TYPICAL ARRANGEMENT FOR CLEANING / FLUSHING OF DIRECTLY BURIED UTILITY HOT WATER PIPING

PIPING & EQUIPMENT:
A. PERMANENT VENTS AND/OR DRAINS AS APPROPRIATE FOR PIPE SLOPE & ELEVATIONS. PROVIDE TEMPORARY BYPASS PIPING.
B. TEMPORARY STRAINER
C. TEMPORARY CIRCULATION PUMP.
D. TEMPORARY CARTRIDGE OR BAG FILTER WITH PRESSURE GAUGES FOR dP ACROSS THE FILTER.
E. TEMPORARY CIRCUIT SETTER
F. TEMPORARY FLOW METER
G. TEMPORARY CARBON FILTER TANK
H. TEMPORARY MIXED BED DE-IONIZATION TANK

GENERAL NOTES:
1. THE CONTRACTOR SHALL SUBMIT A CLEANING PLAN FOR APPROVAL. THE PLAN SHALL INCLUDE TEMPORARY PIPING DETAILS & SIZING CALCULATIONS; CLEANING CHEMICAL MANUFACTURER’S INSTRUCTIONS; DE-IONIZED WATER PROCEDURES; SAFETY PROCEDURES; RINSE TESTING & DISPOSAL PROCEDURES; TEMPORARY POWER; CHRONOLOGY; ETC.
2. UTILITY HW SHALL NOT BE USED TO FILL OR FLUSH NEW PIPING WITHOUT PRIOR APPROVAL FROM SU ENERGY OPERATIONS. APPROVALS WILL BE CONSIDERED ONLY FOR SHORT RUNS OF SMALL DIAMETER PIPE (4” OR LESS) WITH A TOTAL VOLUME <500 GALLONS.
3. ALL PIPING AND EQUIPMENT SHALL BE SIZED TO PROVIDE 5 FPS VELOCITY IN THE MAIN LINES.
4. MAIN ISOLATION VALVES WILL BE LOCKED OUT BY SU ENERGY OPERATIONS PRIOR TO CLEANING AND WILL ONLY BE OPENED BY SU ENERGY OPERATIONS AFTER ALL CLEANING AND FLUSHING IS COMPLETED.
5. THE CONTRACTOR SHALL PROVIDE A CARBON FILTER TANK (DE-CHLORINATION) AND MIXED BED DE-IONIZATION TANK FOR FILLING AND POLISHING. THE TANKS SHALL HAVE SUFFICIENT CAPACITY TO FILL AND POLISH THE SYSTEM. DO NOT EXCEED THE FLOW CAPACITY OF THE TANKS (TYPICALLY 10GPM). THE CONTRACTOR CAN RENT THESE FROM CULLIGAN OR OTHER WATER TREATMENT PROVIDER.