

2.2.3 Forehearths

Following the furnace and distributor, molten glass will be cooled to forming temperatures in the four (4) natural gas-fired forehearths, each with a maximum heat input of 6.825 MMBtu/hr (total of 27.3 MMBtu/hr).

Arglass is considering the use of backup Liquid Petroleum Gas (LPG) during natural gas service interruption to maintain forehearths' temperatures high enough to keep the molten glass from solidifying. Arglass estimates that the maximum backup LPG usage to be equivalent to 160 hours per year at design burner capacity. The backup LPG fuelling scenario is considered a malfunction. In this scenario, glass will continue to flow at a maximum rate of 150 tons per day from the four forehearths. This glass pull rate will also aid in keeping the molten glass from solidifying.

The forehearths are listed in SIP Form 2.00 as FH02.

2.2.4 Hot End Coaters

Four (4) Hot End Coaters will be used. The Hot End Coaters apply a material on the glass while it is hot. The material coated primes the surface for the Cold End coating to adhere to the cooled glass surface. Each Hot End Coaters applies the material at a rate of 1.5 pounds per hour.

The Hot End Coaters are listed in SIP Form 2.00 as HE02.

2.2.5 Mold Preheaters

Four (4) Mold Preheaters, each with a maximum heat input capacity of 0.51175 MMBtu/hr (a total of 2.047 MMBtu/hr), will be used. The glass is introduced to the molds to form the glass into the shape of a bottle or jar. The molds are preheated so that the hot glass encountering the surface of the cooler mold does not fracture the glass.

The Mold Preheaters are listed in SIP Form 2.00 as MP02.

2.2.6 Annealing Lehrs

Four (4) natural gas-fired annealing lehrs, each with a maximum heat input of 2.3885 MMBtu/hr (total 9.554 MMBtu/hr), will be used to remove residual stresses on products caused by the forming process and to prevent cracks by allowing the products to cool evenly and gradually.

The annealing lehrs are listed in SIP Form 2.00 as LE02.

2.2.7 Cold End Coating Units

Four (4) Cold End spray coaters apply a low emission dispersion wax, which makes the glass slippery to prevent scratches and to prevent products from sticking together as they are conveyed for inspection and packaging. Each coater will dispense the wax at a rate of 2 gallons per hour.

The Cold End coating units are listed in SIP Form 2.00 as CE02.

2.2.8 Emergency Generators

Two (2) identical 1,000 kilowatts (kW) or 1,838 Brake-Horsepower (bhp) compression ignition emergency generators will provide backup power to the facility. The heat input capacity from each engine is 10.666 MMBtu per hour. Engine specifications have been supplied in Appendix D.

The emergency generators are listed in SIP Form 2.00 as EM04 and EM05.

2.2.9 Process Water Cooling and Cooling Towers

Two sets of cooling systems will be used at the F2 Facility. The first is a set of open-circuit cooling towers used for process water cooling and the second consists of closed-circuit cooling towers.