1.1 GENERAL

1.2 Related SFU Technical Requirements

.1 Section 20 00 05 Mechanical - General Requirements
.2 Section 21 05 00 Fire Protection - General Requirements

1.3 Description

.1 Additional SFU design and approval requirements for packaged fire pumps.

2.1 MATERIALS AND DESIGN REQUIREMENTS

2.2 Design Standards

.1 Design and construction shall be in accordance with the latest edition of the following standards unless specified otherwise:
   .1 Requirements and recommendations of NFPA 20 and Appendix A, for centrifugal fire pumps.
   .2 NFPA 37 for stationary combustion engine and gas turbines.
   .3 NFPA 30 for petroleum installations.

2.3 Certified Factory Tests

.1 Specify test each pump at factory to provide detailed performance data and to demonstrate compliance with NFPA and specification.

.2 Specify hydrostatic test to meet requirements of fire protection system to which it will be connected.

2.4 Shop Drawings

.1 Indicate hydraulic and electrical characteristics including Net Positive Suction Head (NPSH) required make and model number.

.2 See also Section 20 00 05 Mechanical - General Requirements.

2.5 Engineering Design Criteria

.1 Select fire pump to satisfy fire protection system requirements, NFPA.

.2 Water Supply
   .1 Obtain water information from SFU Energy and Water Services.

.3 Diesel Driven Pumps
   .1 Ensure positive fuel prime at engine fuel pump.

.4 Fire pumps can be electric but MUST be fed from emergency power.


.6 Obtain approval list of acceptable manufacturers and products from SFU Facilities. System shall be compatible with existing SFU operating control systems.
.7  Manufacturer of Fire Pump, Driver and Controller shall have local technical personnel available for testing, maintenance and repair.

.8  Proposed equipment placement and access requirements to be reviewed and approved by Building Operations.

2.6  General

.1  Packaged ULC listed and labeled

.2  Accessories to NFPA 20 requirements and in addition.
   .1  Fire pump bypass fitted with OS&Y gate valves and check valves.
   .2  Audible and visual suction side alarm to NFPA 20.
   .3  Shut off valves to be OS&Y gate valves, supervised.

2.7  Installation

.1  Install as specified in accordance with ULC listing, NFPA 20 and approved or reviewed shop drawings.

.2  Field Acceptance Test. Test as specified, each fire pump, driver and controllers in accordance with NFPA 20.

.3  Testing to be witnessed by Owner (SFU Facilities) and authorities having jurisdiction.

***END OF SECTION***