher of Net Realizable Value or Value-in-Use Approach | • Construction stoppage / Contract terminations | All G-PP&E | Par. 17 & 18 f | 5, 6a, 6b, 7b |

* = excluding internal use software

[18] Other industry-accepted methods may be appropriate.

## ILLUSTRATIONS

This remainder of this appendix illustrates the application of the provisions of this Statement to assist in clarifying their meaning. The facts assumed in these examples are illustrative only and are not intended to modify or limit the requirements of this Statement or to indicate the Board's endorsement of the situations or methods illustrated. Additionally, these illustrations are not intended to provide guidance on determining the application of materiality; as such, estimated impairment losses are labeled as "potential" in each illustration because they would still require a further assessment as to whether the estimated loss is material and should be recognized. Application of the provisions of this Statement may require assessing facts and circumstances other than those illustrated here and require reference to other applicable Standards to ensure each situation is considered in the appropriate context.

**Comment [DNS52]:** Cold Reader edits.

**Illustration 1a**

**Temporary Declines in Service Utility:** ***Physical Damage to an Office Building with Mold Contamination*** [19]

**Assumptions**

In 2012, entity officials became aware of extensive mold contamination at one of its office buildings. Facilities management personnel advised that the building be closed due to health and safety concerns. Shortly afterwards, the office building was vacated and closed. The mold remediation involves removing and rebuilding the interior walls and improving site drainage at a total cost of $4 million.

Management develops specific plans to begin remediation efforts as soon as possible and replace the lost service utility. In addition, funding has been identified and set-aside.

**Evaluation of potential estimated impairment loss**

The mold contamination is evidence of physical damage – an impairment indicator. Also, the magnitude of the event (i.e., closure of the building) is a significant decline in service utility. However, because management has specific plans to replace the lost service utility of the building and has identified and set-aside funding, there is reasonable expectation that the damage is temporary and no potential estimated impairment loss is recognized.

[19] Illustrations 1a through 1d have been adapted from GASB 42, Illustration 1, *Physical Damage – School with Mold Contamination*.

**Illustration 1b**

**Complete Removal from Service: *Physical Damage to an Office Building with Mold Contamination***

**Assumptions**

In 2012, entity officials became aware of extensive mold contamination at one of its office buildings. Facilities management personnel advised that the building be closed due to health and safety concerns. Shortly afterwards, the office building was vacated and closed.

Due to the extent of the damage, management does not believe that remediation efforts will begin and that the lost service utility of the building is not temporary. As a result, management has decided to remove this building from service and prepare it for disposal.

**Evaluation of potential estimated impairment loss**

The mold contamination is evidence of physical damage – an impairment indicator. Also, the magnitude of the event (i.e., closure of the building) is a significant decline in service utility. Because management does not believe that remediation efforts will begin, the lost service utility of the building is permanent. However, because the entire office building will be taken out of service and prepared for disposal purposes, no potential estimated impairment loss is recognized. Instead, the provisions of SFFAS 6, *Accounting for Property, Plant, and Equipment,* paragraphs 38 and 39 are applicable.

**Illustration 1c**

**Replacement Approach - Permanent Declines in Service Utility: *Physical Damage to an Office Building due to an Earthquake***

**Assumptions**

In 2012, entity officials became aware of extensive masonry wall and building foundation damage at one of its office buildings as a result of a recent earthquake. The damage to the masonry walls was spread throughout the five-story building and the building foundation was damaged at non-critical vertical-load points. Facilities management personnel and engineers advised that despite a decline in service utility, the damaged building would still be capable of meeting reasonable, but reduced performance objectives in its damaged state, making major repairs and costly upgrading unnecessary. Limited and minor repairs, both cosmetic and structural, could be made to improve visual appearance and component damage at nominal cost. Facilities managers and engineers have estimated that the major repairs and upgrades (involving removal and rebuilding of the interior walls and improving site drainage) would cost $2 million.

After a detailed review, management decided to accept the reduced performance objectives of the building and not make the major repairs and costly upgrades.

The office building was constructed in 1982 at a cost of $1.3 million, including $100,000 for acquisition of the building site. The building had an expected useful life of sixty years. During its life, the entity made improvements to the building totaling $1.235 million. Accumulated depreciation related to the building and to the improvements were $600,000 and $320,000, respectively.

**Comment [DNS53]:** Respondent #20.

**Evaluation of potential estimated impairment loss**

The masonry wall and building foundation damage is evidence of physical damage – an impairment indicator. Also, the magnitude of the decline in the lost service utility is significant because its remediation would involve major repairs and costly upgrades. Because management decides to accept the reduced performance objectives of the building and not make the major repairs and costly upgrades, the lost service utility of the building is permanent. Because the loss of service utility is permanent, any potential estimated impairment loss may need to be recognized.

**Measurement of potential estimated impairment loss**

Facilities managers and engineers estimated that the major repairs and upgrades would have cost if incurred, $2 million. In accordance with the entity's capitalization policies, 10 percent of the remediation cost would be allocable to site clean-up and treated as a period expense, and 90 percent would be allocable to remediating the masonry wall and

building foundation damage. As recorded in the entity's asset management system, the estimated plant replacement value (PRV) of the office building is $8.5 million.

**Calculate Net Book Value:**

| | Historical Cost | Accumulated Depreciation, 2012 | Net Book Value, 2012 |
|---|---|---|---|
| **Land** | **$100,000** | | **$100,000** |
| Building acquisition, 1982 | $1,200,000 | $600,000 | $600,000 |
| Improvements | 1,235,000 | 320,000 | 915,000 |
| **Total - Building & Improvements** | **$2,435,000** | **$920,000** | **$1,515,000** |

**Calculate estimated cost to replace lost service utility:**

| | |
|---|---|
| Total remediation cost | $2,000,000 |
| Percentage wall & foundation cost | 90% |
| **Wall & Foundation Remediation cost** | **$1,800,000** |

**Calculate percentage of lost service utility in current dollars:**

| | |
|---|---|
| Wall & Foundation Remediation (estimate of lost service utility in current dollars) | $1,800,000 |
| Plant Replacement Value (estimate to replace building in current dollars) | $8,500,000 |
| **Wall & Foundation Remediation cost percentage** | **21.18%** |

**Calculate potential estimated impairment loss:**

| | |
|---|---|
| **Net book value (historical cost)** | **$1,515,000** |
| **Multiplied by: Wall & Foundation Remediation cost percentage** | **21.18%** |
| **Potential estimated impairment loss** | **$320,877** |

**Reporting Considerations**

The potential estimated impairment loss and corresponding reduction of the book value of the building is $320,877.

**Illustration 1d**

**Choice Among Methods - Permanent Declines in Lost Service Utility: *Physical Damage to an Office Building with Mold Contamination***

**Assumptions**

In 2012, entity officials became aware of extensive mold contamination at one of its office buildings. The mold contamination in the walls of the building was limited to the top two floors of the five-story building and could be safely contained and encapsulated. Facilities management personnel advised that the first three floors of the building could continue to be safely used.

Management does not believe that the loss of service utility will impede their operations and consequently, do not plan to remediate the mold contamination. Management has decided to discontinue the use of the top two floors and commence containment and encapsulation efforts. The remainder of the building will be kept in service.

The office building was constructed in 1982 at a cost of $1.3 million, including $100,000 for acquisition of the building site. The building had an expected useful life of sixty years. During its life, the entity made improvements to the building totaling $1.235 million.

**Evaluation of potential estimated impairment loss**

The mold contamination is evidence of physical damage – an impairment indicator. Also, the magnitude of the event (i.e., contamination of two of the five floors of the building) is a significant decline in service utility. Because management does not plan to replace the lost service utility of these floors, the lost service utility of the building is permanent. Because the loss of service utility is permanent, any potential estimated impairment loss may need to be recognized.

**Measurement of potential estimated impairment loss**

Facilities management personnel in consultation with the Comptroller's office advise management to use the service units approach instead of the replacement cost approach because using construction cost estimates are not likely to result in a materially different potential estimated impairment loss amount. Management agrees to select the service units approach because it reasonably represents diminished service utility and given the circumstances, it is the most efficient and practicable method to use.

**Calculate percentage of lost service utility in terms of units:**

| | |
|---|---|
| Lost service utility in terms of floor units | 2 floors |
| Total service utility prior to damage in terms of floor units | 5 floors |
| **Percentage of lost service utility in terms of units** | **40.00%** |

**Calculate potential estimated impairment loss:**

| | |
|---|---|
| **Net Book Value (historical cost)** | **$1,515,000** |
| **Multiplied by: percentage of lost service utility - units** | **40.00%** |
| **Potential estimated impairment loss** | **$606,000** |

**Reporting Considerations**

The potential estimated impairment loss and corresponding reduction of the book value of the building is $606,000.

**Illustration 2a**

**Normal and Ordinary Lost Service Utility:** ***Physical Damage to a Multi-use Heritage Asset*** [20] [21]

**Assumptions**

Recent media reports have noted that acid precipitation (often called acid rain) is of increasing concern in the metropolitan area and, in particular to many of the area's historic and national landmarks including multi-use heritage assets. The entity's conservation scientists confirm the media reports and note that although normally rain is slightly acid, current rainfall has an average pH of more than 10 times normal levels.

Limestone and marble, the stones that form many of the buildings and monuments in the metropolitan area are especially vulnerable to acid precipitation because they are predominantly made of the mineral calcite (calcium carbonate), which dissolves (i.e., erosion) easily in acid. Capitalized alterations made over the years to accommodate the heavy traffic brought about by administrative and visitor use of one of the more prominent multi-use heritage assets has drawn management's attention. The entity's Inspector General (IG) has begun a review and in an interim draft report has noted the following,

> "The marble balustrade on the south side, main entrance of the administrative building shows damage from acid rain posing a serious threat to the hundreds of visitors and employees who walk by this concourse daily. Management must take immediate corrective action in order to avoid potential bodily harm and liability."

Management in consultation with the conservation scientists and facilities managers determines that (1) erosion (deterioration caused by exposure to the environment) is a natural part of the normal geologic cycle and was reasonably expected to occur, and (2) temporary braces and steel under-girding currently in-place are sufficient for the current year. Management plans to restore the balustrade during the next fiscal year.

**Evaluation of potential estimated impairment loss**

The erosion is evidence of ~~gradua~~l physical damage – an impairment indicator. Also, the prominence of the event (i.e., coverage by the media and the IG's recommendation)

[20] Illustration 2a adapted from: Department of the Interior, *Acid Rain in Washington*, http://pubs.usgs.gov/gip/stones/acid-rain.html.

[21] Heritage Assets are PP&E that are unique for one or more of the following reasons: historical or natural significance; cultural, educational or artistic (e.g., aesthetic) importance; or, significant architectural characteristics. Multi-use Heritage Assets are heritage assets whose predominant use is general government operations. FASAB Appendix E: Consolidated Glossary,

would be evaluated as a potential impairment indicator of significant loss in service utility. However, no potential estimated impairment loss is recognized because (1) the decline in lost service utility is “normal and ordinary” as it arises from a cyclical act of nature and (2) restoration efforts to cure the damage are planned to begin next fiscal year. Management should consider evaluating its depreciation policies and methods to reflect the adverse effect of the acid rain on buildings and monuments made of limestone and marble.

**Illustration 2b**

**Restoration Approach - Permanent Declines in Service Utility: *Physical Damage to a Multi-use Heritage Asset***

**Assumptions**

A fire recently destroyed most of a three-story wing addition of an historic building. The building addition housed senior administrative offices. ~~The administrative offices comprised approximately 25% of the building's total 80,000 square feet and 100.0% of the 3-story wing.~~ The foundation and portions of the first level were not seriously damaged and considered salvageable.

The Secretary's proposal to the Board of Regents (Regents) requested a minimum of $4.5 million to restore the three-story administrative wing. The Regents questioned the reasonableness of the cost estimate noting that typical office building construction in the metropolitan area costs about $160.00 per square foot (psf). The Secretary advised that the $160.00 psf estimate was not appropriate to use because it represented a "replacement" estimate using today's current labor, materials, standards and methods and not a "restoration" estimate that required using historically accurate materials and methods, as well as historic preservation and conservation methods as appropriate to preserve the historic nature and value of the multi-use heritage asset.

As an example, the Secretary noted the limited supply of the red Seneca sandstone used to construct the building in the 19th century and the added wing in the 20th century. The local quarry could only supply sufficient quantities to restore one level. As a result, complete restoration could not begin until a second quarry could be located to supply the additional quantities. Furthermore, experienced masons would have to be used for the restoration effort.

As a result of this information, the Regents modified the Secretary's request to restore one level of the wing noting that ~~although~~ subsequent levels ~~could~~ should not be restored in the future and that~~,~~ no such plans should be undertaken nor should any monies be committed. Displaced staff was moved to nearby vacant office space.

**Evaluation of potential estimated impairment loss**

The destruction to~~of~~ the three-story wing is evidence of physical damage – an impairment indicator. Also, the magnitude of the event (i.e., loss of senior administrative office space) would be evaluated as a significant decline in service utility. Because the Regents provided for partial restoration (one level) of the multi-use heritage asset, the lost service utility of the other two levels of the administrative wing is deemed permanent. As a result, because the lost service utility from these two levels is not reasonably expected to be restored, the potential estimated impairment loss is considered permanent and any resultant potential estimated impairment loss may need to be recognized.

**Comment [DNS54]:** An analysis of comments from Respondents #2, #6 and #9 reveal that this sentence causes confusion and because it has no quantitative value to the illustration, Staff advises that we delete it.

**Comment [DNS55]:** Respondent #9's analysis suggested that we further refine this example so that the partial impairment loss would be reasonable given the amount of destruction to the 3-story wing. In other words, total destruction would lead to a complete removal of the asset's NBV and not require an impairment loss calculation

**Comment [DNS56]:** Respondent #20.

**Measurement of potential estimated impairment loss**

Facilities managers and reconstruction specialists have estimated that (1) the total remediation of the three-story wing would cost $4.5 million and (2) restoring the first level would cost $2.0 million. The net book value of the administrative portion of the building prior to the fire damage was $1.75 million. In accordance with the Restoration Approach, the following estimates and calculations were presented to management:

**Calculate estimated cost to restore lost service utility:**

| | |
|---|---|
| Total restoration cost (all 3 levels) | $4,500,000 |
| Less: portion to be restored (first level) | $2,000,000 |
| **Cost to restore lost service utility (2nd and 3rd levels)** | **$2,500,000** |

**Calculate percentage of restored lost service utility in current dollars:**

| | |
|---|---|
| Cost to restore lost service utility of the 2nd and 3rd levels of the wing (estimate of lost service utility in current dollars) | $2,500,000 |
| Total restoration cost (all 3 levels) | $4,500,000 |
| **Restoration cost percentage** | **55.5%** |

**Calculate potential estimated impairment loss:**

| | |
|---|---|
| **Net Book Value (historical cost of wing)** | **$1,750,000** |
| **Multiplied by: Restoration cost percentage** | **55.5%** |
| **Potential estimated impairment loss** | **$971,250** |

**Reporting Considerations**

The potential estimated impairment loss and corresponding reduction of the book value of the building is $971,250.

**Illustration 3a**

**Service Units Approach - Recoverable Service Utility: Technological Development or Evidence of Obsolescence - *Underutilized Magnetic Resonance Imaging Machine*** [22]

**Assumptions**

In 2010, a hospital purchased a magnetic resonance imaging (MRI) system at a cost of $2.25 million. The hospital estimated that the system would have an estimated useful life of seven years and that on average the system would be used for ten tests per day for five days per week. After installation, the utilization of the system was approximately at the levels estimated.

In 2013, an affiliated entity transferred an "open" MRI system to the hospital. The transferred MRI system began to be used more frequently than the original "closed" MRI system because the "open" MRI was more comfortable for patients and provided a superior image. Instead of providing ten images a day, the original MRI system was being used only on an overflow basis and averaged six images per day; a decrease to 60 percent of prior levels. Furthermore, the expenses associated with the continued operation and maintenance (O&M) of the "closed" MRI system continues to be incurred and management is evaluating the asset's continued service use and whether or not to book an impairment loss.

Upon inspection of the "closed" MRI system and closer examination of the related O&M costs, hospital administrators have determined that it is cost-beneficial to keep the system operational and that there is no impairment loss. They estimate that the system can be expected to last at least three years longer than originally estimated and achieve its expected service output. Furthermore, hospital administrators contend that a significant portion of the costs are (1) considered "sunk" due to the fixed-price nature of the long-term maintenance contracts and (2) fixed inasmuch as they will be incurred regardless of the closed MRI system's operating levels.

**Evaluation of potential estimated impairment loss**

Management initially identified that the change in technology was an indicator of potential impairment because it had resulted in a permanent reduction in the usage of the "closed" MRI system. Also, they believed that the magnitude test (i.e., decline in service utility relative to operating costs) had also been met due to the fact that the cost of operating the "closed" MRI system has remained the same while the service provided has decreased to 60 percent of prior levels. However, management has concluded that there is no potential estimated impairment loss (i.e., the MRI system did not meet Step

**Comment [DNS57]:** Respondent #20.

[22] Illustrations 3a and 3b adapted from: GASBS 42, Illustration 4, *Technological Development or Evidence of Obsolescence -Underutilized Magnetic Resonance Imaging Machine.*

2 – Impairment test) because the asset can achieve its expected service output by being kept in service three years longer than originally planned. Using the service units approach, management determines the followings:

**Measurement of potential estimated impairment loss**

**Calculate Net Book Value:**

| | | |
|---|---|---|
| **a** | Acquisition cost, 2010 | $2,250,000 |
| | Accumulated depreciation, 2013 (3 / 7 years) | 964,286 |
| **b** | **Net Book Value, 2013** | **$1,285,714** |

**Calculate Acquisition cost per service unit:**

| | | |
|---|---|---|
| **a** | Acquisition cost, 2010 | $2,250,000 |
| **c** | Originally expected service units (7 years × 52 weeks per year × 5 days per week × 10 uses per day) | 18,200 |
| **d** | **Acquisition cost per service unit (a divided by c) (rounded)** | **$124.00** |

**Calculate Remaining Number of Service Units & Related Costs to be recovered:**

| | | |
|---|---|---|
| **d** | Acquisition cost per service unit (a divided by c) | $124.00 |
| **e** | Remaining number of service units = (4 years plus 3 extended years × 52 weeks per year × 5 days per week × 6 uses per day) | 10,920 |
| **f** | **Remaining service costs to be recovered (d multiplied by e)** | **$1,354,080** |

**Calculate Potential Estimated Impairment Loss:**

| | |
|---|---|
| **Net Book Value, 2013 (b)** | **$1,285,714** |
| **Remaining service costs to be recovered (f)** | **$1,354,080** |
| **Potential estimated impairment loss (b minus f)** | **N/A** |

**Reporting Considerations**

Although there is no potential estimated impairment loss to consider or recognize because the remaining service costs to be recovered is greater than the PP&E's net book value, management should consider re-evaluating its depreciation policies and methods to reflect the additional 3 years of extended service.

**Illustration 3b**

**Service Units Approach - Non-recoverable Service Utility: Technological Development or Evidence of Obsolescence - *Underutilized Magnetic Resonance Imaging Machine***

**Assumptions**

In 2010, a hospital purchased a magnetic resonance imaging (MRI) system at a cost of $2.25 million. The hospital estimated that the system would have an estimated useful life of seven years and that on average the system would be used for ten tests per day for five days per week. After installation, the utilization of the system was approximately at the levels estimated.

