

FLOWNEX[®]

SIMULATION ENVIRONMENT **MINING**

Flownex[®] SE determines pressure drop [flow] and heat transfer [temperature] for the connected components of a complete system in steady state and transient, e.g. pumps or compressors, pipes, valves, tanks and heat exchangers.

TYPICAL USES:

ANALYSIS

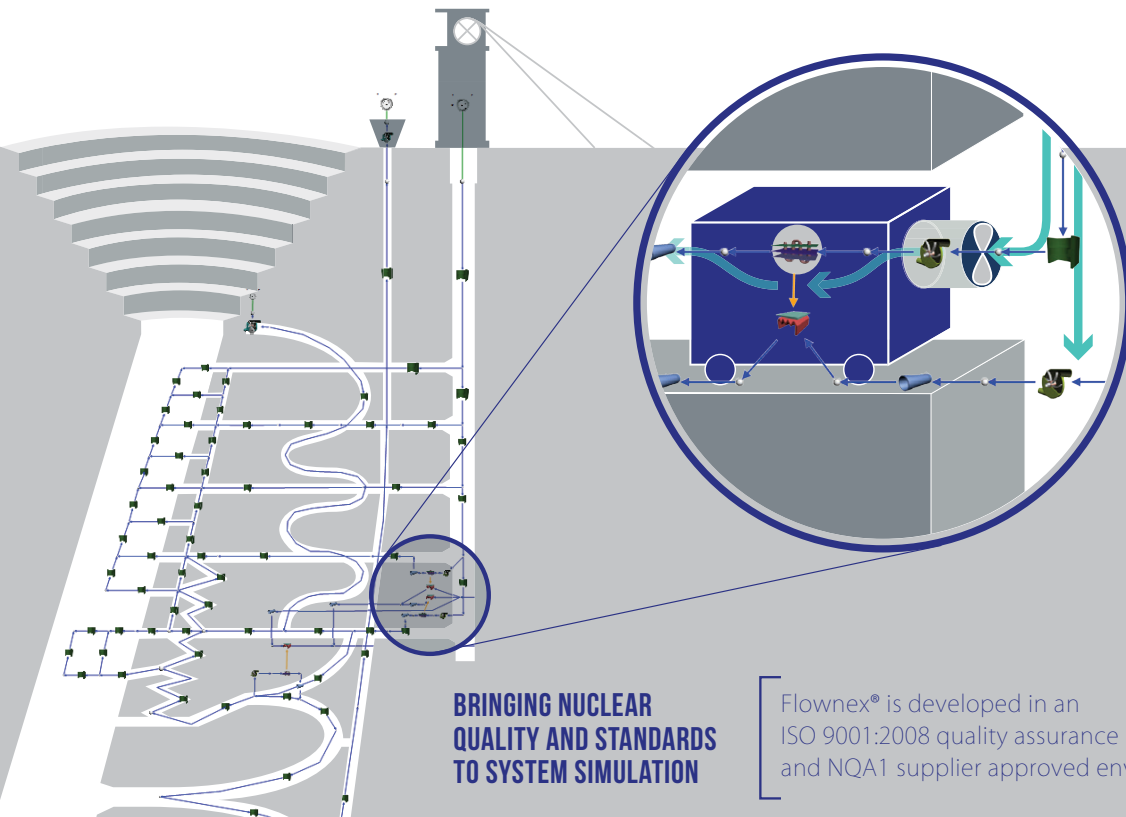
- Simulation.
- Performance assessment.
- Modification assessment.
- Fault root cause assessment.

DESIGN

- System sizing.
- Component sizing.
- Determining operating ranges.
- Flow, temperature, pressure, power consumption, etc.
- Testing of control philosophy.

TRAINING

- System behavior examination
- Performing basic flow and heat transfer calculations.
- Thermo hydraulic principles and properties referencing.

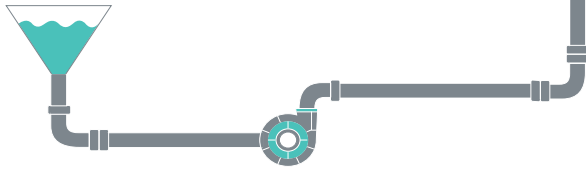


**BRINGING NUCLEAR
QUALITY AND STANDARDS
TO SYSTEM SIMULATION**

Flownex[®] is developed in an ISO 9001:2008 quality assurance system and NQA1 supplier approved environment.

BACKFILL & TAILINGS SLURRY

- Pump and pipe sizing
- Blockage avoidance



WATER HANDLING SYSTEM SIMULATION

- Pump, water turbine and pipe sizing
- Water hammer analysis and prevention
- Water reticulation system design
- Flow balancing
- Pipe heat transfer

REFRIGERATION & HEATING SYSTEM SIMULATION

- Heat load calculations
- Heat exchanger sizing
- Energy optimization
- Vapour compression cycle simulation
- Environment - Cooling Tower – Plant Matching



Flownex® gave new meaning to complex systems fluid flow analyses in our company.

Chris Coetzee
MBA, Pr.Eng.
Managing Director
Resonant RSA



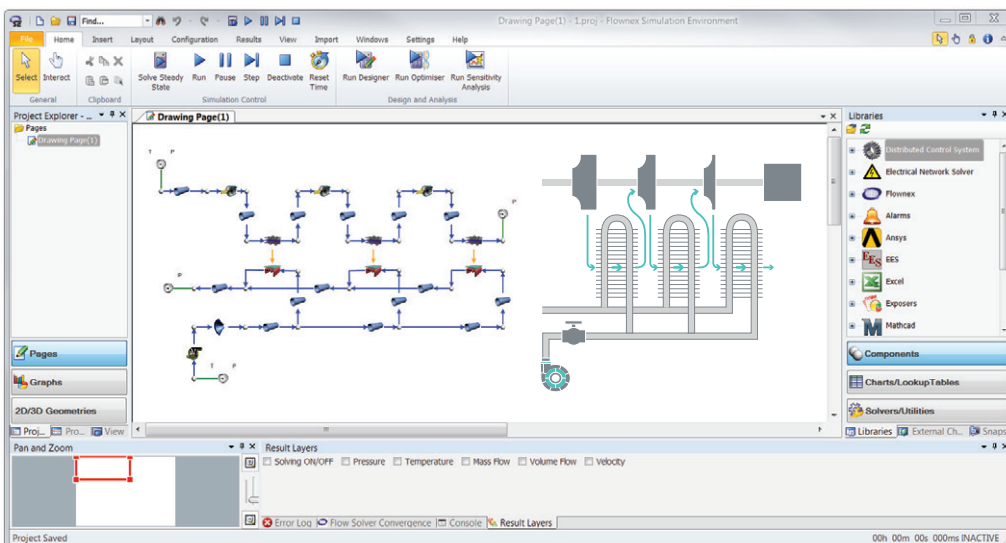
Jean Greyling @ AngloGold Ashanti wins an ETA (Energy Efficiency) award using Flownex®

VENTILATION

- Fan sizing.
- Flow distribution and balancing.
- Overall integration with cooling or heating system.
- Contaminant tracking.
- Ventilation temperature increase with depth (auto compression).
- Psychrometric calculations (moist air).

COMPRESSED AIR SIMULATION

- Reticulation system design and pipe sizing.
- Compressor selection.
- Energy optimization.
- Heat exchanger sizing (inter- and after coolers).



FLOWNEX®
LICENSE
HOLDERS

