

Title	Developing Process Safety Indicators (ISBN 0717661806)
Publisher/Author	HSE
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Scope	<p>1 This guide is intended for senior managers and safety professionals within organisations that wish to develop performance indicators to provide assurance that major hazard risks are under control. A small number of carefully chosen indicators can monitor the status of key systems and provide an early warning should controls deteriorate dangerously.</p> <p>2 Although primarily aimed at major hazard organisations, the generic model for establishing a performance measurement system described in this guide can equally be applied to other enterprises requiring a high level of assurance that systems and procedures continue to operate as intended.</p> <p>3 It is presumed that companies using this guide already have appropriate safety management systems in place; the emphasis of this guide is therefore to check whether the controls in place are effective and operating as intended.</p> <p>4 Too many organisations rely heavily on failure data to monitor performance. The consequence of this approach is that improvements or changes are only determined after something has gone wrong. Often the difference between whether a system failure results in a minor or a catastrophic outcome is purely down to chance. Effective management of major hazards requires a proactive approach to risk management, so information to confirm critical systems are operating as intended is essential. Switching the emphasis in favour of leading indicators to confirm that risk controls continue to operate is an important step forward in the management of major hazard risks.</p> <p>5 The main reason for measuring process safety performance is to provide ongoing assurance that risks are being adequately controlled. Directors and senior managers need to monitor the effectiveness of internal controls against business risks. For major hazard installations and chemical manufacturers, process safety risks will be a significant aspect of business risk, asset integrity and reputation. Many organisations do not have good information to show how well they are managing major hazard risks. This is because the information gathered tends to be limited to measuring failures, such as incidents or near misses. Discovering weaknesses in control systems by having a major incident is too late and too costly. Early warning of dangerous deterioration within critical systems provides an opportunity to avoid major incidents. Knowing that process risks are effectively controlled has a clear link with business efficiency, as several indicators can be used to show plant availability and optimised operating conditions.</p> <p>6 The method of setting indicators outlined in this guide requires those involved in managing process safety risks to ask some fundamental questions about their systems, such as:</p> <ul style="list-style-type: none"> <li>• What can go wrong?</li> <li>• What controls are in place to prevent major incidents?</li> <li>• What does each control deliver in terms of a 'safety outcome'?</li> <li>• How do we know they continue to operate as intended?</li> </ul> <p>7 Companies who have adopted process safety performance indicators have reported that they have:</p>

	<ul style="list-style-type: none"> <li>• an increased assurance on risk management and protected reputation;</li> <li>• demonstrated the suitability of their risk control systems;</li> <li>• avoided discovering weaknesses through costly incidents;</li> <li>• stopped collecting and reporting performance information which was no longer relevant - thereby saving costs; and</li> <li>• made better use of information already collected for other purposes, eg quality management.</li> </ul>																														
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