

Part 1 General**1.1 SUMMARY**

- .1 Related Sections:
 - .1 Section 23 11 13 - Facility Fuel Oil Piping

1.2 REFERENCES

- .1 American Society for Testing and Materials International (ASTM)
 - .1 ASTM E202-10, Standard Test Methods for Analysis of Ethylene Glycols and Propylene Glycols.

1.3 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 0% of design.
- .3 Operational Tests:
 - .1 Timing: perform after pump and related piping is installed prior to disconnecting existing turbines.
 - .2 Charge system and verify operation.
 - .3 Verify adequacy of flow rates and pressure from storage facilities to generators.
 - .4 Verify accurate metering of fuel to generators.
 - .5 For further details refer to relevant sections of Division 23.
- .4 Heavy oil systems:
 - .1 Verify temperature of stored oil and of oil adjacent to suction pipe.
 - .2 Verify complete heat tracing system for completeness, controls, operation.
 - .3 Heavy oil pumping and heating set:
 - .1 For test purposes and where suction lift is involved, level of oil in tank should be near empty.
 - .2 Measure oil pressure at strainer inlet and outlet, inlet and discharge of pumps, inlet and outlet of heaters.
- .5 Notify authorities having jurisdiction to enable witnessing of tests as required.

- .6 Cathodic protection systems:
 - .1 Test oil storage tank and oil fill, vent, suction and return piping cathodic protection systems.

1.4 REPORTS

- .1 In accordance with Section 01 91 13 - General Commissioning (Cx) Requirements Reports, supplemented as specified herein.

1.5 TRAINING

- .1 In accordance with Section 01 91 13 - General Commissioning (Cx) Requirements: Training of O&M Personnel, supplemented as specified herein.

Part 2 Products

2.1 NOT USED

- .1 Not Used.

Part 3 Execution

3.1 NOT USED

- .1 Not Used.

END OF SECTION