In 2013, an affiliated entity transferred an “open” MRI system to the hospital. The transferred MRI system began to be used more frequently than the original “closed” MRI system because the “open” MRI was more comfortable for patients and provided a superior image. Instead of providing ten images a day, the original MRI system was being used only on an overflow basis and averaged one image per day; a decrease to 10 percent of prior levels. Furthermore, the expenses associated with the continued operation and maintenance of the “closed” MRI system continue to be incurred and has drawn management’s attention to evaluate the asset’s continued service use.

**Evaluation of potential estimated impairment loss**

The indicator of potential impairment is the change in technology, which has resulted in a permanent reduction in the usage of the “closed” MRI system. The magnitude test (i.e., decline in service utility relative to operating costs) has also been met due to the fact that the cost of operating the “closed” MRI system has remained the same while the service provided has decreased to 10 percent of prior levels. Potential estimated impairment loss using the service units approach would be determined as follows:

**Measurement of potential estimated impairment loss**

**Calculate Net Book Value:**

| | | |
|---|---|---|
| **a** | Acquisition cost, 2010 | $2,250,000 |
| | Accumulated depreciation, 2013 (3 / 7 years) | 964,286 |
| **b** | **Net Book Value, 2013** | **$1,285,714** |

**Calculate Acquisition cost per service unit:**

| | | |
|---|---|---|
| **a** | Acquisition cost, 2010 | $2,250,000 |
| **c** | Originally expected service units (7 years × 52 weeks per year × 5 days per week × 10 uses per day) | 18,200 |
| **d** | **Acquisition cost per service unit (a divided by c)** | **$124.00 (rounded)** |

**Calculate Remaining Number of Service Units & Related Costs to be recovered:**

| | | |
|---|---|---|
| **d** | Acquisition cost per service unit (a divided by c) | $124.00 |
| **e** | Remaining service number of units = (4 years × 52 weeks per year × 5 days per week × 1 use per day) | 1,040 |
| **f** | **Remaining service costs to be recovered (d multiplied by e)** | **$128,960** |

**Calculate Potential Estimated Impairment Loss:**

| | |
|---|---|
| **Net Book Value, 2013 (b)** | **$1,285,714** |
| **Remaining service costs to be recovered (f)** | **$128,960** |
| **Potential Estimated Impairment loss (b minus f)** | **$1,156,754** |

**Reporting Considerations**

The potential estimated impairment loss and corresponding reduction of the book value of the equipment is $1,156,754.

**Illustration 4**

**Deflated Depreciated Current Cost Approach: Change in Manner or Duration of Use – *Training Facility Used for Storage*[23]**

**Assumptions**

In 2013, management decided to close a training facility because enrollments declined due to outsourcing initiatives brought about as a result of Office of Management and Budget (OMB) Circular No. A–76, *"Performance of Commercial Activities."* The closed training facility has been converted for use as a storage warehouse.

This training facility was constructed in 2001 at a cost of $10 million. The estimated useful life of the facility is fifty years. Entity management has (1) no evidence that enrollments will increase in the future such that the building would be reopened for use as a training facility and (2) concerns with the significantly high operating costs – maintenance and repair, depreciation, insurance, utilities, security, etc.

Because no physical damage occurred that would require detailed cost repair estimates, management decides to use the deflated-depreciated current cost approach to measure the potential estimated impairment loss. Facilities managers have been able to readily identify current plant replacement value (PRV)for a comparable warehouse of the same size as $4.2 million and commercial construction indices of 100 and 150 for years 2001 and 2013, respectively.

**Evaluation of potential estimated impairment loss**

Impairment is indicated because the manner of use of the training facility has changed from training students to storage. The situation passes the magnitude test (i.e., decline in service utility relative to operating costs) because the ongoing costs of the training facility would likely be considered high in relation to the benefit it is providing - storage. Potential estimated impairment loss using the deflated depreciated current cost approach would be determined as follows:

[23] Illustration 4a adapted from: GASB 42, Illustration 5, *Change in Manner or Duration of Use – School Used for Storage.*

**Measurement of potential estimated impairment loss**

**Calculate Net Book Value:**

| | | |
|---|---|---|
| | Historical cost, 2001 | $10,000,000 |
| | Accumulated depreciation (12 / 50 years) | 2,400,000 |
| **a** | **Net Book Value, 2013** | **$7,600,000** |

**Calculate Depreciated current cost (current dollars):**

| | | |
|---|---|---|
| | Replacement cost of warehouse, 2013 | $4,200,000 |
| | Accumulated depreciation (12 / 50 years) | 1,008,000 |
| **b** | **Depreciated current cost** | **$3,192,000** |

**Calculate Deflation factor:**

| | | |
|---|---|---|
| c | Commercial construction index, 2001 | 100 |
| d | Commercial construction index, 2013 | 150 |
| **e** | **Deflation factor (c divided by d)** | **0.67** |

**Apply deflation factor to depreciated current cost:**

| | | |
|---|---|---|
| b | Depreciated current cost | $3,192,000 |
| e | Deflation factor (c divided by d) | 0.67 |
| **f** | **Deflated depreciated current cost (b × e)** | **$2,138,640** |

**Calculate Potential estimated impairment loss:**

| | | |
|---|---|---|
| a | Net Book Value, 2013 | $7,600,000 |
| f | Deflated depreciated current cost (b × e) | 2,138,640 |
| | **Potential estimated impairment loss (a - f)** | **$5,461,360** |

**Reporting Considerations**

The potential estimated impairment loss and corresponding reduction of the book value of the facility is $5,461,360.

**Illustration 5**

***Construction Stoppage—Special Purpose Test Equipment*** [24]

**Assumptions**

In 2012, in response to a Congressional order canceling a major program, management stopped all construction activities related to the fabrication of program-related special purpose test equipment. The entity conducts numerous design and build projects for military and scientific purposes all of which have potential commercial application. The entity's program manager advised management that the special purpose test equipment was substantially complete at the time of stoppage and could be considered available for commercial use. The entity had accumulated costs totaling $10 million and was approximately 75 percent complete with the project.

Upon further inquiry, management determined that despite initial interest from two commercial firms, early in 2012, one of them filed for bankruptcy and the other withdrew its interest citing that the costs-to-complete are too high. There is no evidence to demonstrate that the construction stoppage is temporary or that other potential commercial interests can be found. Also, the program manager advises that there is no potential government use for this asset and that it should be disposed.

**Evaluation of potential estimated impairment loss**

The indicator of impairment is the construction stoppage. It appears to meet the test of impairment in that management would not have initiated the project if it had expected either program cancellation or lack of any potential commercial use. The situation passes the magnitude test because the costs-to-date (75% or $10 million) are significant in both percentage and monetary terms. However, there is no potential estimated impairment loss to report in accordance with this standard because the asset is totally impaired as it has no commercial or government use and cannot provide service. As such, the requirements in SFFAS 6, paragraph 38[25] should be followed. Specifically, in the period of disposal accumulated costs should be removed from the asset accounts and any difference between the book value of the equipment and amounts realized shall be recognized as a gain or a loss.

[24] Illustration 5 adapted from: GASB 42, Illustration 9, *Construction Stoppage—Airport Pavements.*

[25] Refer to Technical Release 14, *Implementation Guidance on the Accounting for the Disposal of General Property, Plant, & Equipment*, which provides implementation guidance that clarifies existing SFFAS 6 requirements and is intended to help differentiate between permanent and other than permanent removal from service of G-PP&E. The implementation guidance also recognizes the many complexities involved in the disposal of G-PP&E, as well as delineates events that trigger discontinuation of depreciation and removal of G-PP&E from accounting records.

**Illustration 6a**

**Contract Termination - *Transferable Equipment Technology***

**Assumptions**

In 2012, the entity's chief contracting officer terminated a contract pursuant to the Federal Acquisition Regulations because the entity experienced substantial cost increases, schedule delays, and performance shortfalls. The terminated contract was to build the entity's next-generation surveillance equipment capable of covertly operating in adverse weather conditions. Despite several cure notices, the entity terminated the contract for default. The contractor has stated that it will not protest the termination. At the time of termination, the entity had incurred $150 million in contract costs.

In the meantime, the program manager determined that the operating environment had changed and that remaining funds would be better spent on other priorities and was able to transfer the system technology to other entity projects. The manner and use of the systems are not expected to change.

**Evaluation of potential estimated impairment loss**

The indicator of impairment is the contract termination. It appears to meet the test of potential impairment because the event is significant and the termination decision will not be protested; i.e., permanent. However, because the entity was able to transfer the system technology to other entity projects, no potential estimated impairment loss exists.

**Illustration 6b**

**Contract Termination - *Partially-Transferable Equipment Technology***

**Assumptions**

Same assumptions used in Illustration 6a except that the program manager was unable to transfer the entire system technology to other entity projects. After an inspection and engineering review, it was determined that 70 percent of hardware and software could be transferred to existing projects. There is no potential use or application for the remaining 30 percent of equipment technology.

**Evaluation of potential estimated impairment loss**

The indicator of impairment is the contract termination. It appears to meet the test of potential impairment because the termination decision is a significant event and is considered permanent because the decision will not be protested. As a result of the entity being unable to transfer the entire system technology to other entity projects, an impairment exists.

**Measurement of potential estimated impairment loss**

Because 30 percent of the system technology cannot be transferred to other entity projects, a potential estimated impairment loss of $45 million exists (30.0% X $150 million).

**Reporting Considerations**

The potential estimated impairment loss and corresponding reduction of the book value of the equipment is $45 million.

**Illustration 7a**

**Cash flow approach – Grouped Assets**

**Assumptions**

An entity manages and operates a shared-services center on a post-wide basis that provides administrative and information technology support. The entity groups the individual services separately into two distinct categories rather than on an individual basis. The net book values are $12 million and $11 million for the administrative and information technology (IT) groups, respectively.

In December 2012 the entity's management decided to implement a public-private strategic initiative that could eventually over several years transition these shared-services operations to private ownership. Both national and local private interests have asked their respective political representatives to accelerate the entity's implementation time-table and influence a favorable outcome. Management was directed to (1) immediately estimate the amount that could be recovered from selling the operations and (2) identify to the lowest level identifiable, operating information to include cash flows for each category. An appraisal was conducted to ascertain the amount that could be recovered from selling each of the groups. The appraisal report noted (1) that net realizable value (NRV) amounts were greater than value-in-use estimates and (2) the NRV amounts of $13 million and $8 million for the administrative and IT groups, respectively. The Chief Financial Officer identified the following cash flow information: (a) cash from continuing operations of $12 million and $9 million for the administrative and IT groups, respectively and (b) cash flows from disposal activities of $2 million and $1 million for the administrative and IT groups, respectively.

As a result of complying with this directive and evaluating the resultant financial information and appraisal analysis, management became concerned that its assets might be impaired and adversely impact its public-private strategic initiative.

**Evaluation of potential estimated impairment loss**

If an impairment indicator exists, an impairment analysis should be ~~performed~~considered. In this case, the entity's public-private initiative includes a significant change in the manner or ~~extent~~ duration in which the assets will be used. This represents an impairment indicator that would trigger an impairment analysis. Furthermore, management's concern that its assets might be impaired passes the magnitude test.

**Comment [DNS58]:** Respondent #20.

Management is concerned that the presence of an impairment indicator might affect its plan regarding the future use of the shared-services if the analysis indicates that the net book value of the assets are not recoverable. To apply the cash flow approach, the entity will need to estimate the future undiscounted cash flows expected to result from the use of the assets and their eventual disposition. The future cash flows are the

expected cash inflows to be generated by the asset net of any expected future cash outflows that are needed to produce the inflows.

**Measurement of potential estimated impairment loss**

This approach requires that an entity recognize a potential estimated impairment loss if (1) the undiscounted cash flows are less than the net book value of the assets (the net book value is not recoverable) **and** (2) the net book value exceeds the higher of the assets NRV [26] or value-in-use estimate.[27] A potential estimated impairment loss would be measured as the amount by which the net book value of the grouped assets exceed the higher of their net NRV or value-in-use estimate(s).

When identifying cash flows, assets should be grouped at the lowest level for which there are identifiable cash flows that are largely independent of the cash flows of other groups of assets.

**Calculate Net book value:**

| Net book value: | Asset Group: Administrative | Asset Group: IT |
|---|---|---|
| | | |
| **Assets' net book values at 12/31/2012 (a)** | **$12,000,000 (a)** | **$11,000,000 (a)** |

[26] Net realizable value is the estimated amount that can be recovered from selling, or any other method of disposing of an item less estimated costs of completion, holding and disposal. Source: FASAB Glossary, Appendix E.

[27] Statement of Federal Financial Accounting Concepts (SFFAC 7), *Measurement of the Elements of Accrual-Basis Financial Statements in Periods After Initial Recording*, at paragraph 50, defines value-in-use as "…the benefit to be obtained by an entity from the continuing use of an asset and from its disposal at the end of its useful life." Paragraph 51 further states that "Value in use is a remeasured amount for assets used to provide services. It can be measured at the present value of future cash flows that the entity expects to derive from the asset, including cash flows from use of the asset and eventual disposition. Value in use is entity specific and differs from fair value. Fair value is intended to be an objective, market-based estimate of the exchange price of an asset between willing parties. Value in use is an entity's own estimation of the service potential of an asset that it holds to provide a specific service." (underscoring added for emphasis)

**Calculate undiscounted cash flows:**

| **Undiscounted cash flows:** | **Asset Group: Administrative** | **Asset Group: IT** |
|---|---|---|
| Undiscounted cash flows from future operations | $12,000,000 | $9,000,000 |
| Undiscounted cash flows from future disposal of assets | 2,000,000 | 1,000,000 |
| **Total - undiscounted cash flows (b)** | **$14,000,000 (b)** | **$10,000,000 (b)** |

**Calculate Recoverability:**

| **Recoverability: (b minus a)** | **Asset Group: Administrative** | **Asset Group: IT** |
|---|---|---|
| **Total - undiscounted cash flows (b)** | **$14,000,000** | **$10,000,000** |
| **Assets' net book values at 12/31/2012 (a)** | **12,000,000** | **11,000,000** |
| **Recoverability (b minus a)** | **$2,000,000** | **$(1,000,000)** |
| **Is net book value recoverable?** | **Yes** | **No** |
| **Is asset subject to potential impairment?** | **No** | **Yes** |

**Calculate potential estimated impairment loss:**

A potential estimated impairment loss should be recognized only if the net book value of the G-PP&E (1) is not recoverable **and** (2) exceeds the higher of its net realizable value or value-in-use estimate. Because the administrative group has undiscounted cash flows greater than related net book values, recoverability is met and there is no potential impairment. However, because the IT group has undiscounted cash flows lower than related net book values, recoverability is not met and the potential for impairment exists. The calculation below shows that a $3 million potential estimated impairment loss exists because the $11 million net book value of the IT group's G-PP&E exceeds the higher of its net realizable value or value-in-use estimate (in this case we are told that the $8 million NRV amount is higher than the value-in-use estimate).

| Potential estimated impairment loss: | Asset Group: Administrative | Asset Group: Information Technology |
|---|---|---|
| Net Realizable Value of assets at 12/31/2012 | N/A | $ 8,000,000 |
| Less: Assets' net book values at 12/31/2012 | N/A | $11,000,000 |
| Excess of net book value over Net Realizable Value | N/A | $3,000,000 |
| Potential estimated impairment loss | N/A | $3,000,000 |

**Reporting Considerations**

The potential estimated impairment loss and corresponding reduction of the book value of the IT asset group is $3.0 million.

**Illustration 7b**

**Cash flow approach – Equipment: Technological Development or Evidence of Obsolescence - *Underutilized Magnetic Resonance Imaging Machine*[28]**

**Assumptions**

In 2009, a hospital operating in a major metropolitan area purchased a "closed" magnetic resonance imaging (MRI) system at a cost of $2.25 million to be used exclusively for non-service connected procedures. The hospital, which charges fees for non-service connected care estimated that the system would have an estimated useful life of seven years and that on average the system would be used for ~~ten~~ twenty tests per day for five days per week. The average user fee for MRI services is $20.00 per use. ~~After~~ Shortly after installation, ~~the~~utilization levels dropped to ten tests per day because of reduced demand for the services attributable to the "closed" nature of the MRI system ~~of the system was approximately at the levels estimated~~.

In 2012, the manufacturer introduced an "open" MRI system that was advertised as being more comfortable for patients and provided a superior image. Furthermore, the expenses associated with the continued operation and maintenance of the "closed" MRI system continue to be incurred and has drawn management's attention to evaluate the asset's continued service use. Because similarly used MRI machines in the open market can be purchased from authorized dealers for $750,000 (their mark-up percentages are unknown), management is considering the possibility of selling the old machine and using its proceeds to help purchase the "open" MRI system.

Hospital administrators and technicians believe that the "closed" system can continue being used at the current utilization level for at least 3 years beyond the originally estimated service life. Also, they believe that the "open" system provides for only marginal benefits that do not exceed their cost. In light of this information, ~~However,~~ management decides not to sell the "closed" system ~~and use the proceeds for much needed research equipment. They believe that the $750,000 open market price is a reasonable estimate for the asset's net realizable value~~. However, because the service utility expected at acquisition (20 tests per day) can no longer be achieved and is accompanied by an underlying cause; reduced demand arising from the less comfortable "closed" system, a potential impairment loss exists.[29]

**Comment [DNS59]:** Per M. Granof 27 June discussion.

Staff notes that because the reduced demand is associated with an underlying cause; closed system, we now have a basis to recognize an impairment loss in this case.

M. Granof concurred via June 28 email.

**Comment [DNS60]:** Per M. Granof 27 June discussion Please clarify this example to emphasize under-utilization and to adequately justify why impairment loss exists when asset is still in-use.

Staff suggests we begin at 20 tests and conclude with 10. In this way the reader clearly sees that we have an under-utilization scenario.

M. Granof concurred via June 28 email.

[28] Illustration 7b adapted from: GASB 42, Illustration 4, *Technological Development or Evidence of Obsolescence -Underutilized Magnetic Resonance Imaging Machine.*

[29] It is important to note that (1) the reduced demand alone is not a discrete or sole indicator of impairment and (2) technological changes or obsolescence should be considered along with other factors when assessing impairment. Regarding the former, had there been no underlying potential impairment (refer to the paragraph 12 indicators), no impairment test would have been required. Concerning the latter, had the utilization level (20 tests per day) and remaining service life (3 years) of the equipment stayed the same, no impairment test would have been required because the equipment's service utility that was expected at acquisition would be deemed recoverable.

**Evaluation of potential estimated impairment loss**

The indicators of potential impairment are (1)~~is~~ the change in technology and (2) reduced demand accompanied by an underlying cause; the less comfortable "closed" system. The magnitude test has also been met due to the fact that the cost of operating the "closed" MRI system has drawn management's attention to evaluate the asset's continued service use. Potential estimated impairment loss using the cash flow approach would be determined as follows:

**Measurement of potential estimated impairment loss**

**Calculate Net Book Value:**

| | | |
|---|---|---|
| **a** | Acquisition cost, 2009 | $2,250,000 |
| | Accumulated depreciation, 2012 (3 / 7 years) | 964,286 |
| **b** | **Net Book Value, 2012** | **$1,285,714** |

**Calculate undiscounted cash flows:**

| | | |
|---|---|---|
| **c** | Average service fee per use | $20.00 |
| **d** | Remaining service units (4 years plus 3 extra years × 52 weeks per year × 5 days per week × 10 use per day) | 18,200 |
| **e** | **Undiscounted cash flows (c multiplied by d)** | **$364,000** |

**Calculate Recoverability: (b minus a)**

| | **MRI** |
|---|---|
| **Total - undiscounted cash flows (e)** | $364,000 |
| **Asset's net book values at 9/30/12 (b)** | $1,285,714 |

| | |
|---|---|
| **Recoverability (e minus b)** | **$(921,714)** |
| **Is Net book value Recoverable?** | **No** |
| **Is asset subject to potential impairment?** | **Yes** |

**Calculate Potential Estimated Impairment Loss:**

A potential estimated impairment loss should be recognized only if the net book value of the G-PP&E (1) is not recoverable and (2) exceeds the higher of its net realizable value or value-in-use estimate. Because management believes that the open market price of $750,000 is a reasonable estimate of the asset's net realizable value, it is compared to the asset's value-in-use estimate to determine which amount is higher. However, because the $364,000 undiscounted cash flows amount (prior to calculating the net present value to determine a value-in-use estimate) is lower than net realizable value amount of $750,000, there is no need to present value the cash flows to calculate a value-in-use estimate.

