



ACCREDITATION CRITERIA FOR INSPECTION PRACTICES OF METAL BUILDING ASSEMBLERS

AC478

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PREFACE

The attached accreditation criteria have been issued to provide all interested parties with guidelines on implementing performance features of the applicable standards referenced herein. The criteria were developed and adopted following public hearings conducted by the International Accreditation Service, Inc. (IAS), Accreditation Committee and are effective on the date shown above. All accreditations issued or reissued on or after the effective date must comply with these criteria. If the criteria are an updated version from a previous edition, solid vertical lines (|) in the outer margin within the criteria indicate a technical change or addition from the previous edition. Deletion indicators (→) are provided in the outer margins where a paragraph or item has been deleted if the deletion resulted from a technical change. These criteria may be further revised as the need dictates.

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ACCREDITATION CRITERIA FOR INSPECTION PRACTICES OF METAL BUILDING ASSEMBLERS

1. INTRODUCTION

- 1.1 **Scope:** These criteria set forth the requirements for obtaining and maintaining International Accreditation Service, Inc. (IAS), Inspection Practices for Metal Building Assemblers accreditation. These criteria supplement the IAS Rules of Procedure for Accreditation of Inspection Practices of Metal Building Assemblers.
- 1.2 **Normative and Reference Documents:** Publications listed below refer to current editions (unless otherwise stated).
- 1.2.1 AWS D1.1 and AWS D1.3, Structural Welding Code, published by the American Welding Society.
 - 1.2.2 International Building Code®, published by the International Code Council.
 - 1.2.3 Ironworker Quality Construction Practices, Metal Building Systems Reference Manual.
 - 1.2.4 ISO/IEC Standard 17020, Conformity assessment – Requirements for the operation of various types of bodies performing inspection.
 - 1.2.5 Metal Buildings Institute, Quality and Craftsmanship Training Series, available through <https://www.metal-buildings-institute.org/products/Quality-and-Craftsmanship-101-11-Module-Series---English.aspx>.
 - 1.2.6 OSHA Regulations (Standard 29 CFR), Part 1926 Safety and Health Regulations for Construction.
- 1.3 **Overview:** Accredited entities complying with these criteria continually demonstrate they have the personnel, organization, experience, knowledge, management procedures and commitment to assemble metal building systems in accordance with specified requirements and documented safety and training programs.

2. DEFINITIONS

For the purposes of these accreditation criteria, the definitions given in ISO/IEC Standard 17020, and the definitions that follow, apply:

- 2.1 **Approved Fabricator:** An established and qualified person, firm or corporation approved by the building official pursuant to the approved fabricator designation in Chapter 2 of the International Building Code.
- 2.2 **Metal Building Assembler:** Erectors and contractors who are substantially engaged in the assembly of metal buildings under DOT Code: 801.381-010 AIMS Code: 0877.

