# General

**RoD SPEC NOTE:** This Section identifies contractual requirements for specialty systems manufacturers, suppliers and installers to demonstrate Products, equipment and systems to Owner's personnel.

## Summary

**RoD SPEC NOTE:** Edit the following Paragraph to identify scope of this Section.

**RoD SPEC NOTE:** The following paragraph indicates Ready-for-Takeover milestone. Use Ready-for-Takeover on CCDC 2-2020 Projects.

**RoD SPEC NOTE:** Revise “Ready-for-Takeover” to “Substantial Performance of the Work” when using a different Contract Delivery Method on the Project.

* + 1. Demonstrate and provide training to Owner’s personnel on operation and maintenance of [Equipment] [building envelope] [and] [systems] prior to scheduled date of Ready-for-Takeover.
		2. Owner will provide list of personnel to receive training and will coordinate their attendance at agreed upon times.
		3. Coordinate and schedule demonstration and training provided by Subcontractors and Suppliers.

**RoD SPEC NOTE:** Delete the following paragraph when Section 01 91 13 General Commissioning Requirements is not provided on the Project.

* + 1. Coordinate training with commissioning agent.

## Submittals

* + 1. Submit proposed dates, times, durations, and locations for demonstration and training of each item of equipment and each system for which demonstration and training is required. Allow sufficient time for training and demonstration for each item of equipment or system, or time as may be specified in technical trade Sections.
		2. Consultant and Owner will review submittal and advise Contractor of any necessary revisions.
		3. Submit report(s) within five (5) Working Days after completion of demonstration and training:
			1. Identifying time and date of each demonstration and training session;
			2. Summarizing the demonstration and training performed, and;
			3. Including a list of attendees.

## Prerequisites to demonstration and training

* + 1. Testing, adjusting, and balancing has been performed in accordance with Contract Documents.
		2. Equipment and systems are fully operational.
		3. Copy of completed operation and maintenance manual is available for use in demonstration and training.
		4. Conditions for demonstration and training comply with requirements specified in technical Specifications.

## Demonstration and training

* + 1. Demonstrate start‑up, operation, control, adjustment, trouble-shooting, servicing and maintenance of each item of equipment and system.
		2. Review operation and maintenance (O&M) manual in detail to explain all aspects of operation and maintenance.
		3. Prepare and insert additional information in operation and maintenance (O&M) manual if required.

# Products – not used

# Execution

## Preparation

* + 1. Verify that suitable conditions for demonstration and instructions are available.
		2. Verify that designated personnel are present.
		3. Prepare agendas and outlines.
		4. Establish seminar organization.
		5. Explain component design and operational philosophy and strategy.
		6. Develop equipment presentations.
		7. Present system demonstrations.
		8. Accept and respond to seminar and demonstration questions with appropriate answers.

## Preparation of agendas and outlines

* + 1. Prepare agendas and outlines including the following:
			1. Equipment and systems to be included in seminar presentations;
			2. Name of companies and representatives presenting at seminars;
			3. Outline of each seminar's content;
			4. Time and date allocated to each system and item of equipment;
			5. Provide separate agenda for each system.
		2. Seminar organization:
			1. Coordinate content and presentations for seminars.
			2. Coordinate individual presentations and ensure representatives scheduled to present at seminars are in attendance.
			3. Arrange for presentation leaders familiar with the design, operation, maintenance and troubleshooting of the equipment and systems.
			4. Where a single person is not familiar with all aspects of the equipment or system, arrange for specialists familiar with each aspect.
			5. Coordinate proposed dates for seminars with Owner and select mutually agreeable dates.

## Explanation of design strategy

* + 1. Explain design philosophy of each system, including but not limited to the following:
			1. An overview of how system is intended to operate;
			2. Description of design parameters, constraints and operational requirements;
			3. Description of system operation strategies;
			4. Information to help in identifying and troubleshooting system problems.

**RoD SPEC NOTE:** Edit the following list with major equipment / system that would likely require training of personal who are going to be responsible for using the equipment / systems once in operation.

**RoD SPEC NOTE:** Below are common examples of standard equipment / systems that require demonstration and training when part of the Project.

## Time allocated for instruction

* + 1. Ensure amount of time required for instruction of each item of equipment or system as follows:
			1. Section [\_\_\_\_\_] - Overhead Doors: [\_\_\_\_\_] hours of instruction.
			2. Section [\_\_\_\_\_] - Loading Dock Equipment: [\_\_\_\_\_] hours of instruction.
			3. Section [\_\_\_\_\_] - Filtering Equipment: [\_\_\_\_\_] hours of instruction.
			4. Section [\_\_\_\_\_] - Plumbing System: [\_\_\_\_\_] hours of instruction.
			5. Section [\_\_\_\_\_] - Heating System: [\_\_\_\_\_] hours of instruction.
			6. Section [\_\_\_\_\_] - Cooling System: [\_\_\_\_\_] hours of instruction.
			7. Section [\_\_\_\_\_] - Ventilation System: [\_\_\_\_\_] hours of instruction.
			8. Section [\_\_\_\_\_] - Control System: [\_\_\_\_\_] hours of instruction.
			9. Section [\_\_\_\_\_] - Electrical System: [\_\_\_\_\_] hours of instruction.

End of section