Because management believes that the open market price of $750,000 is a reasonable estimate~~Because management has decided to sell the "closed" system~~, ~~the net realizable value estimate~~it is used as the "recoverable basis". Had the net realizable value estimate been unavailable to management, a value-in-use estimate (net present value of the future cash flows) could have been used as the "recoverable basis".

| | **MRI** |
|---|---|
| **Net Realizable value of asset** | $750,000 |
| **Less: Asset's net book value** | $1,285,714 |
| **Excess of net book value over fair value** | **$ (535,714)** |
| **Potential estimated impairment loss** | **$ (535,714)** |

**Reporting Considerations**

The potential estimated impairment loss and corresponding reduction of the book value of the equipment is $535,714.

**Illustration 7c**

**Cash flow approach – Facility: Changes in manner or duration of use -**
***Government owned-contractor operated (GOCO) manufacturing facility***[30]

**Assumptions**

An entity operates a government owned-contractor operated (GOCO) manufacturing facility in an economically depressed area fabricating various commodities with commercial applicability. The facility's current net book value is $22,500,000 with an estimated salvage value of $5,000,000 and has a 25 year estimated remaining useful life. Under the terms of the contract, the government provides the contractor with exclusive use of the facility in exchange for negotiated lease payments in the amount of $150,000 per year. The contractor is responsible for all maintenance and operating costs.

Recently this unique partnership has come under federal and state scrutiny as many legislators and environmentalists have expressed concerns that the contractor whose operations have caused contamination found in and around the facility is not being held financially responsible for the cleanup costs.

Outrage which has surfaced during congressional hearings on environmental cleanups has become the focus of print and cable-news outlets.

Further complicating management's "crisis response" is that (1) the contract effectively prohibits modifying the facility to achieve greater environmental compliance without legislative relief and (2) the contracting officer has initiated debarment procedures that effectively would shut down the facility in 90-days for an indeterminable amount of time.

Facilities managers and engineers believe that a prospective buyer can be found but that it will take significant time to pass all necessary sale requirements. Until then, they advise that the facility can be quickly reconfigured and partitioned into commercially viable long-term storage space. The required modifications would cost $500,000 and lease agreements are estimated to generate approximately $35,000 in annual revenues. A fairly recent analysis completed 9 months ago reveals that the property's

[30] Illustration 7c adapted from: Military Law Review, Volume 131 Winter 1991; - Government Owned – Contractor Operated Munitions Facilities*: Are they appropriate in the age of strict environmental compliance and liability?;* Major Mark J. Connor.

net realizable value (NRV) was at that time, $30,000,000; 20 percent of which is attributable to land.

Management has approved the reconfiguration and partition plan and believes that it will take a minimum of 5 years before all approvals are in place and disposal efforts can begin and an additional 2 years to ultimately dispose of the property. Because management is concerned with the proper financial reporting of this event, it has asked its comptroller for advice.

**Evaluation of potential estimated impairment loss**

The indicator of potential impairment is the change in manner of use. The magnitude test has also been met due to (1) federal and state scrutiny, (2) media coverage, and (3) the fact that the cost of operating the facility has drawn management's attention to evaluate the asset's continued service use and seek the comptroller's advice. Because the entity is seeking appropriate approvals to commence disposal efforts and does not know when such permission will be granted, management intends to convert a portion of the facility for public storage; a change in the manner of use.

**Measurement of potential estimated impairment loss**

**Calculate Net book value:**

| **Calculate Net book value:** | **Facility** |
|---|---|
| **Assets' net book value at 12/31/X1 (a) (excluding land)** | **$22,500,000 (a)** |

**Calculate undiscounted cash flows:**

| **Calculate undiscounted cash flows:** | **Facility** |
|---|---|
| Required modifications (outflow) | ($500,000) |
| Undiscounted cash in-flows from future rental lease payments (7 x $35K) | $245,000 |
| Undiscounted cash in-flows from disposal of assets (1.0 -0.2 X $30Mil) | 24,000,000 |

| | |
|---|---|
| **Total - undiscounted cash flows (b)** | **$23,745,000 (b)** |

**Calculate Recoverability: (b minus a)**

| **Calculate Recoverability: (b minus a)** | **Facility** |
|---|---|
| **Total - undiscounted cash flows (b)** | **$23,745,000** |
| **Assets' net book values at 12/31/X1 (a)** | **22,500,000** |
| **Recoverability (b minus a)** | **$1,245,000** |
| **Is Net book value Recoverable?** | **Yes** |
| **Is asset subject to potential impairment?** | **No** |

**Reporting Considerations**

There is no potential estimated impairment loss to consider or recognize because the undiscounted cash flows to be recovered are greater than the G-PP&E's net book value.

**Illustration 7d**

**Cash flow Approach (Calculating value-in-use using discounted cash flows) – Facility: Changes in manner or duration of use - *Government owned-contractor operated (GOCO) manufacturing facility*[31]**

**Assumptions**

Same facts as Illustration 7c above except that (1) management has decided to reconfigure the facility and lease available storage space for the remaining life of the facility, ~~and~~ (2) the net realizable value estimate is $2 million, and (3) the salvage value is $500,000. Furthermore, because management does not believe that a prospective buyer can be found it decides not to seek disposal authority. The entity's comptroller advises management that to assess whether or not a potential impairment exists a value-in-use estimate would be appropriate to use because it is higher than the net realizable value estimate. A risk-free discount rate of 3 percent is used.

**Comment [DNS61]:** Respondent #9's analysis suggested that we further refine this example so that the salvage value follows the revised facts.

**Evaluation of potential estimated impairment loss**

In this case the entity should (1) use the undiscounted cash flows to calculate recoverability and (2) present value (i.e., discount) the undiscounted cash flows to calculate the value-in-use estimate. In so doing, a potential estimated impairment loss is realized. Calculations follow:

**Calculate cash flows:**

| | Undiscounted | PV Factor | Discounted |
|---|---|---|---|
| Required modifications (outflow) | ($500,000) | 1.00 | ($500,000) |
| Undiscounted cash in-flows from future rental lease payments (25 x $35K) | $875,000 | 17.41315 | $609,460 |
| Undiscounted cash in-flows from disposal of assets) | $500,000 | 0.47761 | $238,805 |
| **Total - cash flows (b)** | **$875,000** | | **$348,265** |

[31] Adapted from: Military Law Review, Volume 131 Winter 1991 - Government Owned – Contractor Operated Munitions Facilities: Are they appropriate in the age of strict environmental compliance and liability? Major Mark J. Connor

**Calculate Recoverability: (b minus a)**

| Recoverability: (b minus a) | Facility |
|---|---|
| Total - undiscounted cash flows (b) | $875,000 |
| Assets' net book values at 12/31/X1 (a) | 22,500,000 |
| Recoverability (b minus a) | ($21,625,000) |
| Is net book value recoverable? | No |
| Is asset subject to potential impairment? | Yes |

**Calculate potential estimated impairment loss:**

| Potential impairment: | Facility |
|---|---|
| **Higher of NRV or Value-in-Use:**<br>NRV = $2,000,000 (given)<br>Value-in-Use = $348,265 (discounted Cash Flows) | |
| Use the higher - Net Realizable Value | $2,000,000 |
| Less: Assets' net book value at 12/31/X1 | $22,500,000 |
| Excess of net book value over recoverable value (in use) | $20,500,000 |
| Potential estimated impairment loss | $20,500,000 |

**Reporting Considerations**

The potential estimated impairment loss and corresponding reduction of the book value of the facility is $20,500,000.

## Appendix C: Abbreviations

| | |
|---|---|
| ASC | Accounting Standards Codification (FASB) |
| CFR | Consolidated financial report of the U.S. government |
| DM-AI | Deferred Maintenance and Asset Impairment (task force) |
| FASAB | Federal Accounting Standards Advisory Board |
| FASB | Financial Accounting Standards Board |
| GAAP | Generally Accepted Accounting Principles |
| GASB | Governmental Accounting Standards Board |
| GASBS | Governmental Accounting Standards Board Statement |
| G-PP&E | General property, plant, and equipment |
| IG | Inspector General |
| IPSASB | International Public Sector Accounting Standards Board |
| IPSAS | International Public Sector Accounting Standards |
| IT | Information technology |
| MRI | Magnetic resonance imaging |
| NRV | Net realizable value |
| O&M | Operation and maintenance |
| OMB | Office of Management and Budget |
| PP&E | Property, plant and equipment |
| PRV | Plant replacement value |
| psf | Per square foot |
| SFAS | Statement of Financial Accounting Standards (FASB) |
| SFFAC | Statement of Federal Financial Accounting Concepts |
| SFFAS | Statement of Federal Financial Accounting Standards |

## Appendix D: Glossary

**General property, plant, and equipment (G-PP&E)** - G- PP&E is any property, plant, and equipment (PP&E) used in providing goods or services and includes, among other types of PP&E, multi-use heritage assets, capitalized improvements to stewardship land, and construction work-in-process. PP&E includes land and land rights that are acquired for or in connection with items of general PP&E used to provide government services or goods. GPP&E does not include heritage assets such as historic and national landmarks and stewardship land; reporting for these assets should be done in accordance with SFFAS 29, Heritage Assets and Stewardship Land. The cost of general PP&E is capitalized, i.e. recorded as assets on the balance sheet. For detailed characteristics of and accounting for general PP&E, see SFFAS 6, pars 23 through 45.

**Comment [DNS62]:** Respondent #2 raised concerns that the ED did not have an illustration concerning land.

Staff advises that we clarify in the Glossary that G-PP&E clearly includes land and land rights. Language has been taken from the FASAB Appendix E glossary

**Impairment** - a significant[32] and permanent~~, gradual or sudden,~~ decline in the service utility of G-PP&E or expected service utility for construction work in progress.

**Comment [DNS63]:** Per S. McCall email dated 9 August. Page 73. The definition of impairment should be: "Impairment – a significant and permanent decline in the service utility of G-PP&E, **or expected service utility for construction work in progress**." This change would be consistent with the definition of Impairment on page 7.

**Internal use software** - software that is purchased from commercial vendors "off-the shelf," internally developed, or contractor-developed solely to meet the entity's internal or operational needs (SFFAS 10, par. 8).

**Level of utilization** - the portion of the usable capacity currently being used.

**Partial impairment** - less than full or total impairment.

**Service utility** - the usable capacity that at acquisition was expected to be used to provide service.

**Total (full) impairment** - G-PP&E is no longer capable of providing service in the operations of the entity prior to the end of its estimated useful life.

[32] The determination of whether or not an item is significant is a matter of professional judgment. Determining if a decline in service utility is significant is separate and distinct from materiality considerations that include considering the likely influence that such disclosure could have on judgments or decisions of financial statement users.

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Federal Accounting Standards Advisory Board

# Accounting for Impairment of General Property, Plant, and Equipment Remaining in Use

## Statement of Federal Financial Accounting Standards 44

Month, Day, 2012

## THE FEDERAL ACCOUNTING STANDARDS ADVISORY BOARD

The Secretary of the Treasury, the Director of the Office of Management and Budget (OMB), and the Comptroller General, established the Federal Accounting Standards Advisory Board (FASAB or "the Board") in October 1990. FASAB is responsible for promulgating accounting standards for the United States government. These standards are recognized as generally accepted accounting principles (GAAP) for the federal government.

An accounting standard is typically formulated initially as a proposal after considering the financial and budgetary information needs of citizens (including the news media, state and local legislators, analysts from private firms, academe, and elsewhere), Congress, federal executives, federal program managers, and other users of federal financial information. The proposed standards are published in an exposure draft for public comment. In some cases, a discussion memorandum, invitation for comment, or preliminary views document may be published before an exposure draft is published on a specific topic. A public hearing is sometimes held to receive oral comments in addition to written comments. The Board considers comments and decides whether to adopt the proposed standard with or without modification. After review by the three officials who sponsor FASAB, the Board publishes adopted standards in a Statement of Federal Financial Accounting Standards. The Board follows a similar process for Statements of Federal Financial Accounting Concepts, which guide the Board in developing accounting standards and formulating the framework for federal accounting and reporting.

Additional background information is available from the FASAB or its website:

- "Memorandum of Understanding among the Government Accountability Office, the Department of the Treasury, and the Office of Management and Budget, on Federal Government Accounting Standards and a Federal Accounting Standards Advisory Board."

- "Mission Statement: Federal Accounting Standards Advisory Board", exposure drafts, Statements of Federal Financial Accounting Standards and Concepts, FASAB newsletters, and other items of interest are posted on FASAB's website at: www.fasab.gov.

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## Summary

This Statement establishes accounting and financial reporting standards for impairment of general property, plant, and equipment (G-PP&E) remaining in use, except for internal use software. G-PP&E is considered impaired when there is a significant and permanent decline in the service utility of G-PP&E or expected service utility for construction work in progress. A decline is permanent when management has no reasonable expectation that the lost service utility will be replaced or restored.

This Statement does not require entities to search for impairments. However, entity management should consider documenting the decisions it makes while determining how to implement the requirements of this Statement. Such decisions should include consideration of materiality. Materiality considerations should include an assessment of the impact to the cost of service(s) before and after the impairment.

Recognition of impairment losses is dependent upon a two-step process that entails (a) identifying potential impairments and (b) testing for impairment. The losses should be reasonably estimated by determining the portion of the decline in the net book value of the G-PP&E attributable to the lost service utility.

This Statement improves financial reporting by requiring entities to report the effects of G-PP&E impairments in their financial statements when they occur rather than as a part of the ongoing depreciation expense for the G-PP&E or upon disposal of the G-PP&E. This will enable users of financial statements to discern the cost of impairments when they occur, the financial impact on the reporting entity, and the cost of services provided following the impairment. This Statement also enhances comparability of financial statements between entities by requiring all entities to account for impairments in a similar manner.

## Introduction

### Purpose

1. Statement of Federal Financial Accounting Standards (SFFAS) 6, *Accounting for Property, Plant, and Equipment,* contains principles-based guidance concerning **general property, plant, and equipment (G-PP&E)**[1] that is removed from service due to **total (full) impairment** of G-PP&E or other reasons. SFFAS 6 requires that G-PP&E be removed from G-PP&E accounts along with associated accumulated depreciation/amortization, if prior to disposal, retirement, or removal from service it no longer provides service in the operations of the entity.[2] SFFAS 6 does not address situations where there is less than total (full) impairment of G-PP&E.

2. SFFAS 10, *Accounting for Internal Use Software,* provides guidance for the impairment of **internal use software**.[3] This Statement does not alter existing requirements regarding internal use software.

3. This Statement provides accounting and reporting requirements for all **partial impairments** of G-PP&E remaining in use and construction work-in-process.

#### Materiality

4. The provisions of this Statement need not be applied to immaterial items. The determination of whether an item is material depends on the degree to

[1] Terms defined in the Glossary are shown in **bold-face** the first time they appear.

[2] Refer to Technical Release 14, *Implementation Guidance on the Accounting for the Disposal of General Property, Plant, & Equipment,* which provides implementation guidance that clarifies existing SFFAS 6 requirements and is intended to help differentiate between permanent and other than permanent removal from service of G-PP&E. The implementation guidance also recognizes the many complexities involved in the disposal of G-PP&E, as well as delineates events that trigger discontinuation of depreciation and removal of G-PP&E from accounting records.

[3] SFFAS 10, at paragraphs 28 through 31, provides additional procedures for recognizing and measuring impairment related to internal use software. The provisions in SFFAS 10 and SFFAS 6 are the same regarding situations where the software or G-PP&E is impaired and will be removed from service in its entirety. Both standards provide that the loss is measured as the difference between the book value and the net realizable value, if any. However, SFFAS 10 also provides for instances where (1) operational software is only partly impaired and (2) developmental software becomes impaired.

which omitting or misstating information about the item makes it probable that the judgment of a reasonable person relying on the information would have been changed or influenced by the omission or the misstatement.

**Effective Date**

5. The standards are effective for reporting periods beginning after September 30, 2014. Earlier implementation is encouraged.

## Standards

### Scope and Applicability

6. This Statement applies to federal entities that present general purpose federal financial reports, including the consolidated financial report of the U.S. Government (CFR), in conformance with generally accepted accounting principles, as defined by paragraphs 5 through 8 of Statement of Federal Financial Accounting Standards (SFFAS) 34, *The Hierarchy of Generally Accepted Accounting Principles, Including the Application of Standards Issued by the Financial Accounting Standards Board*.

7. This Statement applies to G-PP&E[4] except internal use software. This Statement establishes guidance on accounting for the impairment of G-PP&E remaining in use, including construction work in process. The provisions of this Statement are to be applied when indicators of potential impairment, as specified in this Statement, are identified by the entity. The entity is not required to conduct an annual or other periodic survey solely for the purpose of applying these standards. Existing processes may include routine assessments regarding the continued operational and functional capacity of G-PP&E, entity mission requirements, impacts of significant events or changes in circumstances, and deferred maintenance and repairs. The results of such processes may serve as the basis for applying these standards.

### Definition of Impairment

8. **Impairment** is a significant[5] and permanent decline in the **service utility** of G-PP&E, or expected service utility for construction work in process. Entities generally hold G-PP&E because of the services they provide or will

[4] G-PP&E is any property, plant, and equipment (PP&E) used in providing goods or services and includes, among other types of PP&E, multi-use heritage assets, capitalized improvements to stewardship land, and construction work-in-process. PP&E includes land and land rights that are acquired for or in connection with items of G-PP&E used to provide government services or goods. G-PP&E does not include heritage assets, such as historic and national landmarks, and stewardship land; reporting for these assets should be in accordance with SFFAS 29, *Heritage Assets and Stewardship Land*. The cost of G-PP&E is capitalized, i.e. recorded as assets on the balance sheet. For detailed characteristics of and accounting for G-PP&E, see SFFAS 6, par. 23 through 45.

[5] The determination of whether or not an item is significant is a matter of professional judgment. Such judgments may be based on: (1) the relative costs of providing the service before and after the decline, (2) the percentage decline in service utility, or (3) other considerations. Determining if a decline in service utility is significant is separate and distinct from materiality considerations that include considering the likely influence that such disclosure could have on judgments or decisions of financial statement users.

provide in the future; consequently, impairments affect the service utility of the G-PP&E. The events or changes in circumstances that lead to impairments are not considered normal and ordinary.[6] That is, at the time the G-PP&E was acquired, the event or change in circumstance would not have been (a) expected to occur during the useful life of the G-PP&E or, (b) if expected, sufficiently predictable to be considered in estimating the useful life.

