Technical Release 13: Implementation Guide for Estimating the Historical Cost of General Property, Plant, and Equipment

Status		
Issued	June 1, 2011	
Effective Date	Upon issuance	
Interpretations and Technical Releases	None.	
Affects	None.	
Affected by	Technical Release 17.	

Summary

This technical release addresses the historical cost estimating of G-PP&E. The guide provides direction on types of estimating methodologies and the documentation to support the valuation estimates of G-PP&E. This guidance provides a foundation for preparers to exercise judgment in formulating those estimates. The examples outlined illustrate the use of various estimating methodologies to derive the historical cost of G-PP&E in accordance with existing guidance permitting use of estimates.

Technical Release 13

Table of Contents

	Page
Summary	1
Technical Guidance	3
Examples of Practice	3
EXAMPLE 1 – Deflation of Current Replacement	5
EXAMPLE 2 – Use of Appraisal Information	7
EXAMPLE 3 – Use of Expenditure Information	9
EXAMPLE 4 – Use of Budget and Appropriation Information	10
EXAMPLE 5 – G-PP&E in the Possession of Contractors	13
Appendix A: Basis for Conclusions	16
Appendix B: Abbreviations	18

Technical Guidance

Paragraphs 1 through 10 were rescinded by Technical Release 17.1

Scope

- 10A. Readers of this Technical Release (TR) should first refer to the hierarchy of accounting standards in 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. This TR supplements the relevant accounting standards but is not a substitute for and does not take precedence over the standards.
- 10B. SFFAS 6, Accounting for Property, Plant, and Equipment, (as amended) provides that reasonable estimates may be used to establish historical cost of general property, plant, and equipment (PP&E) in accordance with the asset recognition and measurement provisions within SFFAS 6. This is also applicable to internal use software when the software meets the criteria for general PP&E in accordance with SFFAS 10, Accounting for Internal Use Software.
- 10C. SFFAS 50, Establishing Opening Balances for General Property, Plant, and Equipment: Amending Statement of Federal Financial Accounting Standards (SFFAS) 6, SFFAS 10, SFFAS 23, and Rescinding SFFAS 35, amended SFFAS 6 to allow a reporting entity, under specific conditions, to apply alternative valuation methods in establishing opening balances for general PP&E.

Effective Date

10D. This TR is effective upon issuance.

Examples of Practice

11. The examples outlined in this guide illustrate the use of various estimating methodologies to derive the historical cost of general PP&E in accordance with SFFAS 6, as amended.

¹ Footnote 1 was rescinded by Technical Release 17.

Although the measurement basis for valuing general PP&E remains historical cost, reasonable estimates may be used to establish the historical cost of general PP&E in accordance with the asset recognition and measurement provisions of SFFAS 6, as amended.^{1A}

- 12. Reasonable estimates may be based on
 - a. cost of similar assets at the time of acquisition;
 - b. current cost of similar assets discounted for inflation since the time of acquisition (that is, deflating current costs to costs at the time of acquisition by general price index); or
 - c. other reasonable methods, including latest acquisition cost and estimation methods based on information such as, but not limited to, budget, appropriations, engineering documents, contracts, or other reports reflecting amounts to be expended.^{2,3,4}
- 12A. In some cases, the in-service date must be estimated. In estimating the year that the base unit was placed in service, if only a range of years can be identified, then the midpoint of the range is an acceptable estimate of the in-service date.
- 13. Agency management is responsible for establishing accounting policies, including the methodologies and bases for estimating historical cost. Management is also responsible for maintaining adequate documentation of the sources of data and the application of methodologies used when estimating historical cost. Management should expect to support estimates with verifiable documented information. Adequate documentation of the source of the data and the application of the methodology used will help support management's assertion that the results are in compliance with accounting standards in all material respects.
- 14. The specific examples in this guidance are how agencies derived estimated historical costs using the following methods:
 - a. Deflation of current replacement costs,

^{1A} SFFAS 50, Establishing Opening Balances for General Property, Plant, and Equipment: Amending Statement of Federal Financial Accounting Standards (SFFAS) 6, SFFAS 10, SFFAS 23, and Rescinding SFFAS 35, provides for deemed cost to be used for opening balances in some cases. Estimating historical cost is one of several deemed cost valuation methods. This TR addresses the estimation of historical cost and does not address other acceptable deemed cost methods.

