

**PART E**  
**SPECIFICATIONS**

## **PART E - SPECIFICATIONS**

### **GENERAL**

#### **E1. GENERAL**

E1.1 These Specifications shall apply to the Work.

#### **E2. GOODS**

E2.1 The Contractor shall supply fire fighting foam in accordance with the requirements hereinafter specified.

E2.2 Fire Fighting Foam:

- (a) Fire fighting foam concentrate for multi-purpose use on all Class A carbonaceous materials and all Class B hydrocarbon and polar solvent fires;
- (b) Foam shall be able to proportion through all injection systems at low rates for use as a Class A wetting agent;
- (c) Foam shall NOT contain any polymers, rendering it too thick for use through injection systems;
- (d) Foam shall be listed to the UL162 standard for use on hydrocarbons and polar solvents;
- (e) Foam shall be listed to the UL162 standard for use at no more than 3% on all Class B fires;
- (f) Foam shall NOT contain any detergents (hydrocarbon surfactants), butyl glycol ether or propylene glycol ether.
- (g) Foam shall be a low toxicity to aquatic organisms.
- (h) Minimum allowable 96-hour LC 50 (Rainbow Trout test population) as per Environment Canada test guideline EPS 1/RM/9, 1990 shall be 2500 ppm (mg/l) for the 100 % concentrate.
- (i) Foam shall be readily biodegradable.
  - (i) Biodegradation of the 100% pure concentrate shall be at least 95% over a 28-day period.

E2.3 Appendix A is attached for the Bidder's information.

#### **E3. DELIVERY**

E3.1 Goods shall be delivered on an "as required" basis during the term of the Contract, f.o.b. destination, freight prepaid, to 2546 McPhillips Street Winnipeg Manitoba.

E3.1.1 Goods shall be delivered within fifteen (15) Business Days of the placing of an order, except where otherwise agreed at the time of ordering.

E3.2 Goods shall be delivered between 7:30 a.m. and 3:30 p.m. on Business Days.

E3.3 The Contractor shall off-load goods as directed at the delivery location.

**APPENDIX A**

Key Criteria	UL 162 requirement (NFPA 11, 16, 16A)
	Class "B" Foam liquid concentrate (GFGV) (also suitable for Class "A" use).
Fire test	2" layer n-heptane on water 4.65m <sup>2</sup> (50 sq. ft.) 1 min preburn
Application rate	1.63L/min/m <sup>2</sup> (2 USGPM/sq.ft.)
Extinguishment time	3 minutes or less for full extinguishments
Water used	Fire tests using fresh and salt water.
Vapour seal tests	2 seal tests during a 9 minute waiting period.
Burnback tests	Foam blanket must withstand flame attack for at least 5 minutes after foam blanket has rested for 9 minutes from fire extinguishment
Polar solvent tests	AR type foams only for use on alcohol and other polar solvent fuels.
Film forming tests	AFFF/FFFP and AR type foams only.
Foam quality tests	Extensive tests
Induction tests	AT ambient and minimum use Temperature
Foam drum tests	Detailed tests too prevent Splitting/leakage when dropped
Foam equipment tests	Foam quality tests Air-oven aging tests Salt-spray corrosion tests Proportioning accuracy tests Plastic/rubber component tests Pressure tests