9. The service utility of G-PP&E is the usable capacity that at acquisition was expected to be used to provide service, as distinguished from the **level of utilization**, which is the portion of the usable capacity currently being used. The current usable capacity of G-PP&E may be less than its original usable capacity due to the normal or expected decline in useful life or to impairing events or changes in circumstances, such as physical damage, obsolescence, enactment or approval of laws, or regulations or other changes in environmental or economic factors, or change in the manner or duration of use. Usable capacity may be different from maximum capacity[7] in circumstances in which surplus capacity (the excess capacity over the usable capacity) is needed for safety, economic, operational readiness or other reasons. G-PP&E that experience decreases in utilization and the simultaneous existence of or increases in surplus capacity not associated with a decline in service utility are not considered impaired.

### Identification of Impairment – A Two-step Process

10. Generally, G-PP&E remaining in use is impaired if the decline in the service utility of the G-PP&E is significant and deemed permanent.

11. The determination of whether G-PP&E remaining in use is impaired, as defined in paragraph 8 above, includes (a) identifying potential impairment indicators and (b) testing for impairment. G-PP&E would be identified as potentially impaired as a result of the occurrence of significant events or changes in circumstances, or routine asset management processes.

[6] Normal and ordinary are defined as events or circumstances that fall within the expected useful life of the PP&E such as standard maintenance and repair requirements.

[7] Maximum capacity is the usable capacity plus any surplus capacity.

### Step 1 – Identify Indicators of Potential Impairment

12. Some common indicators of potential impairment include those listed below. The indicators identified are not conclusive evidence that a measurable or reportable impairment exists. Entities should carefully consider the surrounding circumstances to determine if a test of potential impairment is necessary given the circumstances.

    a. evidence of physical damage,
    b. enactment or approval of laws or regulations which limit or restrict G-PP&E usage,
    c. changes in environmental or economic factors,
    d. technological changes or evidence of obsolescence,[8]
    e. changes in the manner or duration of use of G-PP&E,
    f. construction stoppage or contract termination, and
    g. G-PP&E idled or unserviceable for excessively long periods.[9]

### G-PP&E Identified From Significant Events or Changes in Circumstances

13. Events or changes in circumstances affecting G-PP&E that may indicate impairment are sometimes significant. Significant events or changes in circumstances are conspicuous or known to the entity's management or oversight entities. This Statement does not require that entities conduct an annual or periodic survey solely to identify potential impairments of G-PP&E. Rather, significant events or changes in circumstances affecting G-

[8] Technological changes or evidence of obsolescence should be considered along with other factors when assessing impairment. For example, if obsolete PP&E continues to be used, the service utility expected at acquisition may not be diminished. Further, when obsolescence is expected, PP&E that is subject to obsolescence can be addressed through depreciation, particularly by using accelerated methods that yield a lower capital cost per year as the asset's utility diminishes when compared to that of later versions of the same asset.

[9] Refer to Technical Release 14, *Implementation Guidance on the Accounting for the Disposal of General Property, Plant, & Equipment*, which provides implementation guidance that clarifies existing SFFAS 6 requirements and is intended to help differentiate between permanent and other than permanent removal from service of G-PP&E. The implementation guidance also recognizes the many complexities involved in the disposal of G-PP&E, as well as delineates events that trigger discontinuation of depreciation and removal of G-PP&E from accounting records.

PP&E that may indicate impairment are conspicuous or known to the entity's management or oversight entities and are generally expected to have prompted consideration[10] by management, oversight entities, or others (e. g., the media).

**G-PP&E Identified from Asset Management Reviews (e.g., portfolio surveys)**

14. Existing asset management processes may include portfolio surveys that consider matters such as the continued operational and functional capacity of G-PP&E, entity mission requirements, or deferred maintenance and repairs assessments. Potentially impaired G-PP&E may be identified from such surveys and further evaluated through the two-step process.

**Reduced demand should not be considered a discrete or sole indicator of impairment**

15. As explained in paragraph 9 above, reduced demand for the services of G-PP&E should not be considered a discrete or sole indicator of impairment. Instead, there should also be evidence of an underlying potential impairment resulting in the reduced demand. In these circumstances, the causes behind such changes in demand should be evaluated in light of the indicators listed in paragraph 12 and the G-PP&E should be tested for impairment.

**Step 2 - Impairment Test**

16. G-PP&E identified through the processes described in paragraphs 10 through 15 should be tested for impairment by determining whether the following two factors are present:

    a. **The magnitude of the decline in service utility (as defined in par. 9) is significant**. The costs associated with the original or other previously established service utility are significantly greater than the costs that would otherwise be associated with the new expected service utility. Such costs should include operational and maintenance costs. Judgment is required to determine whether the decline is significant. Such judgments may be based on: (1) the relative costs of providing the

[10] Consideration might include but is not limited to management discussions, internal managerial analyses or reviews, conferences or consultations with experts, media or public relations interviews, or external industry scrutiny.

service before and after the decline, (2) the percentage decline in service utility, or (3) other considerations.

b. **The decline in service utility is expected to be permanent.** The decline is considered permanent when management has no reasonable expectation that the lost service utility will be replaced or restored. That is, management expects that the G-PP&E will remain in service so that its remaining service utility will be utilized. In contrast, reasonable expectation may exist when management has (1) specific plans to replace or restore the lost service utility of this G-PP&E, (2) committed or obligated funding for remediation efforts, or (3) a history of remediating lost service utility in similar cases or for similar G-PP&E.

17. For construction work in process, the testing of impairment discussed in paragraph 16 above should be performed over the expected future service utility rather than current service utility.

**Determining the Appropriate Measurement Approach**

18. Impairment losses on G-PP&E that will continue to be used by the entity[11] should be estimated using a measurement method that reasonably[12] reflects the diminished service utility of the G-PP&E. The goal of the measurement methods discussed below is to reasonably estimate the portion of the net book value associated with the diminished service utility of the G-PP&E. A specific method, including one of the methods listed below, would not be considered appropriate if it would result in an unreasonable net book value associated with the remaining service utility of the G-PP&E. Within an entity, one method may not be appropriate for measuring all impairments. Also, a reasonable methodology may nonetheless result in no impairment loss to be recognized. While using any method, if the method results in an impairment loss greater than an asset's net book value, recognition of the loss should be limited to the asset's net book value. Widely recognized methods for measuring impairment include:

a. **Replacement approach.** Impairment of G-PP&E with physical damage generally may be measured using a replacement approach. This approach uses the estimated cost to replace the lost service utility of the G-PP&E at

[11] See SFFAS 6, *Accounting for Property, Plant, and Equipment,* paragraphs 38 and 39 for guidance regarding PP&E that will not continue to be used by the entity.

[12] Given a choice among comparable methods, entities should adopt the most efficient and practical method available under the circumstances.

today's standards[13] to identify the portion of the historical cost of the G-PP&E that should be written off. For federal real property purposes, this cost can be derived from the plant replacement value (PRV). This estimate can be converted to historical cost by restating (i.e., deflating) the estimated cost to replace the diminished service utility using an appropriate cost index. Alternatively, it may be appropriate to apply the ratio of the estimated cost to replace the diminished service utility over total estimated cost to replace the G-PP&E, to the net book value of the G-PP&E.

b. **Restoration approach.** Impairment of improvements made to stewardship land and multi-use heritage assets with physical damage may generally be measured by using a restoration approach. This approach uses the estimated cost to restore the diminished service utility of the G-PP&E to identify the portion of the historical cost of the G-PP&E that should be written off. This approach does not include any amounts attributable to improvements and additions to meet today's standards. The estimated restoration cost can be converted to historical cost by restating (i.e., deflating) the estimated restoration cost using an appropriate cost index. Alternatively, it may be appropriate to apply the ratio of estimated restoration cost to restore the diminished service utility over total estimated restoration cost to the net book value of the G-PP&E.

c. **Service units approach.** Impairment of G-PP&E that are affected by enactment or approval of laws or regulations or other changes in environmental/economic factors or are subject to technological changes or obsolescence generally may be measured using a service units approach. This approach compares the service units provided by the G-PP&E before and after the impairment event or change in circumstance to isolate the historical cost of the service utility of the G-PP&E that cannot be used due to the impairment event or change in circumstance. The amount of impairment is determined by evaluating the service provided by the G-PP&E - either maximum estimated service units or total estimated service units throughout the life of the G-PP&E - before and after the event or change in circumstance.

d. **Deflated depreciated current cost approach.** Impairment of G-PP&E that are subject to a change in manner or duration of use generally may

[13] For example, *"at today's standards"* would generally mean the use of current market prices for materials, labor, manufactured items and equipment using current building, manufacturing, or fabrication techniques in compliance with current statutory, regulatory, or industry standards.

be measured using a deflated depreciated current cost approach. This approach quantifies the cost of the service currently being provided by the G-PP&E and converts that cost to historical cost. A current cost for a G-PP&E to replace the current level of service is estimated. This estimated current cost is then depreciated to reflect the fact that the G-PP&E is not new, and then is subsequently deflated to convert it to historical cost dollars. A potential impairment loss results if the net book value of the G-PP&E exceeds the estimated historical cost of the current service utility (i.e., deflated depreciated current cost).

e. **Cash flow approach**. Impairment of cash or revenue generating G-PP&E, such as those used for business or proprietary-type activities, may be assessed using a cash flow approach. Under this approach, an impairment loss should be recognized only if the net book value of the G-PP&E (1) is not recoverable and (2) exceeds the higher of its net realizable value[14] or value-in-use estimate.[15] The net book value of the G-PP&E is not recoverable if it exceeds the sum of the undiscounted cash flows expected to result from the use and eventual disposition of the G-PP&E. That assessment should be based on the net book value of the G-PP&E at the date it is tested for recoverability, whether in use or under development. If the net book value is not recoverable, the impairment loss is the amount by which the net book value of the G-PP&E exceeds the higher of its net realizable value or value-in-use estimate. No impairment loss exists if the net book value is less than the higher of the G-PP&E's net realizable value or value-in-use estimate.

f. **Lower of (1) Net Book Value or (2) Higher of Net Realizable Value or Value-in-Use Approach.** G-PP&E impaired from either construction stoppages or contract terminations, which are expected to provide service, should be reported at their recoverable amount; the lower of (1) the G-

[14] Net realizable value is the estimated amount that can be recovered from selling, or any other method of disposing of an item less estimated costs of completion, holding and disposal.

[15] Statement of Federal Financial Accounting Concepts (SFFAC) 7, *Measurement of the Elements of Accrual-Basis Financial Statements in Periods After Initial Recording*, paragraph 50, defines value-in-use as "…the benefit to be obtained by an entity from the continuing use of an asset and from its disposal at the end of its useful life." Paragraph 51 further states that "Value in use is a remeasured amount for assets used to provide services. It can be measured at the present value of future cash flows that the entity expects to derive from the asset, including cash flows from use of the asset and eventual disposition. Value in use is entity specific and differs from fair value. Fair value is intended to be an objective, market-based estimate of the exchange price of an asset between willing parties. Value in use is an entity's own estimation of the service potential of an asset that it holds to provide a specific service." (underscoring added for emphasis)

PP&E's net book value or (2) the higher of its net realizable value or value-in-use estimate. Impaired G-PP&E, which are not expected to provide service, should be accounted for and reported in accordance with SFFAS 6.

**Recognizing and Reporting Impairment Losses**

19. The loss from impairment should be recognized and reported in the statement of net cost when management concludes that the impairment is (1) a significant decline in service utility and (2) expected to be permanent. Such loss may be included in program cost(s) or cost(s) not assigned to programs consistent with SFFAS 4, *Managerial Cost Accounting Standards and Concepts*. However, in cases where an entity decides that an impairment loss is immaterial, it should consider the need for adjustments to the G-PP&E's depreciation methods, useful life or salvage value estimates.
20. The impairment loss should be recognized and reported regardless of whether the G-PP&E remaining in use is being depreciated individually or as part of a composite group. The impairment loss may be reported as a separate line item or line items on the statement of net cost. Deciding to display a separate line item or items on the statement of net cost requires judgment. The preparer should consider quantitative and qualitative criteria. Acceptable criteria include but are not limited to quantitative factors such as the percentage of the reporting entity's cost that resulted from the impairment and the size of the impairment loss relative to the G-PP&E; and qualitative factors including whether the loss would be of interest to decision makers and other users.
21. A general description of the G-PP&E remaining in use for which an impairment loss is recognized, the nature (e.g., damage or obsolescence) and amount of the impairment, measurement methods used in recognizing the impairment amount and the financial statement classification of the impairment loss should be disclosed in the notes to the financial statements. Such disclosures should be made in the period the impairment loss is recognized.

**Diminished Service Utility Without Recognized Impairment Loss**

22. Events, changes in circumstances, or asset management reviews might indicate that the future service utility of G-PP&E remaining in use has been adversely affected. However, if future service utility has been adversely affected but the impairment test determines that a loss need not be recognized, a change to the estimates used in depreciation calculations such as estimated useful life and salvage value should be considered.

### G-PP&E That No Longer Provides Service

23. G-PP&E that no longer provides service or in the case of construction work in process where there is no expectation to future service by the entity should be accounted for in accordance with SFFAS 6, paragraphs 38 and 39, and Technical Release 14, *Implementation Guidance on the Accounting for the Disposal of General Property Plant, & Equipment.*

### Remediating Previously Reported Impairments

24. Subject to the entity's capitalization policies, if an entity later remediates the previously impaired G-PP&E remaining in use, the costs incurred to replace or restore the lost service utility should be accounted for in accordance with applicable standards. For example, costs to prepare the site and install replacement facilities would be recognized in accordance with SFFAS 6, *Accounting for Property, Plant, and Equipment*.

### Recoveries

25. The impairment loss should be reported net of any associated recovery when the recovery and loss occur in the same year. Recoveries reported in subsequent years should be reported as revenue or other financing source as appropriate. If not otherwise apparent in the financial statements, the amount and financial statement classification of recoveries should be disclosed in the notes. The accounting for recoveries should be in accordance with SFFAS 7, *Accounting for Revenue and Other Financing Sources and Concepts for Reconciling Budgetary and Financial Accounting.*

### Consolidated Financial Report of the U.S. Government

26. The U.S. government-wide financial statements need not disclose the measurement methods used in recognizing impairment losses. If impairment of G-PP&E remaining in use is recognized, the following information should be disclosed:

    a. a general description of what constitutes G-PP&E impairment,

    b. the consolidated G-PP&E impairment losses recognized by component entities, and

    c. a reference(s) to component entity report(s) for additional information.

## Effective Date

27. The requirements of this Statement are effective for reporting periods beginning after September 30, 2014. Earlier implementation is encouraged.

The provisions of this Statement need not be applied to immaterial items.

## Appendix A: Basis for Conclusions

This appendix discusses some factors considered significant by Board members in reaching the conclusions in this Statement. It includes the reasons for accepting certain approaches and rejecting others. Individual members gave greater weight to some factors than to others. The standards enunciated in this Statement–not the material in this appendix–should govern the accounting for specific transactions, events, or conditions.

### Project History

A1. In Statement of Federal Financial Accounting Standards (SFFAS) 23, *Eliminating the Category National Defense Property, Plant, and Equipment,* issued in May 2003, the Board identified impairment as one of three areas (the other two being depreciation and deferred maintenance) that it desired to consider integrating into a comprehensive project. Complete impairment was addressed in SFFAS 6, *Accounting for Property, Plant, and Equipment,* through the requirements that general PP&E "…*be removed from general PP&E accounts along with associated accumulated depreciation/amortization, if prior to disposal, retirement or removal from service, it no longer provides service in the operations of the entity. This could be either because it has suffered damage, becomes obsolete in advance of expectations, or is identified as excess."* However, SFFAS 6 does not address partial impairment, even though the effects of partial impairment may be material in some cases. The Board decided to address asset impairment at the time it addressed deferred maintenance. Subsequent to the issuance of Statement of Federal Financial Accounting Standards 40: *Definitional Changes Related to Deferred Maintenance and Repairs: Amending Statement of Federal Financial Accounting Standards 6, Accounting for Property, Plant, and Equipment* in May 2011, the Board initiated work on addressing potential enhancements to existing FASAB guidance regarding impairment.

A2. In evaluating an approach applicable to federal G-PP&E, the Board considered the approaches used in the following documents:

- *Financial Accounting Standards Board (FASB) Statement of Financial Accounting Standards (SFAS) 144, Accounting for the Impairment or Disposal of Long-Lived Assets (Superseded by FASB Accounting Standards Codification (ASC) 360)*

- Governmental Accounting Standards Board (GASB) Statement (GASBS) 42, *Accounting and Financial Reporting for Impairment of Capital Assets and for Insurance Recoveries*[16]

- International Public Sector Accounting Standard (IPSAS) 21, *Impairment of Non-Cash Generating Assets*

- IPSAS 26, *Impairment of Cash-Generating Assets*

A working group was organized to assist the Board in analyzing the impairment standards promulgated by the FASB, GASB, and the International Public Sector Accounting Standards Board (IPSASB). The working group's analysis was initially screened by the Deferred Maintenance and Asset Impairment (DM-AI) Task Force and subsequently tested with a broader community beyond the task force to get other points of view. The consensus recommendation was to use the GASBS 42 approach as a baseline for the development of a federal asset impairment standard.

**Significant and Permanent Decline in Service Utility**

A3. This Statement requires recognizing a potential impairment loss only when there is a significant and permanent decline in the G-PP&E's service utility. In reaching this decision, the Board considered and weighed (a) the need for relevant, reliable, and consistent financial reporting and (b) entity burden.

a. For financial reporting to be:

(i) relevant - a logical relationship must exist between the information provided and the purpose for which it is needed. G-PP&E impairment information is relevant because it is capable of making a difference in a user's assessment of how well the entity is meeting its federal asset stewardship responsibilities.

(ii) reliable - information needs to be comprehensive and nothing material should be omitted nor should anything be included that would likely cause the information to be misleading. The reporting of G-PP&E impairments

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significantly adds to the informational value and reliability of amounts presented in the entity's balance sheet and statement of net cost.

(iii) consistent over time - an accounting principle or reporting method should be used for all similar transactions and events unless there is good cause to change. Establishing G-PP&E impairment standards significantly adds to consistent financial reporting.

b. The Board is aware of the increased demands that entities confront due to initiatives that attempt to better align and integrate entity mission, budget, and performance objectives. As such, the Board desires to issue a G-PP&E impairment standard that entities can effectively adopt without undue administrative burden while still satisfying the objectives of federal financial reporting.

**Recognizing Impairments**

A4. As discussed in paragraphs 13 and 14, impairments can be identified and brought to management's attention in a variety of ways. Although a presumption exists that there are existing processes and internal controls in place to ensure such identification and communication, this standard does not require that entities conduct an annual or other periodic survey solely for the purpose of applying these standards.

A5. The Board notes that not all significant events and/or changes in circumstances discussed by oversight bodies, management, or the media would necessarily be considered material to an entity's financial statements. Consequently, an entity must exercise judgment in this regard considering whether omitting or misstating information about the significant event and/or changes in circumstances makes it probable that the judgment of a reasonable person relying on the information would be changed or influenced by the omission or the misstatement. However, in cases where an entity decides that a significant event or change in circumstance is immaterial, it should consider the need for adjustments to the G-PP&E's depreciation methods, useful life or salvage value estimates.