² Footnote 2 was rescinded by Technical Release 17.

³ Footnote 3 was rescinded by Technical Release 17.

⁴ Footnote 4 was rescinded by Technical Release 17.

- b. Appraisals (with deflation to the year of purchase),
- c. Expenditures,
- d. Budgets and appropriations, and
- e. G-PP&E in possession of Contractors.

Estimates may be based on information such as, but not limited to, budget, appropriations, engineering documents, contracts, or other reports reflecting amounts to be expended.

15. The following examples provide methods used to estimate G-PP&E historical costs. However, the examples are for illustrative purposes only. The examples are not allencompassing and agencies may identify other more useful and relevant estimating methodologies. The examples are not meant to be step-by-step instructions on how to develop estimating methodologies. Users of this guidance should use the information provided in these examples to develop their own reasonable estimating methodologies. Federal entities implementing this guidance are also encouraged to discuss any new estimation methodologies with their auditors prior to implementation.

EXAMPLE 1 – Deflation of Current Replacement⁵

16. The following example describes an estimation methodology used by Agency A to establish an estimate of the original cost of a building constructed in 1984. Agency A uses the estimated construction cost of the building in present day dollars and then discounts that value back to the year in which the asset was constructed. Agency A takes the current replacement costs of similar items and deflates those costs, through the Consumer Price Index (CPI). Note that other indices from the Department of Labor's Bureau of Labor Statistics also may be appropriate but were not selected for use in this example.

Population of Data

17. The agency determined the cost of replacing the building in its same physical form (with substantially the same materials and design); then the agency used a pricing index to discount the current asset cost to its estimated cost at the time of acquisition or construction.

⁵ Some of the information used in this example was obtained from the Public Sector Accounting Standards Board (PSAB) of the Canadian Institute of Chartered Accountants /Asset Management Newsletter No. 16 (prepared by KPMG).

Assumptions Used

- 18. The following assumptions were used to estimate the cost of the building and land.
 - a. Land was purchased in 1983 and is appraised at \$1.5 million in 2008.
 - b. A 50,000 square feet building was constructed in 1984, is well maintained and has not received any major betterments except for a 5,000 square foot addition in June 1999.
 - c. 2008 replacement cost of the building was estimated at \$8.5 million (including \$500,000 replacement cost for the addition).
 - d. Expected useful life of the building is 40 years and depreciation would be calculated at year 24 of a 40 year asset.
 - e. CPI is used for deflating cost. 6

Calculation of Estimate

19. To estimate the original cost of the building in 1984, Agency A multiplied the current replacement cost of the building (\$8.0 million - excluding an addition constructed in 1999) by the CPI (0.4505). Based on this calculation, the deflated cost of the building was approximately \$3.604 million in 1984 dollars. Similar calculations using CPI for the addition and land yielded the estimated historical cost of these components of the property. The calculations are presented below.

Table 1:

	2008 Reproduction	Cost Index	Estimate of
	Cost	19XX/2008	Original Cost
Building	\$8,000,000	.4505	\$3,604,000
Addition	\$500,000	.6960	\$348,000
Total Building	\$8,500,000		\$3,952,000
Land	\$1,500,000	.4100	\$615,000
Total	\$10,000,000		\$4,567,000

⁶ For simplicity the example uses the Consumer Price Index to discount current replacement costs to the year of original purchase or construction. In some cases, the Consumer Price Index may be the only option. However, for some assets a more precise pricing index might be available. For example, the Department of Labor's Bureau of Labor Statistics has an extensive table of indices.

Analysis of Data

20. Once the estimated historical cost of the building was established, the cost was amortized to the 2008 opening balance sheet date using appropriate depreciation rates in order to establish the opening net book value.

Table 2:

At October	Age/Useful	Estimated	Accumulated	Net Book
1, 2008	Life Years	Historical Cost	Depreciation	Value
Building	24/40	\$3,604,000	\$2,162,400	\$1,441,60
				0
Addition	9/15	348,000	208,800	
				139,200
Total		3,952,000	2,371,200	
Building				1,580,800
Land		615,000	0	
				615,000
Total		\$4,567,000	\$2,371,200	\$2,195,80
				0

EXAMPLE 2 – Use of Appraisal Information

21. The following example describes an estimation methodology used by Agency B to establish the estimated cost of two vessel classes by the use of third-party appraisals to support asset record adjustments. The example uses estimates obtained from appraisals to validate the value of the vessels and to determine necessary adjustments to Agency B's core accounting system.

