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Customer: \_\_\_\_\_  
Customer Contact: \_\_\_\_\_  
Contact Phone #: \_\_\_\_\_  
End User: \_\_\_\_\_  
Location [city & state]: \_\_\_\_\_  
Sales Rep.: \_\_\_\_\_  
Architect Engineer: \_\_\_\_\_

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## PRELIMINARY APPLICATION/ENGINEERING DATA

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### Boiler Data

No. of Boilers: \_\_\_\_\_ Make & Model \_\_\_\_\_ No. of Burners per Unit: \_\_\_\_\_  
Furnace Dimensions L x W x H: L \_\_\_\_\_ x W \_\_\_\_\_ x H \_\_\_\_\_ Furnace Pressure \_\_\_\_\_ w.c.  
Wall construction: \_\_\_\_\_ (tangent, membrane, tube & tile, etc)  
Refractory locations: \_\_\_\_\_ % floor \_\_\_\_\_ % walls \_\_\_\_\_ % roof  
Design Steam Flow @ MCR: \_\_\_\_\_ lb/hr. Steam Pressure \_\_\_\_\_ psig Feedwater Temp. \_\_\_\_\_ Steam Temp \_\_\_\_\_ °F  
Boiler Drum Location (Facing Front): \_\_\_\_\_ Tube Spacing Wall Type: \_\_\_\_\_  
Plant Elevation \_\_\_\_\_ Ft. Above Sea Level Type of Installation: \_\_\_\_\_ Indoor / Outdoor  
Combustion Air Temp. \_\_\_\_\_ Flue Gas Temp. \_\_\_\_\_ °F Flue Gas Oxygen Content \_\_\_\_\_ %  
Boiler Efficiency: \_\_\_\_\_ On Oil \_\_\_\_\_ On Gas Economizer \_\_\_\_\_ Yes \_\_\_\_\_ No  
Superheater \_\_\_\_\_ Yes \_\_\_\_\_ No Existing FGR \_\_\_\_\_ Yes \_\_\_\_\_ No Type \_\_\_\_\_ Flow \_\_\_\_\_ %

### Burner Equipment

Windbox w/ Burner Combination : \_\_\_\_\_ Burner Only: \_\_\_\_\_ Heat Input Per Burner \_\_\_\_\_ mm btu/hr  
Comb. Air fan: Windbox Mounted \_\_\_\_\_ Remote \_\_\_\_\_ Reuse Existing \_\_\_\_\_  
Existing Fan Static Pressure: \_\_\_\_\_ w.c. Existing Fan Capacity: \_\_\_\_\_ cfm  
Excess Air @ 100% MCR \_\_\_\_\_ Performance Turn Down Oil \_\_\_\_\_ Gas \_\_\_\_\_  
Fuel Gas Type \_\_\_\_\_ Higher Heating Value \_\_\_\_\_ BTU/SCF Specific Gravity \_\_\_\_\_ Supply Temp. \_\_\_\_\_ %  
MCR Gas Pres. @ Inlet Valve Train \_\_\_\_\_ @ Burner \_\_\_\_\_ Max. Avail. Pressure \_\_\_\_\_ psig  
Gas Train: Shipped Loose \_\_\_\_\_ Pre-Assembled \_\_\_\_\_ Gas Flow Control Valve: By Others \_\_\_\_\_ By Todd \_\_\_\_\_

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Gas Pressure Regulating Valve: By Others \_\_\_\_\_ By Todd \_\_\_\_\_ Existing \_\_\_\_\_ Gas Supply Temp. \_\_\_\_\_ °F.

Fuel Oil Type \_\_\_\_\_ Fuel composition : Nitrogen \_\_\_\_\_%wt. Sulfur \_\_\_\_\_%wt Ash \_\_\_\_\_%wt

MCR Fuel Oil Pres. @ Inlet Valve Train \_\_\_\_\_ @ Burner \_\_\_\_\_ Fuel Oil Temp. \_\_\_\_\_ Visc. \_\_\_\_\_

Oil Train: Shipped Loose \_\_\_\_\_ Pre-Assembled \_\_\_\_\_ Oil Flow Control Valve: By Others \_\_\_\_\_ By Todd \_\_\_\_\_

Oil Pressure Regulating Valve: By Others \_\_\_\_\_ By Todd \_\_\_\_\_ Existing \_\_\_\_\_

Type Of Atomization \_\_\_\_\_ Steam \_\_\_\_\_ Air \_\_\_\_\_ Mechanical Air/Steam Pres Avail \_\_\_\_\_ psig

