
Codes and Standards

The information that was used to write and update this book was based on the exam specifications at the time of publication. However, as with engineering practice itself, the PE exam is not always based on the most current codes or cutting-edge technology. Similarly, codes, standards, and regulations adopted by state and local agencies often lag issuance by several years. It is likely that the codes that are most current, the codes that you use in practice, and the codes that are the basis of your exam will all be different.

PPI lists on its website the dates and editions of the codes, standards, and regulations on which NCEES has announced the PE exams are based. It is your responsibility to find out which codes are relevant to your exam.

CONSTRUCTION DESIGN STANDARDS

ACI 318: *Building Code Requirements for Structural Concrete*, 2011. American Concrete Institute, Farmington Hills, MI.

ACI 347: *Guide to Formwork for Concrete*, 2004. American Concrete Institute, Farmington Hills, MI. (In ACI SP-4, Seventh ed. App.)

ACI SP-4: *Formwork for Concrete*, Seventh ed., 2005. American Concrete Institute, Farmington Hills, MI.

AISC: *Steel Construction Manual*, Fourteenth ed., 2011. American Institute of Steel Construction, Inc., Chicago, IL.

ASCE 37: *Design Loads on Structures During Construction*, 2002. American Society of Civil Engineers, Reston, VA.

CMWB: *Standard Practice for Bracing Masonry Walls Under Construction*, 2012. Council for Masonry Wall Bracing, Mason Contractors Association of America, Lombard, IL.

MUTCD-Pt 6: *Manual on Uniform Traffic Control Devices—Part 6, Temporary Traffic Control*, 2009. U.S. Department of Transportation, Federal Highway Administration, Washington, DC.

NDS: *National Design Specification for Wood Construction ASD/LRFD*, 2012 ed. American Wood Council, Washington, DC.

OSHA 1926: *Occupational Safety and Health Regulations for the Construction Industry* (U.S. Federal version). U.S. Department of Labor, Washington, DC.

GEOTECHNICAL DESIGN STANDARDS

ASCE/SEI7: *Minimum Design Loads for Buildings and Other Structures*, 2010. American Society of Civil Engineers, Reston, VA.

OSHA 1926: *Occupational Safety and Health Regulations for the Construction Industry* (U.S. Federal version). U.S. Department of Labor, Washington, DC.

STRUCTURAL DESIGN STANDARDS

AASHTO LRFD: *AASHTO LRFD Bridge Design Specifications*, Sixth ed., 2012. American Association of State Highway and Transportation Officials, Washington, DC.

ACI 318¹: *Building Code Requirements for Structural Concrete*, 2011. American Concrete Institute, Farmington Hills, MI.

ACI 530/530.1²: *Building Code Requirements and Specification for Masonry Structures* (and companion commentaries), 2011. The Masonry Society, Boulder, CO; American Concrete Institute, Detroit, MI; and Structural Engineering Institute of the American Society of Civil Engineers, Reston, VA.

AISC: *Steel Construction Manual*, Fourteenth ed., 2011. American Institute of Steel Construction, Inc., Chicago, IL.

ASCE/SEI7: *Minimum Design Loads for Buildings and Other Structures*, 2010. American Society of Civil Engineers, Reston, VA.

AWS D1.1/D1.1M³: *Structural Welding Code—Steel*, Twenty-second ed., 2010. American Welding Society, Miami, FL.

AWS D1.2/D1.2M⁴: *Structural Welding Code—Aluminum*, Sixth ed., 2014. American Welding Society, Miami, FL.

¹ACI 318 App. C does not apply to the Civil PE structural depth exam.

²Only the Allowable Stress Design (ASD) method may be used on the exam, except that ACI 530 Sec. 3.3.5 (strength design) may be used for walls with out-of-plane loads.

³AWS D1.1, AWS D1.2, and AWS D1.4 are listed in the Codes, Standards, and Documents subsection of NCEES's Civil PE structural depth exam specifications.

⁴See Ftn. 3.

AWS D1.4/D1.4M⁵: *Structural Welding Code—Reinforcing Steel*, Seventh ed., 2011. American Welding Society, Miami, FL.

IBC: *2012 International Building Code* (without supplements). International Code Council, Inc., Falls Church, VA.

NDS⁶: *National Design Specification for Wood Construction ASD/LRFD*, 2012 ed., and *National Design Specification Supplement, Design Values for Wood Construction*, 2012 ed. American Wood Council, Washington, DC.

OSHA 1910⁷: *Occupational Safety and Health Standards* (U.S. Federal version). U.S. Department of Labor, Washington, DC.

OSHA 1926: *Occupational Safety and Health Regulations for the Construction Industry* (U.S. Federal version) Subpart E, Personal Protective and Life Saving Equipment, 1926.95–1926.107; Subpart M, Fall Protection, 1926.500–1926.503, App. A–E; Subpart Q, Concrete and Masonry Construction, 1926.700–1926.706, with App. A; and Subpart R, Steel Erection, 1926.750–1926.761, with App. A–H. U.S. Department of Labor, Washington, DC.

PCI: *PCI Design Handbook: Precast and Prestressed Concrete*, Seventh ed., 2010. Precast/Prestressed Concrete Institute, Chicago, IL.

HSM: *Highway Safety Manual*, First ed., 2010. American Association of State Highway and Transportation Officials, Washington, DC.

AASHTO MEPDG: *Mechanistic-Empirical Pavement Design Guide: A Manual of Practice*, Interim ed., 2008. American Association of State Highway and Transportation Officials, Washington, DC.

AASHTO: *Roadside Design Guide*, Fourth ed., 2011. American Association of State Highway and Transportation Officials, Washington, DC.

AI: *The Asphalt Handbook* (MS-4), Seventh ed., 2007. Asphalt Institute, Lexington, KY.

FHWA: *Hydraulic Design of Highway Culverts*, Hydraulic Design Series no. 5, Publication no. FHWA-HIF-12-026, Third ed., 2012. U.S. Department of Transportation, Federal Highway Administration, Washington, DC.

HCM: *Highway Capacity Manual*, 2010 ed. Transportation Research Board, National Research Council, Washington, DC.

MUTCD: *Manual on Uniform Traffic Control Devices*, 2009 (including Revisions 1 and 2, May 2012). U.S. Department of Transportation, Federal Highway Administration, Washington, DC.

PCA: *Design and Control of Concrete Mixtures*, Fifteenth ed., 2011. Portland Cement Association, Skokie, IL.

TRANSPORTATION DESIGN STANDARDS

AASHTO GDPS: *AASHTO Guide for Design of Pavement Structures* (GDPS-4-M), 1993, and 1998 supplement. American Association of State Highway and Transportation Officials, Washington, DC.

AASHTO *Green Book: A Policy on Geometric Design of Highways and Streets*, Sixth ed., 2011. American Association of State Highway and Transportation Officials, Washington, DC.

AASHTO: *Guide for the Planning, Design, and Operation of Pedestrian Facilities*, First ed., 2004. American Association of State Highway and Transportation Officials, Washington, DC.

⁵See Ftn. 3.

⁶Only the ASD method may be used for wood design on the exam.

⁷Part 1910 is listed in the Codes, Standards, and Documents subsection of NCEES's Civil PE structural depth exam specifications.