

# Lifecycle-Enabled PHA/LOPA Engine

How easily can your non-safety personnel research and interpret risk from your current reports?

Are each of your studies different based on tooling, personnel, and facilitation style? Are teams reinventing the wheel instead of using recorded data? Is it difficult to find specific data in your study reports? aeFacilitator® can solve these challenges, and help you drive consistency and accessibility.

## Engine Power and Benefits

The cornerstone of a sustainable functional safety program is an accurate Process Hazard Analysis (PHA) and Layer of Protection Analysis (LOPA). aeShield® has a dynamic PHA/LOPA engine that supports risk assessment requirements of OSHA 1910.119 and fully integrates into the process safety lifecycle defined by ISA-84/IEC 61511. Additional benefits include:

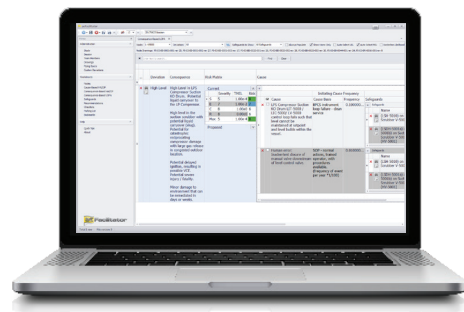
- PHA/LOPA Tightly Integrated
- Bad Actor Identification
- Cause or Consequence Based
- Flexible Library Settings
- Recommendation Tracking
- Cause Summing
- Revision Control
- Data Migration Tools
- Multiple Risk Matrices
- Complete Reporting
- Gap Assignments
- Configurable Checklists



Are you getting this value out of your studies?

## Downloadable Desktop Application

aeShield includes a web-based interface for standards management and reporting. aeFacilitator® provides an easy-to-use desktop application that allows users to work offline. Users can then checkout a portion of the location tree, execute the study offline, and upload the study to the central web interface when reconnected to the network.



* Deviation		* Consequence		Risk Matrix			Cause			Frequency Modifier			Risk Reduction Factors			SIF Target PFD										
Severity	TMEL	Risk Score	* Cause	Cause Basis	Frequency	* Type	S	MELs and RRFs	MEL	RRF																
High Level	High Level in LPS Compressor Suction KO Drum. Potential liquid carryover to the LP Compressor.	8	Compressor Suction KO Drum control loop failure - clean service	BPCS instrument loop failure - clean service	0.1	Occupancy	1	<table border="1"> <tr><td>S</td><td>0.0011</td><td>11</td></tr> <tr><td>E</td><td>0.011</td><td>2</td></tr> <tr><td>C</td><td>0.011</td><td>0</td></tr> <tr><td>R</td><td>0.011</td><td>0</td></tr> <tr><td><b>Max</b></td><td></td><td><b>11</b></td></tr> </table>	S	0.0011	11	E	0.011	2	C	0.011	0	R	0.011	0	<b>Max</b>		<b>11</b>			9.09e-2
S	0.0011	11																								
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R	0.011	0																								
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Potential severe injury / fatality.		7	Drum control loop fails such that level cannot be maintained at setpoint.			Probability of Ignition	0.1																			
Minor damage to environment that can be re-mediated in days or weeks.		6	Human error: Inadvertent closure of manual valve downstream of level control valve.	SOP - normal actions, trained operator, with procedures available. (frequency of event per year *1/100)	0.01																					
		6																								

Sample LOPA scenario.



Contact us today for a free demo or more information  
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