Population of Data

- 22. In order to populate the data for estimation, Agency B performed several of the following procedures.
 - Agency B conducted a physical inventory to ensure that assets identified for appraisal could still be physically located and were still in service. Physical inventories were conducted using:
 - i. on-site vouching,
 - ii. digital photos with newspaper showing the date and location, or

- iii. authorized maintenance or operations applications to confirm existence.
- b. Agency B reviewed and, if needed, updated date-in-service (DIS) from historical information.
- c. Agency B determined that records in the accounting system were consistent with the inventory and DIS.
- d. Agency B ensured that assets within a class were similar in configuration.
- e. The Agency B program offices were used to gather "technical engineering" information (e.g. type of engines, technical updates).

Assumptions Used

- 23. The following assumptions were used to estimate the cost of the sea vessels.
 - a. Agency B did not provide cost, accumulated depreciation and net book value to appraisers to avoid the possibility that these values might influence the third-party appraisers output. Values are appraised using a deflation factor to year of purchase.
 - b. If there was no DIS for a vessel, an average DIS was determined by using the DIS from the first and last vessels placed in service. The asset's acquisition cost was then "indexed" by using an appropriate Bureau of Labor Statistics pricing index.
 - c. Appraisal specialist determined appraisal value using a desktop appraisal approach.⁷

Analysis of Data

- 24. An appraisal report containing an individual valuation (estimated acquisition cost) for each asset as of the identified date of the report or appraised value as of original date in service (contract specific) was provided to Agency B. The agency performed many of the following analytical processes.
 - a. An Agency B subject matter expert reviewed and approved appraisal report.

⁷ A "desktop" appraisal is when an appraiser estimates the value of a property without a physical inspection, but uses property records. The desktop approach was used by Agency B for appraisals and cost estimates due to the cost benefits; it is less costly to an agency than a physical inspection appraisal.

- b. If there was no DIS for a vessel, an average DIS was determined by using the DIS from the first and last vessels placed in service. The asset's acquisition cost was then "indexed" by using an appropriate Bureau of Labor Statistics pricing index.
- c. The appraisal/calculated cost was compared to official fixed assets record cost to determine asset cost difference.
- d. Agency B prepared a detailed summary of differences by asset (and class) to compare cost and accumulated depreciation.
- The data was reviewed and approved by appropriate Agency B personnel.
- f. Documentation was prepared containing support of the fixed asset adjustments needed.

Calculation of Estimate

25. Agency B then analyzed the financial statement impact of the appraisal process to determine needed adjustments.

Table 3:

ASSET CLASS	Delivery Start Delivery End	System Acquisition Cost per Fixed Asset Records	Appraisal Value less Fixed Asset Records Acquisition Cost	Appraisal Value less Fixed Asset Records Depreciation Expense	Net Change
Vessel Class I (16 VSLS)	FY96 FY04	\$607.9M	\$(60.1)M	\$3.0M	\$(57.1)M
Vessel Class II (65 VSLS)	FY 98 FY06	287.4M	7.6M	(5.7)M	1.9M
Totals		\$895.3M	\$(52.5)M	\$(2.7)M	\$(55.2)M

Once the appraised values were accepted, necessary adjustments were made to the system (asset by asset/lump sum) to determine the estimated historical cost of the vessel classes.

EXAMPLE 3 – Use of Expenditure Information

26. Agency C used the following procedures to estimate its real property values by the use of expenditures. Expenditures were available on a project basis but each project produced multiple assets. The objective was to assign reliable project cost to individual assets based on estimates.

Population of Data

- 27. Agency C real property personnel first examined their records to determine whether a complete and current inventory of real property by individual project was available. If the specific inventory of a complete project did not exist an inventory would be obtained from project personnel on-site.
- 28. An Agency C real property work group then obtained a summary of actual capitalized project costs by real property class (i.e., Land, Dams, Levees, Buildings, Grounds, etc.).

