



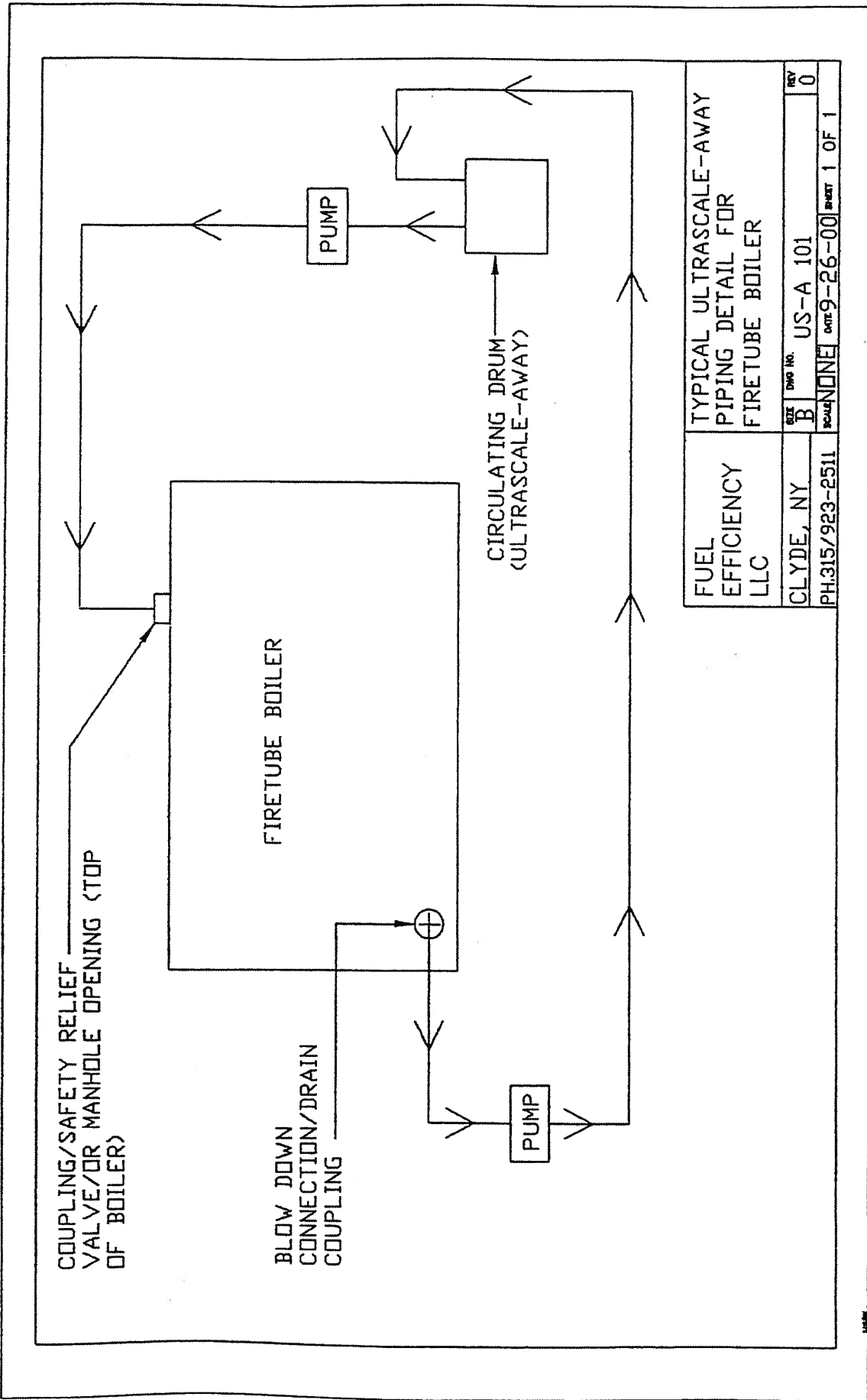
PROCEDURE FOR USING ULTRASCALE-AWAY WITH FIRETUBE BOILERS

1. Drain the boiler.
2. Flush the boiler.
3. Close drain valve(s).
4. Connect approximately 10' of hose and valve to bottom blowdown opening.
5. Add water to approximately 1/3 – 1/2 of total boiler capacity in gallons.
6. Add the required amount of UltraScale-Away, leaving (1) drum aside to be used later as open top circulating drum, so that gases can be vented to atmosphere. *
7. Add water to the normal operating level, as necessary.
8. Circulate UltraScale-Away from the remaining drum to the top of the boiler through the relief valve opening, leaving drum top open for venting to atmosphere. The top of the boiler must also be vented to the atmosphere to allow gases to escape. If possible, depending on the location of the blowdown or drain connection (where solution exits the boiler), feed solution into the top of the boiler as close to the opposite end of the boiler as possible.
9. Circulate at a rate of approximately 30/60 gpm for at least (4) hours.
10. If the open top circulating drum has too much foam, place a wet towel over the top of the drum.
11. When there is no longer foaming in the circulating drum, and at least four hours have elapsed, drain, flush, refill and start up boiler.

*UltraScale-Away requirement is based on water content of the boiler in question and the amount of scale build-up in the boiler. Minimum recommendation is for a 25% solution. Based on the amount of scale build-up in the boiler. You may need to use up to a 50% solution.

FOR OPTIMUM CIRCULATION AND THE BEST CLEANING RESULTS, USE THE TWO PUMP SYSTEM DIAGRAMMED ON THE FOLLOWING PAGE WHEN CLEANING FIRETUBE BOILERS WITH ULTRASCALE-AWAY.

Fuel Efficiency LLC
P.O. Box 271
Clyde, NY 14433
Tel: (800)448-9794 Fax: (315)923-9182
sales@fuelefficiencyllc.com



FUEL EFFICIENCY LLC		TYPICAL ULTRASCALE-AWAY PIPING DETAIL FOR FIRETUBE BOILER	
CLYDE, NY	PH:315/923-2511	SIZE	REV
		B	0
		DWG NO.	US-A 101
		SCALE	DATE 9-26-00
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