

Plant Infrastructure Questionnaire

I. General Information

- A. Principal products manufactured by plant/mill
- B. Average number of operating hours per year
- C. Number of holidays observed each year
- D. Average number of shutdown days each year
- E. Total number of employees at plant/mill

II. Energy Use and Cost Information

- A. Peak process steam demand:
- B. Average process steam demand:
- C. Minimum process steam demand:
- D. Annual steam usage:
- E. If steam is purchased, annual cost:
- F. Steam condensate returned:
- G. Peak electrical load:
- H. Average electrical load:
- I. Annual electrical consumption:
- J. Annual total electric bill in dollars (demand plus energy):
- K. Average cost per kWh:
- L. Name of electric service provider:
- M. Primary electric utility rate tariff (schedule):

N. Secondary electrical utility rate tariff or rider (economic incentive, time-of-use, interruptible rider, hourly pricing, etc.):

O. Tariff under which you purchase stand-by power (if any portion of your electricity needs is self-generated):

P. Do you have a long-term contract with your utility provider?

Q. Number and average duration of electrical service interruptions experienced last year:

III. Available Fuels Information

A. For each type of fuel used, please calculate and list the following:

- Annual Consumption (State Units)
- Delivered Cost per Unit (MMBTU)
- BTU's per lb./gal.
- Sulfur Content
- Ash Content
- Higher Heating Value
- Annual Cost (please break out transportation costs separately)

B. Who is your fuel supplier?

C. What is the mode of transportation to your plant for each fuel?

D. What are the terms of each fuel contract?

E. What is the extent of your on-site fuel storage capability, if any?

F. Do you have a rail siding on-site?

G. What are your current arrangements for solid fuel ash disposal (if applicable)?

H. What are your current fuel specifications?

I. Does your facility generate any combustible waste products that could be used as a fuel supplement (i.e. wood chips, textile wastes, etc.)?

If so, how much in terms of volume?

J. Do you anticipate that steam or process heat requirements will:

- increase?
- decrease?
- remain the same?

K. Do you anticipate that electricity requirements will:

- increase?
- decrease?
- remain the same?

L. Do you plan any major change in the use of primary fuels?

M. Do you plan to acquire new steam or power generating equipment?

IV. Available Boiler Information

A. For each boiler, please indicate:

- Manufactured Type
- Primary Alternate Fuel (coal, fuel oil, natural gas)
- Secondary Alternate Fuel (coal, fuel oil, natural gas)
- Rating (present actual)
- Steam Pressure (psig)
- Steam Temperature (degrees F)
- Boiler Efficiency
- Annual Steam Generated (lbs.)
- In-service Date (yr.)

B. Please furnish an organizational chart for your utility area.

C. How many employees work in this utility area?

D. Do you have union representation?

E. Please list your boiler plant (cogen plant) staffed positions, e.g. first shift supervisor, mechanic, etc.

F. Please list the number and average duration of steam outages you experienced last year.

G. What level of redundancy do you have for:

- steam?
- water?
- air?

H. What economic impact does a steam, water, air or electric outage have on your process?

V. Available Cogeneration Equipment

A. Information Required for Steam Turbines:

- Number of turbines
- Year(s) installed
- Output (each)
- Electrical (kW)
- Mechanical (HP)
- Inlet steam psig & temperature
- Outlet steam psig & temperature

B. Information Required for Gas Turbines:

- Number of gas turbines
- Year(s) installed
- Output (each)
- Electrical capacity (kW)
- Mechanical (HP)
- Usable heat recovered
- EXH gas
- Hot water
- Steam
- Pressure psig
- Temperature (degrees F)
- Lb/hr flow

C. Information required for diesel or gas engines:

- Number of diesel or gas engines
- Year(s) installed
- Output (each)
- Electrical (kW)
- Mechanical (HP)
- Usable heat recovered
- Steam
- Pressure psig
- Temperature (degrees F)
- Lb/hr flow

VI. Steam and Electric Profile

A. Plant Capacity:

- Process steam flow per month (minimum, average, peak)
- Electrical load per month (minimum, average, peak)

B. What are your electrical utility's:

- Points of delivery
- Number of substations
- Delivery KVA

- Primary voltage
- Secondary voltage

C. What is your electric utility company's monthly customer charge and interconnect fee?

VII. Available Chiller Equipment

A. Information needed for chiller equipment:

- Number of chillers
- Make(s)/model(s)
- Year(s) of manufacture
- Type of compression
- Installed capacity (tons)
- Average load
- Electrical or thermal

B. What is your need for CFC exchange?

C. Are chillers centrally located or distributed?

VIII. Available Air Compressor Equipment

A. Information Needed for Air Compressor Equipment:

- Number of compressors
- Make(s) / model(s)
- Year
- Type (screw, rotary, centrifugal, piston)
- Horsepower or CFM
- Pressure
- Driver
- Load factor

B. What are your compressor needs?

IX. Environmental

A. What air permit limitations currently apply to your existing boilers with respect to:

- sulfur dioxides?
- nitrogen oxides?
- particulates?

B. What types of emission controls (i.e. scrubbers, baghouses, low NOX burners) or fuel restrictions currently apply to your utility facilities?

C. When do existing air permits for your utility facilities expire?

D. Has your utility facility ever been subject to a PSD (Prevention of Significant Deterioration) review process?

E. Is your facility subject to the Title V program? If yes:

- What is the status of your Title V application?
- What emissions cause your facility to be covered?
- List tons of criteria pollutants (NO_x, PM₁₀, SO₂) attributable to your boiler plant, as reflected on your most recent State Annual Air Permit Fee invoice.

F. Was "synthetic minor" status considered for your facility as a means of avoiding Title V?