

PART 1 - GENERAL

1.1 FUEL OIL
SYSTEMS

- .1 Environmental protection systems:
 - .1 Test oil storage tank leakage detection system using manufacturer's recommended procedures.
 - .2 Test spill protection and over-fill protection systems using manufacturer's recommended procedures.
- .2 Fuel oil pumps:
 - .1 Check strainers on pump inlet, relief valve on pump outlet with discharge to oil return piping, pressure gauge on strainer inlet, pump inlet and pump discharge.
 - .2 Verify pump performance.
 - .3 Pump performance within plus 20% and minus 2% of design.
- .3 Operational Tests:
 - .1 Charge system and verify operation.
 - .2 Verify adequacy of flow rates and pressure from storage facilities.
 - .3 Verify accurate metering of fuel to generator.
 - .4 For further details refer to relevant sections of Division 23.
- .4 Notify authorities having jurisdiction to enable witnessing of tests as required.

1.2 POTABLE WATER
SYSTEMS

- .1 When cleaning is completed and system filled:
 - .1 Verify performance of equipment and systems as specified elsewhere in Division 23.
 - .2 Check for proper operation of water hammer arrestors. Run one outlet for 10 seconds, then shut off water immediately. If water hammer occurs, replace water hammer arrestor or recharge air chambers. Repeat for each outlet and flush valve.
 - .3 Confirm water quality consistent with supply standards, verifying that no residuals remain resulting from flushing and/or cleaning.
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| <u>1.3 WET AND DRY
PIPE SPRINKLER
SYSTEM</u> | .1 | Cleaning, testing, start-up, performance verification of equipment, systems, components, and devices is specified elsewhere in Division 23. |
| | .2 | Verification of controls, detection devices, alarm devices is specified Division 26. |
| | .3 | Verify operation of interlocks between HVAC systems and fire alarm systems. |
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<u>1.4 SANITARY AND
STORM DRAINAGE
SYSTEMS</u> | .1 | Buried systems: perform tests prior to back-filling. Perform hydraulic tests to verify grades and freedom from obstructions. |
| | .2 | Ensure that traps are fully and permanently primed. |
| | .3 | Ensure that fixtures are properly anchored, connected to system. |
| | .4 | Operate flush valves, and operate each fixture to verify drainage and no leakage. |
| | .5 | Cleanouts: refer to Section 22 42 01 - Plumbing Specialities and Accessories. |
| | .6 | Roof drains:
.1 Refer to Section 22 42 01 - Plumbing Specialities and Accessories.
.2 Remove caps as required. |
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<u>1.5 REPORTS</u> | .1 | In accordance with Section 01 91 13 - General Commissioning (Cx) Requirements: Reports, supplemented as specified herein. |
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<u>1.6 TRAINING</u> | .1 | In accordance with Section 01 91 13 - General Commissioning (Cx) Requirements. |
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PART 2 - PRODUCTS

2.1 NOT USED .1 Not Used.

PART 3 - EXECUTION

3.1 NOT USED .1 Not Used.