Analysis of Data & Calculation of Estimate

29. Once the work group had both a project specific inventory of all real property assets and a breakout of the actual capitalized costs by project and class, they began the process of assigning a value to each asset within a project not to exceed the total project cost. Utilizing all available real estate records, project records, assistance from cost estimating personnel, comparative data at other projects, real estate financial information, operations data, engineer estimates, plus video tapes, photographs, narrative descriptions of the structure and professional judgment the work group either used actual cost or estimated the cost of each asset ensuring the total dollars assigned agreed with the total cost for each project as recorded in Agency C's financial subsystem.

EXAMPLE 4 – Use of Budget and Appropriation Information

30. The following example outlines steps for estimating the historical cost of existing assets using budget and appropriation information.

Assumptions Used

- a. Congress appropriated funds to Agency D in FY 2007 to acquire 9 aircraft.
- b. As of the estimation date, 7 of the 9 aircraft have been delivered.

Analysis of Data & Calculation of Estimate

- 31. The steps of this process include:
 - a. Verification of existence of the asset acquired.
 - b. Estimation of total historical cost for the asset group

c. Documentation

32. Verification of existence

- a. Prior to delivery, all costs associated with the items were reported in an appropriate asset account. When the asset was delivered it was recorded in an accountability system of record (ASR) and the completed asset was subject to inventory/existence verification.
- b. The asset management system was updated when data on the receipt of the aircraft was sent from the reporting entity's property accountability system of record. The acknowledgment of delivery serves as proof that the aircraft assets were received. Continued existence of the asset was verified through periodic inventories.
- 33. Estimation of total historical cost for the asset group
 - a. The recorded cost of the assets should represent the "historical cost", including costs associated with getting the asset to a form and location suitable for its intended use.
 - b. The asset valuation is based on the Budget of the U.S. Government (commonly referred to as the President's Budget request). The Budget and related budget justification materials provided detailed supporting information that facilitated congressional review of budget requests. As the entity is reviewing the budget information for inclusion in the estimate, the entity should also review related information, such as planning documents, to identify other material costs associated with getting the asset to a form and location suitable for its intended use. If material, such costs should be estimated. For simplification of this example, the other associated costs are not shown in the below example.

Table 4 below shows the FY 2007- Funded aircraft cost based on amounts included in the Budget.

Table 4 - Calculations to Determine the Cost of FY 2007-Funded Aircraft (\$ in Millions)	
Procurement cost for 9 aircraft based on budget estimates	\$722.6
Less support equipment*	(81.1)
Total cost for the 9 aircraft	\$641.5
Average cost (\$641.5M ÷ 9)	\$ 71.3 ⁸

^{*}The supporting equipment is subtracted from the aircraft procurement cost in order to capitalize this equipment separate from the cost of the aircraft.

c. The Agency D Appropriation Act and/or the conference report accompanying it is used to identify the amount of program funding provided by Congress to address requirements identified in the Budget. Amounts appropriated may frequently differ from amounts requested in the Budget. The related congressional committee or conference report on the appropriation may explain the rationale for the change from the amount requested in the Budget.

Table 5 below shows the amount of the congressional appropriation for the aircraft less the value of excluded amounts. Excluded amounts were based on detail included in the Budget.

Table 5 - Appropriation Amount Less Excluded Items for Aircraft (\$ in Millions)		
Provided in FY 2007 Appropriations Act	\$725.0	
Less support equipment (Based on budget detail)*	(81.1)	
Adjusted appropriated amount for the 9 aircraft	\$643.9	
Average cost (\$643.9M ÷ 9)	\$ 71.5	

^{*}The funding for support equipment was not separately identified in the appropriation. For cost purposes, the amount included in the Budget estimate (\$81.1M) was used.

d. Adjustments to funds available to a program may frequently occur over the life of the appropriation. These adjustments, which can increase or decrease available funds,

⁸Valuations based on budget information may need to be revised to address material revisions that occur subsequent to budget submission during the appropriation and funds allocation processes.

result from actions including congressional rescissions and Departmental reprogrammings.

Table 6 below shows the aircraft cost as adjusted to account for a subsequent year Congressional rescission.

