

OBJECTIVE

To become familiar with the Special Inspection recommendations of the Special Inspection Manual.

REFERENCE

Special Inspection Manual, 2012

KEY POINTS

Special Inspection Manual, 2012

- What are the duties and responsibilities of the Special Inspector prior to arrival on the jobsite? At the jobsite? At the end of the project?
- Who hires the Special Inspector?
- What tasks are involved with the inspection of Fabricators?
- What are the duties and responsibilities of the Registered Design Professional in Responsible Charge?
- What are the duties and responsibilities of the Contractor?
- What are the duties and responsibilities of the Building Official?
- How are jurisdictional inspection different than Special Inspection?
- What is the difference between periodic and continuous Special Inspection?
- What are the AISC 360 Quality Assurance (Special Inspection) requirements?
- How does AISC 360 prescribe welding inspection? Welding nondestructive testing? Bolting inspection?
- What are the AISC 341 Seismic Quality Assurance (Special Inspection) requirements?
- How does AISC 341 prescribe welding inspection? Welding nondestructive testing? Bolting inspection?
- What is Structural Observation?
- Who performs Structural Observation?
- For what types of structures and structural elements is Structural Observation required?
- What is included in a typical Statement of Special Inspections Agreement?
- What is included in a typical Statement of Special Inspections Schedule for Steel Construction?
- What Special Inspector qualifications are recommended for code knowledge? For experience?
- What are typical job tasks for Structural Steel and Bolting Special Inspectors regarding material sampling, testing and verification? High strength bolting? Steel framing observation?
- What are typical job tasks for Structural Welding Special Inspectors regarding material sampling, testing and verification? Structural steel welding? Reinforcing steel welding? Sheet steel welding?

Note: Subject matter such as "Job Task Lists" provided in the Model Program for Special Inspection, 2012 is included in the Special Inspection Manual, 2012. Users of this workbook are encouraged to also use Chapter 2 of this workbook, in addition to Chapter 3, for study of Special Inspection Manual material.

- 3.1 Prior to visiting the jobsite for the first time, the Special Inspector should:**
- a. review the Statement of Special Inspections and clarify any questions
 - b. review approved plans and specifications
 - c. review additional requirements from the jurisdiction for Special Inspection (if any)
 - d. all of the above
- 3.2 In addition to the items listed in Question 3.1, the Special Inspector should:**
- a. discuss frequency of progress reports with Building Official
 - b. review the project schedule
 - c. determine if Special Inspection of materials from a non-approved fabrication facility will be required
 - d. all of the above
- 3.3 At the jobsite, the Special Inspector should:**
- a. notify Contractor personnel of presence and responsibilities at the job site
 - b. observe the assigned work
 - c. perform or observe required testing
 - d. all of the above
- 3.4 In addition to the items listed in Question 3.3, the Special Inspector should:**
- a. report on nonconforming items immediately (any discrepancies)
 - b. provide timely progress reports (on a daily or weekly basis as predetermined with Building Official)
 - c. follow site requirements for safety
 - d. all of the above
- 3.5 In reviewing the contents of the Statement of Special Inspections, the Special Inspector should:**
- a. determine what inspections and tests are required
 - b. determine the frequency of tests
 - c. determine who conditions and transports the test specimens to the laboratory, if offsite testing is to be done by a third party
 - d. all of the above
- 3.6 The intent of continuous Special Inspection is:**
- a. have a Special Inspector on site during the entire process of the work being inspected
 - b. have a Special Inspector available full-time on site
 - c. have the Special Inspector observing all activities as they are conducted
 - d. all of the above

3.7 What information should be included in the inspection record prepared by the Special Inspector?

- a. each location of inspection, type of inspection, and frequency of inspection
- b. nonconforming items (discrepancies)
- c. any changes, requests for information (RFI) or corrections to the construction process
- d. all of the above

3.8 At what point should the Special Inspector notify the Building Official and the Registered Design Professional in Responsible Charge of a nonconforming item?

- a. not resolved in a timely manner
- b. soon to be covered up without resolution
- c. either "a" or "b"
- d. end of the week

3.9 What should the Special Inspector include in a nonconformance report?

- a. description and exact location
- b. reference to the applicable detail of the approved plans and specification
- c. name and title of each individual notified and method of notification
- d. all of the above

3.10 The Special Inspector's final report should include:

- a. items not in conformance
- b. discrepancies in inspection coverage (for example, missed inspections)
- c. unresolved items
- d. all of the above

3.11 What form of natural disaster kills more Americans and destroys more property than any other?

- a. earthquake
- b. wind
- c. flood
- d. wildfires

3.12 What is the most common reason for loss from high wind?

- a. structures cannot be designed to resist hurricane force winds
- b. structures cannot be designed to resist tornado force winds
- c. inadequate attention to wind-critical details during design, construction and inspection
- d. all of the above

3.13 A seismic force resisting system is:

- a. system or section of a structural frame of a building specifically designed to resist the lateral (side to side) motion of an earthquake
- b. a nonstructural system that is designed to resist seismic forces
- c. both "a" and "b"
- d. neither "a" nor "b"

3.14 Braces and ties for lighting systems and sprinkler lines suspended from ceilings are examples of:

- a. seismic force resisting systems
- b. seismic load resisting systems
- c. designated seismic systems
- d. any of the above

3.15 The term used in AISC 360-10 that relates most closely to Special Inspection is:

- a. quality control
- b. quality assurance
- c. observe
- d. perform

3.16 Structural Observation is defined as:

- a. visual observation of the structural system by a Registered Design Professional (RDP) for the general conformance to the approved construction documents
- b. general verification by a Registered Design Professional (RDP) that critical elements of the structural system are being constructed as specified
- c. inspections performed by a Registered Design Professional (RDP) in addition to those performed by the Special Inspector
- d. inspections performed by a Registered Design Professional (RDP) in lieu of inspections to be performed by the Special Inspector

ANSWER KEY	CHAPTER 3 SPECIAL INSPECTION MANUAL
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REFERENCE

Special Inspection Manual, 2012

		Page	Special Inspection Manual, 2012
3.1	d	11	Chapter 2 - Duties and Responsibilities of the Special Inspector
3.2	d	11	Chapter 2 - Duties and Responsibilities of the Special Inspector
3.3	d	12	Chapter 2 - Duties and Responsibilities of the Special Inspector
3.4	d	12	Chapter 2 - Duties and Responsibilities of the Special Inspector
3.5	d	12	Chapter 2 - Statement of Special Inspections
3.6	a	13	Chapter 2 - Periodic and Continuous Special Inspections
3.7	d	17	Chapter 2 - Progress Report
3.8	c	17	Chapter 2 - Nonconforming Items
3.9	d	17	Chapter 2 - Nonconforming Items
3.10	d	18	Chapter 2 - End of Project
3.11	b	49	Chapter 4 - Wind Resistance
3.12	c	49	Chapter 4 - Wind Resistance
3.13	a	50	Chapter 4 - Seismic Resistance
3.14	c	50	Chapter 4 - Seismic Resistance
3.15	b	59	Chapter 5 - AISC 360 Quality Assurance (Special Inspection) Requirements
3.16	a	119	Chapter 7 - Structural Observation