Pilot Type \_\_\_\_\_ Interrupted \_\_\_\_\_ Continuous Gas / Oil Pilot \_\_\_\_\_

**Emissions:** Predicted \_\_\_\_\_ Guaranteed \_\_\_\_\_

Fuel Oil NO<sub>x</sub> \_\_\_\_\_ CO \_\_\_\_\_ Particulate \_\_\_\_\_ SO<sub>x</sub> \_\_\_\_\_ Opacity \_\_\_\_\_ Other \_\_\_\_\_

Gas NO<sub>x</sub> \_\_\_\_\_ CO \_\_\_\_\_ Particulate \_\_\_\_\_ SO<sub>x</sub> \_\_\_\_\_ Opacity \_\_\_\_\_ Other \_\_\_\_\_

**Type of Operation :** Recycling \_\_\_\_\_ Non-recycling \_\_\_\_\_ BMS by others: \_\_\_\_\_

**BMS Control :** On Windbox \_\_\_\_\_ Free Standing \_\_\_\_\_ Panel Insert \_\_\_\_\_ Micro/PLC? \_\_\_\_\_

Control Voltage \_\_\_\_\_ Volt / Phase Motor Voltage \_\_\_\_\_ Volt / Phase

**Combustion Control:** By Others \_\_\_\_\_ By Todd \_\_\_\_\_ Electric \_\_\_\_\_ Pneumatic \_\_\_\_\_ SPP/Metered \_\_\_\_\_

**Insurance / Codes:** FM \_\_\_\_\_ IRI \_\_\_\_\_ NFPA \_\_\_\_\_ UL \_\_\_\_\_ Other \_\_\_\_\_ Approval Required \_\_\_\_\_

**In addition, please attach drawings or sketches showing the following information when applicable:**

- a) Windbox dimensions w/ burner location.
- b) Windbox combustion air inlet location and dimensions.
- c) FD fan location and combustion air duct arrangement (if applicable).
- d) Burner centerline to furnace floor, sidewalls, roof.
- e) Burner spacing (multiple burner applications).
- f) Existing tube nest arrangement.
- g) Existing burner throat opening and depth.
- h) Boiler front wall depth and windbox mounting plate thickness.
- i) Existing emission test data.
- j) Existing fan curves / data (FD, ID, FGR if applicable).
- k) Fuel data (copy of detailed component analysis of each fuel).
- l) Boiler performance sheet.

**Coolfuel Data Requirement – attach drawing if available**

Burner Manufacturer & type: \_\_\_\_\_

# of burner rows: \_\_\_\_\_ # of burner columns: \_\_\_\_\_

Vertical pitch: \_\_\_\_\_ft Horizontal pitch: \_\_\_\_\_ft Bottom row CL to floor: \_\_\_\_\_ft

Existing pressure drop: \_\_\_\_\_in W.C. Existing turndown: \_\_\_\_\_: 1

Flue gas pressure @ takeoff: \_\_\_\_\_in W.C. Air heater type: \_\_\_\_\_ (rotary, tube, etc)

Burner gas inlet size: \_\_\_\_\_in ID

Existing gas pressure @ burner for MCR: \_\_\_\_\_psig

Gas ring size: \_\_\_\_\_in ID or Qty and size of Pokers: \_\_\_\_\_ @ \_\_\_\_\_in ID

**Emissions Data**

Existing NOx emissions @ MCR: \_\_\_\_\_ppm Existing CO emissions @ MCR: \_\_\_\_\_ppm

**Miscellaneous Questions**

Will any gas train components need to be changed for higher fuel supply pressure? (if so list them) \_\_\_\_\_

Can the existing FD and ID fans handle the added pressure drop? (attach fan curves if available) \_\_\_\_\_

How is the existing superheat temperature controlled? (sprays, dampers, etc.) \_\_\_\_\_

Is there sufficient capacity in this system to handle increased temperature? \_\_\_\_\_

Can we use steam injection for NOx reduction? \_\_\_\_\_ Plant steam cost: \_\_\_\_\_ \$/1000 lb

Is continuous blowdown steam available? \_\_\_\_\_ If so, how much: \_\_\_\_\_%

Estimated total length of flue gas duct from takeoff point to burner front: \_\_\_\_\_ feet

# of 90 degree elbows: \_\_\_\_\_ # of 45 degree elbows: \_\_\_\_\_

**Re-Use of Any Existing Equipment / Comments (describe below):**