Table 6 - Appropriation Amount Less Excluded Items for Aircraft* (\$ in Millions)		
Adjusted appropriated amount for the 9 aircraft	\$643.9	
Less Congressional rescission for the aircraft	(9.9)	
Total appropriated amount for the 9 aircraft	\$634.0	
Average cost (\$634.0M ÷ 9)	\$ 70.4	

^{*}The capitalized cost may not exceed the appropriated amount as adjusted by Departmental reprogramming and congressional rescissions, (i.e., the amount shown in Table 6).

34. Documentation

a. Agency D maintains sufficient and appropriate documentation relating to: (1) existence; (2) cost analysis techniques; (3) data source; and (4) reasonableness of the estimation methodology.

EXAMPLE 5 – G-PP&E in the Possession of Contractors

- 35. The following example summarizes the procedures used at Agency E for estimating the cost of G-PP&E in the possession of its contractors. This estimate may be used when the agency lacks internal documentation and/or when the cost of reconstructing records using internal documentation is cost prohibitive.
- 36. Contractors generally follow a process similar to the one described below, when estimating the value of G-PP&E manufactured or acquired for federal agencies, referred to in this example as contractor-held G-PP&E. These acquisitions may be held for use by the contractor, held for use by other contractors, or transferred to a federal entity for its direct use. The values are typically estimated by the contractor first obtaining a Bill of Material (BOM) for every part required to complete the G-PP&E asset being constructed. The BOM can have cost, quantity, part description, raw materials used, etc. Also, Contractors typically add estimated labor cost. This labor value is then added to the BOM cost to derive a total estimated direct cost for the G-PP&E asset. Further, Contractors apply overhead and, when applicable, other indirect markups. The sum total for the asset is the basis used to support GPP&E recorded by Agency E.

37. Agency E has procedures in place to provide reasonable assurance that the contractor-provided estimates of the value of manufactured items are reasonable. The processes described below are intended to provide Agency E with relevant, sufficient and reliable information on which to base its estimate of contractor-held G-PP&E.

Population of Data

38. Agency E contractors are required to report information related to acquisitions, fabrications and/or disposals of individual G-PP&E items to Agency E on a regular basis. To facilitate reporting, Agency E utilizes an automated reporting tool, when appropriate, to receive this information from its contractors and maintains control over this information prior to it being entered into the property accounting system.

Analysis of Data

39. Agency E employs a series of controls over the preparation of contractor accounting estimates and supporting data, including assessments and validation procedures that are applied through independent external parties and/or internal agency resources.

External Third Party Procedures

- 40. When practical and cost effective, Agency E leverages to the extent possible independent assessments performed by external parties. The objective of these assessments is to provide Agency E with reasonable assurance that contractor property, logistics and cost accounting systems comply with federal requirements designed to provide a reasonable estimate of the G-PP&E data.
- 41. An Agreed upon Procedures (AUP) review of Agency E's major contracts is one example of an independent assessment. The contracts subject to the AUP reviews are selected using a risk-based approach. The AUPs include a review of the contractor's policies, procedures and internal controls relevant to the contractor's cost accounting, logistics and production systems. The intention of the assessments is to validate the accuracy, reliability, existence, and completeness of contractor reported G-PP&E data through an analysis of transaction samples.

Internal Third Party Procedures

42. Agency E's procurement, logistics, project management, and finance personnel also performed oversight and validation activities over contractor estimate submissions on an on-going basis.

- 43. Agency E procurement personnel, for example, oversee the execution of contractor work as required by the contracts in accordance with the FAR. This step is to provide reasonable assurance that the work for which costs are being estimated is being performed as contracted. Agency E contracting officers have a key role in the systems of controls and validation procedures by ensuring that specific clauses are included in the contracts and that contract terms and conditions are adhered to by the contractor.
- 44. Agency E logistics personnel, acting as Government Property Administrators, conduct reviews to assess the effectiveness of the contractor's government property management systems.
- 45. Program and Project managers review the information provided by contractors against established plans and approve or disapprove contractor reported incurred costs, as appropriate. This critical information supports the reasonableness of contractor provided information.

Calculation of Estimate

46. Agency finance personnel perform reviews of the information reported by contractors prior to recording G-PP&E estimates. Periodic validation procedures may include performing analytical procedures over the account balances to explain period-to-period fluctuations, reconciling the data reported by the contractor to the agency's financial system, tracing activity to supporting documentation, and validating ownership of property.