The Board also notes that common indicators of potential impairment can be discovered during different types of asset management reviews that include the following types of G-PP&E assessments:

a. Condition assessments revealing evidence of physical damage, deterioration, and/or distresses such as for a building (1) damaged by fire

or flood, (2) not adequately maintained or repaired, (3) associated with significant amounts of deferred maintenance and repairs and/or (4) exhibiting signs of advanced degradation that might adversely impact expected duration of use, each requiring remedial or replacement/restoration efforts to restore service utility.

b. Functionality assessments revealing evidence of reduced capacity, inadequate configuration, change in entity mission, change in the manner or expected use, and enactment or approval of laws, regulations, codes or other changes in environmental factors, such as new water quality standards that a water treatment plant does not meet (and cannot be modified to meet).

c. Obsolescence assessments revealing evidence of technological development or obsolescence, such as that related to a major piece of diagnostic or research equipment (for example, a magnetic resonance imaging machine or a scanning electron microscope) that is rarely or never used because newly acquired equipment provides better service.

### Common Indicators of Potential Impairment

A6. The Board considered the general approaches used by other standards-setters regarding the issues of impairment identification and testing. The DM-AI Task Force identified the GASB approach as being the most germane for federal application and recommended adopting its use with appropriate modifications. As a result, this Statement consists of a two-step process of (a) identifying potentially impaired G-PP&E through indictors of impairment and (b) testing to determine whether a potential impairment exists by comparing the net book value of the G-PP&E to a valuation reflecting the current state of the G-PP&E.

A7. Recognizing the administrative burden and costs involved in applying a test of potential impairment, the Board desires to make clear that the indicators identified at paragraph 12 in and of themselves are not conclusive evidence that a measurable or reportable impairment exists. Entities should carefully consider the surrounding circumstances to determine if a test of potential impairment may be unnecessary given the circumstances.

A8. In order to limit the universe of G-PP&E tested for potential impairment because of cost-benefit considerations, the Board proposes two modifiers to the indicators: (a) the magnitude of the decline in service utility is significant and (b) the decline in service utility is permanent. The first modifier would limit testing for potential impairment to only G-PP&E that have experienced a significant decline

in the asset's service utility. The second modifier would limit testing to only those G-PP&E where the decline in lost service utility is expected to be permanent. The decline is considered permanent when management has no reasonable expectation that the lost service utility will be replaced or restored and that the G-PP&E's remaining service utility can continue providing value.

A9. G-PP&E is to be considered impaired only when both of these two modifiers are present. When either of these conditions is not present, the decline in the service utility of the G-PP&E may be recognized through other methods such as changing useful life or salvage value estimates.

**Determining if Magnitude of Decline in Service Utility is Significant**

A10. Because measurement of a potential impairment is not required unless a significant decline in service utility occurs, management should assess the magnitude of the service decline. In cases where there is physical damage to G-PP&E, the significance can often be objectively assessed because the costs of remediation (i.e., replacement or restoration) may be relatively easy to determine, at least within a range of estimates. In circumstances other than those involving physical damage, significance may be discerned by less objective assessments such as:

(1) Whether management acts to address the situation. Management decisions may be indicative of a potential decline in service utility. For example, a specific action taken by management after a service decline may confirm that expenses exceed future benefit. Likewise, a decision by management to not address a service decline may be an indication the decline is not significant and a test of impairment is not required.

(2) Costs associated with the previous service utility are significantly greater than the costs that would otherwise be associated with the new expected service utility. For example, when comparing the benefits and related costs associated with the new expected service utility after the impairment with those benefits and related costs existing prior to the impairment, management may confirm that costs exceed future benefit. As a result, the decline is significant and a test of impairment is required.

**Selecting a Measurement Approach**

A11. Professional judgment should be used when selecting a method to measure the decline in service utility of G-PP&E. Generally, potential impairments:

a. reflecting degradation or physical damage may be measured using a replacement approach or, for multi-use heritage assets, a restoration approach.

b. reflecting a change resulting from enactment or approval of laws or regulations or other changes in environmental/economic factors or from technological development or obsolescence generally may be measured using a service units approach.

c. reflecting a change in manner or duration of use or change in mission generally may be measured using deflated depreciated current cost approach.

d. for cash or revenue-generating G-PP&E may be measured using the cash flow approach.

e. arising from construction stoppages or contract terminations which are expected to provide service, should be reported at their recoverable amount; the lower of (1) the G-PP&E's net book value or (2) the higher of its net realizable value or value-in-use estimate.

A12. The Board emphasizes that in estimating the diminished service utility of the G-PP&E, the measurement approach chosen should yield a reasonable estimate reflecting the diminished service capacity of the G-PP&E. Before using a specific method a determination should be made that it will result in (1) a reasonable estimate of diminished service capacity for the specific asset and (2) a reasonable net book value associated with the remaining service utility of the G-PP&E. There should not be a presumption of reasonableness attached to the use of any of these methods if the resultant calculations reflect an unreasonable estimate of the remaining service utility of the G-PP&E. For example, if using the replacement approach, cost estimates to remediate the damage to an asset is equal to or greater than the asset's total replacement cost, the resultant calculation would lead to a full write-down of the carrying value. However, if the asset is to remain in use, the full write-down would be inappropriate because some service potential remains. In such a case, management should look to another method such as the deflated depreciated current cost approach to estimate the historical cost of the asset's residual service capacity that will continue to be used. Additionally, within an entity, one

method may not be appropriate for measuring asset impairments across all categories or classes of assets. The Board notes that a reasonable methodology may not result in the recognition of an impairment loss.

### Among Comparable Methods – Choose the Most Efficient

A13. The Board recognizes that there may be cases where more than one comparable method could be used to measure the decline in an asset's service utility. In such cases, the entity should use whichever method most reasonably reflects the diminished service utility. In cases where the methods under consideration are expected to yield similar results, management should adopt the most efficient method available given the circumstances.

### Reduced Demand

A14. The Board notes that reduced demand for the services of G-PP&E should not be considered as a discrete or sole indicator of potential impairment. That is, reduced demand absent evidence of an underlying potential impairment resulting in that reduced demand is not an indicator of impairment. For example, decreased demand for the processing services of a mainframe computer because former users of the mainframe have transitioned to PC and server-based systems should be considered a change in demand not requiring impairment testing. However, if associated with an indicator of potential impairment such as evidence of obsolescence, then the mainframe should be tested for potential impairment.

A15. In addition, a decrease in demand <u>solely</u> resulting from the conclusion of a special project requiring large amounts of processing time on a mainframe computer that runs other applications should not be considered for impairment testing.

A16. A decrease in occupancy is another example of a change in demand. If a decrease in the occupancy of hospital beds prompts management to close a hospital, a change in manner or duration of use has also resulted and a test for impairment should be performed. However, a test for impairment is not required if the decrease in hospital beds results <u>solely</u> because the hospital is changing from an overcrowded condition to one in which occupancy rates are now below the maximum allowed. However, care should be taken to ensure that there is not a potential indicator of impairment that could require testing.

### Estimating Potential Impairment Losses

A17. Measuring the cost of the lost service utility generally requires the use of estimates or approximations. According to Statement of Federal Financial Accounting Concepts (SFFAC) 5, *Definitions of Elements and Basic Recognition Criteria for Accrual-Basis Financial Statements*, to be recognized an item must be measurable, meaning that a monetary amount can be determined with reasonable certainty or is reasonably estimable (underscoring added for emphasis). For this reason, the Board notes that it (1) does not seek exact precision in determining the lost service utility of the asset and (2) does not intend to direct or prescribe the use of any particular approach listed in paragraph 18.

A18. However, the Board notes that care should be taken when estimating potential impairment losses. For example, if a multi-use heritage asset requires testing for potential impairment, the restoration approach and not the replacement approach should be used. Although these approaches may appear to be identical, they are not. The replacement approach estimates the cost to replace the lost service utility of the G-PP&E at today's standards whereas the restoration approach does not. In either case, the required estimates used for the calculation inputs are different and can significantly affect the potential impairment loss measurement. Differences will arise because the replacement approach uses estimates reflecting today's current labor and material options and costs, modern standards, and installation methods whereas the restoration approach uses estimates that generally require using historically accurate (e.g., aesthetic or historic) materials and construction methods approved by an historic architect or historic preservationist to preserve the historic nature and value of the multi-use heritage asset.

A19. Entities should also ensure that impairment loss calculations exclude improvements or betterments. For example, assume that a portion of an old warehouse currently not being used suffers roof damage due to heavy snowfall. The entity decides not to repair the roof and to contain the damage by securing the adjoining area ensuring that there are no safety hazards. In this case, estimates for the construction of a new warehouse, including its roof should not include amounts for new types of roof ventilation systems, solar panel features, or green energy improvements, etc. Including such improvements or betterments might significantly affect the potential impairment loss measurement.

### G-PP&E Impairment Loss Reversals and Remediation

A20. Some previously recognized impairments may no longer exist or may have been remediated in subsequent periods. In such cases, the losses recognized in prior periods have been reversed such that a gain might be recognized and the G-PP&E book value increased. The Board concluded that reversals of G-PP&E impairment losses should not be recognized. In reaching the decision not to allow for reversals of G-PP&E impairment losses, the Board concluded that because reversal events are expected to be rare occurrences, there is no compelling need for complexity or increased burden as benefits do not appear to justify costs.

The Board concluded remediation of a previously reported impairment loss, is a change that results in an addition to the cost basis. Specifically, should management later decide to replace or restore an asset's lost service utility the costs incurred to do so become part of the G-PP&E's new cost basis. It is the Board's opinion that such a practice is consistent with the operating performance objective of federal financial reporting; users will be able to evaluate the service efforts, costs, and accomplishments of the reporting entity based on the revised cost basis.

### Recoveries

A21. Recoveries can be accounted for as either exchange or non-exchange transactions. In accordance with SFFAS 7, *Accounting for Revenue and Other Financing Sources and Concepts for Reconciling Budgetary and Financial Accounting:*

a. Exchange revenues should be recognized when goods or services are provided to the public or another government entity at a price. An example would be commercial insurance purchased in connection with G-PP&E belonging to a public-private arrangement.

b. Non-exchange revenues should be recognized when a specifically identifiable, legally enforceable claim to resources arises, to the extent that collection is probable (more likely than not) and the amount is reasonably estimable. For example, if a manufacturer or contract operator has admitted or acknowledged warranty or contract liability, a non-exchange recovery could be recognized. However, if the manufacturer or contract operator has denied liability, the non-exchange recovery generally would not be recognized unless the entity could impose monetary requirements such as fines or civil monetary penalties. Where the collecting and reporting entities are different, it is

important to note that non-exchange revenue amounts should be measured by the collecting entities and recognized for financial statement reporting by the entities legally entitled to the revenue.

**Distinguishing between Depreciation and Impairment**

A22. Depreciation systematically and rationally allocates the historical cost of the G-PP&E's service utility to the benefitting periods. The asset's costs are allocated (i.e., the asset is depreciated) across multiple periods based on asset management plans and formulas, including such variables as expected useful life of the asset, usage patterns, and residual or salvage value, if any. Costs are allocated because: (1) the G-PP&E is expected to benefit more than one period and (2) generally, there is no other practical or efficient way to directly assign or associate cause (i.e., entity activity or event) and effect (i.e., service utility consumption). That is, depreciation is allocated, because specific causation cannot be ascertained.

A23. On the other hand, impairment occurs when there is a significant and permanent decline in the service utility during the depreciation period of G-PP&E remaining in use, and that decline is reasonably estimable in monetary terms. Essentially, an event or circumstance alters the utility and/or value of the asset such that the systematic and rational allocation process noted in paragraph A22 above can no longer be reasonably applied and must be also altered accordingly. Moreover, primarily due to the significant nature of the event or changed circumstances, an entity can directly assign or associate cause (the event or circumstance) and effect (change in anticipated utility and/or value of the asset). As a result, the lost or diminished service utility (arising from the impairment) can be directly assigned in a practical and efficient manner.

A24. To the extent that an entity's depreciation policies and practices reflect a pattern of service utility consumption that reasonably accounts for discrete events and/or changed circumstances, impairment losses may not apply. For example, if an entity operates in multiple climates within a country or maintains a global presence, its regular and on-going depreciation may account for lost or diminished service utility resulting from damages likely to arise from reasonably anticipated climate or other environmental conditions. This could be evidenced by an entity deriving its useful life estimates from current and historical fixed asset records or maintenance and repair accounts, which include such events and/or circumstances. In such cases, the entity might

shorten the useful life estimate, alter the anticipated consumption pattern, or reduce its salvage value estimate. Consequently, depreciation would inherently consider the conditions giving rise to the impairment, thus avoiding the need to recognize an impairment loss.

### Perceived costs versus benefits

A25. The Board believes that the benefits of implementing this Statement outweigh its administrative costs of implementation. The Board has clarified the Statement so that users understand that they are not required to search out impairments or to apply the Statement to immaterial items. Entities should consider G-PP&E impairments in the context of their existing practices and apply this Statement only when there is an indicator of significant impairment present. Although GASB, IPSASB, and FASB pronouncements are available to provide federal preparers with guidance relative to impairments, issuance of a Statement by FASAB will eliminate the need, time, and effort to search principles from another standard-setter or consider analogous entity transactions. Other perceived benefits include: reporting impairments when they occur rather than through depreciation expense or disposal, providing management with information useful for capital investment decisions, discerning the cost of impairments and impact on the entity and the cost of services provided following the impairment, and lastly, enhancing comparability between entities.

### Summary of Outreach Efforts

A26. The Exposure Draft (ED), *Accounting for Impairment of General Property, Plant, and Equipment Remaining in Use,* was released on February 28, 2012, with comments requested by May 28, 2012.

A27. Upon release of the ED, notices and press releases were provided to the FASAB email listserv, the Federal Register, *The Journal of Accountancy, AGA Today, the CPA Journal, Government Executive, the CPA Letter, Government Accounting and Auditing Update*, the CFO Council, the Council of Inspectors General on Integrity and Efficiency, and the Financial Statement Audit Network, and committees of professional associations generally commenting on exposure drafts in the past (e.g., Greater Washington Society of CPAs, AGA Financial Management Standards Board).

A28. This broad announcement was followed by direct e-mailings of the press release to:

a) Relevant congressional committees: Senate Committee on Homeland Security and Governmental Affairs and House Committee on Oversight and Government Reform;

b) Public interest groups: The *Institute for Responsible Infrastructure Stewardship* and the *National Academy of Sciences' Federal Facilities Council*;

c) Respondents to SFFAS 42, *Deferred Maintenance and Repairs Amending Statements of Federal Financial Accounting Standards 6, 14, 29 and 32*.

A29. Twenty-three (23) responses were received. Table 1.0 summarizes responses by respondent type.

**Table 1.0 - Summary of Respondent Types to Exposure Draft**

| RESPONDENT TYPE | FEDERAL (Internal) | NON-FEDERAL (External) | TOTAL |
|---|---|---|---|
| **Preparers and financial managers** | **16** | **0** | **16** |
| | | | |
| **Users, academics, others** | **2** | **2** | **4** |
| | | | |
| **Auditors** | **2** | **1** | **3** |
| | | | |
| **Total** | **20** | **3** | **23** |

A30. The Board did not rely on the number in favor of or opposed to a given position. Information about the respondents' majority view is provided only as a means of summarizing the comments. The Board considered the arguments in each response and weighed the merits of the points raised. The following paragraphs discuss significant issues identified by respondents followed by Board decisions.

### Respondents' Comments on the Exposure Draft

A31. The Exposure Draft was very well received. By a 9-to-1 ratio respondents agreed with the Board's proposal to recognize impairment losses. Additionally, 22 of the 23 respondents agreed with the Board that entities are not expected to alter existing assessment methods as a direct consequence of this Statement. Some respondents offered suggestions that the Board adopted and revised the Exposure Draft accordingly. The most significant changes made to the proposed standard include: (1) simplifying the definition of impairment by not referencing either "gradual or sudden" and (2) clarifying entity reporting requirements. The most significant additions made to the Basis for Conclusions include (1) clarifying that recoveries take the form of exchange or non-exchange revenues and (2) a discussion concerning what distinguishes depreciation from impairment. Highlighted below are some respondent concerns that the Board decided to address.

#### Identifying Indicators of Potential Impairment

A32. Some respondents expressed concern over the indicators. Concerns ranged from the indicators being viewed as conclusive evidence of impairment necessitating an impairment loss test to the indicators being too vague and in need of expansion to address magnitude, permanence, and materiality. As stated at paragraph A7, the Board desires to make clear that the indicators identified at paragraph 12 in and of themselves <u>are not</u> conclusive evidence that a measurable or reportable impairment exists. Furthermore, they are the first step in a two-step process and as a result cannot be deemed conclusive. Entities should carefully consider the surrounding circumstances to determine if a test of potential impairment may be unnecessary given the circumstances. Furthermore, as stated at paragraphs A6 through A9 in the section entitled *Common Indicators of Potential Impairment*, the paragraph 12 indicators are not meant to be definitive in nature nor a fully inclusive list. Therefore, management must still exercise discretion and judgment when assessing potential impairment losses.

A33. Other respondents shared a concern that their auditors would require specific reviews or that the audit community could not determine the extent of additional audit procedures that could result from this Statement. The Board believes that this issue gets back to internal controls and processes. The Board is of the opinion that in most cases management would not have to apply additional or separate procedures to identify potential impairments. Management might have to do more work to document (1) linkage to asset management systems (refer to paragraphs A4 and A5) that identify and

communicate potential impairments and (2) materiality so that auditors would accept that the financial statements are presented fairly. At a minimum, management can be expected to document how it interprets and expects to apply this Statement.

**Materiality**

A34. Some respondents sought clarification concerning materiality. The Board has made clear that this matter depends on the degree to which omitted or missing information could influence a reasonable person's judgment and that this Statement is not to be applied to immaterial items. The Board notes two important matters in this regard. First, when assessing materiality management should consider the impact of the potential impairment to the entity's cost of service(s). It is not the Board's intent to direct application of this Statement to those G-PP&E assets (e.g., lower operating level assets, administrative support equipment, etc.) that have an immaterial impact on cost of service(s). Second, entities that determine they have an amount of G-PP&E such that no impairment could have a material effect would not have to be concerned with the implementation of the Statement. Each entity should undertake some advanced consideration to tailor and justify its implementation in light of materiality considerations specific to the entity.

**Measurement**

A35. Some respondents expressed concern over the measurement approaches. Concerns ranged from the approaches not being appropriate for real property asset classes to the Statement having too many methods to select from. As stated at paragraphs 18 and A17, impairment losses should use an approach that reasonably estimates the asset's diminished service utility. The Board has made clear that it does not seek precision nor is it prescribing any particular approach. Preparers are not restricted to the approaches shown at paragraph 18 and may use other approaches that accomplish the following two (2) objectives: (1) reasonably estimate the diminished service utility and (2) reasonably estimate net book value associated with the remaining service utility.

**G-PP&E Exemptions**

A36. Some respondents noted that provisions of this Statement should not apply to certain G-PP&E categories, classes, or base units. The Board explored the respondents' rationales for seeking to waive the requirements and determined that no exemptions would be warranted. A careful reading and implementation of the standard would preclude application of this Statement to

some G-PP&E classes. Specifically, as stated at paragraph 8, the events or changes in circumstances that lead to impairments are not considered normal and ordinary. That is, at the time the G-PP&E was acquired, the event or change in circumstance would not have been (a) expected to occur during the useful life of the G-PP&E or, (b) if expected, sufficiently predictable to be considered in estimating the useful life. For example, in the case of military equipment "normal and ordinary" would come with the expectation that the G-PP&E would be responding to contingencies and entering into combat operations at some future time. As a result, lost service utility arising from such events or circumstances could not be considered unanticipated and would fall outside the realm of this standard. Additionally, G-PP&E classified as mission critical will rarely be partially and permanently impaired as its service utility would generally be replaced or restored and if not, the asset would be removed from active service because it would no longer be mission capable.

