Fissile Facility Flow Modeler

Plug and play nuclear facility modules

Sterncillity FLOW MO

Modeling bulk nuclear facilities during the design phase is important to develop effective and cost-effective safeguards systems that meet regulatory requirements. The Fissile Facility Flow Modeler (F3M) is an open-source series of modules built in MATLAB Simulink that can be used to represent operations and model flows of a bulk nuclear facilities.

The modules contained in F3M can be combined to represent flows and processes in a nuclear facility. The blocks focus on providing foundational modeling components and do not model complex physical phenomena. The library leverages the efficient solvers and descriptive GUI provided by MATLAB Simulink.

- < Computationally efficient
- Easy-to-use GUI

U.S. DEPARTMENT

of ENERGY

Readily integrated with MAPIT

Users must obtain a license for MATLAB, Simulink, and Simevents



MULTIPLE FACILITY TYPES



ROBUST DOCUMENTATION

Block Parameters: Continuous Tank (Surge)	
Subsystem (mask)	
Parameters	
Tank level basis	
h	\sim
Tank min level (kg) Tank	< max level (kg)
0 0	
Specific flow rate out?	
Flowrate (kg/hr) 0	1
OK Cano	cel Help Apply
ESECIEICATIONE	

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