

Safety, Health and Accessibility Design Guidelines  
For  
Architects, Engineers and Design Firms



U.S. Department of the Interior  
Bureau of Indian Affairs

Division of Safety and Risk Management

## Introduction

Indian Affairs is involved in the operation; construction; major repair; alternation; rehabilitation and remodeling of buildings, plants and facilities. The Office of Facilities, Environmental and Cultural Resources, Division of Safety and Risk Management (DSRM) is responsible for enforcement of Bureau policy, adopted safety and health codes and mandated standards for Bureau controlled facilities, including operations, under the contract provisions of Public Law 93-638 and 100-297.

The Division reviews architectural and engineering drawings, specifications, shop submittals, and all other documents for construction and major rehabilitation or repair of facilities and existing facilities, for compliance with applicable codes and standards. The Division is the "Authority Having Jurisdiction" for the purpose of administering codes, standards, regulations, guidelines and Bureau policies. The Division also conducts final inspections and issues Certificate of Occupancy(s) for new construction and major renovation projects.

Indian Affairs has adopted building safety codes and standards using the format of most municipal governments in North America. The Safety and Health Code Compliance Program is structured utilizing the standard format with the exception that Indian Affairs does not collect fees for building permits and other fee based activities that municipal governments typically collect. The plan review procedure is identical to those utilized by most municipal governments. One (1) complete set of the design documents is required to initiate a plan review. If incomplete design documents are submitted, they will be returned without action to the Project Manager, Office of Facilities Management and Construction (OFMC).

There is one exception to the model codes and standards due to our unique operational environment. This special provision addresses the remoteness of many of our locations and the lack of municipal government infrastructure. The Indian Affairs special provision is:

- **Automatic Fire Sprinkler Systems:** All new Bureau-owned buildings in excess of 2,000 sq. ft. gross floor area, regardless of occupancy, shall be protected by an automatic fire sprinkler system in accordance with NFPA 13, using “**ORDINARY**” hazard classification as a minimum assigned risk factor for design. Where facilities are located in a municipal area, protected by a full time professional fire department, the designer may request, through the project manager, a waiver of the ordinary hazard classification. Requests for hazard classification waivers must be accompanied by a detailed justification stating the reason(s) for the waiver request (i.e., municipal setting, protected by a full-time, paid, fire department, response time and type of equipment apparatus).

Listed in the following pages are the requirements for submitting design submittals for review and a bibliography of codes and standards adopted and enforced by Indian Affairs.

Bureau of Indian Affairs  
Requirements  
For  
New Construction, Renovation and Alternation

**Design Documents Submittal Reviews:**

All new constructions, major renovations or alternations shall be reviewed and approved for applicable code compliance by the Division of Safety and Risk Management (DSRM). (Includes Modular/Portable Buildings, Design-Bid-Build, Design-Build Construction and Construction Management at Risk)

**NOTE:** All correspondence relating to a Bureau construction project shall be routed through the designated Bureau Project Manager.

**Design Services for Code Compliance Review:**

1. Preliminary Construction Documents (70%)
2. Completed Construction Documents (99%)
3. Final Construction Documents (100%)

**Shop Designs for Review and Approval Prior to Installation:**

1. Fire Detection Alarm System:  
Submittal shall include Shop Drawings, Battery Calculations, Voltage Drop Calculations, and Manufacturer's Equipment Catalog Data Sheets
2. Automatic Sprinkler Protection System:  
Submittal shall include Shop Drawings, Hydraulic Calculations, and Manufacturer's Equipment Catalog Data Sheets
3. Telescopic Folding Bleacher Seating:  
Submittal shall include Shop Drawings and Manufacturer's Equipment Catalog Data Sheets
4. Fixed Bleacher Seating:  
Submittal shall include Shop Drawings and Manufacturer's Equipment Catalog Data Sheets
5. Electric and Hydraulic Elevator:  
Submittal shall include Shop Drawings and Manufacturer's Equipment Catalog Data Sheets

**Note:** Utilize the applicable safety standards and/or codes in effect on date the design contracts are awarded. If the construction is not bid within 5 years, the project shall be redesigned utilizing current standards and/or codes.

**Submittal of Design Documents:**

1. One (1) Set of Drawings
2. One (1) Set of Specifications
3. One (1) Set of All Other Related Documents (i.e. Addendums)
4. One (1) Set of Shop Drawings and Applicable Related Documents (See Above)
5. DSRM Design Review Submittal Form (Attachment A)
6. DSRM Letter of Transmittal (Attachment B)

**Stamped for Approval or Disapproval:**

1. DSRM reviews at the 70% and 99% design submittal will not be stamped for Approval or Disapproval. Reviews at the 100% design submittal will be stamped as applicable. Each submission shall incorporate review comments from the previous submittal.

