
TASAC

Thermal-hydraulic Advanced System Analysis Code

Version 14.06

**Computer Code Manuals
User's Guide**

M.M. Stempniewicz



Nuclear Safety Research Project
NSRP
June 2014

TASAC Code Manuals - Volume 2: User's Guide

Available for public release; distribution is unlimited.

TASAC Code Manuals - User's Guide

ABSTRACT

TASAC (Thermal-hydraulic Advanced Severe Accident Code) is a fully integrated, best estimate system analysis code, that models thermal-hydraulic behaviour of Nuclear Power Plants, including reactor cooling system, emergency and control systems, containment, reactor building, etc. of various reactor types, like BWR, PWR, HTR. The modeling scope includes normal operation, design basis accidents and severe accidents.

The full documentation of TASAC consists of the following two volumes:

- Volume 1: Program Description
- Volume 2: User's Guide
- Volume 3: Verification & Validation

Volume 1 of the TASAC Code Manuals provides the program description (theory manual). The phenomenological models implemented in the code are described. The description is organized by packages.

Volume 2 of the TASAC Code Manuals provides the user's guide. A detailed description of input data is provided in this volume. Examples of input files are shown. This volume presents also a description of the output files.

Volume 3 of the TASAC Code Manuals contains Verification and Validation of the TASAC code. Verification and validation (V&V) is performed following the recommendations set by the American Nuclear Society (ANS) guidelines for the verification and validation of scientific and engineering computer programs for the nuclear industry, ANSI/ANS-10.4-1987.