

# Boiler Questionnaire

## Boiler

Manufacturer: \_\_\_\_\_

Type: \_\_\_\_\_

Heat Input (MMBtu/HR.): \_\_\_\_\_

Rated Horsepower: \_\_\_\_\_

FD Fan Type (forced/induced): \_\_\_\_\_

FD Fan Horsepower: \_\_\_\_\_

FD Fan Manufacturer: \_\_\_\_\_

FGR present: (yes/no) (induced or forced): \_\_\_\_\_

Separate FGR Fan (yes/no): \_\_\_\_\_

FGR Fan Horsepower: \_\_\_\_\_

FGR Fan Manufacturer: \_\_\_\_\_

## Deaerator and Feed Water

Return (yes/no): \_\_\_\_\_

Number of DA vessels vs. number of boilers: \_\_\_\_\_

If yes, what percentage: \_\_\_\_\_

Return Temperature: \_\_\_\_\_

Make Up Water Temperature: \_\_\_\_\_

DA Pressure: \_\_\_\_\_

feedwater Pressure: \_\_\_\_\_

Electric Feed Pumps/ or Steam Driven: \_\_\_\_\_

## Burner/Combustion

Manufacturer: \_\_\_\_\_

NOx at Full Fire (ppmvd): \_\_\_\_\_

NOx at Min. Fire (ppmvd): \_\_\_\_\_

Excess O2 at Full Fire (%): \_\_\_\_\_

Excess O2 at Min. Fire (%): \_\_\_\_\_

Burner Turndown Possible (ratio - Min/Max): \_\_\_\_\_

Type of Fuel (nat gas/diesel/oil/other): \_\_\_\_\_

## Operational

Maximum Steam Rate (#hr.): \_\_\_\_\_

Minimum Steam Rate(#hr.): \_\_\_\_\_

Operating Steam Pressure (PSIG): \_\_\_\_\_

Boiler Duty Cycle

number of days boiler is on per week: \_\_\_\_\_

number of hours boiler is on per day: \_\_\_\_\_

Time at Full Fire (total hours/yr): \_\_\_\_\_

Time at Min. Fire (total hrs/yr): \_\_\_\_\_

Stack Exit Temp - High/Low Range (F): \_\_\_\_\_

Total Fuel Consumed per year (cu.ft/barrels(: \_\_\_\_\_

## Control Devices

Air Control Damper Present (yes/no): \_\_\_\_\_

If yes Jackshaft or Servo: \_\_\_\_\_

Air VFD Control Present (yes/no): \_\_\_\_\_

Make and Model: \_\_\_\_\_

FGR VFD Control Present (yes/no): \_\_\_\_\_

Drive Make and Model: \_\_\_\_\_

PLC based Control (yes/no): \_\_\_\_\_

Loop Controllers (yes/no): \_\_\_\_\_

Fuel Valve Control (yes/no): \_\_\_\_\_

type of actuator, valve model, I to P? \_\_\_\_\_

Drum Level Control (yes/no): \_\_\_\_\_

type of actuator, valve model, I to P? \_\_\_\_\_

## Temperature

Is Economizer present (yes/no): \_\_\_\_\_

If yes, Inlet Flue Gas Temp (min/max F): \_\_\_\_\_

If yes, Outlet Flue Gas Temp (min/max F): \_\_\_\_\_

## Environmental

NOx Compliance Limit, ppm: \_\_\_\_\_

CO Compliance Limit, ppm: \_\_\_\_\_

Future Compliance Limits:: \_\_\_\_\_



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