



**International Cost Engineering Council (ICEC)  
International Standards Working Group  
Inventory of Best Practices/Standards**

# **Region I North & South America**



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Association: AACE International

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Date: 10/13/01

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**Best Practice/Standard Title**

**Number**

**Release Date**

**Revision #**

**Description**

The following are the contents of AACE International's **Recommended Practices and Standard (RPS)**. All RPS material has undergone a formal review process. In the numbering system, an "S" represents a "standard" – this means the document has undergone review by a recognized standards setting organization. An "R" means that the material represents a consensus of AACE members, but may not represent a consensus of external parties. The RPS is available on CD from AACE.

Standard Cost Engineering Terminology	10S-90	November 1990	November 1991	This RPS is AACE International's standard dictionary of terminology. It is a revision and expansion upon American National Standards Institute (ANSI) Standard No. Z94.2. AACE is currently revising 10S-90.
Required Skills and Knowledge of a Cost Engineer	11R-88	October 1988	January 1999 Revision in process	As described in the document's Introduction, this RPS provides performance statements that represent "the level of proficiency in subjects "whose usage was occasional to frequent and which were evaluated by the (AACE International) members as being desirable for professional cost engineers to know." The product's primary stated purpose is to be a "target for education program emphasis."
Model Master's Degree Program with Emphasis in Cost Engineering	12R-89	June 1989	No revision	As described in the document's Introduction, the purpose of this RPS is to "support post-graduate education in cost engineering" by providing guidance to faculty in developing a program, serving as a basis for qualifying programs, and serving as a basis for course selection or self-study.
Standard Method for Determining Building Area	13S-90	June 1990	No revision	This RPS provides a standard method for determining "building area" which is described as being the sum of four "functional areas" (i.e., functional areas, common public areas, mechanical electrical areas, and circulation areas).
Roles and Duties of a Planning and Scheduling Engineer	14R-90	September 1990	No revision	This RPS provides guidance or a reference benchmark for those establishing roles and responsibility documents in their enterprises.
Profitability Methods	15R-81	November	No revision	The RPS represents the results of a survey of profitability calculation methods used by representative firms (27) from



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Fortune magazine's top 500 corporations. The document defines the five most common methods used and provides sample calculations of each. The document recommends use of two of the methods.

Conducting Technical and Economic Evaluations in the Process and Utility Industries	16R-90	September 1990	Revised April 1991	This extensive RPS "establishes a consistent procedure for conducting budget-type technical and economic evaluations for use by the process industries such that ease of comparability and verification are of paramount importance."
Cost Estimate Classification System	17R-97	August 1997	No Revision	The RPS "provides (generic) guidelines for applying the general principles of estimate classification to asset project cost estimates." Uses degree of project definition as the primary classification characteristic.
Cost Estimate Classification System-As Applied in Engineering, Procurement, and Construction for the Process Industries	18R-97	June 1998	No Revision	The RPS "is an extension of 17R-97 (i.e., provides "generic" estimate classification guidelines) that provides "industry specific" guidelines for estimate classification
Estimate Preparation Costs in the Process Industries	19R-97	June 1998	No Revision	The RPS provides "benchmark information on the cost to prepare project cost estimates (for engineering, procurement, and construction) in the process industries." This support 18R-97 and provides a quantitative cost model.
Project Code of Accounts	20R-98	Review Draft June 2000	In Review	The RPS "establishes basic principles of codes of accounts (COA) for projects in any industry." The document has undergone peer review and is currently being prepared for final full membership review.
Project Code of Accounts- As Applied in Engineering, Procurement, and Construction for the Process Industries	21R-98	Review Draft June 2000	In Review	The RPS "is an extension of 20R-98 (i.e., provides "generic" COA principles) that provides "industry specific" guidelines for codes of accounts in the process industries.
Direct Labor Productivity Measurement-As Applied to Construction and Major Maintenance Projects (tentative title)	22R-01	Initial Draft October 2001	Review being initiated	This RPS will provide guidelines for statistical work sampling – a method for direct labor productivity measurement. The document is just entering the review cycle.

