

## CCPS Program “TPHEM” Data File “COMBO.TP” Problem Sources and References

### DIERS Benchmarks

1. Adair, S. P. and Fisher, H. G., “Benchmarking of Two-Phase Flow Through Safety Relief Valves and Pipes”, JLPPI, 12 (4), 269-297 (1999).

### 8 / 95 Article

2. Simpson, L. L., “Navigating the Two-Phase Maze”, in “International Symposium on Runaway Reactions and Pressure Relief Design”, Melhem, G. A. and Fisher, H. G. (Eds.), AIChE / DIERS, Boston (August 2-4, 1995).

### Sozzi and Sutherland Article

3. Sozzi, G. L. and Sutherland, W. A., “Critical Flow of Saturated and Subcooled Water at High Pressure”, General Electric Company, NEDO-13418 (July 1975).
4. Baber, T. M. and Fisher, H. G., “The Prediction of Subcooled and Saturated Two-Phase Flashing Flow Through Short and Long Nozzles (Safety Relief Valves) Using Various Models”, Submitted to PSP (1999).

### Graham Data

5. Graham, E. J., “The Flow of Air-Water Mixtures Through Nozzles”, Ministry of Technology National Engineering Laboratory, NEL Report Number 308 (August 1967).
6. Jamerson, S. C. and Fisher, H. G., “Using Constant Slip Ratios to Model Non-Flashing (Frozen) Two-Phase Flow Through Nozzles”, PSP, 18 (2), 89-98 (Summer 1999).

### DOT Toner Study

7. Toner, S. J., “Two-Phase Flow Research. Phase I. Two-Phase Nozzle Research”, U.S. Department of Energy, DOE/ER/10687-T1 (July 1981).
8. Jamerson, S. C. and Fisher, H. G., “Using Constant Slip Ratios to Model Non-Flashing (Frozen) Two-Phase Flow Through Nozzles”, PSP, 18 (2), 89-98 (Summer 1999).

### PRD Problems / IFLO Check

Proprietary Files