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

Appendix A: Basis for Conclusions

- A1. In January 2008, the Accounting and Audit Policy Committee established the General Property, Plant, & Equipment (G-PP&E) task force to assist in developing implementation guidance for federal G-PP&E as it relates to SFFAS 6, *Accounting for PP&E*, SFFAS 23, *Eliminating the Category National Defense Property Plant, & Equipment*, and other related G-PP&E Guidance developed by the FASAB. The task force included federal agency representatives who were experiencing G-PP&E implementation issues and those who have G-PP&E implementation best practices to share with the federal community.
- A2. The G-PP&E task force was divided into four subgroups that addressed a set of related issues. The subgroups met separately on a regular basis to discuss their set of issues and reported back to the full task force on its progress towards the development of implementation guidance. The four sub-groups were:
 - G-PP&E Acquisition
 - G-PP&E Use
 - G-PP&E Disposal
 - G-PP&E Records Retention
- A3. This guidance was developed by the Acquisition subgroup. The subgroup included members from the following federal agencies:
 - Department of Defense
 - Department of Energy
 - Department of the Interior
 - Government Accountability Office
 - General Services Administration
 - National Aeronautics and Space Administration
- A4. The purpose of this implementation guidance is to provide support and direction relative to the types of estimating methodologies and the documentation that could be used to support the valuation estimates as outlined in SFFAS 6, 23, and 35. It does not address the need to validate existence and completeness. This guidance provides a foundation for preparers to exercise judgment in formulating those estimates.
- A5. This implementation guide provides examples that federal entities can use as guidelines when developing G-PP&E estimates of original transactional data historical costs in accordance with the standards.

- A6. The AAPC released the exposure draft (ED), *Implementation Guidance for Estimating the Historical Cost of General Property, Plant, and Equipment* on December 10, 2010. Upon release of the ED, notices and/or press releases were provided to: The Federal Register, the *FASAB News*, the *Journal of Accountancy, AGA Today*, the *CPA Journal, Government Executive*, the *CPA Letter*, and committees of professional associations commenting on past exposure drafts.
- A7. Fifteen letters were received from the following sources:

	FEDERAL (Internal)	NON-FEDERAL (External)
Users, academics, others		2
Auditors	3	
Preparers and financial managers	10	

A8. Respondents were primarily supportive of the examples provided. Some respondents provided editorial suggestions and many were adopted.

Records Retention Requirements Presented in the Exposure Draft

- A9. The Committee asked readers of the exposure draft to comment on the proposed recommendations of the AAPC G-PP&E task force -- Records Retention sub-group. No changes were suggested by respondents and these recommendations have now been forwarded to the National Archives and Records Administration (NARA) for consideration. Through its General Records Schedule (GRS) NARA specifies the minimum period for retaining paper and electronic financial records documenting the acquisition of PP&E. The Federal Acquisition Regulation (FAR) also provides guidance for retaining historical cost data. The subgroup was tasked with developing recommendations for the consistent records retention policies specifically for G-PP&E.
- A10. The objective of the Records Retention subgroup was to look into the issue of records retention timeframes and methods (hardcopy vs. electronic) for records that support G-PP&E reported in agencies' general purpose financial statements and make cost-beneficial recommendations. The subgroup found that policies varying regarding retention timeframes and the types of records to support assertions related to G-PP&E. The subgroup's research and recommendations were limited to records retention guidance and practices for the G-PP&E category.

Appendix B: Abbreviations

AAPC Accounting and Auditing Policy Committee

AICPA American Institute of Certified Public Accountants

AUP Agreed Upon Procedures

CEFMS Corps of Engineers Financial Management System

CIP Construction in Process

COEMIS Corps of Engineers Management Information System

DIS Date-In-Service

FAR Federal Acquisition Regulation

FASAB Federal Accounting Standards Advisory Board

FASB Financial Accounting Standards Board GAO Government Accountability Office

G-PP&E General Property, Plant, and Equipment

GRS General Records Schedule
IPA Independent Public Accountant

NARA National Archives and Records Administration

OIG Office of the Inspector General
OMB Office of Management and Budget

PB President's Budget

PP&E Property, Plant, and Equipment SAS Statement on Auditing Standards

SFFAS Statement of Federal Financial Accounting Standards

TR Technical Release

USACE United States Army Corps of Engineers

USCG United States Coast Guard