- 2.3 **Bid Documents:** Documents produced for the assembler's use to support the implementation of the project. These documents include architectural drawings, site plan, manufacturer's engineered drawings and manufacturer's erection drawings and blueprints.
- 2.4 **Competent Person [29 CFR 1926.32(f)]:** One who is capable of identifying existing and predictable hazards in the surroundings or working conditions which are unsanitary, hazardous, or dangerous to employees, and who has authorization to take prompt corrective measures to eliminate them.
- 2.5 **Contract Documents:** Documents that describe the metal building system to be supplied in its entirety for a given project. These documents include work orders, drawings, specifications, and buyer sketches.
- 2.6 **Corrective Action:** Implemented action necessary to eliminate or reduce the root cause of an identified problem.
- 2.7 **Jobsite Checklist:** A documented tool used as part of a routine to ensure items which are identified as relevant are performed.
- 2.8 **Erection Tolerances:** As set forth in "AISC Code of Standard Practice." Variations are to be expected in the finished overall dimensions of structural steel frames. Such variations are deemed to be within the limits of good practice when they do not exceed the cumulative effect of rolling, fabricating and erection tolerances.
- 2.9 **General Manager:** The person occupying the highest position of authority within a facility's organization.
- 2.10 **Job Safety Analysis (JSA):** One of the risk assessment tools used to identify and control workplace hazards. A JSA is a second-tier risk assessment with the aim of preventing personal injury to a person, or their colleagues, and any other person passing or working adjacent, above or below. JSAs are also known as Activity Hazard Analysis (AHA), Job Hazard Analysis (JHA) and Task Hazard Analysis (THA).
- 2.11 **Jobsite-Specific Plan:** As a minimum, such a plan should include the following elements, if applicable:
- 2.11.1 The sequence of erection activity, developed in coordination with the controlling contractor which includes the following: material deliveries, material staging and storage, and coordination with other trades and construction activities.
- 2.11.2 A description of the crane and derrick selection and placement procedures, if required, including the following: site preparation; path for overhead loads; and critical lifts, including rigging supplies and equipment.
- 2.11.3 A description of steel erection activities and procedures, including the following: stability considerations requiring temporary bracing and guying; erection bridging terminus point; anchor rod (anchor bolt) notifications regarding repair, replacement and

- modifications; columns and beams (including joists and purlins); connections; decking; and ornamental and miscellaneous iron,
- 2.11.4 A description of the fall protection procedures that will be used to comply with OSHA 29 CFR § 1926.760.
 - 2.11.5 A description of the procedures that will be used to comply with OSHA 29 CFR § 1926.758, Systems-engineered metal buildings.
 - 2.11.6 A description of the special procedures required for hazardous nonroutine tasks.
 - 2.11.7 A certification for each employee who has received training for performing steel erection operations as required by OSHA 29 CFR § 1926.761.
 - 2.11.8 A list of the qualified and competent persons which also includes their credentials.
 - 2.11.9 A description of the procedures that will be utilized in the event of rescue or emergency response.
 - 2.11.10 The identification of the site and project signed and dated by the qualified person(s) responsible for its preparation and modification.
 - 2.11.11 A site-specific plan may also be called a jobsite-specific plan, a site-specific safety plan and a site-specific project plan.
- 2.12 **Journeyworker - Assembler of Metal Building Systems:** A worker who has completed a registered apprenticeship program for Assembler, Metal Building Systems or who can give demonstrable proof of:
- 2.12.1 A minimum of three years' experience in metal building assembly
 - 2.12.2 Satisfactory completion of the MBI Quality and Craftsmanship Training Series
 - 2.12.3 OSHA 10
 - 2.12.4 Rigging
 - 2.12.5 Hot Work Safety
 - 2.12.6 Fall Protection/Hazards Training
 - 2.12.7 Rough Terrain Forklift Safety
 - 2.12.8 Aerial Work Platform Safety
- 2.13 **Management System:** A set of policies, processes and procedures used by an organization to ensure it can fulfill the tasks required to achieve its objectives.
- 2.14 **MBCEA:** Metal Building Contractors and Erectors Association.
- 2.15 **MBI:** Metal Buildings Institute.
- 2.16 **MBMA:** Metal Building Manufacturers Association.
- 2.17 **On-the-job Training:** Training that allows employees to learn by performing a specific job or task. The employee will perform the job while working under the supervision of an experienced employee who has been properly trained to perform the task. The employee uses the regular or existing tools, machines, documents, equipment, knowledge, and skills necessary to learn to effectively perform the task at hand.

