



**APPLICATION TO INSTALL HEATER**

FACILITY NAME \_\_\_\_\_

FACILITY ADDRESS \_\_\_\_\_

OWNER \_\_\_\_\_ PHONE \_\_\_\_\_

OWNER'S ADDRESS \_\_\_\_\_

CONTRACTOR \_\_\_\_\_ PHONE \_\_\_\_\_

CONTRACTOR'S ADDRESS \_\_\_\_\_

LICENSE #: \_\_\_\_\_

\_\_\_\_\_  
Signature of  A-10 Contractor  A-10E Contractor \_\_\_\_\_ Date

\*\*\* Signed Certification of Contracted Services Form required in addition to this form.

**AREA BELOW RESERVED FOR SOUTHERN NEVADA HEALTH DISTRICT USE ONLY!**

**SOUTHERN NEVADA HEALTH DISTRICT APPROVAL**

BY: \_\_\_\_\_ DATE: \_\_\_\_\_

**APPROVAL IS NOT INTENDED TO CONVEY APPROVAL FOR ANY MISTAKE OR OMISSIONS CONTAINED HEREIN. PROPER DEVELOPMENT IS THE RESPONSIBILITY OF THE VARIOUS PARTIES CONCERNED AND ALL APPLICABLE LAWS, RULES AND REGULATIONS SHALL BE STRICTLY ADHERED TO.**

**DATA:**

Water volume \_\_\_\_\_ gals    Minimum turnover \_\_\_\_\_ hrs    Minimum flow \_\_\_\_\_ gpm

**Heater:**  Gas  Electric  Solar  Other \_\_\_\_\_

Mfr \_\_\_\_\_ Model # \_\_\_\_\_ Size \_\_\_\_\_ BTU/kW

**Piping:**  PVC (NSF-pw)  Copper  Other \_\_\_\_\_

**Pump:** Quantity \_\_\_\_\_ Mfr \_\_\_\_\_ Model # \_\_\_\_\_

\_\_\_\_\_ HP \_\_\_\_\_ Phase \_\_\_\_\_ gpm @ \_\_\_\_\_ TDH  NSF listed

**Booster pump:** For  Solar heater  Alternate process equipment  Gas Cl<sub>2</sub>

Other \_\_\_\_\_ Mfr \_\_\_\_\_ Model # \_\_\_\_\_ HP

**CALCULATION OF TOTAL DYNAMIC HEAD**

INCLUDE ALL PIPE, FITTINGS, ALTERNATE PROCES EQUIPMENT, AND VALVES

EQUIV.    FT. OF  
LIN. FT.    HEAD

Loss in feet of head prior to installation of heater (from previous calculation or from vacuum and pressure gauges.....\_\_\_\_\_

\_\_\_\_\_ lineal feet of \_\_\_\_\_" diameter pipe.....\_\_\_\_\_

\_\_\_\_\_ ell(s) 45 \_\_\_\_\_", each equivalent to \_\_\_\_\_ ft. of straight pipe – total.....\_\_\_\_\_

\_\_\_\_\_ ell(s) 90 \_\_\_\_\_", each equivalent to \_\_\_\_\_ ft. of straight pipe – total.....\_\_\_\_\_

\_\_\_\_\_ tee(s) \_\_\_\_\_", each equivalent to \_\_\_\_\_ ft. of straight pipe – total.....\_\_\_\_\_

\_\_\_\_\_ adapter(s) \_\_\_\_\_", each equivalent to \_\_\_\_\_ ft. of straight pipe – total.....\_\_\_\_\_

\_\_\_\_\_ reduction(s) \_\_\_\_\_" to \_\_\_\_\_" - loss in ft. of head.....\_\_\_\_\_

\_\_\_\_\_ enlargement(s) \_\_\_\_\_" to \_\_\_\_\_" – loss in ft of head.....\_\_\_\_\_

\_\_\_\_\_ valve(s) \_\_\_\_\_", each equivalent to \_\_\_\_\_ ft. of straight pipe total.....\_\_\_\_\_

\_\_\_\_\_ \_\_\_\_\_", each equivalent to \_\_\_\_\_ ft. of straight pipe total.....\_\_\_\_\_

Equivalent length of piping – total (add all equivalent lineal feet).....\_\_\_\_\_

Loss in feet of head due to friction in \_\_\_\_\_ feet of \_\_\_\_\_" pipe at \_\_\_\_\_ gpm.....\_\_\_\_\_

\_\_\_\_\_ heater - loss in feet of head.....\_\_\_\_\_

Velocity through heater piping \_\_\_\_\_ feet/sec.

**NOTES:**

1. Use the actual flow from the flowmeter as the gpm for this section.
2. Feet of head =  $\frac{\text{total equivalent lineal feet} \times \text{loss in feet (from friction/flow chart)}}{100}$
3. Obtain velocity from friction/flow chart

**FINAL CALCULATIONS**

**TOTAL DYNAMIC HEAD (TDH)**

TDH, clean filter – after installation of heater (add figures in feet of head column on page 2).....\_\_\_\_\_

TDH, actual (from vacuum and pressure gauge readings).....\_\_\_\_\_

**FLOW**

GPM, clean filter – prior to installation of heater (from flowmeter).....\_\_\_\_\_ gpm

GPM, clean filter – after installation of heater (calculated).....\_\_\_\_\_ gpm

GPM, clean filter – after installation of heater (from flowmeter).....\_\_\_\_\_ gpm

**TURNOVER**

Turnover, prior to installation of heater.....\_\_\_\_\_ hours

Turnover, after installation of heater (calculated).....\_\_\_\_\_ hours

Turnover, after installation of heater (actual).....\_\_\_\_\_ hours

**PIPING DIAGRAM**

Scale: