

**APPLICABLE FEDERAL HEALTH AND SAFETY CODES AND STANDARDS**  
**BUREAU OF INDIAN AFFAIRS**  
**OFFICE OF FACILITIES MANAGEMENT & CONSTRUCTION**  
**Effective June 1, 2005**  
**Revised March 8, 2007**  
**Revised June 24, 2009**  
**Revised September 11, 2009 and October 8, 2009**

The Contractor or Grantee agrees to comply with applicable Federal, tribal or State health and safety standards (25 U.S.C. 2005(b)). The applicable Federal standards are as follows:

A. Occupation Safety and Health Administration (OSHA) Compliance. All operations, new construction, major alterations and improvements, minor remodeling and workplace sites shall comply with all occupational safety and health standards issued under Section 6 of the Occupational Safety and Health Act of 1970, as amended or alternate standards issued pursuant to this part.

B. Fire and Fire Safety. All new construction, major alterations and improvements and minor remodeling shall be classified according to occupancy and/or use and shall comply with the National Fire Codes. All new Indian Affairs owned buildings regardless of occupancy which exceed 2000 square feet in gross floor area shall be provided with automatic sprinkler protection in accordance with NFPA 13, Ordinary Hazard classification.

C. Accessibility Standards. All new construction, major alterations and improvements including modular and portable buildings shall comply with 36 CFR, Part 1191, the Architectural Barriers Act Accessibility Standards (ABAAS) and Section 504 of the Rehabilitation Act of 1973, as amended, which generally requires non-discrimination against physically impaired persons.

D. Building Safety Code. All buildings, structures and facilities shall be designed and constructed in accordance with the provisions of the applicable edition of **NFPA 5000- Building Construction and Safety Code**, as published by the National Fire Protection Association (NFPA).

E. Boiler/Pressure Vessels. The fabrication and installation of all new boiler and un-fired pressure vessels shall conform to the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code and shall be marked with appropriate ASME Code symbols. The repair alterations or re-rating of all existing units shall conform to the National Board Inspection Code and shall be marked with appropriate code symbols. In each situation a qualified boiler inspector shall inspect the final product and installation.

F. Elevators. All passenger and freight elevators, dumbwaiters, escalators, or moving sidewalks shall conform to the ASME American National Safety Code for Elevators, Dumbwaiters, Escalators, and Moving Sidewalks.

G. Piping. Boiler/Pressure Vessel external piping and piping installations shall conform to American National Standards Institute (ANSI) B31.1, American National Standard, Power Piping, ASME Boiler and Pressure Vessel Code, Section I - Power Boilers; Section IV - Heating Boilers and Section VIII - Pressure Vessels -Division I. The piping or associated mechanical system shall not be operated unless that part of the system has been inspected and approved for operation by a qualified boiler inspector. Other fuel piping, steam and water piping, air piping and their respective installations shall conform to applicable sections of the Uniform Plumbing Code and the Uniform Mechanical Code.

H. Mechanical Systems.

(1) Liquefied Petroleum Gas (LPG). Liquefied petroleum gas heating systems and distribution facilities shall comply with NFPA No. 58 and 86.

(2) Natural Gas. Natural gas systems shall comply with NFPA No. 54 and 86. Gas meters shall be provided at each building

(3) Oil. Oil burning system installations shall comply with NFPA No. 31 and 86

(4) Electrical. Electrical heating and cooling systems shall be installed in accordance with the National Electrical Code (NFPA 70). Specific equipment shall be Underwriter's Laboratory (UL) listed or labeled. Advance meters or advanced metering devices shall be incorporated in each new building.

(5) Solar. Solar installations shall be installed in accordance with the Uniform Solar Code and the American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) Standards.

(6) Cooling and Ventilation. Cooling and ventilation systems shall comply with the Uniform Mechanical Code and NFPA 90A.

I. Electrical Power Transmission. Electrical power transmission, distribution and installation shall comply with the National Electrical Code (NFPA No. 70) and the National Electrical Safety Code.

J. Environmental Quality.

(1) Food Service. All new construction, major alterations and improvements, minor remodeling and operation of food service facilities shall comply with the guidelines set forth in the latest edition of the Public Health Service (PHS), Food Services Sanitation Manual.

(2) Sanitation Facilities. All new construction, major alterations and improvements and minor remodeling of sanitation facilities shall comply with the following guidelines:

(a) Liquid Waste: Applicable parts of 40 CFR, Protection of Environment, and 29 CFR, 1910, Occupational Safety and Health Standards (OSHA).

(b) Solid Waste: Applicable parts of 40 CFR, Protection of the Environment.

(3) Water Facilities. All new construction, major alterations and improvements and minor remodeling of domestic water facilities shall comply with 40 CFR, Protection of the Environment and 29 CFR 1910 (OSHA).

(4) Illumination.

a. All new construction, major alterations and improvements and minor remodeling shall provide facilities that comply with Illuminating Engineering Society Standards and Regulations on Illumination which include, 29 CFR, 1910 (OSHA) and those provisions outlined in PHS Institutional Sanitation Guidelines.

b. Seventy-five percent of all spaces occupied for critical visual tasks shall achieve a minimum daylight factor of 2 percent (excluding all direct sunlight penetration).

c. Provide automatic dimming controls and automated light-shut off when rooms are not occupied.