- 2.18 **OSHA:** Occupational Safety and Health Administration.
- 2.19 **Procedure:** An implemented document that describes who does what, when, where, why and how.
- 2.20 **Process:** A purposeful systematic series of actions.
- 2.21 **Product:** Result of activities or processes.
- 2.22 **Project:** A process consisting of a set of coordinated and controlled activities undertaken to achieve customer requirements.
- 2.23 **Qualified Person [29 CFR 1926.32(m)]:** One who, by possession of a recognized degree, certificate, or professional standing, or who by extensive knowledge, training, and experience, has successfully demonstrated his ability to solve or resolve problems relating to the subject matter, the work, or the project.
- 2.24 **Quality Assurance:** Procedures to ensure that the implementation of planned activities results in meeting objectives, goals and contract documents.
- 2.25 **Quality Control:** The act of examination, testing or measurement which verifies processes and services or verifies documents conform to specified criteria.
- 2.26 **Repair:** Action taken to render a member or component acceptable for the intended use.
- 2.27 **Safety Plan:** A written document that describes the processes, procedures and policies implemented to ensure the safety of all persons and things.
- 2.28 **Subcontractor:** An individual or in many cases a business that signs a contract to perform part or all of the obligations of another's contract.
- 2.29 **WPS:** Welding Procedure Specification in accordance with AWS D1.1 or AWS D1.3 is required, as applicable.

3. ELIGIBILITY

Accreditation services are available to metal building assemblers who are substantially engaged in the assembly of metal buildings under DOT Code: 801.381-010; AIMS Code: 0877.

4. REQUIRED BASIC INFORMATION (PROGRAM REQUIREMENTS)

- 4.1 Metal building assemblers must demonstrate compliance with the following requirements:
 - 4.1.1 The requirements of these accreditation criteria;
 - 4.1.2 IAS Rules of Procedure for Accreditation of Inspection Practices of Metal Building Assemblers.
- 4.2 **General Requirements**
 - 4.2.1 The assembler of metal building systems shall establish and implement a management system that is fully documented. This documented management system must describe

the quality assurance activities for ensuring that the assembly meets the specified requirements.

- 4.2.2 The Metal Building Assembler shall submit to IAS for initial review, a documented management system, including a cross reference matrix ensuring that the requirements in Section 4 of these accreditation criteria have been included in the management system. The cross reference matrix must be signed by the Quality Manager (as defined in 4.2.9.1).
- 4.2.3 The submitted management system document must be signed and dated by the highest level of authority within the metal building assembler.
- 4.2.4 Metal building assemblers accredited under these criteria will adhere to metal building systems manufacturer's drawings, specifications and installation manuals.
- 4.2.5 Metal building assemblers accredited under these criteria, that rely on subcontracted or temporary labor must have documented procedures to show how they ensure compliance of subcontracted and temporary labor with the safety and training requirements of these criteria.
- 4.2.6 Metal building assemblers accredited under these criteria that subcontract all or a significant portion of an assembly shall advise the contracting entity whether or not work will be performed by an accredited entity.
- 4.2.7 The Metal Building Assembler shall submit to IAS, for review, a three (3) year lookback safety report that includes Experience Modification Rate (EMR) ratings, any and all citations or other communications from OSHA (both Federal and State agencies) or other safety authority having jurisdiction along with corrective actions taken, and any other relevant safety information reasonably requested by IAS. The Metal Building Assembler must provide their three (3) year average EMR. Numbers greater than one (1) are disqualified from the accreditation process. In addition, the severity of the citations and violations will be reviewed along with the corrective actions taken to determine if the accreditation process can proceed.
- 4.2.8 The accredited metal building assembler must maintain the following insurance coverage:
 - 4.2.8.1 Workmen's Compensation,
 - 4.2.8.2 Comprehensive General Liability,
 - 4.2.8.3 Comprehensive Automobile Liability,
 - 4.2.8.4 Umbrella Excess Comprehensive General and Comprehensive Automobile.
- 4.2.9 The following key personnel must be identified in the organization and their responsibilities must be documented. The designated personnel must have clear understanding of their assignments.

4.2.9.1 **Quality Manager:** Metal building assemblers accredited under these criteria shall designate a quality manager who has the necessary training, experience and authority to complete the tasks listed below:

- 4.2.9.1.1 Develop and implement the management system, in accordance with these criteria;
- 4.2.9.1.2 Ensure that periodic (at a minimum, annual) internal audits are conducted and documented, and that corrective actions are implemented.

