SECTION **01 91 22**

**PLUMBING COMMISSIONING**

1. GENERAL
   * + 1. RELATED DOCUMENTS
          1. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.
       2. SUMMARY
          1. Section includes the contractor commissioning responsibilities.
          2. Related Sections:

Materials, Equipment and Systems included in commissioning scope are identified in other Division 22 Specification Sections:

Section 01 91 00 Commissioning

Section 01 91 07 Building Envelope Commissioning

Section 01 91 21 Fire Suppression Commissioning

Section 01 91 23 HVAC Commissioning

Section 01 91 26 Electrical Commissioning

Section 01 91 27 Communications Commissioning

Section 01 91 28 Electronic Safety and Security Commissioning

Section 01 77 00 Closeout Procedures

Section 01 79 00 Demonstration and Training

* + - * 1. Section 01 91 00 includes detailed requirements for execution and support of the commissioning process for construction and post-occupancy phases. That section shall be reviewed thoroughly for full understanding of the commissioning process requirements.
        2. Additional Demonstration and Training requirements for commissioned materials, equipment and systems are defined in Section 01 91 79 Demonstration and Training for Commissioned Systems.

1. PRODUCTS
   * + 1. TEST EQUIPMENT
          1. As specified in Section 01 91 00 Commissioning.
2. EXECUTION

This Section uses the term "Architect." Change this term to match that used to identify the design professional as defined in the General and Supplementary Conditions.

Verify that Section titles referenced in this Section are correct for this Project's Specifications; Section titles may have changed.

* + - 1. COMMISSIONED SYSTEMS
         1. Commissioned Systems include:

De-ionized water system, water filtration (general use), domestic hot water systems, grey water systems, tempered water systems, includes cleaning / flushing water systems.

Gas: special gas manifolds/distribution, vacuum air system, compressed air system for lab use, oxygen, carbon dioxide, nitrogen, nitrous oxide, dangerous gas monitoring systems.

Lab waste neutralization, emergency shower / eyewash, sinks and drains, Heat recovery systems

Solar water heating systems, cistern controls & filtration, greywater systems, landscape irrigation, water feature controls

Vivarium system: water softener, automatic watering system, water purification system, animal watering system, cage cleaners

* + - 1. REPORTS, CHECKLISTS AND TESTS
         1. Prepare reports, checklists and tests as identified in each of the Division 22 specification sections.
         2. In addition to specific reports, checks and tests identified in each Division 22 specification sections, the table below identifies commissioned materials, equipment and systems that require the Receiving Reports (RR), Prefunctional Checks (PFC) and Functional Performance Testing (FPT).

| Material/Equipment /System | Section | RR | PFC | FPT | Notes |
| --- | --- | --- | --- | --- | --- |
| Plumbing General | 22 00 10 | NR | Req | Req |  |
| Performance Verification | 22 00 90 | NR | Req | Req |  |
| Facility Water Distribution Piping | 22 11 13 | NR | Req | Req |  |
| Facility Sanitary Sewers | 22 13 13 | NR | Req | Req |  |
| Sanitary Waster Interceptors | 22 13 23 | NR | Req | Req |  |
| Insulation | 22 25 00 | NR | Req | NR |  |
| Plumbing Fixtures | 22 42 00 | NR | Req | Req |  |
| Drainage Systems | 22 43 00 | NR | Req | Req |  |
| Water Systems | 22 44 00 | NR | Req | Req |  |
| Fuel Gas Systems | 22 45 00 | NR | Req | Req |  |
| Laboratory Systems | 22 48 00 | NR | Req | Req |  |
| Integrated Systems Testing |  |  |  | Req |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |

* + - 1. SCHEDULE
         1. Refer to Specification Section 01 91 00, 3.4 for duration of functional testing for HVAC systems.

END OF SECTION