

**DESIGN DATA****Procedure for Flushing
AFFF Storage Tanks****Note**

1. The type of foam concentrate existing in the tank must be identified prior to initiating removal of foam concentrate or replacing with new National or Viking brand foam concentrate. You will note that there are two different flushing instructions; one for synthetic foam concentrates and one for protein foam concentrates.

General

To convert ordinary foam systems to National or Viking brand foam concentrates, thorough cleaning and inspection is necessary. Re-calibration of the proportioner and/or minor piping modifications may also be required.

Procedure for Synthetic Foam Concentrates

1. Remove the existing foam concentrate.
2. Flush tank with clean water.
3. Continue flushing tank with clean water until water discharging from tank appears clear.
4. For atmospheric storage tanks, visually inspect the interior storage tank walls for residual foam concentrate that may cling to wall. Remove residual foam concentrate by spraying water and allowing it to exit the tank through the drain. If residual foam concentrate is hardened and clings to tank wall, physically remove by scraping area. Caution must be taken not to damage tank wall. Once residual foam concentrate has been removed, clean area with clean water and flush tank until clear water is discharged through the drain.
5. Drain residual water from tank.
6. Fill tank with National or Viking brand foam concentrate following manufacturers filling instructions.

Procedure for Protein Based Foam Concentrates

Cleaning: Synthetic National or Viking brand foam concentrate has a powerful detergent action and is a strong penetrant. Equipment used to hold protein type foam concentrate for a long time builds a heavy residual deposit that cannot be removed easily by flushing with water. This residue is loosened by synthetic AFFF and could foul pumps, screens, and proportioners. As a result, one of the following cleaning procedures is recommended in conversion from protein foam.



Procedure #1

1. Remove all old foam concentrate from the system. Under no circumstances should National or Viking brand foam concentrate be stored with protein, fluoro-protein or other AFFF agents.
2. Clean and flush the system as thoroughly as possible with fresh water.
3. Add National or Viking brand foam concentrate to the system. After one or two weeks of storage, the foam system should be operated and drained completely. Training fire usage is suggested if the vehicle is still in service.
4. Re-flush the system with fresh water and clean any removable filters or separators.
5. Re-fill the system with fresh National of Viking brand foam concentrate for permanent conversion.
6. Check the proportioning rate of the proportioning devices.

Procedure #2

1. Remove all old foam from system.
2. Clean and flush the system with fresh water.
3. Fill the concentrate about 95% full with fresh water.
4. Prepare a slurry of 15% Trisodium Phosphate Medium in fresh water and pour through a #16 mesh screen or cheesecloth to remove large non-dissolved particles.
5. Add the slurry to the water in the concentrate tank until full and mix if possible. (Crude methods of mixing may be required as re-circulating pump or a paddle)
6. Allow the tank to stand for four hours, drain and rinse. Clean any removable filters or separators.
7. Re-fill the system with fresh National of Viking brand foam concentrate.
8. Check the proportioning rate of the proportioning devices.