are included, writing a 'main' program for additional functions such as the saturated condition requires considerable investigation into the workings of the provided programs. It should be noted that if the reference state is to be correct to a large number of digits, it must be established for each individual computer and program compilation. This requires adjusting the coefficients UREF and SREF used in subroutine THERM. Also, the convergence criteria on Gibbs function values used to define the saturation line in subroutines TCORR and PCORR should be reduced to at least 10^{-6} and preferably 10^{-8} if calculated values are to be reliable in the least significant digit shown in the tables. This apparently tripped up the authors since the values in Table 2 for enthalpy, entropy etc, do not always agree with the similar property saturation values given in Table 3 for pressures above about 100 bars. The values in Table 3 more correctly reflect the surface. The programs provided achieve values representing the surface to within about 1 K of the critical point. As always, the FORTRAN program statements may require modification to meet the requirements of a particular computer and compiler. When using these programs compiled with Microsoft FORTRAN, data points calculated as a function of P and T were found to require about 4 s on an IBM PC having a maths co-processor.

The 1967 IFC Formulation for Industrial Use, which is the basis of the ASME and many other steam tables, provides values of less certainty and thermodynamic consistency but requires an order of magnitude less computer time. In the commercial environment of the utility industry where complex cycle and similar calculations are required and where industry-wide standardization is desirable, economics are likely to dictate continued use of the 1967 formulation. In design and other calculations justifying a higher level of property knowledge, the new properties may well become commonplace.

This new NBS/NRC Steam Tables represents a new standard for the properties of water substance and will be essential to anyone requiring the most up-do-date knowledge of this especially important substance.

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Published, price $34.50 cloth or $14.95 paper, by Hemisphere/McGraw-Hill. Hemisphere Publishing Corporation, Berkeley Building, 19W 44th Street, New York, NY 10036, USA

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Inclusion of a title in this section does not preclude subsequent review.