A37. The Board notes that in those cases where an entity considers certain G-PP&E to be non-mission critical or immaterial, management can (1) read the views of the Board concerning materiality as detailed in paragraph A34 above, and (2) reevaluate its capitalization threshold and depreciation policies and procedures. For example, under the requirements of this standard, office furniture and fixtures that have been capitalized could become impaired. However, management may determine that any resultant impact to its cost of service(s) would be immaterial. In such cases, an entity may elect to prospectively change its capitalization criteria and/or alter its depreciation policies.

## Board Approval

A38. This Statement was approved for issuance by all members of the Board. The written ballots are available for public inspection at the FASAB's offices.

## Appendix B: Flowcharts, Decision Table and Illustrations

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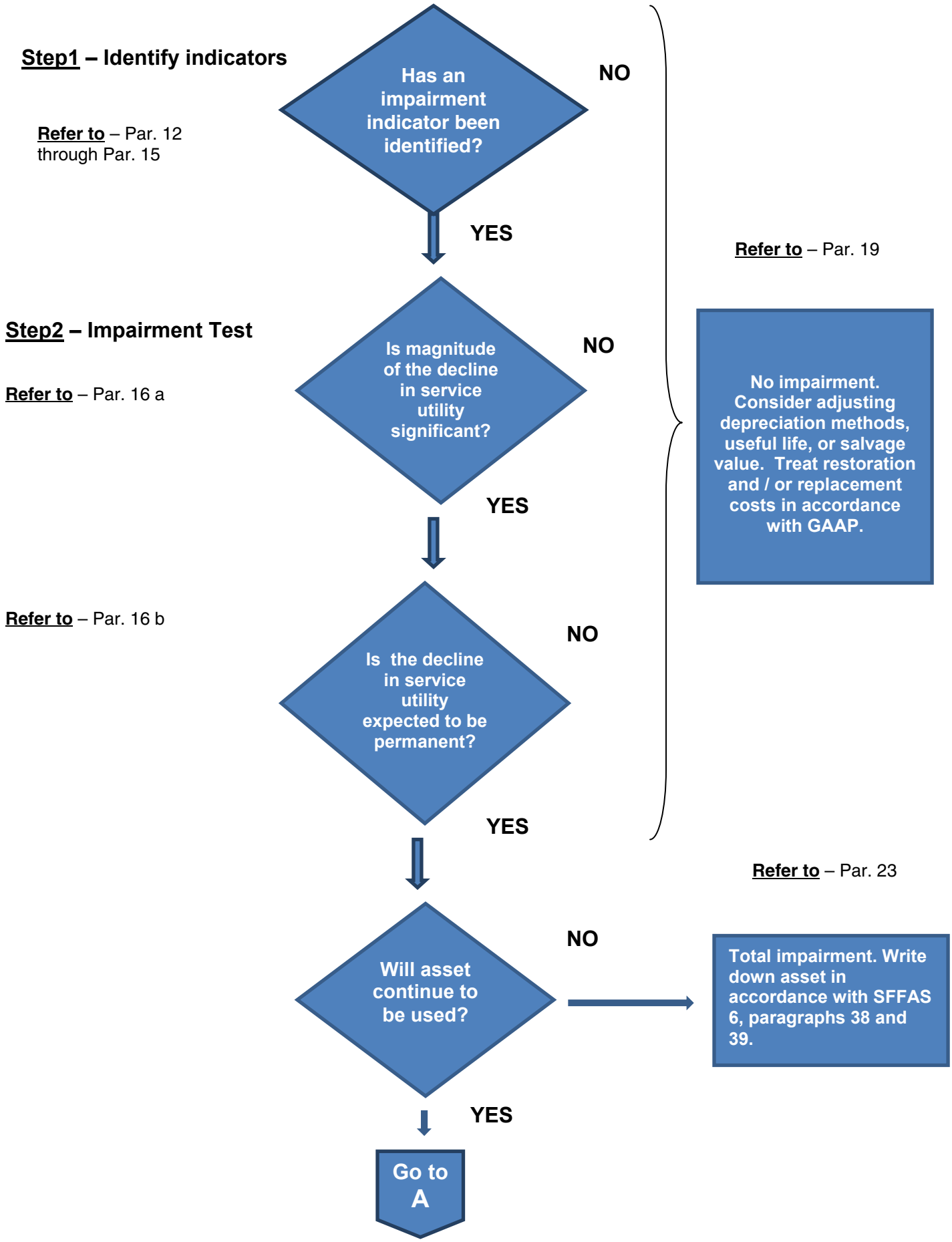
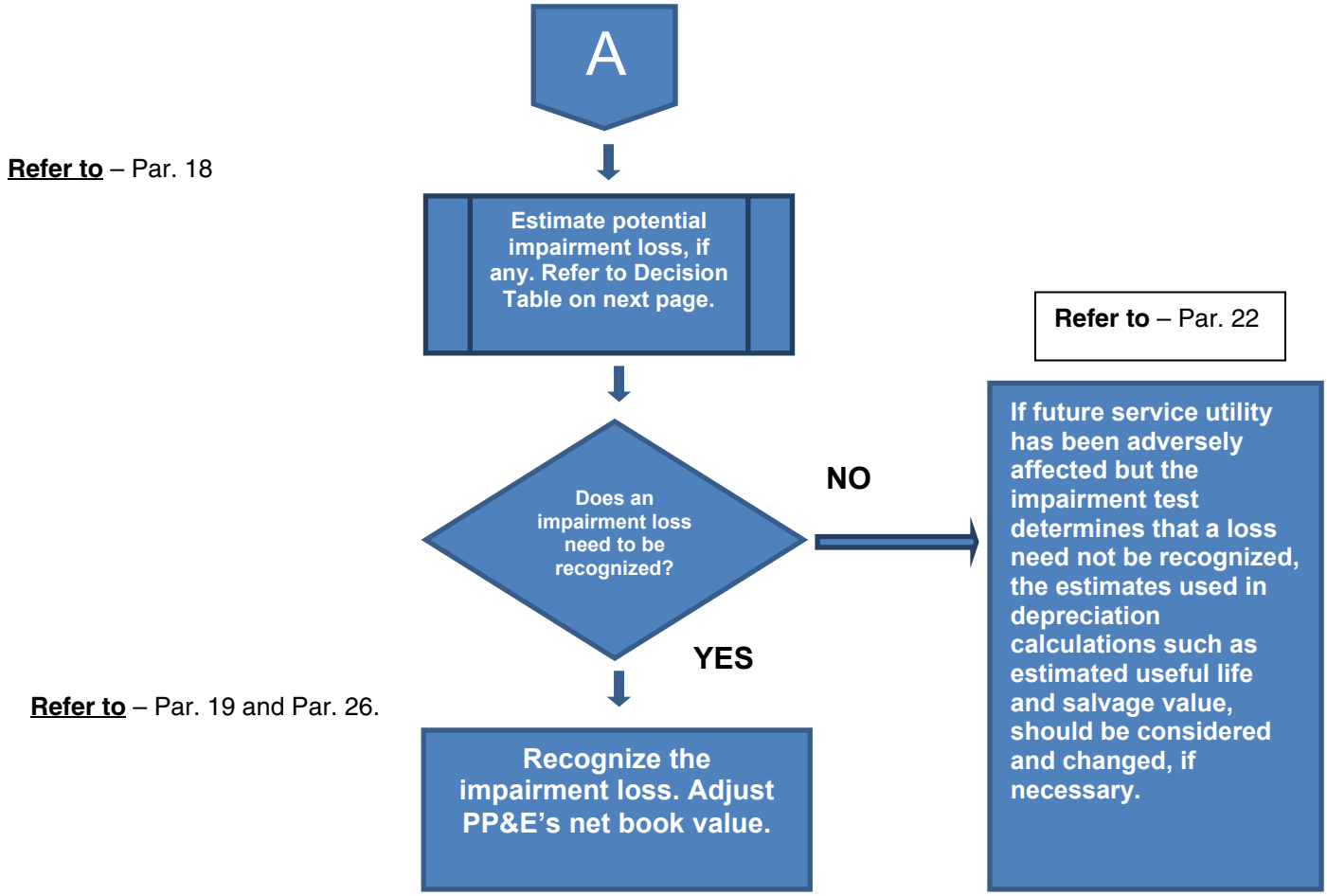

Step1 – Identify indicators
Refer to – Par. 12 through Par. 15
Has an impairment indicator been identified?
NO
YES
Refer to – Par. 19
Step2 – Impairment Test
Refer to – Par. 16 a
Is magnitude of the decline in service utility significant?
NO
YES
No impairment. Consider adjusting depreciation methods, useful life, or salvage value. Treat restoration and / or replacement costs in accordance with GAAP.
Refer to – Par. 16 b
Is the decline in service utility expected to be permanent?
NO
YES
Refer to – Par. 23
Will asset continue to be used?
NO
Total impairment. Write down asset in accordance with SFFAS 6, paragraphs 38 and 39.
YES
Go to A


A
Refer to – Par. 18
Estimate potential impairment loss, if any. Refer to Decision Table on next page.
Does an impairment loss need to be recognized?
NO
Refer to – Par. 22
If future service utility has been adversely affected but the impairment test determines that a loss need not be recognized, the estimates used in depreciation calculations such as estimated useful life and salvage value, should be considered and changed, if necessary.
YES
Refer to – Par. 19 and Par. 26.
Recognize the impairment loss. Adjust PP&E's net book value.

**Select a method that reasonably represents diminished service utility by considering potential indicators and type of PP&E.**

**If more than one method is reasonable, select the most efficient and practicable method.**

| Measurement Methods[17] | Potential Indicators | Type of PP&E * | Reference | Illustrations that may be appropriate |
|---|---|---|---|---|
| | | | | |
| Replacement Approach | • Physical Damage | All G-PP&E | Par. 18 a | 1c |
| Restoration Approach | • Physical Damage | Multi-use Heritage PP&E | Par. 18 b | 2b |
| Service Units Approach | • Physical Damage<br>• Enactment or approval of laws/regulations<br>• Changes in environmental or economic factors<br>• Technological changes or obsolescence | All G-PP&E | Par. 18 c | 1d, 3a, 3b |
| Deflated Depreciated Current Cost Approach | • Change in manner or duration of use. | All G-PP&E | Par. 18 d | 4a |
| Cash Flow Approach | • Any of the indicators as listed at Paragraph 12 (a through g) | Cash or Revenue Generating G-PP&E | Par. 18 e | 7a, 7b, 7c, 7d |
| Lower of (1) Net Book value or (2) Higher of Net Realizable Value or Value-in-Use Approach | • Construction stoppage / Contract terminations | All G-PP&E | Par. 17 & 18 f | 5, 6a, 6b, 7b |
| | | | | |

* = excluding internal use software

[17] Other industry-accepted methods may be appropriate.

## ILLUSTRATIONS

This remainder of this appendix illustrates the application of the provisions of this Statement to assist in clarifying their meaning. The facts assumed in these examples are illustrative only and are not intended to modify or limit the requirements of this Statement or to indicate the Board's endorsement of the situations or methods illustrated. Additionally, these illustrations are not intended to provide guidance on determining the application of materiality; as such, estimated impairment losses are labeled as “potential” in each illustration because they would still require a further assessment as to whether the estimated loss is material and should be recognized. Application of the provisions of this Statement may require assessing facts and circumstances other than those illustrated here and require reference to other applicable Standards to ensure each situation is considered in the appropriate context.

## Illustration 1a

### Temporary Declines in Service Utility: *Physical Damage to an Office Building with Mold Contamination* [18]

### Assumptions

In 2012, entity officials became aware of extensive mold contamination at one of its office buildings. Facilities management personnel advised that the building be closed due to health and safety concerns. Shortly afterwards, the office building was vacated and closed. The mold remediation involves removing and rebuilding the interior walls and improving site drainage at a total cost of $4 million.

Management develops specific plans to begin remediation efforts as soon as possible and replace the lost service utility. In addition, funding has been identified and set-aside.

### Evaluation of potential estimated impairment loss

The mold contamination is evidence of physical damage – an impairment indicator. Also, the magnitude of the event (i.e., closure of the building) is a significant decline in service utility. However, because management has specific plans to replace the lost service utility of the building and has identified and set-aside funding, there is reasonable expectation that the damage is temporary and no potential estimated impairment loss is recognized.

[18] Illustrations 1a through 1d have been adapted from GASB 42, Illustration 1, *Physical Damage – School with Mold Contamination*.

**Illustration 1b**

**Complete Removal from Service:** ***Physical Damage to an Office Building with Mold Contamination***

**Assumptions**

In 2012, entity officials became aware of extensive mold contamination at one of its office buildings. Facilities management personnel advised that the building be closed due to health and safety concerns. Shortly afterwards, the office building was vacated and closed.

Due to the extent of the damage, management does not believe that remediation efforts will begin and that the lost service utility of the building is not temporary. As a result, management has decided to remove this building from service and prepare it for disposal.

**Evaluation of potential estimated impairment loss**

The mold contamination is evidence of physical damage – an impairment indicator. Also, the magnitude of the event (i.e., closure of the building) is a significant decline in service utility. Because management does not believe that remediation efforts will begin, the lost service utility of the building is permanent. However, because the entire office building will be taken out of service and prepared for disposal purposes, no potential estimated impairment loss is recognized. Instead, the provisions of SFFAS 6, *Accounting for Property, Plant, and Equipment,* paragraphs 38 and 39 are applicable.

**Illustration 1c**

**Replacement Approach - Permanent Declines in Service Utility: *Physical Damage to an Office Building due to an Earthquake***

**Assumptions**

In 2012, entity officials became aware of extensive masonry wall and building foundation damage at one of its office buildings as a result of a recent earthquake. The damage to the masonry walls was spread throughout the five-story building and the building foundation was damaged at non-critical vertical-load points. Facilities management personnel and engineers advised that despite a decline in service utility, the damaged building would still be capable of meeting reasonable, but reduced performance objectives in its damaged state, making major repairs and costly upgrading unnecessary. Limited and minor repairs, both cosmetic and structural, could be made to improve visual appearance and component damage at nominal cost. Facilities managers and engineers have estimated that the major repairs and upgrades (involving removal and rebuilding of the interior walls and improving site drainage) would cost $2 million.

After a detailed review, management decided to accept the reduced performance objectives of the building and not make the major repairs and costly upgrades.

The office building was constructed in 1982 at a cost of $1.3 million, including $100,000 for acquisition of the building site. The building had an expected useful life of sixty years. During its life, the entity made improvements to the building totaling $1.235 million. Accumulated depreciation related to the building and to the improvements were $600,000 and $320,000, respectively.

**Evaluation of potential estimated impairment loss**

The masonry wall and building foundation damage is evidence of physical damage – an impairment indicator. Also, the magnitude of the decline in the lost service utility is significant because its remediation would involve major repairs and costly upgrades. Because management decides to accept the reduced performance objectives of the building and not make the major repairs and costly upgrades, the lost service utility of the building is permanent. Because the loss of service utility is permanent, any potential estimated impairment loss may need to be recognized.

**Measurement of potential estimated impairment loss**

Facilities managers and engineers estimated that the major repairs and upgrades would have cost if incurred, $2 million. In accordance with the entity's capitalization policies, 10 percent of the remediation cost would be allocable to site clean-up and treated as a period expense, and 90 percent would be allocable to remediating the masonry wall and

building foundation damage. As recorded in the entity's asset management system, the estimated plant replacement value (PRV) of the office building is $8.5 million.

**Calculate Net Book Value:**

| | Historical Cost | Accumulated Depreciation, 2012 | Net Book Value, 2012 |
|---|---|---|---|
| **Land** | **$100,000** | | **$100,000** |
| Building acquisition, 1982 | $1,200,000 | $600,000 | $600,000 |
| Improvements | 1,235,000 | 320,000 | 915,000 |
| **Total - Building & Improvements** | **$2,435,000** | **$920,000** | **$1,515,000** |

**Calculate estimated cost to replace lost service utility:**

| | |
|---|---|
| Total remediation cost | $2,000,000 |
| Percentage wall & foundation cost | 90% |
| **Wall & Foundation Remediation cost** | **$1,800,000** |

**Calculate percentage of lost service utility in current dollars:**

| | |
|---|---|
| Wall & Foundation Remediation (estimate of lost service utility in current dollars) | $1,800,000 |
| Plant Replacement Value (estimate to replace building in current dollars) | $8,500,000 |
| **Wall & Foundation Remediation cost percentage** | **21.18%** |

**Calculate potential estimated impairment loss:**

| | |
|---|---|
| **Net book value (historical cost)** | **$1,515,000** |
| **Multiplied by: Wall & Foundation Remediation cost percentage** | **21.18%** |
| **Potential estimated impairment loss** | **$320,877** |

**Reporting Considerations**

The potential estimated impairment loss and corresponding reduction of the book value of the building is $320,877.

**Illustration 1d**

**Choice Among Methods - Permanent Declines in Lost Service Utility: *Physical Damage to an Office Building with Mold Contamination***

**Assumptions**

In 2012, entity officials became aware of extensive mold contamination at one of its office buildings. The mold contamination in the walls of the building was limited to the top two floors of the five-story building and could be safely contained and encapsulated. Facilities management personnel advised that the first three floors of the building could continue to be safely used.

Management does not believe that the loss of service utility will impede their operations and consequently, do not plan to remediate the mold contamination. Management has decided to discontinue the use of the top two floors and commence containment and encapsulation efforts. The remainder of the building will be kept in service.

The office building was constructed in 1982 at a cost of $1.3 million, including $100,000 for acquisition of the building site. The building had an expected useful life of sixty years. During its life, the entity made improvements to the building totaling $1.235 million.

**Evaluation of potential estimated impairment loss**

The mold contamination is evidence of physical damage – an impairment indicator. Also, the magnitude of the event (i.e., contamination of two of the five floors of the building) is a significant decline in service utility. Because management does not plan to replace the lost service utility of these floors, the lost service utility of the building is permanent. Because the loss of service utility is permanent, any potential estimated impairment loss may need to be recognized.

**Measurement of potential estimated impairment loss**

Facilities management personnel in consultation with the Comptroller's office advise management to use the service units approach instead of the replacement cost approach because using construction cost estimates are not likely to result in a materially different potential estimated impairment loss amount. Management agrees to select the service units approach because it reasonably represents diminished service utility and given the circumstances, it is the most efficient and practicable method to use.

**Calculate percentage of lost service utility in terms of units:**

| | |
|---|---|
| Lost service utility in terms of floor units | 2 floors |
| Total service utility prior to damage in terms of floor units | 5 floors |
| **Percentage of lost service utility in terms of units** | **40.00%** |

**Calculate potential estimated impairment loss:**

| | |
|---|---|
| **Net Book Value (historical cost)** | **$1,515,000** |
| **Multiplied by: percentage of lost service utility - units** | **40.00%** |
| **Potential estimated impairment loss** | **$606,000** |

**Reporting Considerations**

The potential estimated impairment loss and corresponding reduction of the book value of the building is $606,000.

**Illustration 2a**

**Normal and Ordinary Lost Service Utility: *Physical Damage to a Multi-use Heritage Asset*** [19],[20]

**Assumptions**

Recent media reports have noted that acid precipitation (often called acid rain) is of increasing concern in the metropolitan area and, in particular to many of the area's historic and national landmarks including multi-use heritage assets. The entity's conservation scientists confirm the media reports and note that although normally rain is slightly acid, current rainfall has an average pH of more than 10 times normal levels.

