



DEPARTMENT OF THE NAVY
NAVAL SUBMARINE BASE NEW LONDON
GROTON, CONNECTICUT 06349-5000

April 30, 1991

To Whom It May Concern:

On April 10, 1991 the Submarine Base New London tested the USESTM electric savings power conditioner. The unit was connected to a General Electric 225 Amp, 3 phase, 60 hertz, 240 volt panel located in the swimming pool facility, Building 120. The panel contained 3 - 30 Amp circuit breakers and one 100 Amp circuit breaker. One of the 30 Amp circuit breakers provides power to the pool circulator pump. The pump motor is a Baldor 7.5 HP, 230 volt, 3 phase, 60 hertz motor, which runs 24 hours a day, 365 days per year. The other three circuit breakers had no load. The unit was connected to the 100 Amp, 3 phase circuit breaker which was a spare. Test results were as follows:

| | <u>Phase A</u> | <u>Phase B</u> | <u>Phase C</u> | <u>Time</u> |
|--|----------------|---------------------|----------------|-------------|
| Prior to connecting USES TM Unit | 18.6 Amps | 18.3 Amps | 17.9 Amps | |
| | | at .99 power factor | | |
| USES TM CMES-3D Connected | 11.3 | 11.6 | 11.1 | 0 |
| | 11.3 | 11.5 | 11.0 | 3 |
| | 11.1 | 11.6 | 11.0 | 6 |
| | 11.3 | 11.5 | 11.1 | 9 |
| | 11.3 | 11.6 | 11.1 | 12 |
| | | at .98 power factor | | |
| USES TM Unit Removed | 18.6 | 18.5 | 18.1 | |
| | | at .99 power factor | | |

These results amount to a total energy savings of 24,464 Kilowatt Hours per year which corresponds to \$1837 per year savings.

Submarine Base New London is impressed with these results and plans in the near future to conduct other such tests at larger facilities. Submarine Base New London also intends on installing one or two of the units, so they can be monitored over a longer period of time.

Please address any questions concerning the results or test procedure to Stephen F. Pucino, Energy Conservation Engineer, at (203) 449-4485.

Sincerely yours,

Stephen F. Pucino