Internal Audits: Metal building assemblers shall identify the frequency, method of documentation, and content of internal audits to determine the effectiveness of the management system, safety, and training programs. Internal audits must be conducted, at a minimum, annually. Audits shall include a summary that compares the most recent audit to the previous audit and shall include the elements of these criteria.

- 4.2.9.1.3 Ensure that management reviews (at a minimum, annually) are conducted and documented to assure the adequacy and the effectiveness of the management system. Management reviews must produce a summary and a documented plan of action for improvement.

Management Reviews: Reviews must be conducted and recorded to ensure the adequacy and effectiveness of the quality, safety, and training programs. Management reviews must produce a summary and a documented plan of action for improvement. Documents to be considered during the management review must include, but are not limited to, customer complaints, back charges, OSHA violations, internal audit results, and corrective actions that include a list of Metal Building System projects/contacts for all projects in the past year with an explanation of issues. Each individual Project must include an analysis of customer complaints, OSHA/Safety violations, necessary corrections. IAS will randomly sample this project list to ensure effective resolution and general agreement of action.

4.2.9.2 **Safety Manager:** Metal building assemblers accredited under these criteria shall designate a safety manager who has the necessary training, experience and responsibility to complete the tasks listed below. The safety manager shall report directly to the highest level of authority within the organization.

- 4.2.9.2.1 The safety manager shall develop, implement and maintain a documented safety program in accordance with these criteria.

- 4.2.9.2.2 Ensure, at a minimum, an annual review of the documented safety program to ensure it meets all required standards for the type of work usual and customary to the metal building assembler.
- 4.2.9.2.3 The safety manager shall ensure jobsite-specific safety plans are developed for each job and have knowledge of and access to the appropriate documents to meet this requirement.
- 4.2.9.3 **Training Manager:** Metal building assemblers accredited under these criteria shall designate a training manager who has the necessary training, experience and responsibility to complete the tasks listed below. The training manager shall report to the highest level of authority within the organization. The training manager shall have (at a minimum) the following responsibilities:
 - 4.2.9.3.1 Develop, implement and maintain a documented training program that ensures at least 25% of all field workers meet the definition of Journeyworker, Metal Building Assembly.
 - 4.2.9.3.2 Ensure, at a minimum, an annual review of the documented training program to ensure it meets all required standards for the type of work usual and customary to the metal building assembler and that it has been effectively implemented.
 - 4.2.9.3.3 Ensure that training plans meet all OSHA requirements, building manufacturer requirements, and equipment use requirements for the assigned tasks. Have knowledge of and access to the appropriate resources to meet this requirement.

NOTE: In some cases, the quality manager, training manager, and safety manager may be the same individual.

4.3 Documented Management System Requirements

A documented management system must be provided which includes the following details:

4.3.1 Basic Information

- 4.3.1.1 The name of the metal building assembler and its legal identity (company registration details),
- 4.3.1.2 The physical address of the metal building assembler,
- 4.3.1.3 The mailing address (if different),
- 4.3.1.4 Name and title of the person serving as the IAS contact, including the telephone number and e-mail address.

4.3.2 Required Statements: The following statements must be provided:

- 4.3.2.1 All activities of the metal building assembler shall be directed in such a manner as to ensure that the safety and training requirements of these criteria will be met.

