



## ***DIRECT FIRED PROCESS HEATER***

Client: \_\_\_\_\_ Date: \_\_\_\_\_

Project: \_\_\_\_\_ Contact: \_\_\_\_\_

Location: \_\_\_\_\_ PSL Reference: \_\_\_\_\_

### 1. SITE CONDITIONS

Ambient Temperature: °F \_\_\_\_\_ Design Wind Speed - mph \_\_\_\_\_

Elevation - feet ASL \_\_\_\_\_ Earthquake Zone (NBC) \_\_\_\_\_

2. PROCESS DATA Heat Medium Fluid. Yes/no If yes, type \_\_\_\_\_

#### 2.2 Operating Conditions

Inlet	Outlet
Pressure: PSIG _____	Pressure: PSIG _____
Temperature: °F _____	Temperature: °F _____
Liquid flow rate _____	Liquid flow rate _____
Vapour flow rate _____	Vapour flow rate _____
Liquid Gravity _____	Liquid Gravity _____
Vapour Molecular weight _____	Vapour Molecular weight _____
Viscosity Liquid/Vapour _____	Viscosity Liquid/Vapour _____

### 3. MECHANICAL DATA

#### 3.1 Design Conditions

Piping is to ASME for Steam and to API 530 for all other process Piping.

The Heater Design will be to API-560

If you require a different Design , please state here \_\_\_\_\_

#### 3.2 Inspection requirements ASME for steam and B31.3 for all other Processes.

If you require a different Inspection requirements, please state here \_\_\_\_\_

## 3.3 Type of Fuel

Gas / Oil

Sweet Fuel gases with a LHV of 997 is assumed.

If you have, different fuel gases please fill out the information below

<u>Composition</u>	Gas		Oil
<u>Component</u>	<u>Mole %</u> _____		
N <sub>2</sub>	_____	Ash %	_____
CO <sub>2</sub>	_____	Water %	_____
H <sub>2</sub> S	_____	Oil Gravity: °API	_____
C <sub>1</sub>	_____	Viscosity	_____
C <sub>2</sub>	_____	Pressure at Burner	_____
C <sub>3</sub>	_____	Temperature	_____
iC <sub>4</sub>	_____	Steam pressure	_____
nC <sub>4</sub>	_____	Air Pressure	_____
iC <sub>5</sub>	_____		
nC <sub>5</sub>	_____		
C <sub>6</sub>	_____		
C <sub>7+</sub>	_____		
TOTAL	_____		
Gas Molecular Weight:	_____		
Pressure at Burner	_____		
Temperature	_____		
Air Pressure	_____		

Do any emissions restrictions apply? Yes / No

If yes please state \_\_\_\_\_

## 3.3 Burner Management system

NFPA requirements Yes / No

If No please list, if any \_\_\_\_\_



Instrument Air: \_\_\_\_\_

Supply Pressure: PSIG \_\_\_\_\_

Utilities:

Electric Power \_\_\_\_\_

Volts \_\_\_\_\_

Phases \_\_\_\_\_

Cycles \_\_\_\_\_