**Bureau of Indian Affairs**  
**Adopted Codes, Bureau Policy and Mandatory Standards**

- 25 U.S.C. §2005 requires that all facilities connected with the education of Indian children be in compliance with the Americans with Disabilities Act of 1990 [42 U.S.C. 12101 et seq.].
- Bureau of Indian Affairs policy [25 IAM and BIA Safety and Health Handbook, Topic 26.5 and Topic 27.7] requires all new Bureau-owned buildings, which exceed 2,000 square feet in gross floor area, regardless of occupancy, to be totally sprinkled with automatic sprinkler protection in accordance with NFPA 13, using “**ordinary**” hazard occupancy classification as the minimum assigned risk factor for design.
- In accordance with 25 IAM, Topic 26.6B.1 and Assistant Secretary – Indian Affairs December 7, 1993 memorandum (Subject: Facilities Construction and Operations and Maintenance Funding), the Division of Safety and Risk Management or its authorized representative shall inspect the facility after construction to verify it meets mandated and adopted codes and standards.
- The Division of Safety and Risk Management is the Authority Having Jurisdiction and will issue the “Certificate of Occupancy” after final inspection and only if the facility is in compliance with Bureau of Indian Affairs adopted codes, Bureau policy and mandatory standards in accordance with 25 IAM, Topic 26.3A, and NFPA 5000, Chapter 1. (Obtain a copy of the New Construction and Major Renovation Final Safety and Health Inspection and Certificate of Occupancy Guidelines from the Project Manager)
- The most current published editions of codes and standards, when a design contract is awarded, are applicable. The Bureau mandated and adopted safety and accessibility codes, standards, and policy applicable are:
  1. **Occupational 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.
  2. **Fire and Fire Safety.** All new construction, major alterations and improvements and minor remodeling, including modular and portable buildings shall be classified according to occupancy and/or use shall conform to the National Fire Codes, 25 IAM, and Topic 27, Structural Fire Program.
  3. **Accommodations for People with Disabilities.** All new construction, major alterations and improvements including modular and portable buildings shall be in accordance with 36 CFR, Part 1191, Americans with Disabilities Act and Architectural Barriers Act Accessibility Guidelines (ADAAG/ABAAG), as prepared by the U. S. Access Board, as well as Section 504 of the Rehabilitation Act of 1973, as amended in 1978, which generally requires that Bureau programs do not discriminate against physically impaired persons, apply.
  4. **Building Safety Code.** All buildings, structures and facilities shall be designed and constructed in accordance with the applicable edition of NFPA 5000 – Building Construction and Safety Code©, as published by the National Fire Protection Association.
  5. **Boiler/Pressure Vessels.** The fabrication and installation of all new boiler and unfired pressure vessels shall conform in all respects 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.
  6. **Elevators.** All passenger and freight elevators, dumbwaiters, escalators, or moving sidewalks constructed or leased by the Bureau of Indian Affairs shall conform to the ASME American National Standard Safety Code for Elevators and Escalators (ASME A17.1-2004) and applicable accessibility standards.

7. **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 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.
8. **Mechanical Systems.**
- A. **Liquefied Petroleum Gas.** Liquefied petroleum gas heating systems and distribution facilities shall conform to NFPA No. 58 and 86.
  - B. **Natural Gas.** Natural gas systems shall comply with NFPA No. 54 and 86.
  - C. **Oil.** Oil burning system installations shall conform to NFPA No. 31 and 86.
  - D. **Electrical.** Electrical heating and cooling systems shall be installed in accordance with the National Electrical Code (NFPA No. 70). Specific equipment shall be Laboratory (UL) listed or labeled.
  - E. **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.
  - F. **Cooling and Ventilation.** Cooling and ventilation systems shall conform to the Uniform Mechanical Code and NFPA No. 90A.
9. **Electrical.** Electrical power transmission, distribution and installation shall comply with the National Electrical Code (NFPA No. 70) and the National Electrical Safety Code.
10. **Environmental Quality.**
- A. **Food Service.** All new construction, major alterations and improvements, minor remodeling and operation of food service facilities shall conform to the guidelines set forth in the latest edition of the PHS, Food Services Sanitation Manual.
  - B. **Sanitation Facilities.** All new construction, major alterations and improvements and minor remodeling of sanitation facilities shall conform to the following guidelines:
    - 1) **Liquid Waste:** Applicable parts of 40 CFR, Protection of Environment, and 29 CFR 1910, Occupational Safety and Health Standards (OSHA).
    - 2) **Solid Waste:** Applicable parts of 40 CFR, Protection of the Environment.
11. **Water Facilities.** All new construction, major alterations and improvements and minor remodeling of domestic water facilities shall conform to 40 CFR, Protection of the Environment, and 29 CFR 1910 (OSHA).
12. **Illumination.** All new construction, major alterations and improvements and minor remodeling shall provide facilities which conform to Illuminating Engineering Society Standards and Regulations on Illumination which include, 29 CFR 1910 (OSHA), and those provisions outlined in PHS Institutional Sanitation Guidelines.
13. **Heating, Ventilation and Air Conditioning (HVAC).** All new construction, major alterations and improvements and minor remodeling of facilities shall conform to minimum requirements given in the Uniform Mechanical Code, NFPA No. 90B and ASHRAE Standards.
14. **Pest, Vector and Vermin Control.** All new construction, major alterations and improvements and minor remodeling shall provide facilities which conform to 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.

15. **Plumbing.** All plumbing installations, equipment and fixtures shall comply with the Uniform Plumbing Code. They shall be subject to periodic and final inspections to assure compliance. Code reference to the administrative authority refers to the Division of Safety and Risk Management or its authorized representatives.
16. **Highway and Bridge Design and Construction.** The Bureau has adopted the design standards of the American Association of State Highway & Transportation Officials (AASHTO). The current edition of the following publications will be enforced in all highway and bridge design and construction.
  - A. A policy on Geometric Design of Rural Highways
  - B. Geometric Design Standards for Highways other than Freeways
  - C. Geometric Design Guide for Local Roads and Streets
  - D. Highway Design and Operational Practices Related to Highway Safety
  - E. Standard Specifications for Highway Bridges
  - F. A Policy on Design Standards for Stopping Sight Distance
  - G. The Federal Highway Administration's "Manual on Uniform Traffic Control Devices for Streets and Highways"
17. **Airports and Runways.** Every airport or runway designed, constructed, repaired or maintained by the Bureau shall comply with the provisions of 14 CFR, Subpart C, Federal Aviation Administration (Aircraft).
18. **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; Sub-chapter D, Pipeline Safety and Parts 190, 191, 192, 195.



Bureau of Indian Affairs  
Division of Safety and Risk Management

(Attachment A)

**DESIGN REVIEW SUBMITTAL REQUIREMENTS FORM**

Project Description: \_\_\_\_\_

Project No: \_\_\_\_\_ Date Design Contract Awarded: \_\_\_\_\_

**Type of Construction:**  New  FI&R  MI&R

**Building Ownership:**  Bureau-owned  Tribally-owned  Other (Please Specify) \_\_\_\_\_

**Construction Funding Source:**  Federally Funded  Tribally Funded  Other (Please Specify) \_\_\_\_\_

**Operations & Maintenance (O&M) Funding Source:**  Bureau  Tribe  Other (Please Specify) \_\_\_\_\_

**Contracting Option:**  BIA/Commercial  P.L. 93-638 Contract  P.L. 100-297 Grant

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- Letter of Transmittal Form attached (Attachment B)
  - School or Dormitory, indicate what grades attend or reside: \_\_\_\_\_
  - Detention or Correctional Facility, indicate the Classification of Occupancy: (IAW NFPA 5000 or NFPA 101)  
 *Use Condition I*  *Use Condition II*  *Use Condition III*  *Use Condition IV*  *Use Condition V*
  - Design Stage Submittal:  70%  99%  100%  Other (Please Specify) \_\_\_\_\_%
  - Design Submittal (1 set of each required):  Drawings  Specifications  Other (Please specify) \_\_\_\_\_
  - Program of Requirements (POR) Attached (Required for **ALL** Projects)

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**Shop Design Submittal** (1 set of each required):

- Fire Detection Alarm System
  - Shop Drawings  Manufacturer's Equipment Data Sheets  Battery Calculations  Voltage Drop Calculations
- Automatic Sprinkler Protection System
  - Shop drawings  Manufacturer's Equipment Data Sheets  Sprinkler Hydraulic Calculations
- Telescopic Bleacher Seating/Fixed Seating
  - Shop Drawings  Manufacturer's Equipment Data Sheets
- Hydraulic/Electric Elevator System
  - Shop Drawings  Manufacturer's Equipment Data Sheets

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Name of Tribal Project Manager: \_\_\_\_\_

Phone: \_\_\_\_\_ Fax: \_\_\_\_\_ E-Mail: \_\_\_\_\_

Name of BIA Project Manager (AOTR/COTR/GOTR): \_\_\_\_\_

Phone: \_\_\_\_\_ Fax: \_\_\_\_\_ E-Mail: \_\_\_\_\_



Bureau of Indian Affairs  
Division of Safety and Risk Management

(Attachment B)

**LETTER OF TRANSMITTAL**

Date: \_\_\_\_\_

To: Division of Safety and Risk Management

From: \_\_\_\_\_

Project Description: \_\_\_\_\_

Project No.: \_\_\_\_\_ Project Manager: \_\_\_\_\_

**WE ARE TRANSMITTING:**

- Shop Drawings       Change Order       Specifications       Other \_\_\_\_\_
- Prints                 Plans                     Sample

COPIES	NO.	DESCRIPTION

**SUBMITTED FOR:**

- Review                                       Review and Comment                       Approval
- Your Use and Files                       As Requested                               Other \_\_\_\_\_

**REMARKS:**

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