Limestone and marble, the stones that form many of the buildings and monuments in the metropolitan area are especially vulnerable to acid precipitation because they are predominantly made of the mineral calcite (calcium carbonate), which dissolves (i.e., erosion) easily in acid. Capitalized alterations made over the years to accommodate the heavy traffic brought about by administrative and visitor use of one of the more prominent multi-use heritage assets has drawn management's attention. The entity's Inspector General (IG) has begun a review and in an interim draft report has noted the following,

> "The marble balustrade on the south side, main entrance of the administrative building shows damage from acid rain posing a serious threat to the hundreds of visitors and employees who walk by this concourse daily. Management must take immediate corrective action in order to avoid potential bodily harm and liability."

Management in consultation with the conservation scientists and facilities managers determines that (1) erosion (deterioration caused by exposure to the environment) is a natural part of the normal geologic cycle and was reasonably expected to occur, and (2) temporary braces and steel under-girding currently in-place are sufficient for the current year. Management plans to restore the balustrade during the next fiscal year.

**Evaluation of potential estimated impairment loss**

The erosion is evidence of l physical damage – an impairment indicator. Also, the prominence of the event (i.e., coverage by the media and the IG's recommendation)

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[19] Illustration 2a adapted from: Department of the Interior, *Acid Rain in Washington*, http://pubs.usgs.gov/gip/stones/acid-rain.html.

[20] Heritage Assets are PP&E that are unique for one or more of the following reasons: historical or natural significance; cultural, educational or artistic (e.g., aesthetic) importance; or, significant architectural characteristics. Multi-use Heritage Assets are heritage assets whose predominant use is general government operations. FASAB Appendix E: Consolidated Glossary,

would be evaluated as a potential impairment indicator of significant loss in service utility. However, no potential estimated impairment loss is recognized because (1) the decline in lost service utility is “normal and ordinary” as it arises from a cyclical act of nature and (2) restoration efforts to cure the damage are planned to begin next fiscal year. Management should consider evaluating its depreciation policies and methods to reflect the adverse effect of the acid rain on buildings and monuments made of limestone and marble.

**Illustration 2b**

**Restoration Approach - Permanent Declines in Service Utility: *Physical Damage to a Multi-use Heritage Asset***

**Assumptions**

A fire recently destroyed most of a three-story wing addition of an historic building. The building addition housed senior administrative offices. The foundation and portions of the first level were not seriously damaged and considered salvageable.

The Secretary's proposal to the Board of Regents (Regents) requested a minimum of $4.5 million to restore the three-story administrative wing. The Regents questioned the reasonableness of the cost estimate noting that typical office building construction in the metropolitan area costs about $160.00 per square foot (psf). The Secretary advised that the $160.00 psf estimate was not appropriate to use because it represented a "replacement" estimate using today's current labor, materials, standards and methods and not a "restoration" estimate that required using historically accurate materials and methods, as well as historic preservation and conservation methods as appropriate to preserve the historic nature and value of the multi-use heritage asset.

As an example, the Secretary noted the limited supply of the red Seneca sandstone used to construct the building in the 19$^{th}$ century and the added wing in the 20$^{th}$ century. The local quarry could only supply sufficient quantities to restore one level. As a result, complete restoration could not begin until a second quarry could be located to supply the additional quantities. Furthermore, experienced masons would have to be used for the restoration effort.

As a result of this information, the Regents modified the Secretary's request to restore one level of the wing noting that subsequent levels should not be restored in the future and that no such plans should be undertaken nor should any monies be committed. Displaced staff was moved to nearby vacant office space.

**Evaluation of potential estimated impairment loss**

The destruction to the three-story wing is evidence of physical damage – an impairment indicator. Also, the magnitude of the event (i.e., loss of senior administrative office space) would be evaluated as a significant decline in service utility. Because the Regents provided for partial restoration (one level) of the multi-use heritage asset, the lost service utility of the other two levels of the administrative wing is deemed permanent. As a result, because the lost service utility from these two levels is not reasonably expected to be restored, the potential estimated impairment loss is considered permanent and any resultant potential estimated impairment loss may need to be recognized.

### Measurement of potential estimated impairment loss

Facilities managers and reconstruction specialists have estimated that (1) the total remediation of the three-story wing would cost $4.5 million and (2) restoring the first level would cost $2.0 million. The net book value of the administrative portion of the building prior to the fire damage was $1.75 million. In accordance with the Restoration Approach, the following estimates and calculations were presented to management:

**Calculate estimated cost to restore lost service utility:**

| | |
|---|---|
| Total restoration cost (all 3 levels) | $4,500,000 |
| Less: portion to be restored (first level) | $2,000,000 |
| **Cost to restore lost service utility (2nd and 3rd levels)** | **$2,500,000** |

**Calculate percentage of restored lost service utility in current dollars:**

| | |
|---|---|
| Cost to restore lost service utility of the 2nd and 3rd levels of the wing (estimate of lost service utility in current dollars) | $2,500,000 |
| Total restoration cost (all 3 levels) | $4,500,000 |
| **Restoration cost percentage** | **55.5%** |

**Calculate potential estimated impairment loss:**

| | |
|---|---|
| **Net Book Value (historical cost of wing)** | **$1,750,000** |
| **Multiplied by: Restoration cost percentage** | **55.5%** |
| **Potential estimated impairment loss** | **$971,250** |

### Reporting Considerations

The potential estimated impairment loss and corresponding reduction of the book value of the building is $971,250.

**Illustration 3a**

**Service Units Approach - Recoverable Service Utility: Technological Development or Evidence of Obsolescence -** ***Underutilized Magnetic Resonance Imaging Machine*** [21]

**Assumptions**

In 2010, a hospital purchased a magnetic resonance imaging (MRI) system at a cost of $2.25 million. The hospital estimated that the system would have an estimated useful life of seven years and that on average the system would be used for ten tests per day for five days per week. After installation, the utilization of the system was approximately at the levels estimated.

In 2013, an affiliated entity transferred an "open" MRI system to the hospital. The transferred MRI system began to be used more frequently than the original "closed" MRI system because the "open" MRI was more comfortable for patients and provided a superior image. Instead of providing ten images a day, the original MRI system was being used only on an overflow basis and averaged six images per day; a decrease to 60 percent of prior levels. Furthermore, the expenses associated with the continued operation and maintenance (O&M) of the "closed" MRI system continues to be incurred and management is evaluating the asset's continued service use and whether or not to book an impairment loss.

Upon inspection of the "closed" MRI system and closer examination of the related O&M costs, hospital administrators have determined that it is cost-beneficial to keep the system operational and that there is no impairment loss. They estimate that the system can be expected to last at least three years longer than originally estimated and achieve its expected service output. Furthermore, hospital administrators contend that a significant portion of the costs are (1) considered "sunk" due to the fixed-price nature of the long-term maintenance contracts and (2) fixed inasmuch as they will be incurred regardless of the closed MRI system's operating levels.

**Evaluation of potential estimated impairment loss**

Management initially identified that the change in technology was an indicator of potential impairment because it had resulted in a permanent reduction in the usage of the "closed" MRI system. Also, they believed that the magnitude test (i.e., decline in service utility relative to operating costs) had also been met due to the fact that the cost of operating the "closed" MRI system has remained the same while the service provided has decreased to 60 percent of prior levels. However, management has concluded that there is no potential estimated impairment loss (i.e., the MRI system did not meet Step

[21] Illustrations 3a and 3b adapted from: GASBS 42, Illustration 4, *Technological Development or Evidence of Obsolescence -Underutilized Magnetic Resonance Imaging Machine.*

2 – Impairment test) because the asset can achieve its expected service output by being kept in service three years longer than originally planned. Using the service units approach, management determines the followings:

**Measurement of potential estimated impairment loss**

**Calculate Net Book Value:**

| | | |
|---|---|---|
| **a** | Acquisition cost, 2010 | $2,250,000 |
| | Accumulated depreciation, 2013 (3 / 7 years) | 964,286 |
| **b** | **Net Book Value, 2013** | **$1,285,714** |

**Calculate Acquisition cost per service unit:**

| | | |
|---|---|---|
| **a** | Acquisition cost, 2010 | $2,250,000 |
| **c** | Originally expected service units (7 years × 52 weeks per year × 5 days per week × 10 uses per day) | 18,200 |
| **d** | **Acquisition cost per service unit (a divided by c) (rounded)** | **$124.00** |

**Calculate Remaining Number of Service Units & Related Costs to be recovered:**

| | | |
|---|---|---|
| **d** | Acquisition cost per service unit (a divided by c) | $124.00 |
| **e** | Remaining number of service units = (4 years plus 3 extended years × 52 weeks per year × 5 days per week × 6 uses per day) | 10,920 |
| **f** | **Remaining service costs to be recovered (d multiplied by e)** | **$1,354,080** |

**Calculate Potential Estimated Impairment Loss:**

| | |
|---|---|
| **Net Book Value, 2013 (b)** | **$1,285,714** |
| **Remaining service costs to be recovered (f)** | **$1,354,080** |
| **Potential estimated impairment loss (b minus f)** | **N/A** |

**Reporting Considerations**

Although there is no potential estimated impairment loss to consider or recognize because the remaining service costs to be recovered is greater than the PP&E's net book value, management should consider re-evaluating its depreciation policies and methods to reflect the additional 3 years of extended service.

**Illustration 3b**

**Service Units Approach - Non-recoverable Service Utility: Technological Development or Evidence of Obsolescence - *Underutilized Magnetic Resonance Imaging Machine***

**Assumptions**

In 2010, a hospital purchased a magnetic resonance imaging (MRI) system at a cost of $2.25 million. The hospital estimated that the system would have an estimated useful life of seven years and that on average the system would be used for ten tests per day for five days per week. After installation, the utilization of the system was approximately at the levels estimated.

In 2013, an affiliated entity transferred an “open” MRI system to the hospital. The transferred MRI system began to be used more frequently than the original “closed” MRI system because the “open” MRI was more comfortable for patients and provided a superior image. Instead of providing ten images a day, the original MRI system was being used only on an overflow basis and averaged one image per day; a decrease to 10 percent of prior levels. Furthermore, the expenses associated with the continued operation and maintenance of the “closed” MRI system continue to be incurred and has drawn management’s attention to evaluate the asset’s continued service use.

**Evaluation of potential estimated impairment loss**

The indicator of potential impairment is the change in technology, which has resulted in a permanent reduction in the usage of the “closed” MRI system. The magnitude test (i.e., decline in service utility relative to operating costs) has also been met due to the fact that the cost of operating the “closed” MRI system has remained the same while the service provided has decreased to 10 percent of prior levels. Potential estimated impairment loss using the service units approach would be determined as follows:

**Measurement of potential estimated impairment loss**

**Calculate Net Book Value:**

| | | |
|---|---|---|
| **a** | Acquisition cost, 2010 | $2,250,000 |
| | Accumulated depreciation, 2013 (3 / 7 years) | 964,286 |
| **b** | **Net Book Value, 2013** | **$1,285,714** |

**Calculate Acquisition cost per service unit:**

| | | |
|---|---|---|
| **a** | Acquisition cost, 2010 | $2,250,000 |
| **c** | Originally expected service units (7 years × 52 weeks per year × 5 days per week × 10 uses per day) | 18,200 |
| **d** | **Acquisition cost per service unit (a divided by c)** | **$124.00 (rounded)** |

**Calculate Remaining Number of Service Units & Related Costs to be recovered:**

| | | |
|---|---|---|
| **d** | Acquisition cost per service unit (a divided by c) | $124.00 |
| **e** | Remaining service number of units = (4 years × 52 weeks per year × 5 days per week × 1 use per day) | 1,040 |
| **f** | **Remaining service costs to be recovered (d multiplied by e)** | **$128,960** |

**Calculate Potential Estimated Impairment Loss:**

| | |
|---|---|
| **Net Book Value, 2013 (b)** | **$1,285,714** |
| **Remaining service costs to be recovered (f)** | **$128,960** |
| **Potential Estimated Impairment loss (b minus f)** | **$1,156,754** |

**Reporting Considerations**

The potential estimated impairment loss and corresponding reduction of the book value of the equipment is $1,156,754.

**Illustration 4**

**Deflated Depreciated Current Cost Approach: Change in Manner or Duration of Use – *Training Facility Used for Storage*[22]**

**Assumptions**

In 2013, management decided to close a training facility because enrollments declined due to outsourcing initiatives brought about as a result of Office of Management and Budget (OMB) Circular No. A–76, *"Performance of Commercial Activities."* The closed training facility has been converted for use as a storage warehouse.

This training facility was constructed in 2001 at a cost of $10 million. The estimated useful life of the facility is fifty years. Entity management has (1) no evidence that enrollments will increase in the future such that the building would be reopened for use as a training facility and (2) concerns with the significantly high operating costs – maintenance and repair, depreciation, insurance, utilities, security, etc.

Because no physical damage occurred that would require detailed cost repair estimates, management decides to use the deflated-depreciated current cost approach to measure the potential estimated impairment loss. Facilities managers have been able to readily identify current plant replacement value (PRV)for a comparable warehouse of the same size as $4.2 million and commercial construction indices of 100 and 150 for years 2001 and 2013, respectively.

**Evaluation of potential estimated impairment loss**

Impairment is indicated because the manner of use of the training facility has changed from training students to storage. The situation passes the magnitude test (i.e., decline in service utility relative to operating costs) because the ongoing costs of the training facility would likely be considered high in relation to the benefit it is providing - storage. Potential estimated impairment loss using the deflated depreciated current cost approach would be determined as follows:

[22] Illustration 4a adapted from: GASB 42, Illustration 5, *Change in Manner or Duration of Use – School Used for Storage.*

**Measurement of potential estimated impairment loss**

**Calculate Net Book Value:**

| | | |
|---|---|---|
| | Historical cost, 2001 | $10,000,000 |
| | Accumulated depreciation (12 / 50 years) | 2,400,000 |
| **a** | **Net Book Value, 2013** | **$7,600,000** |

**Calculate Depreciated current cost (current dollars):**

| | | |
|---|---|---|
| | Replacement cost of warehouse, 2013 | $4,200,000 |
| | Accumulated depreciation (12 / 50 years) | 1,008,000 |
| **b** | **Depreciated current cost** | **$3,192,000** |

**Calculate Deflation factor:**

| | | |
|---|---|---|
| c | Commercial construction index, 2001 | 100 |
| d | Commercial construction index, 2013 | 150 |
| **e** | **Deflation factor (c divided by d)** | **0.67** |

**Apply deflation factor to depreciated current cost:**

| | | |
|---|---|---|
| b | Depreciated current cost | $3,192,000 |
| e | Deflation factor (c divided by d) | 0.67 |
| **f** | **Deflated depreciated current cost (b × e)** | **$2,138,640** |

**Calculate Potential estimated impairment loss:**

| | | |
|---|---|---|
| a | Net Book Value, 2013 | $7,600,000 |
| f | Deflated depreciated current cost (b × e) | 2,138,640 |
| | **Potential estimated impairment loss (a - f)** | **$5,461,360** |

**Reporting Considerations**

The potential estimated impairment loss and corresponding reduction of the book value of the facility is $5,461,360.

**Illustration 5**

***Construction Stoppage—Special Purpose Test Equipment*** [23]

**Assumptions**

In 2012, in response to a Congressional order canceling a major program, management stopped all construction activities related to the fabrication of program-related special purpose test equipment. The entity conducts numerous design and build projects for military and scientific purposes all of which have potential commercial application. The entity's program manager advised management that the special purpose test equipment was substantially complete at the time of stoppage and could be considered available for commercial use. The entity had accumulated costs totaling $10 million and was approximately 75 percent complete with the project.

Upon further inquiry, management determined that despite initial interest from two commercial firms, early in 2012, one of them filed for bankruptcy and the other withdrew its interest citing that the costs-to-complete are too high. There is no evidence to demonstrate that the construction stoppage is temporary or that other potential commercial interests can be found. Also, the program manager advises that there is no potential government use for this asset and that it should be disposed.

**Evaluation of potential estimated impairment loss**

The indicator of impairment is the construction stoppage. It appears to meet the test of impairment in that management would not have initiated the project if it had expected either program cancellation or lack of any potential commercial use. The situation passes the magnitude test because the costs-to-date (75% or $10 million) are significant in both percentage and monetary terms. However, there is no potential estimated impairment loss to report in accordance with this standard because the asset is totally impaired as it has no commercial or government use and cannot provide service. As such, the requirements in SFFAS 6, paragraph 38[24] should be followed. Specifically, in the period of disposal accumulated costs should be removed from the asset accounts and any difference between the book value of the equipment and amounts realized shall be recognized as a gain or a loss.

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[23] Illustration 5 adapted from: GASB 42, Illustration 9, *Construction Stoppage—Airport Pavements.*

[24] Refer to Technical Release 14, *Implementation Guidance on the Accounting for the Disposal of General Property, Plant, & Equipment*, which provides implementation guidance that clarifies existing SFFAS 6 requirements and is intended to help differentiate between permanent and other than permanent removal from service of G-PP&E. The implementation guidance also recognizes the many complexities involved in the disposal of G-PP&E, as well as delineates events that trigger discontinuation of depreciation and removal of G-PP&E from accounting records.

**Illustration 6a**

**Contract Termination -** ***Transferable Equipment Technology***

**Assumptions**

In 2012, the entity's chief contracting officer terminated a contract pursuant to the Federal Acquisition Regulations because the entity experienced substantial cost increases, schedule delays, and performance shortfalls. The terminated contract was to build the entity's next-generation surveillance equipment capable of covertly operating in adverse weather conditions. Despite several cure notices, the entity terminated the contract for default. The contractor has stated that it will not protest the termination. At the time of termination, the entity had incurred $150 million in contract costs.

In the meantime, the program manager determined that the operating environment had changed and that remaining funds would be better spent on other priorities and was able to transfer the system technology to other entity projects. The manner and use of the systems are not expected to change.

**Evaluation of potential estimated impairment loss**

The indicator of impairment is the contract termination. It appears to meet the test of potential impairment because the event is significant and the termination decision will not be protested; i.e., permanent. However, because the entity was able to transfer the system technology to other entity projects, no potential estimated impairment loss exists.

**Illustration 6b**

**Contract Termination - *Partially-Transferable Equipment Technology***

**Assumptions**

Same assumptions used in Illustration 6a except that the program manager was unable to transfer the entire system technology to other entity projects. After an inspection and engineering review, it was determined that 70 percent of hardware and software could be transferred to existing projects. There is no potential use or application for the remaining 30 percent of equipment technology.

**Evaluation of potential estimated impairment loss**

The indicator of impairment is the contract termination. It appears to meet the test of potential impairment because the termination decision is a significant event and is considered permanent because the decision will not be protested. As a result of the entity being unable to transfer the entire system technology to other entity projects, an impairment exists.

**Measurement of potential estimated impairment loss**

Because 30 percent of the system technology cannot be transferred to other entity projects, a potential estimated impairment loss of $45 million exists (30.0% X $150 million).

**Reporting Considerations**

The potential estimated impairment loss and corresponding reduction of the book value of the equipment is $45 million.

**Illustration 7a**

**Cash flow approach – Grouped Assets**

**Assumptions**

An entity manages and operates a shared-services center on a post-wide basis that provides administrative and information technology support. The entity groups the individual services separately into two distinct categories rather than on an individual basis. The net book values are $12 million and $11 million for the administrative and information technology (IT) groups, respectively.