**The Total Cost Management (TCM) Framework** documents that follow are not recommended practices and standards, but they serve as guiding documents for AACE International Technical Board product development, and they are subjected to similar review and approval process as RPS documents.

The Total Cost Management (TCM) Framework -	Sections 1.0, 2.1,	Membership Review Draft	In Review	These sections define the overall process of total cost management and provide a series of integrated process maps
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Introduction	2.2, 2.3, and 2.4	March 2001		and supporting text for “strategic asset management” and “project control”.
The Total Cost Management (TCM) Framework – Estimating and Budgeting	Section 8.3	Peer Review Draft	In Review	This section defines the general process for cost estimating and budgeting and provides a process map and supporting text.

The following documents are not recommended practices and standards, but they are key reference documents produced by AACE International’s Education and Certification Boards.

Skills and Knowledge of Cost Engineering	4 <sup>th</sup> Edition	1987	4 <sup>th</sup> Edition, 1999	This document “forms the basis of a system for teaching the basic skills and knowledge any cost engineer should possess.” This document extends the “performance statements” of RPS 11R-88 into a practical teaching and learning guide.
Certification Study Guide	2 <sup>nd</sup> Edition	1997	2 <sup>nd</sup> Edition, 1999	This document “provides an all encompassing reference text” to prepare for AACE International’s CCC/CCE certification examination. This document extends the “performance statements” of RPS 11R-88 into a practical study guide.

**The following third-party standards are endorsed by AACE International**

ASTM Standards on Building Economics	E1185, E1369, E917, E964, E1057, E1074, E1121, E833, E1557	1992 and 1993	3rd Edition, 1994	This ASTM standard has been “endorsed” by AACE International. This is a compilation of standards on building economics sponsored by ASTM subcommittee E06.81 on Building Economics. It includes guides for selecting methods and techniques, practices for measuring costs and profitability, terminology for building economics, and a classification structure (UNIFORMAT II).
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**The following are US Government documents related to cost engineering/management. Other US Government documents are listed in Region II.**

Department of the Army; US Army Cost and Economic Analysis Center	Cost Analysis Manual, May 2002	Provides methodologies and procedures for acquisition cost analysis.
Department of the Army; US Army Cost and Economic Analysis Center	Economic Analysis Manual, February 2001	Provides the framework for acquisition economic analysis.
DoD Cost Analysis Improvement Group	Operating and Support Cost Estimating Guide, May 1992	Defines the cost elements of operation and support activities.
DoD	Cost Analysis Guidance and Procedures, DOD 5000.4M, December 1992	Top level DoD cost analysis requirements.
DoD – Office of the Secretary of Defense	Integrated Product and Process Development Handbook, August 1998	Defines the sequential steps in product acquisition, development and deployment.
Office of Federal Procurement Practice (OFPP)	Guide to Best Practices for Contract Administration, October 1994	Provides lessons learned in contract administration.
DoD	Risk Management Guide for DoD Acquisition, June 2003	Provides guidelines to program/product risk assessment and management.



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<b><u>Best Practice/Standard Title</u></b>	<b><u>Number</u></b>	<b><u>Release Date</u></b>	<b><u>Revision #</u></b>	<b><u>Description</u></b>
Elemental Cost Analysis, Format, Method of Measurement and Pricing and Measurement of Buildings by Area & Volume	0-896606-30-X	2000	3 <sup>rd</sup> edition	The Elemental Cost Analysis is a comprehensive method of cost analysis for use in cost planning and budget control. (104 pages)
Method of Measurement of Construction Works	0-896606-28-8	2000	7 <sup>th</sup> edition	The Method of Measurement of Construction Works provides a standard guide to the measurement of construction works. To allow for easy cross reference to the project specifications and divisions of this work this edition follows the latest "MasterFormat system" (240 pages)