

Guidance on meeting expectations of
EI Process safety management framework

Element 11: Standards and practices

GUIDANCE ON MEETING EXPECTATIONS OF
EI PROCESS SAFETY MANAGEMENT FRAMEWORK
ELEMENT 11: STANDARDS AND PRACTICES

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PUBLICATIONS IN THIS SERIES

Guidance on meeting expectations of EI process safety management framework

- *Element 1: Leadership, commitment and responsibility*
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- *Element 3: Employee selection, placement and competency, and health assurance*
- *Element 4: Workforce involvement*
- *Element 5: Communication with stakeholders*
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- *Element 12: Management of change and project management*
- *Element 13: Operational readiness and process start-up*
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FOREWORD

Process safety management (PSM) is vital to ensuring safe and continued operations in major accident hazard (MAH) organisations. However, PSM is a multifaceted process, and a number of high profile incidents since 2005 have suggested that without a holistic understanding of the various factors required for effective PSM it can be difficult and inefficient to ensure, and measure, performance.

In 2010 the Energy Institute (EI) published *High level framework for process safety management (PSM framework)*, which aimed to define what PSM should involve. Divided into four focus areas (process safety leadership, risk identification and assessment, risk management, and review and improvement) and sub-divided into 20 'elements', it sets out a framework of activities MAH organisations should undertake to ensure PSM. Each element lists a number of high level activities organisations should meet (expectations).

EI *Guidance on meeting expectations of EI Process safety management framework* is a series of 20 publications ('guidelines') that build on the *PSM framework*. Commissioned by the EI Process Safety Committee (PSC) each guideline captures and presents current industry good practices and guidance on how organisations can meet the expectations set out in each element of the *PSM framework*. Each guideline includes:

- a logical flow diagram of activities (steps) the organisation should undertake to manage that element;
- descriptions of those steps;
- example performance measures (PMs) to measure the extent to which key steps have been undertaken;
- a list of further resources to help undertake key steps;
- a table mapping the steps against the expectations in the *PSM framework*, and
- annexes of useful information.

Readers implementing the guidance in this publication should be aware of the *PSM framework* and the other publications in this series, particularly if they are a manager with oversight of the wider implementation of PSM.

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Suggested revisions are invited and should be submitted through the Technical Department, Energy Institute, 61 New Cavendish Street, London, W1G 7AR. e: technical@energyinst.org.

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1 INTRODUCTION

1.1 STANDARDS AND PRACTICES

This guideline sets out good practice for identifying and developing the standards and safe working practices required to support the sound execution of the organisation's operations.

Health, safety and environment (HS&E) and process safety performance is enhanced by using robust standards and safe working practices. Management should ensure that the required standards and safe working practices to support project, maintenance and operational activities, are identified, developed and consistently applied.

1.2 EXPECTATIONS FOR ELEMENT 11: STANDARDS AND PRACTICES

Element 11 of EI *High level framework for process safety management* ('PSM framework') describes 11 expectations – arrangements and processes that organisations should (to an appropriate degree) have in place in order to ensure they are managing this aspect of process safety management (PSM) appropriately:

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|-----------|---|
| 'Overview | HS&E and process safety performance is enhanced by using robust standards and safe working practices.
Management must ensure that the required standards and safe working practices, to support project, maintenance and operational activities, are identified, developed and consistently applied. |
| 11.1 | Design, inspection and maintenance standards are defined, which bring together legislative requirements, industry standards and the organisation's good practices into a clear set of guidelines to be used when developing projects, inspection and maintenance plans. |
| 11.2 | Safe working practices are defined, which bring together legislative requirements, industry and the organisation's good practices into a clear set of guidelines to be used when developing construction, inspection and maintenance plans and method statements, and for operational activities. |
| 11.3 | Standards and practices: <ul style="list-style-type: none">– meet or exceed applicable legislative requirements;– embody responsible requirements where legislation does not exist, and– address other important considerations including human factors. |
| 11.4 | Approved standards and practices are reviewed, to take into account changes to legislation, industry standards, industry and the organisation's good practices and findings from incidents, and are regularly reviewed and kept up to date as living systems. |
| 11.5 | Approved standards and practices are readily available to those who need them, including contractors. |

- | | |
|-------|---|
| 11.6 | Authority to approve standards and practices is formally assigned to specific named competent individuals. |
| 11.7 | Deviation from design standards is permitted only after assessment, review and approval by specific named competent individuals and after the rationale for the decision is documented. |
| 11.8 | Procedures are in place to routinely monitor to ensure that facilities and materials received meet design standards and that construction is in accordance with applicable design standards and safe working practices. |
| 11.9 | When a new or updated standard or practice is issued, the requirements for retrospective application are defined. |
| 11.10 | Arrangements for standards and practices are understood and followed; understanding of arrangements and compliance with them is regularly tested. |
| 11.11 | Compliance and performance trends are reviewed by specified levels of management.' |

This guideline provides a process, along with guidance, to help organisations meet these expectations. It also suggests a number of compliance checks and performance measures (PMs) to measure the extent to which key activities involved in meeting these expectations have been or are being undertaken.