In December 2012 the entity's management decided to implement a public-private strategic initiative that could eventually over several years transition these shared-services operations to private ownership. Both national and local private interests have asked their respective political representatives to accelerate the entity's implementation time-table and influence a favorable outcome. Management was directed to (1) immediately estimate the amount that could be recovered from selling the operations and (2) identify to the lowest level identifiable, operating information to include cash flows for each category. An appraisal was conducted to ascertain the amount that could be recovered from selling each of the groups. The appraisal report noted (1) that net realizable value (NRV) amounts were greater than value-in-use estimates and (2) the NRV amounts of $13 million and $8 million for the administrative and IT groups, respectively. The Chief Financial Officer identified the following cash flow information: (a) cash from continuing operations of $12 million and $9 million for the administrative and IT groups, respectively and (b) cash flows from disposal activities of $2 million and $1 million for the administrative and IT groups, respectively.

As a result of complying with this directive and evaluating the resultant financial information and appraisal analysis, management became concerned that its assets might be impaired and adversely impact its public-private strategic initiative.

**Evaluation of potential estimated impairment loss**

If an impairment indicator exists, an impairment analysis should be considered. In this case, the entity's public-private initiative includes a significant change in the manner or duration in which the assets will be used. This represents an impairment indicator that would trigger an impairment analysis. Furthermore, management's concern that its assets might be impaired passes the magnitude test.

Management is concerned that the presence of an impairment indicator might affect its plan regarding the future use of the shared-services if the analysis indicates that the net book value of the assets are not recoverable. To apply the cash flow approach, the entity will need to estimate the future undiscounted cash flows expected to result from the use of the assets and their eventual disposition. The future cash flows are the

expected cash inflows to be generated by the asset net of any expected future cash outflows that are needed to produce the inflows.

**Measurement of potential estimated impairment loss**

This approach requires that an entity recognize a potential estimated impairment loss if (1) the undiscounted cash flows are less than the net book value of the assets (the net book value is not recoverable) **and** (2) the net book value exceeds the higher of the assets NRV [25] or value-in-use estimate.[26] A potential estimated impairment loss would be measured as the amount by which the net book value of the grouped assets exceed the higher of their net NRV or value-in-use estimate(s).

When identifying cash flows, assets should be grouped at the lowest level for which there are identifiable cash flows that are largely independent of the cash flows of other groups of assets.

**Calculate Net book value:**

| Net book value: | Asset Group: Administrative | Asset Group: IT |
|---|---|---|
| | | |
| **Assets' net book values at 12/31/2012 (a)** | $12,000,000 (a) | $11,000,000 (a) |

[25] Net realizable value is the estimated amount that can be recovered from selling, or any other method of disposing of an item less estimated costs of completion, holding and disposal. Source: FASAB Glossary, Appendix E.

[26] Statement of Federal Financial Accounting Concepts (SFFAC 7), *Measurement of the Elements of Accrual-Basis Financial Statements in Periods After Initial Recording*, at paragraph 50, defines value-in-use as "…the benefit to be obtained by an entity from the continuing use of an asset and from its disposal at the end of its useful life." Paragraph 51 further states that "Value in use is a remeasured amount for assets used to provide services. It can be measured at the present value of future cash flows that the entity expects to derive from the asset, including cash flows from use of the asset and eventual disposition. Value in use is entity specific and differs from fair value. Fair value is intended to be an objective, market-based estimate of the exchange price of an asset between willing parties. Value in use is an entity's own estimation of the service potential of an asset that it holds to provide a specific service." (underscoring added for emphasis)

**Calculate undiscounted cash flows:**

| Undiscounted cash flows: | Asset Group: Administrative | Asset Group: IT |
|---|---|---|
| Undiscounted cash flows from future operations | $12,000,000 | $9,000,000 |
| Undiscounted cash flows from future disposal of assets | 2,000,000 | 1,000,000 |
| **Total - undiscounted cash flows (b)** | **$14,000,000 (b)** | **$10,000,000 (b)** |

**Calculate Recoverability:**

| Recoverability: (b minus a) | Asset Group: Administrative | Asset Group: IT |
|---|---|---|
| **Total - undiscounted cash flows (b)** | **$14,000,000** | **$10,000,000** |
| **Assets' net book values at 12/31/2012 (a)** | **12,000,000** | **11,000,000** |
| **Recoverability (b minus a)** | **$2,000,000** | **$(1,000,000)** |
| **Is net book value recoverable?** | **Yes** | **No** |
| **Is asset subject to potential impairment?** | **No** | **Yes** |

**Calculate potential estimated impairment loss:**

A potential estimated impairment loss should be recognized only if the net book value of the G-PP&E (1) is not recoverable **and** (2) exceeds the higher of its net realizable value or value-in-use estimate. Because the administrative group has undiscounted cash flows greater than related net book values, recoverability is met and there is no potential impairment. However, because the IT group has undiscounted cash flows lower than related net book values, recoverability is not met and the potential for impairment exists. The calculation below shows that a $3 million potential estimated impairment loss exists because the $11 million net book value of the IT group's G-PP&E exceeds the higher of its net realizable value or value-in-use estimate (in this case we are told that the $8 million NRV amount is higher than the value-in-use estimate).

| **Potential estimated impairment loss:** | **Asset Group: Administrative** | **Asset Group: Information Technology** |
|---|---|---|
| **Net Realizable Value of assets at 12/31/2012** | **N/A** | **$ 8,000,000** |
| **Less: Assets' net book values at 12/31/2012** | **N/A** | **$11,000,000** |
| **Excess of net book value over Net Realizable Value** | **N/A** | **$3,000,000** |
| **Potential estimated impairment loss** | **N/A** | **$3,000,000** |

**Reporting Considerations**

The potential estimated impairment loss and corresponding reduction of the book value of the IT asset group is $3.0 million.

**Illustration 7b**

**Cash flow approach – Equipment: Technological Development or Evidence of Obsolescence - *Underutilized Magnetic Resonance Imaging Machine*[27]**

**Assumptions**

In 2009, a hospital operating in a major metropolitan area purchased a "closed" magnetic resonance imaging (MRI) system at a cost of $2.25 million to be used exclusively for non-service connected procedures. The hospital, which charges fees for non-service connected care estimated that the system would have an estimated useful life of seven years and that on average the system would be used for twenty tests per day for five days per week. The average user fee for MRI services is $20.00 per use. Shortly after installation, utilization levels dropped to ten tests per day because of reduced demand for the services attributable to the "closed" nature of the MRI system .

In 2012, the manufacturer introduced an "open" MRI system that was advertised as being more comfortable for patients and provided a superior image. Furthermore, the expenses associated with the continued operation and maintenance of the "closed" MRI system continue to be incurred and has drawn management's attention to evaluate the asset's continued service use. Because similarly used MRI machines in the open market can be purchased from authorized dealers for $750,000 (their mark-up percentages are unknown), management is considering the possibility of selling the old machine and using its proceeds to help purchase the "open" MRI system.

Hospital administrators and technicians believe that the "closed" system can continue being used at the current utilization level for at least 3 years beyond the originally estimated service life. Also, they believe that the "open" system provides for only marginal benefits that do not exceed their cost. In light of this information, management decides not to sell the "closed" system. However, because the service utility <u>expected at acquisition</u> (20 tests per day) can no longer be achieved and is accompanied by an underlying cause; reduced demand arising from the less comfortable "closed" system, a potential impairment loss exists.[28]

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[27] Illustration 7b adapted from: GASB 42, Illustration 4, *Technological Development or Evidence of Obsolescence -Underutilized Magnetic Resonance Imaging Machine.*

[28] It is important to note that (1) the reduced demand alone is not a discrete or sole indicator of impairment and (2) technological changes or obsolescence should be considered along with other factors when assessing impairment. Regarding the former, had there been no underlying potential impairment (refer to the paragraph 12 indicators), no impairment test would have been required. Concerning the latter, had the utilization level (20 tests per day) and remaining service life (3 years) of the equipment stayed the same, no impairment test would have been required because the equipment's service utility that was expected at acquisition would be deemed recoverable.

**Evaluation of potential estimated impairment loss**

The indicators of potential impairment are (1) the change in technology and (2) reduced demand accompanied by an underlying cause; the less comfortable "closed" system. The magnitude test has also been met due to the fact that the cost of operating the "closed" MRI system has drawn management's attention to evaluate the asset's continued service use. Potential estimated impairment loss using the cash flow approach would be determined as follows:

**Measurement of potential estimated impairment loss**

**Calculate Net Book Value:**

| | | |
|---|---|---|
| **a** | Acquisition cost, 2009 | $2,250,000 |
| | Accumulated depreciation, 2012 (3 / 7 years) | 964,286 |
| **b** | **Net Book Value, 2012** | **$1,285,714** |

**Calculate undiscounted cash flows:**

| | | |
|---|---|---|
| **c** | Average service fee per use | $20.00 |
| **d** | Remaining service units (4 years plus 3 extra years × 52 weeks per year × 5 days per week × 10 use per day) | 18,200 |
| **e** | **Undiscounted cash flows (c multiplied by d)** | **$364,000** |

**Calculate Recoverability: (b minus a)**

| | **MRI** |
|---|---|
| **Total - undiscounted cash flows (e)** | $364,000 |
| **Asset's net book values at 9/30/12 (b)** | $1,285,714 |
| **Recoverability (e minus b)** | **$(921,714)** |

| | |
|---|---|
| **Is Net book value Recoverable?** | **No** |
| **Is asset subject to potential impairment?** | **Yes** |

**Calculate Potential Estimated Impairment Loss:**

A potential estimated impairment loss should be recognized only if the net book value of the G-PP&E (1) is not recoverable and (2) exceeds the higher of its net realizable value or value-in-use estimate. Because management believes that the open market price of $750,000 is a reasonable estimate of the asset's net realizable value, it is compared to the asset's value-in-use estimate to determine which amount is higher. However, because the $364,000 undiscounted cash flows amount (prior to calculating the net present value to determine a value-in-use estimate) is lower than net realizable value amount of $750,000, there is no need to present value the cash flows to calculate a value-in-use estimate.

Because management believes that the open market price of $750,000 is a reasonable estimate, it is used as the "recoverable basis". Had the net realizable value estimate been unavailable to management, a value-in-use estimate (net present value of the future cash flows) could have been used as the "recoverable basis".

| | **MRI** |
|---|---|
| **Net Realizable value of asset** | $750,000 |
| **Less: Asset's net book value** | $1,285,714 |
| **Excess of net book value over fair value** | **$ (535,714)** |
| **Potential estimated impairment loss** | **$ (535,714)** |

**Reporting Considerations**

The potential estimated impairment loss and corresponding reduction of the book value of the equipment is $535,714.

**Illustration 7c**

**Cash flow approach – Facility: Changes in manner or duration of use -**
***Government owned-contractor operated (GOCO) manufacturing facility***[29]

**Assumptions**

An entity operates a government owned-contractor operated (GOCO) manufacturing facility in an economically depressed area fabricating various commodities with commercial applicability. The facility's current net book value is $22,500,000 with an estimated salvage value of $5,000,000 and has a 25 year estimated remaining useful life. Under the terms of the contract, the government provides the contractor with exclusive use of the facility in exchange for negotiated lease payments in the amount of $150,000 per year. The contractor is responsible for all maintenance and operating costs.

Recently this unique partnership has come under federal and state scrutiny as many legislators and environmentalists have expressed concerns that the contractor whose operations have caused contamination found in and around the facility is not being held financially responsible for the cleanup costs.

Outrage which has surfaced during congressional hearings on environmental cleanups has become the focus of print and cable-news outlets.

Further complicating management's "crisis response" is that (1) the contract effectively prohibits modifying the facility to achieve greater environmental compliance without legislative relief and (2) the contracting officer has initiated debarment procedures that effectively would shut down the facility in 90-days for an indeterminable amount of time.

Facilities managers and engineers believe that a prospective buyer can be found but that it will take significant time to pass all necessary sale requirements. Until then, they advise that the facility can be quickly reconfigured and partitioned into commercially viable long-term storage space. The required modifications would cost $500,000 and lease agreements are estimated to generate approximately $35,000 in annual revenues. A fairly recent analysis completed 9 months ago reveals that the property's net realizable value (NRV) was at that time, $30,000,000; 20 percent of which is attributable to land.

Management has approved the reconfiguration and partition plan and believes that it will take a minimum of 5 years before all approvals are in place and disposal efforts can begin and an additional 2 years to ultimately dispose of the property. Because

[29] Illustration 7c adapted from: Military Law Review, Volume 131 Winter 1991; - Government Owned – Contractor Operated Munitions Facilities*: Are they appropriate in the age of strict environmental compliance and liability?;* Major Mark J. Connor.

management is concerned with the proper financial reporting of this event, it has asked its comptroller for advice.

**Evaluation of potential estimated impairment loss**

The indicator of potential impairment is the change in manner of use. The magnitude test has also been met due to (1) federal and state scrutiny, (2) media coverage, and (3) the fact that the cost of operating the facility has drawn management's attention to evaluate the asset's continued service use and seek the comptroller's advice. Because the entity is seeking appropriate approvals to commence disposal efforts and does not know when such permission will be granted, management intends to convert a portion of the facility for public storage; a change in the manner of use.

**Measurement of potential estimated impairment loss**

**Calculate Net book value:**

| **Calculate Net book value:** | **Facility** |
|---|---|
| **Assets' net book value at 12/31/X1 (a) (excluding land)** | **$22,500,000 (a)** |

**Calculate undiscounted cash flows:**

| **Calculate undiscounted cash flows:** | **Facility** |
|---|---|
| Required modifications (outflow) | ($500,000) |
| Undiscounted cash in-flows from future rental lease payments (7 x $35K) | $245,000 |
| Undiscounted cash in-flows from disposal of assets (1.0 -0.2 X $30Mil) | 24,000,000 |
| **Total - undiscounted cash flows (b)** | **$23,745,000 (b)** |

**Calculate Recoverability: (b minus a)**

| Calculate Recoverability: (b minus a) | Facility |
|---|---|
| Total - undiscounted cash flows (b) | $23,745,000 |
| Assets' net book values at 12/31/X1 (a) | 22,500,000 |
| Recoverability (b minus a) | $1,245,000 |
| Is Net book value Recoverable? | Yes |
| Is asset subject to potential impairment? | No |

**Reporting Considerations**

There is no potential estimated impairment loss to consider or recognize because the undiscounted cash flows to be recovered are greater than the G-PP&E's net book value.

**Illustration 7d**

**Cash flow Approach (Calculating value-in-use using discounted cash flows) – Facility: Changes in manner or duration of use - *Government owned-contractor operated (GOCO) manufacturing facility*[30]**

**Assumptions**

Same facts as Illustration 7c above except that (1) management has decided to reconfigure the facility and lease available storage space for the remaining life of the facility, (2) the net realizable value estimate is $2 million, and (3) the salvage value is $500,000. Furthermore, because management does not believe that a prospective buyer can be found it decides not to seek disposal authority. The entity's comptroller advises management that to assess whether or not a potential impairment exists a value-in-use estimate would be appropriate to use because it is higher than the net realizable value estimate. A risk-free discount rate of 3 percent is used.

**Evaluation of potential estimated impairment loss**

In this case the entity should (1) use the undiscounted cash flows to calculate recoverability and (2) present value (i.e., discount) the undiscounted cash flows to calculate the value-in-use estimate. In so doing, a potential estimated impairment loss is realized. Calculations follow:

**Calculate cash flows:**

| | Undiscounted | PV Factor | Discounted |
|---|---|---|---|
| Required modifications (outflow) | ($500,000) | 1.00 | ($500,000) |
| Undiscounted cash in-flows from future rental lease payments (25 x $35K) | $875,000 | 17.41315 | $609,460 |
| Undiscounted cash in-flows from disposal of assets) | $500,000 | 0.47761 | $238,805 |
| **Total - cash flows (b)** | **$875,000** | | **$348,265** |

[30] Adapted from: Military Law Review, Volume 131 Winter 1991 - Government Owned – Contractor Operated Munitions Facilities: Are they appropriate in the age of strict environmental compliance and liability? Major Mark J. Connor

**Calculate Recoverability: (b minus a)**

| Recoverability: (b minus a) | Facility |
|---|---|
| Total - undiscounted cash flows (b) | $875,000 |
| Assets' net book values at 12/31/X1 (a) | 22,500,000 |
| Recoverability (b minus a) | ($21,625,000) |
| Is net book value recoverable? | No |
| Is asset subject to potential impairment? | Yes |

**Calculate potential estimated impairment loss:**

| Potential impairment: | Facility |
|---|---|
| **Higher of NRV or Value-in-Use:**<br>NRV = $2,000,000 (given)<br>Value-in-Use = $348,265 (discounted Cash Flows) | |
| Use the higher - Net Realizable Value | $2,000,000 |
| Less: Assets' net book value at 12/31/X1 | $22,500,000 |
| Excess of net book value over recoverable value (in use) | $20,500,000 |
| Potential estimated impairment loss | $20,500,000 |

**Reporting Considerations**

The potential estimated impairment loss and corresponding reduction of the book value of the facility is $20,500,000.

## Appendix C: Abbreviations

| | |
|---|---|
| ASC | Accounting Standards Codification (FASB) |
| CFR | Consolidated financial report of the U.S. government |
| DM-AI | Deferred Maintenance and Asset Impairment (task force) |
| FASAB | Federal Accounting Standards Advisory Board |
| FASB | Financial Accounting Standards Board |
| GAAP | Generally Accepted Accounting Principles |
| GASB | Governmental Accounting Standards Board |
| GASBS | Governmental Accounting Standards Board Statement |
| G-PP&E | General property, plant, and equipment |
| IG | Inspector General |
| IPSASB | International Public Sector Accounting Standards Board |
| IPSAS | International Public Sector Accounting Standards |
| IT | Information technology |
| MRI | Magnetic resonance imaging |
| NRV | Net realizable value |
| O&M | Operation and maintenance |
| OMB | Office of Management and Budget |
| PP&E | Property, plant and equipment |
| PRV | Plant replacement value |
| psf | Per square foot |
| SFAS | Statement of Financial Accounting Standards (FASB) |
| SFFAC | Statement of Federal Financial Accounting Concepts |
| SFFAS | Statement of Federal Financial Accounting Standards |

## Appendix D: Glossary

**General property, plant, and equipment (G-PP&E)** - G- PP&E is any property, plant, and equipment (PP&E) used in providing goods or services and includes, among other types of PP&E, multi-use heritage assets, capitalized improvements to stewardship land, and construction work-in-process. PP&E includes land and land rights that are acquired for or in connection with items of general PP&E used to provide government services or goods. GPP&E does not include heritage assets such as historic and national landmarks and stewardship land; reporting for these assets should be done in accordance with SFFAS 29, Heritage Assets and Stewardship Land. The cost of general PP&E is capitalized, i.e. recorded as assets on the balance sheet. For detailed characteristics of and accounting for general PP&E, see SFFAS 6, pars 23 through 45.

**Impairment** - a significant[31] and permanent decline in the service utility of G-PP&E or expected service utility for construction work in progress.

**Internal use software** - software that is purchased from commercial vendors "off-the shelf," internally developed, or contractor-developed solely to meet the entity's internal or operational needs (SFFAS 10, par. 8).

**Level of utilization** - the portion of the usable capacity currently being used.

**Partial impairment** - less than full or total impairment.

**Service utility** - the usable capacity that at acquisition was expected to be used to provide service.

**Total (full) impairment** - G-PP&E is no longer capable of providing service in the operations of the entity prior to the end of its estimated useful life.

[31] The determination of whether or not an item is significant is a matter of professional judgment. Determining if a decline in service utility is significant is separate and distinct from materiality considerations that include considering the likely influence that such disclosure could have on judgments or decisions of financial statement users.

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