

5. For installers choosing to use both supply tappings, Figure 6A shows the **correct** way to pipe this system. Figure 6B shows the **wrong** way to pipe a header with two risers.
  - Headers must be fitted with header offsets or swing joints, or be equipped with expansion joints, so that thermal expansion and contraction of the header will not damage the boiler. Headers shall not be welded.
  - System takeoffs from the header must be between the equalizer and the riser to the header nearest the equalizer. System takeoffs must never be between two risers.
6. System takeoffs from the header must never be bul-headed. If the steam main goes in two directions, there must be two takeoffs from the header, one for each main.
7. All boilers in gravity return systems **must** be equipped with a Hartford Loop as shown in Figures 5 and 6A.
8. When piping the vertical risers from the boiler to the header, the bottom of the header must be a minimum of 24 inches above the water level line on the right side of the boiler.
9. Steam riser(s) and header shall be  $2\frac{1}{2}$ " pipe size.
10. Equalizer line shall be minimum  $1\frac{1}{2}$ " pipe size.
11. The near boiler piping shall include a  $2\frac{1}{2}$ " tee with a plug located on the supply line as shown for skimming (i.e. surface blowdown).

FIG. 6A - RECOMMENDED NEAR BOILER PIPING USING TWO SUPPLY TAPPINGS

