



COMMERCIAL BUILDING. BETHEL, AK 2002

PIPE INSULATION

"Bare heating piping mains covered with fiberglass pipe insulation SAVES on heating fuel oil consumption"



FIBER GLASS PIPE INSULATION

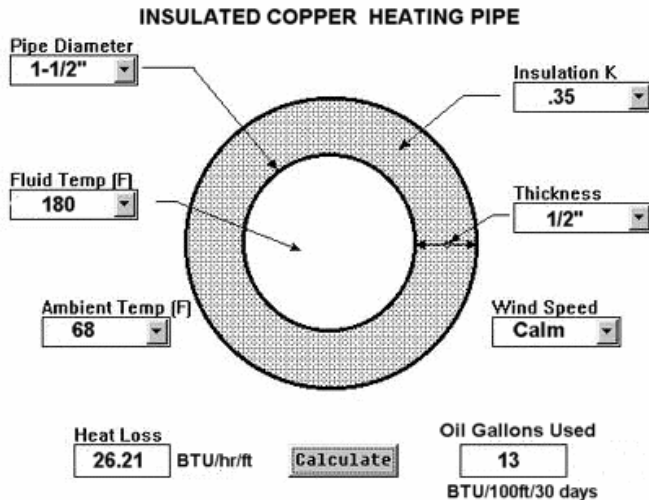


FIGURE 1. 100 FT OF 1-1/2" INSULATED PIPE 30 DAYS OIL USAGE

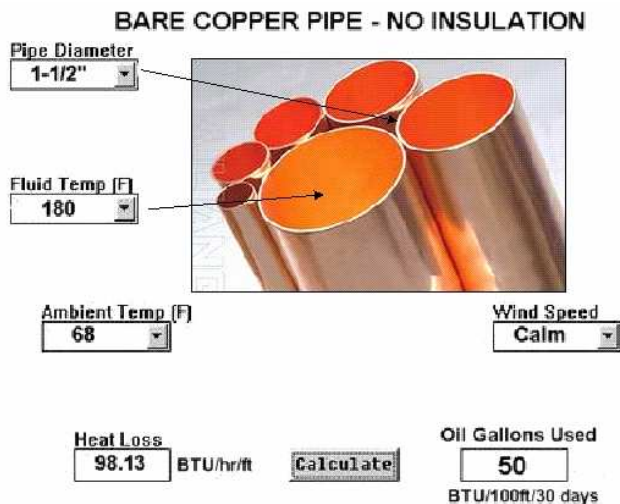


FIGURE 2. 100 FT OF 1-1/2" BARE PIPE 30 DAYS OIL USAGE

BTU is "A British thermal unit (Btu) is a standard unit of energy that is used in the United States. The Btu is used as a quantitative specification for the energy-producing or energy-transferring capability of heating equipment"

BOILER HEADERS & HEATING MAINS

Excess heat in boiler rooms and overheating in commercial buildings (Office's, Schools, Apartments, etc.) are also significant factors in increase heating fuel oil consumption.

A thermostat in a room turned all the way down to 68F and its still 85F degrees in the room hours later is usually an indication that copper pipe heating mains in the crawl or ceiling space are not insulated and are radiant heating the floor space into the room.

Figure one (**13 gallons used**) and figure two (**50 gallons used**) models 100 feet of heating mains piping in a building that are insulated and not insulated. The BTU losses for each were converted into fuel oil gallons used (140,000 BTU = 1 gallon of heating fuel oil).

Using the same calculation for 20 feet total of non-insulated 3" Copper boiler headers (Supply & Return) would result in **18 gallons** of heating fuel used in a 30 day period versus if the headers were insulated with a heating fuel consumption of only **4 gallons** in the same 30 day period.



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Notes: All boiler and pump photographs viewed in this article are projects completed by Nushagak Consultants. View more at www.nakco.com