

October, 1999

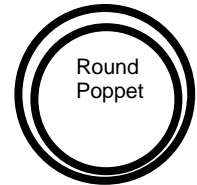
## Service Bulletin

### Series 47, Series 51 and Series 101 Cartridge Valve Assembly

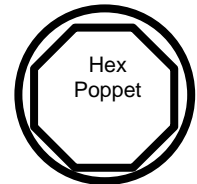
Since the beginning of last heating season we have received sporadic reports that the above listed controls stop feeding after being in service for a short period. We have determined that the poppet seizes or sticks in the closed position due to a build-up of mineral deposits between the poppet and inner wall of the cartridge. The affected controls have been installed for 1 to 3 months with product date codes from September 1997 (J97) to February 1999 (B99).

**Although no water is fed into the boiler if this happens, the burner is being turned off through the #2 switch (if so equipped) or a secondary LWCO.**

To lessen the chance the poppet will stick, we changed the shape of the poppet from round to hex beginning in February 1999 (B99). The hex-shaped poppet has 6 points that are in contact with the inner wall of the cartridge. The additional space between the flats of the poppet and inner wall of the cartridge lessens the chance mineral deposits will cause the poppet to seize or stick.



While most of the complaints have been that valves are not feeding, there have been some reports that the valve does not shut off. The cause is the same (build-up of mineral deposits), but the outcome is different. This is more likely to occur on the Series 47 and Series 51 controls because they are proportional action controls. The on/off action of the Series 101 offers very little chance that the valve will remain open due to mineral build-up.



Any installation that has a control not feeding or shutting off with a round poppet cartridge (J97 to B99 date code) should have the cartridge replaced. The replacement cartridge should be one with a hex poppet that can be identified by the date code of C99 or later. **Only the cartridge needs to be replaced, not the entire control or valve assembly.** Replaced round poppet cartridges should be submitted according to normal warranty procedure for exchange or credit.

We appreciate your help in bringing this problem to our attention and your patience while we found a solution. Call your local McDonnell & Miller Representative if you have questions or require additional information.