- 4.3.2.2 The elements of the safety and training programs will be disseminated to all personnel that are involved with the assembly of metal buildings.
- 4.3.3 **Control of Documents:** Procedures must be provided for control of documents relating to safety and training programs, as well as project documents. This control shall include the following:
 - 4.3.3.1 A document approval procedure,
 - 4.3.3.2 A procedure to ensure that only current, approved documents are used,
 - 4.3.3.3 A procedure to ensure that documents are available at all locations where necessary for the proper functioning of the management system.
- 4.3.4 **Training Program Documentation**
 - 4.3.4.1 Metal building assemblers accredited under these criteria shall establish, document and implement a training program that ensures a qualified labor force competent in techniques necessary to ensure the quality and integrity of assembled metal buildings and ensures at least 25% of field workers meet the definition of Journeyworker, Metal Building Assembly.
 - 4.3.4.2 As a minimum, there must be training requirements established for all field personnel.
 - 4.3.4.3 The training program must require OSHA 10 for all employees with more than one year of service.
 - 4.3.4.4 The training program must include passing grades on the MBI Quality and Craftsmanship Training Series.
 - 4.3.4.5 The metal building assembler shall have provisions for storing, maintaining, and accessing training records and maintaining current personnel qualifications. Training records must include the following:
 - 4.3.4.5.1 Completed and dated training attendance records.
 - 4.3.4.5.2 Documentation proving comprehension of training (e.g., test results and/or certificates).
 - 4.3.4.5.3 Any required certifications and/or training necessary to perform the specific tasks assigned to that employee.
- 4.3.5 **Safety Program Documentation**
 - 4.3.5.1 Metal building assemblers accredited under these criteria shall establish and implement a safety program that is fully documented. This program must describe the procedures and activities for ensuring that all employees, subcontractors and processes comply with minimum OSHA standards and/or applicable regulatory requirements.
 - 4.3.5.2 Metal building assemblers accredited under these criteria must have documented procedures for the development and implementation of jobsite-specific plans and JSA's prior to commencement of work.

- 4.3.5.3 The safety program document must be signed and dated by the highest level of authority within the metal building assembler.
- 4.3.5.4 The safety program document must be reviewed at least annually.
- 4.4 **Onsite Job-specific Assessment:** IAS will perform jobsite assessments as per the schedule outlined in the Rules of Procedure.
 - 4.4.1 Electronic Review of Required Documents: IAS will perform an assessment of all required documents prior to conducting jobsite assessments as per the schedule outlined in the rules of procedure.
 - 4.4.2 Onsite inspections will be scheduled at a mutually convenient time/location to ensure inspection of a building that has significant activity to verify required elements.
 - 4.4.3 Jobsite inspections are pre-planned and announced.

5. ADDITIONAL INFORMATION (AS APPLICABLE)

- 5.1 Minimum Design Loads for Buildings and Other Structures (ASCE/SEI 7), published by the American Society of Civil Engineers/Structural Engineering Institute.
- 5.2 Specification for Structural Steel Buildings (AISC 360), published by the American Institute of Steel Construction.
- 5.3 AISI S100 – North American Specification for the Design of Cold-Formed Steel Structural Members, published by the American Iron and Steel Institute.
- 5.4 IAS Accreditation Criteria for Inspection Agencies AC98.
- 5.5 MBMA Metal Building Systems Manual.
- 5.6 National Guidelines for Apprenticeship Standards developed by Metal Buildings Institute for the occupation of Assembler, Pre-Engineered Metal Buildings, O*NET/SOC CODE 47-2221.00, RAPIDS CODE: 0877, available at:
https://www.dol.gov/sites/dolgov/files/ETA/apprenticeship/pdfs/Bulletin_2010-09_Appendix_A.pdf
- 5.7 Specification for Structural Joints Using High-Strength Bolts, available from the Research Council on Structural Connections (RCSC).
- 5.8 Structural Bolting Handbook, published by the Steel Structures Technology Center, Inc.

6. LINKS TO ADDITIONAL REFERENCES

- 6.1 IAS – www.iasonline.org
- 6.2 MBCEA – www.mbcea.org
- 6.3 IMPACT – www.impact.org
- 6.4 ICC – www.iccsafe.org
- 6.5 MBMA – www.mbma.com

These criteria were previously issued February 2015, June 2015, April 2017, September 2018 and September 2019.