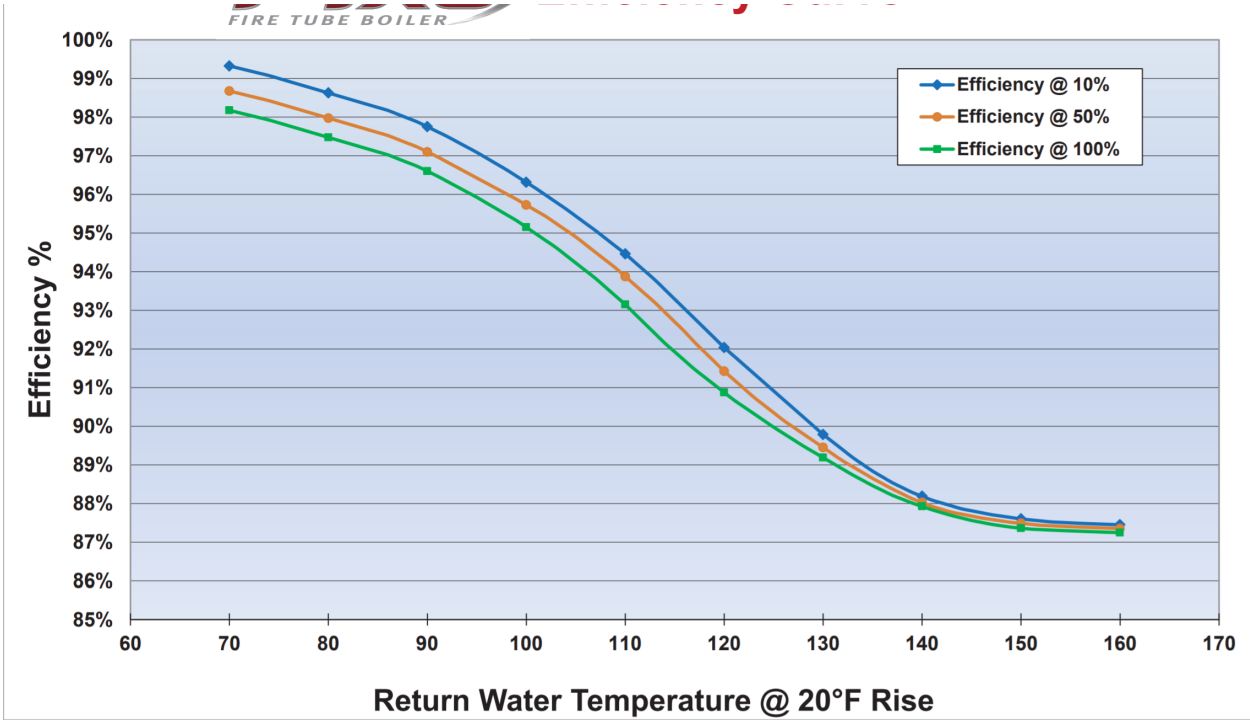

The KBN55 manual(same curve for WH55) says

for a 20 degree dT the flow rate would be 5.2 gpm.

25 dT => 4.2 gpm

35 dT => 3 gpm:

At a return water temp of say 125F the combustion efficiency would be around 91%.

So, the output of the boiler would be 55,000 (input) x 91% = 49,500 BTUh (output)

At 15 dT and 125 F return water temp the flow rate would have to be about 49500/480x15 = 6.9 gpm.

The standard calculation is BTUh = dT x gpm x 480(glycol adjusted).

Where 480 = (60min/hr x 8.3 lb/gal) x.98

So, no. you can run the boiler down to around 2.5 gpm and be safe, if needed.