

Nuclear Verification and Validation

Commercial Grade Dedication Process Assistance

In cooperation with Applied Flow Technology, Archon Engineering has developed a Nuclear Verification and Validation package to enable the use of either AFT Fathom or AFT Arrow software in safety related applications in the nuclear industry. The package assists with the performance of a Commercial Grade Dedication process.



Package Details

The V&V report will assure the accuracy of:

- AFT Fathom or AFT Arrow database files for:
 - Steam and water properties (density, viscosity, vapor pressure)
 - Pipe sizes (diameters, thickness)
 - Pipe roughness
 - Fitting loss data
- Flow and pressure calculations, using pipe and junction features (Each junction type will be checked against manual calculations for the different user options provided by either AFT Fathom or AFT Arrow.)
- Heat transfer (fluid and pipe wall temperatures, heat rate, heat flux, etc.) calculations from user supplied thermo-physical data (i.e. thermal conductivity of pipe and insulation data, etc.)
- GSC module results for the goal and variable options provided by either AFT Fathom or AFT Arrow (optional for GSC module only)
- XTS module results for the time triggering scenarios provided by AFT Fathom (optional for XTS module only)
- Any limitations of the software identified as a result of the V&V

Quality Assurance

The Nuclear V&V package was developed under Archon's 10CFR50 Appendix B, and ASME NQA-1, 1994 quality assurance program allowing Archon to provide this package via a nuclear safety related purchase order to nuclear clients.

Pricing

The Nuclear Verification & Validation package is sold by Archon Engineering, P.C. For pricing information or for more detail about the V&V package visit www.archonengineering.com or call 573-443-2171.

Software Downloads

- You can find the most recent AFT Fathom and AFT Arrow releases that have been verified and validated at www.aft.com.
- The latest validated release will not necessarily be the most recent release of AFT Fathom or AFT Arrow.
- Downloads from AFT are for AFT Fathom or AFT Arrow software only - the Commercial Grade Dedication V&V package must be purchased directly from Archon Engineering.