

GAS SUPPLY CHECK LIST

- **Gas Service Meter and Serving Utility**
 - Available on site and reliable
 - Rated for the combined loading of the facility and the generator (total BTU)
 - Maintains generator minimum pressure requirements while under maximum loading
- **Step Down Pressure Regulators**
 - Selected for the pressure and flow needs of the generator
 - Direct acting type with good dynamic response (no significant time lags in regulation)
 - Selected for minimum no-load to full load pressure droop (< 1-2" w.c. desired)
 - Located near the generator (allows the long piping runs to be at higher pressure)
 - Located at least 10' away from generator connection (avoids regulator oscillations)
 - Dedicated to a single generator (increases system reliability)
- **Piping**
 - Sized large enough to minimize pressure drops to acceptable levels under full gas flow
 - Minimize the number of elbows to avoid unwanted pressure drops
 - Ensure entire gas supply system maintains acceptable generator pressure under full gas flow conditions
 - Should be connected to generator with a flexible connection
 - Should include a drip leg (sediment trap)
- **LP**
 - LP tank's boil off rate (BTU capacity) needs to support rated BTU at minimum ambient
 - LP liquid withdrawal systems should be considered: cold ambients, small tanks, large generators
 - LP liquid systems require pressure rated piping and vaporization outside a building
- **Generac Design Resources**
 - "Installation Guidelines for Stationary Industrial Generators" manual 046622 (detailed information)
 - "Power Design Pro" software -- mechanical design tab (gas piping pressure drop calculator)
- **National Codes and Standards**
 - NFPA 37 "Installation and use of Stationary Combustion Engines"
 - NFPA 54 "National Fuel Gas Code"
 - NFPA 58 "LP Gas Code"