

PHA-Pro[®]

Minimize risk exposure

Optimize efficiency, minimize risk, improve decision-making

Boost your bottom line by optimizing expert time, reducing work stoppages and minimizing risk.

Sphera's PHA-Pro, the leading **Process Hazard Analysis (PHA)** and **HAZOP** software, streamlines risk studies and supports a more efficient, responsive business process.

Widely used across asset-intensive industries, PHA-Pro delivers robust risk assessment capabilities to support safer, smarter operations.

Challenges of process hazard analysis

Without a structured approach, incidents can lead to:

- Lost time from injuries
- Production and capital losses
- Environmental damage
- Reputational harm and legal consequences

To mitigate these risks, companies must:

- Fully understand the hazards inherent in their production processes
- Identify realistic means to reduce the risks related to these hazards
- Balance compliance and production obligations



We knew we wanted a system that was easy to learn and easy to use with little or no training. **We started quickly with PHA-Pro and now it saves us time every step of the way.**



– Lloyds Register

Why PHA-Pro?

PHA-Pro simplifies complex risk assessments and ensures consistency across all evaluations. Trusted by leading global companies, it supports a wide range of safety and reliability methodologies.

Key benefits



User-friendly and flexible with customizable templates, worksheets, and forms.



Knowledge-based solution with 2,500+ checklist items to ensure comprehensive studies.



Smart data management with linking features and advanced reporting for transparency.



Secure documentation with double authentication to protect data integrity.

Industry leading features

- Preformatted templates and intuitive tools
- Pre-populated libraries for faster assessments
- Easy reuse of past assessments and shared knowledge
- Captures and retains engineering expertise
- Out-of-the-box templates for the most common methodologies—HAZOP, What If, LOPA, SIL Determination using Risk Graph, SIL Determination using Safety Layer Matrix
- Other methods in the software: HAZID, CHAZOP, HACCP, DHA Dust Hazards Analysis, Security Assessments, SIMOPS (simultaneous operations), and many more

Heat Maps

HAZOP Risk Heat Map (Current Risk)

Nodes: 5
Team Meeting Sessions: 3
Potential Causes Identified: 107
Potential Hazardous Scenarios: 63
Risk Ranked Scenarios: 97
Recommendations (All): 12

Documents Reviewed: 1
Causes: 50
Hazardous Scenarios Developed: 25
Unique Safeguards: 12
Risk-Justified Recommendations: 11

Severity	Description	A	B	C	D	E	F
5	Extreme	0	0	4	0	1	0
4	Catastrophic	1	3	8	2	1	0
3	Severe	0	0	10	0	2	0
2	Medium	8	8	9	4	0	0
1	Low	15	10	3	2	0	0
Likelihood:		A	B	C	D	E	F
Description:		$\geq 1 \times 10^{-1} / \text{yr}$	$\geq 1 \times 10^{-2} / \text{yr}$ but $< 1 \times 10^{-1} / \text{yr}$	$\geq 1 \times 10^{-3} / \text{yr}$ but $< 1 \times 10^{-2} / \text{yr}$	$\geq 1 \times 10^{-4} / \text{yr}$ but $< 1 \times 10^{-3} / \text{yr}$	$\geq 1 \times 10^{-5} / \text{yr}$ but $< 1 \times 10^{-4} / \text{yr}$	$< 1 \times 10^{-5} / \text{yr}$