(5) Heating, Ventilation and Air Conditioning (HVAC).

a. All new construction, major alterations and improvements and minor remodeling of facilities shall comply with minimum requirements in the Uniform Mechanical Code, NFPA 90B, and ASHRAE Standards.

b. When potable water is used to improve a building's energy efficiency, life cycle cost effective water

conservation measures shall be used.

c. Comply with ASHRAE Standard 55-2004, Thermal Environmental Conditions for Human Occupancy, including continuous humidity control within established ranges per climate zone, and ASHRAE Standard 62.1-2007, Ventilation for Acceptable Indoor Air Quality.

d. Comply with the Sheet Metal and Air Conditioning Contractor's National Association Indoor Air Quality Guidelines for Occupied Buildings under Construction, 2007.

(6) Pest, Vector and Vermin Control. All new construction, major alterations and improvements and minor remodeling shall result in facilities that comply with regulations on pest vector and vermin control included in 29 CFR, Protection of Environment, Parts 162, 163, 165, 170 and those provisions outlined in the Public Health Service (PHS) Food Services Sanitation Manual and PHS Institutional Sanitation Guidelines.

#### K. Plumbing.

(1) All plumbing installations, equipment and fixtures shall comply with the Uniform Plumbing Code.

(2) Water conserving plumbing fixtures shall be used and shall meet UPC fixture performance requirements. Where available, EPA's WaterSense-labeled products or other water conserving products shall be used.

(3) Water meters shall be installed at each new building.

L. Highway and Bridge Design and Construction. The Bureau has adopted the design standards of the American Association of State Highway Officials (AASTHO). The current edition of the following publications will be enforced in all highway and bridge design and construction.

(1) A Policy on Geometric Design of Rural Highways

(2) Geometric Design Standards for Highway other than freeways

(3) Geometric Design Guide for Local Roads and Streets

(4) Highway Design and Operational Practices Related to Highway Safety

(5) Standard Specifications for Highway Bridges

(6) A Policy on Design Standards for Stopping Sight Distance

(7) The Federal Highway Administration's "Manual on Uniform Traffic Control Devices for Streets and Highways"

#### M. Airports and Runways (**Deleted**)

O. Pipelines. Pipelines used to transport hazardous materials, including natural and other gas and liquids, shall be designed, constructed, operated, maintained, tested and repaired as required by 49 CFR, Subchapter C, Parts 172 and 173; Subchapter D, Pipeline Safety and Parts 190, 191, 192, 195.

#### P. Energy Conservation.

(1) All new buildings for which design for construction began on or after January 3, 2007 shall:

a. Meet ANSI/ASHRAE/IESNA Standard 90.1-2004, Energy Standard for Buildings Except Low-Rise Residential Buildings, January 2004. (Section 109, Energy Policy Act of 2005)

b. If life cycle cost effective, achieve energy consumption levels, calculated consistent with paragraph "(2)" below, that are at least 30 percent below the levels of the baseline building.

(2) Energy consumption for the purposes of calculating the 30 percent savings shall include space heating, space cooling, ventilation, service water heating, lighting and all other energy consuming systems normally specified as part of the building design except for receptacle and process loads.

(3) If a 30 percent reduction is not life-cycle cost-effective, the design of the proposed building shall be modified so as to achieve an energy consumption level at or better than the maximum level of energy efficiency that is life-cycle cost-effective, but at a minimum complies with paragraph (1) above. (Energy Policy Act of 2005 and 10 CFR Part

433.4—Energy Efficiency Standards for the Design and Construction of New Federal Commercial and Multi-Family High-Rise Residential Buildings.

(4) Energy use in new buildings shall be targeted for less than 40,000 btus/sqft/year and in no case shall exceed 60,000 btus/sqft/year.

(5) Advance meters or advanced metering devices shall be incorporated in each new building and renovation projects. (Section 103, Energy Policy Act of 2005).

(6) For major renovations, energy use shall be reduced by 20% below pre-renovations 2003 baseline. (DOI Sustainable Buildings Policy).

(7) When lifecycle cost effective, new buildings shall meet at least 30% of the hot water demand through the installation of solar hot water heaters. (Section 523 of the Energy Independence and Security Act (EISA)).

(8) All new or renovated buildings which use natural gas or steam shall be provided with metering devices to measure the consumption of natural gas or steam. (Section 434, Energy Independence and Security Act (EISA)).

(9) New or replaced energy consuming equipment or products shall be Energy Star © and Federal Energy Management Program (FEMP)—designated Energy Efficient Products, where available. Equipment and products specified and installed shall be in the top 25% of all energy consuming equipment or products. (DOI Sustainable Buildings Policy).

(10) Renewable Energy Generation on BIA property for BIA’s use shall be life-cycle cost effective. (Executive Order 13423).

(11) All new buildings and major renovations shall be designed to earn the ENERGY STAR© targets. (DOI Sustainable Buildings Policy).

Revisions:

Revised 10/97 to add ADA to item C and to add Ordinary Hazard to item B.

Revised 01/01 to include Elementary Accessibility Requirements to item C

Revised 08/05 to include changes to the applicable Building Code adopted by BIA

Revised 03/07 to include Energy Conservation requirements, paragraph “O”

Revised 06/09 to change accessibility standard to ADA/ABAAG, changed boiler inspection requirements, deleted item M, Airports and Runways.

Revised 09/09 and 10/09 to add additional energy conservation requirements, water conservation requirements, and indoor air quality requirements.

Revised 10/09 to change accessibility standard to Architectural Barriers Act Accessibility Standard (ABAAS).

Electronic File located at: OFMC\DPPI-Share\Codes & Standards\091008 Applicable Codes and Standards