

References

- AGE82 L.J. Agee, "RETRAN Thermalhydraulic Analyses: Theory and Applications", *Progress in Nuclear Energy*, Vol. 10, No. 1, pp. 19-67, 1982.
- AGE83 L.J. Agee, M.P Paulsen and E.D Hughes, "Equations of State for Nonequilibrium Two-Phase Flow Models", *Transient Two-Phase Flow Proceedings of the Third CSNI Specialist Meeting*, Hemisphere Publishing Corporation, 1983.
- BAN80 S. Banerjee, "Two-Phase Hydrodynamics: Models and Mechanisms", Keynote Paper, *ANS/ASME Topical Meeting, Nuclear Reactor Thermal-Hydraulics*, Saratoga, New York, October 1980.
- BER81 A.E. Bergles et al., *Two-Phase Flow and Heat Transfer in the Power and Process Industries*, Hemisphere Publishing, 1981.
- BIR60 R.B. Bird, W.E. Stewart and E.N. Lightfoot, *Transport Phenomena*, John Wiley and Sons, Inc., New York, 1960.
- BLO71 Benjamin S. Bloom, J. Thomas Hastings, George F. Madaus, "Handbook on Formative and Summative Evaluation of Student Learning", McGraw-Hill, Library of Congress 75-129488, 1971.
- BNW76 *COBRA-IV: An Interim Version of COBRA for Thermalhydraulic Analysis of Rod Bundle Nuclear Fuel Elements and Cores*, Battelle Pacific Northwest Laboratories, BNWL-1962, March 1976.
- CAR81a M.B. Carver, L.N. Carlucci and W.W.R. Inch, *Thermalhydraulics in Recirculating Steam Generators, THIRST Code User's Manual*, AECL-7254, April 1981.
- CAR81b M.B. Carver, "Numerical Simulation Involving Large Systems of Equations", Keynote Lecture, *United Kingdom Simulation Council, 1981 Conference on Computer Simulation*, Harrogate, May 1981.
- CHA75a Y.F. Chang, "The SOPHT Program and its Applications", *Proceedings of the 1975 Simulation Symposium on Reactor Dynamics and Plant Control*, May 26-27, CRNL, published as CRNL 1369, 1975.
- CHA75b Y.F. Chang, *SOPHT-B Bruce GS A Plant Control Simulation Engineers' Manual and Program Specifications*, Ontario Hydro CNS-37.3, June 1975.
- CHA77a C.Y.F. Chang and J. Skears, "SOPHT - A Computer Model for CANDU-PHWR Heat Transport Networks and Their Control", *Nucl. Technol.* 35, 591, 1977.
- CHA77b Y.F. Chang, *A Thermalhydraulic System Simulation Model for the Reactor, Boiler and Heat Transport System (SOPHT)*, Ontario Hydro CNS 37-2, Sept. 1977.
- CHE77 Bindi Chexal, *NUCIRC - A Computer Code for Nuclear Heat Transport Circuit Thermohydraulic Analysis, User's Instruction Manual*, TDAI-116, AECL, Jan. 1977.

- CHO74 W.G. Choe, J. Weisman, *Flow Patterns and Pressure Drop in Concurrent Vapour-Liquid Flow, A State-of-the-Art Report*, AECL Lib 146648, Sept. 1974.
- COL72 J.C. Collier, *Convective Boiling and Condensation*, McGraw-Hill, 1972.
- CRA57 Crane, *Flow of Fluids Through Valves, Fittings and Pipe*, 410-C (Engineering Units), 410-m (metric), 1957.
- CUR74 I.G. Currie, *Fundamental Mechanics of Fluids*, McGraw-Hill, Inc., 1974.
- DEL81 J.M. Delhaye et al., *Thermohydraulics of Two-Phase Systems for Industrial Design and Nuclear Engineering*, Hemisphere Publishing, 1981.
- ELH80 M.A. El-Hawary, *Verification of HYDNA-2 and HYDNA-3 Codes against Pertinent Experimental Data*, AECL TDAI-231, December 1980.
- FIR84 A.P. Firla, "Approximate Computational Formulas for Fast Calculation of Heavy Water Thermodynamic Properties", *10th Annual Simulation Symposium on Reactor Dynamics and Plant Control*, Saint John, New Brunswick, 1984.
- GAR79 W. Garland, *SOPHT-D User's Guide, Revision 3*, Ontario Hydro, Nuclear Systems Department, 1979-03-01.
- GAR87a W.J. Garland and R. Sollychin, "The Rate Form of State for Thermalhydraulic Systems: Numerical Considerations", *Engineering Computations*, Vol. 4, December 1987.
- GAR87b Wm. J. Garland, "A Comparison of the Rate Form of the Equation of State to the Jacobian Form", *13th Symposium on Simulation of Reactor Dynamics and Plant Control*, Chalk River Nuclear Laboratories, Chalk River, Ont., 28 pages, April 27-28, 1987.
- GAR88 W.J. Garland and J.D. Hoskins, "Approximate Functions for the Fast Calculation of Light Water Properties at Saturation", *Int'l J. of Multiphase Flow*, Vol. 14, No. 3, pp 333-348, 1988.
- GAR89 W.J. Garland and B.J. Hand, "Simple Functions for the Fast Approximation of Light Water Thermodynamic Properties", *Nuclear Engineering & Design*, Vol. 113, pp. 21-34, 1989.
- GAR92 Wm. J. Garland, R. J. Wilson, J. Bartak, J. Cizek, M. Stasny and I. Zentrich, "Extensions to the Approximation Functions for the Fast Calculation of Saturated Water Properties", *Nuclear Engineering and Design*, # 136, pp. 381-388, 1992.
- GIN81 Ginoux, *Two-Phase Flows and Heat Transfer with Application to Nuclear Reactor Design Problems*, Hemisphere Publishing, 1981.
- HAA84 L. Haar, J.S. Gallagher, and G.S Knell, *NBS/NRC STEAM TABLES: Thermodynamic and Transport Properties and Computer Programs for Vapor and Liquid States of Water in SI Units*,

Hemisphere Publishing Corporation, 1984.

HAN95 B.N. Hanna and M.E. Laveck, ed., *CATHENA Input Reference*, Atomic Energy of Canada Ltd., RC-982-4 / COG-93-140 (Vol. 4), Rev. 0.4, 1995.

HOS89 J. D. Hoskins, *A Heat Transport System Operator Companion for a CANDU Nuclear Reactor*, Masters Thesis, McMaster University, Hamilton, Ontario, Canada, July, 1989.

HSU76 Y. Hsu and R. Graham, *Transport Processes in Boiling and Two-Phase Systems*, Hemisphere Publishing, 1976.

IDE60 Idel'chik, *Handbook of Hydraulic Resistance – Coefficients of Local Resistance and of Friction*, National Science Foundation, Washington, D.C. (Translation), 1960.

ITT73 ITT Grinnel Corp., *Piping Design and Engineering*, Providence, Rhode Island, 1973.

KAY79 R.A. Kay, *AESOP, Atomic Energy Station Optimization Program*, TDAI-114/Revision 1, AECL-EC, December 1976, revised by M. Gold March 1979.

KIN73 F.K. King, *Steam Generators for CANDU Nuclear Power Stations, Sizing and Cost Analysis Program, User's Instruction Manual*, no file: see N. Subash, Process Systems Development Department, AECL-EC, May 1973, revision 1 by N. Subash, July 1976.

LAH77 R.T. Lahey, Jr., and F.J. Moody, *The Thermal Hydraulics of a Boiling Water Nuclear Reactor*, ANS/AEC Monograph Series on Nuclear Science and Technology, ANS, 1977.

LIN79 M.R. Lin et al., *FIREBIRD-III Program Description*, AECL-7533, September 1979.

MER80 E.E. Merlo, et al, *HYDNA-3 Program Description*, AECL TDAI-205, April 1980.

MEY67 Meyer, C.A. et al., *Thermodynamic and Transport Properties of Steam*, ASME, New York, 1967.

MIL71 D.S. Millar, *Internal Flow, A Guide to Losses in Pipe and Duct Systems*, British Hydromechanics Research Association, 1971.

MUR68 J.H. Murphy and J.A. Redfield, *WASP - A Program to Generate Water and Steam Thermodynamic Properties*, WAPD-TM-839, 1968.

NAH70 A.N. Nahavandi, and S. Makkenchery, "An Improved Pressurizer Model with Bubble Rise and Condensate Drop Dynamics", *Nuclear Engineering and Design* 12, p135-147, 1970.

PAY60 H.M. Paynter, *Analysis and Design of Engineering Systems*, MIT Press, 1960.

POR69 T.A. Porsching, J.H. Murphy, J.A. Redfield, and V.C. Davis, *FLASH-4: A Fully Implicit*

FORTRAN IV Program for the Digital Simulation of Transients in a Reactor Plant, WAPD-TM-840, Mar. 1969.

POR71 T.A. Porsching, J.H. Murphy, J.A. Redfield, "Stable Numerical Integration of Conservation Equations for Hydraulic Networks", *Nuc. Sci. and Eng.* 43, p 218-225, 1971.

REL76 *RELAP4/MOD5 - A Computer Program for Transient Thermalhydraulic Analysis of Nuclear Reactors and Related Systems, User's Manual, Vol. I: RELAP4/MOD5 Description, Vol II: Program Implementation, Vol. III: Checkout Applications*, ANCR-NUREG-1335, Sept. 1976.

ROA76 Patrick J. Roache, *Computational Fluid Dynamics*, Hermosa Publishers, P.O. Box 8172, Albuquerque, NM, 87108, 1976.

SEA75 F.W. Sears and G.L. Salinger, *Thermodynamics, Kinetic Theory, and Statistical Thermodynamics*, Addison-Wesley Publishing Company, 1975.

SKE75 J. Skears and T. Toong, *SOPHT Programmers Manual*, Revision 0.0, Ontario Hydro, Engineering Systems Department, May 1975.

SKE80 J. Skears and T. Toong, *SOPHT User's Manual*, Version 2.0, Ontario Hydro, Engineering Systems Department, January 1980.

SOL85 R. Sollychin, S.A. Adebisi, and W.J. Garland, "The Development of a Non-Iterative Equation of State for Two-phase Flow Systems", *11th Annual Symposium on Simulation of Reactor Dynamics and Plant Control*, Kingston, Ontario, 1985.

STE48 A.J. Stepanoff, *Centrifugal and Axial Flow Pumps*, John Wiley & Sons, Inc. 1948.

TON65 L.S. Tong, *Boiling Heat Transfer and Two-Phase Flow*, John Wiley and Sons, Inc., 1965.

YAN78 A. Yang, *600MW-SOPHT Control Simulation Manual*, AECL file XX-63330-225-010 and CENI-92, August 1978.