Extensive capabilities

HAZOP Recommendations Summary

Recommendations	Recommendation Category	Ref Cat	Responsibility	Process Used
1. In order to reduce the likelihood of injuries and damages that could result from a loss of containment from damaged seals at the P-1000-1000 bottom, consider the addition of a C-100-1000 bottom seal to the seal line at the bottom of the vessel.	A	DES	Mark MacDonald	Consequence 1.1.2, 2.1.2, 4.1.1
2. In order to reduce the likelihood of injuries and damages that could result from a loss of containment from damaged seals at the P-1000-1000 bottom, consider the addition of a C-100-1000 bottom seal to the seal line at the bottom of the vessel.	A	DES	Mark MacDonald	Consequence 1.1.2, 2.1.2, 4.1.1
3. In order to reduce the likelihood of injuries and damages that could result from a loss of containment from damaged seals at the P-1000-1000 bottom, consider the addition of a C-100-1000 bottom seal to the seal line at the bottom of the vessel.	A	DES	Mark MacDonald	Consequence 1.1.2, 2.1.2, 4.1.1
4. In order to reduce the likelihood of injuries and damages that could result from a loss of containment from damaged seals at the P-1000-1000 bottom, consider the addition of a C-100-1000 bottom seal to the seal line at the bottom of the vessel.	A	DES	Mark MacDonald	Consequence 1.1.2, 2.1.2, 4.1.1
5. In order to reduce the likelihood of injuries and damages that could result from a loss of containment from damaged seals at the P-1000-1000 bottom, consider the addition of a C-100-1000 bottom seal to the seal line at the bottom of the vessel.	A	DES	Mark MacDonald	Consequence 1.1.2, 2.1.2, 4.1.1
6. In order to reduce the likelihood of injuries and damages that could result from a loss of containment from damaged seals at the P-1000-1000 bottom, consider the addition of a C-100-1000 bottom seal to the seal line at the bottom of the vessel.	A	DES	Mark MacDonald	Consequence 1.1.2, 2.1.2, 4.1.1
7. In order to reduce the likelihood of injuries and damages that could result from a loss of containment from damaged seals at the P-1000-1000 bottom, consider the addition of a C-100-1000 bottom seal to the seal line at the bottom of the vessel.	A	DES	Mark MacDonald	Consequence 1.1.2, 2.1.2, 4.1.1
8. In order to reduce the likelihood of injuries and damages that could result from a loss of containment from damaged seals at the P-1000-1000 bottom, consider the addition of a C-100-1000 bottom seal to the seal line at the bottom of the vessel.	A	DES	Mark MacDonald	Consequence 1.1.2, 2.1.2, 4.1.1
9. In order to reduce the likelihood of injuries and damages that could result from a loss of containment from damaged seals at the P-1000-1000 bottom, consider the addition of a C-100-1000 bottom seal to the seal line at the bottom of the vessel.	A	DES	Mark MacDonald	Consequence 1.1.2, 2.1.2, 4.1.1
10. In order to reduce the likelihood of injuries and damages that could result from a loss of containment from damaged seals at the P-1000-1000 bottom, consider the addition of a C-100-1000 bottom seal to the seal line at the bottom of the vessel.	A	DES	Mark MacDonald	Consequence 1.1.2, 2.1.2, 4.1.1
11. In order to reduce the likelihood of injuries and damages that could result from a loss of containment from damaged seals at the P-1000-1000 bottom, consider the addition of a C-100-1000 bottom seal to the seal line at the bottom of the vessel.	A	DES	Mark MacDonald	Consequence 1.1.2, 2.1.2, 4.1.1
12. In order to reduce the likelihood of injuries and damages that could result from a loss of containment from damaged seals at the P-1000-1000 bottom, consider the addition of a C-100-1000 bottom seal to the seal line at the bottom of the vessel.	A	DES	Mark MacDonald	Consequence 1.1.2, 2.1.2, 4.1.1
13. In order to reduce the likelihood of injuries and damages that could result from a loss of containment from damaged seals at the P-1000-1000 bottom, consider the addition of a C-100-1000 bottom seal to the seal line at the bottom of the vessel.	A	DES	Mark MacDonald	Consequence 1.1.2, 2.1.2, 4.1.1
14. In order to reduce the likelihood of injuries and damages that could result from a loss of containment from damaged seals at the P-1000-1000 bottom, consider the addition of a C-100-1000 bottom seal to the seal line at the bottom of the vessel.	A	DES	Mark MacDonald	Consequence 1.1.2, 2.1.2, 4.1.1
15. In order to reduce the likelihood of injuries and damages that could result from a loss of containment from damaged seals at the P-1000-1000 bottom, consider the addition of a C-100-1000 bottom seal to the seal line at the bottom of the vessel.	A	DES	Mark MacDonald	Consequence 1.1.2, 2.1.2, 4.1.1

- Dynamic linking between diagrams and worksheets
- Exportable reports (HTML, Word, Excel)
- AutoType, Copy, and enhanced release management tools
- Criticality Matrix
- Linked HAZOP and LOPA templates
- Full recommendations management

Ready to learn more?

Contact us to learn more about Sphera's Advanced Risk Assessment solutions.

sphera.com/contact-us



ABOUT SPHERA

Sphera creates a safer, more sustainable and productive world. Our innovative cloud-based risk management platform connects an unprecedented amount of information that leads to deeper insights across an enterprise. We operationalize, scale and optimize Integrated Risk Management strategies to help customers identify, manage and mitigate risk in the areas of Environment, Health, Safety & Sustainability (EHS&S), Operational Risk Management and Product Stewardship.

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