

Seaside Rehabilitation and Health Care Center
Portland, Maine

SECTION 017900 - DEMONSTRATION AND TRAINING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes administrative and procedural requirements for instructing Owner's personnel, including the following:
 - 1. Demonstration of operation of systems, subsystems, and equipment.
 - 2. Training in operation and maintenance of systems, subsystems, and equipment.
- B. Related Sections include the following:
 - 1. Division 01 Section "Project Management and Coordination" for requirements for preinstruction conferences.
 - 2. Divisions 02 through 33 Sections for specific requirements for demonstration and training for products in those Sections.

1.3 SUBMITTALS

- A. Demonstration and Training: Submit list of systems and equipment to be demonstrated and training provided. Submit training and orientation agenda for each section.
- B. At completion of training, submit one complete training/instruction/operation manual(s) for Owner's use.
- C. Attendance Record: For each training session, submit list of participants and person(s) providing training.

1.4 QUALITY ASSURANCE

- A. Demonstrator and Trainer Qualifications: A factory-authorized service representative, complying with requirements in Division 01 Section "Quality Requirements," experienced in operation and maintenance procedures and training.

1.5 COORDINATION

- A. Coordinate instruction schedule with Owner's operations. Adjust schedule as required to minimize disrupting Owner's operations.
- B. Coordinate providing notification of dates, times, length of instruction time, and training content.
- C. Coordinate content of training with content of approved operation and maintenance manuals.

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PART 2 - PRODUCTS

2.1 INSTRUCTION PROGRAM

- A. Provide demonstration and training for each system and equipment not part of a system, as required by individual Specification Sections, and applicable items as follows:
1. Fire-protection systems, including fire alarm, sprinkler and fire-extinguishing systems.
 2. Intrusion detection systems.
 3. Conveying systems, including elevators.
 4. HVAC systems, including instrumentation and controls.
 5. Electrical service and distribution, including switchboards, and panelboards.
 6. Lighting equipment and controls.
 7. Communication systems and equipment, including telephone and communication systems, data system, security system.
 8. Access control system.
- B. Demonstration and Training: Include instruction as applicable for the following:
1. Basis of System Design, Operational Requirements, and Criteria: Include the following:
 - a. System, subsystem, and equipment descriptions.
 - b. Performance and design criteria if Contractor is delegated design responsibility.
 - c. Operating standards.
 - d. Regulatory requirements.
 - e. Equipment function.
 - f. Operating characteristics.
 - g. Limiting conditions.
 - h. Performance curves.
 2. Documentation: Review the following items in detail:
 - a. Operations and maintenance manuals.
 - b. Project Record Documents.
 - c. Warranties and bonds.
 - d. Maintenance service agreements and similar continuing commitments.
 - e. Applicable video presentations.
 3. Emergencies: Include the following, as applicable:
 - a. Instructions on meaning of warnings, trouble indications, and error messages.
 - b. Instructions on stopping.
 - c. Shutdown instructions for each type of emergency.
 - d. Operating instructions for conditions outside of normal operating limits.
 - e. Sequences for electric or electronic systems.
 - f. Special operating instructions and procedures.
 4. Operations: Include the following, as applicable:
 - a. Instructions on meaning of warnings, trouble indications, and error messages.
 - b. Startup procedures.
 - c. Equipment or system break-in procedures.
 - d. Routine and normal operating instructions.
 - e. Regulation and control procedures.
 - f. Control sequences.
 - g. Safety procedures.
 - h. Instructions on stopping.
 - i. Normal and emergency shutdown instructions.
 - j. Operating procedures for system, subsystem, or equipment failure.
 - k. Seasonal and weekend operating instructions.

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- l. Required sequences for electric or electronic systems.
- m. Special operating instructions and procedures.
5. Adjustments: Include the following:
 - a. Alignments.
 - b. Checking adjustments.
 - c. Noise and vibration adjustments.
 - d. Economy and efficiency adjustments.
6. Troubleshooting: Include the following:
 - a. Diagnostic instructions.
 - b. Test and inspection procedures.
7. Maintenance: Include the following:
 - a. Inspection procedures.
 - b. Types of cleaning agents to be used and methods of cleaning.
 - c. List of cleaning agents and methods of cleaning detrimental to product.
 - d. Procedures for routine cleaning
 - e. Procedures for preventive maintenance.
 - f. Procedures for routine maintenance.
 - g. Instruction on use of special tools.
8. Repairs: Include the following:
 - a. Diagnosis instructions.
 - b. Repair instructions.
 - c. Disassembly; component removal, repair, and replacement; and reassembly instructions.
 - d. Instructions for identifying parts and components.
 - e. Review of spare parts needed for operation and maintenance.

PART 3 - EXECUTION

3.1 PREPARATION

- A. Assemble materials necessary for instruction.

3.2 DEMONSTRATION AND TRAINING INSTRUCTION

- A. Engage qualified personnel to instruct Owner's personnel to adjust, operate, and maintain systems, subsystems, and equipment not part of a system.
 1. Owner will furnish Contractor with names and positions of participants.
- B. Scheduling: Provide demonstration and training instruction at mutually agreed on times. For equipment that requires seasonal operation, provide similar instruction at start of each season.
 1. Schedule training with Owner with at least 15 days' advance notice.

Sample

Sample (*Modify objectives and agenda subjects for systems and equipment being covered*)

TRAINING AND ORIENTATION AGENDA

Project: _____

Date: _____

Equipment / System: _____ **Spec Section:** _____

Section 1. Audience and General Scope

Intended audience type (enter number of staff): ___ facility manager, ___ facility engineer, ___ facility technician, ___ project manager, ___ tenant, ___ other: _____

General objectives and scope of training: (check all that apply)

___ A. Provide an overview of the purpose and operation of this equipment, including required interactions of trainees with the equipment.

___ B. Provide technical information regarding the purpose, operation and maintenance of this equipment at an intermediate level, expecting that serious malfunctions will be addressed by factory reps.

___ C. Provide technical information regarding the purpose, operation, troubleshooting and maintenance of this equipment at a very detailed level, expecting that almost all operation, service and repair will be provided by the trainees.

Section 2. Instructors

<u>ID</u>	<u>Trainer</u>	<u>Company</u>	<u>Position / Qualifications</u>
1)	_____	_____	_____
2)	_____	_____	_____

END OF SECTION 017900