EES Ver. 10.835: #1867: For use by students and faculty, College of Engineering, University of Oklahoma, Stillwater, OK

{Question 2.A-2}

{Part A}

P 1=14.7*convert(psi, kPa)

TSat_1=converttemp(C, F,t_sat(Water,P=P_1)) {Saturation Temperature: TSat_1 = 212 F}

{Part B}

P 2=24.58*convert(inHG, kPa)

TSat_2=converttemp(C, F,t_sat(Water,P=P_2)) {Saturation Temperature: TSat_2 = 202.2 F}

{Part C}

P 3=30[kPa]

TSat_3=converttemp(C, F, t_sat(Water, P=P_3)) {Saturation Temperature: TSat_3 = 156.4 F}

SOLUTION

Unit Settings: SI C kPa kJ mass deg

 $P_1 = 101.4 [kPa]$ TSat₁ = 212 [F] $P_2 = 83.24 [kPa]$ TSat₂ = 202.2 [F] $P_3 = 30 [kPa]$

TSat₃ = 156.4 [F]

No unit problems were detected.