

00710B01-TRAINING

1. The University considers training of the University's personnel to be an important step of every project. The consultant and successful bidder is responsible for formal complete and accurate training sessions. Partial and Final acceptance will not be considered until this training is done to the University's satisfaction.
2. The purpose of this training is to familiarize the staff in the operation, maintenance and repair of the new system(s). The extent of the training will vary depending on the size and type of project. For an entire building projects, a major renovations and most other projects, the following will apply:
 1. There is to be one day (min) instruction on the general mechanical systems and one day (min) instruction on the facilities management or controls system (FMS). There is to be a follow-up day of FMS instruction after six (6) months of operation.
 2. The instruction is to be organized and lead by the successful bidder. The instructors are to be the consultant, contractor(s) and vendor representatives for all major equipment.
 3. The students will be maintenance supervisor, maintenance staff, business officer, Capital Project Management Division representative, etc. The instruction is to assume a basic knowledge of building systems but no specific knowledge.
 4. The instruction materials should be the maintenance & operations manuals, drawings, specifications and other visual aids.
 5. Curriculum for each session must include following at minimum:
 1. Overview of the systems by the successful bidder.
 2. Review of the manuals highlighting major equipment, special items, special service requirements, etc.
 3. Facility tour pointing out major equipment, the systems, special items, emergency items, shut-off points, etc.
 4. Complete hands on demonstration and operation of all equipment.
 5. Emergency procedures, manual operation, system control panel operation, trouble procedures, programming and safety requirements.
 6. Question and answers.
 6. The recommended schedule is to begin at 8:30 AM, one hour lunch and finish at 4:30 PM. If PPD craft employees are to attend, schedule is to begin at 7:30 am, 45 minute to 1 hour lunch and finish at 3:45.

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7. Minimum systems to be covered are:
 1. Cooling System
 2. Heating System
 3. Ventilation
 4. Plumbing
 5. Fire Protection
 6. Fire Detection
 7. Security Systems
 8. Key Card Access Systems
 9. Elevator Control Systems
 10. Tube Transport Systems
 11. All Other Systems
 12. Exterior Utilities - Locate Lines
 13. Special Systems
 14. Electrical and Emergency Generator Systems

8. Minimum topics to cover in the FMS session:
 1. Overview of the system
 2. The potential for expansion
 3. The simple nature of DDC systems
 4. The pneumatic portion of the system
 5. Where to find information and get help
 6. Hands on operation for each person
 7. Initial program of the system

9. Repair Training

Provide training for 3 to 6 University personnel on basic operation, installation, maintenance, repair and troubleshooting of all systems being proposed.