Guidance on meeting expectations of EI *Process safety management framework*

Element 19: Incident reporting and investigation

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GUIDANCE ON MEETING EXPECTATIONS OF EI PROCESS SAFETY MANAGEMENT FRAMEWORK

ELEMENT 19: INCIDENT REPORTING AND INVESTIGATION

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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.

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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INTRODUCTION

1.1 INCIDENT REPORTING AND INVESTIGATION

An essential aspect of health, safety and environment (HS&E) and process safety performance improvement is learning from incidents (both accidents and near hits/misses), and taking appropriate action to prevent their recurrence. Management should ensure that incidents are consistently reported and investigated and that identified actions and learnings are implemented on a timely basis.

This guideline sets out good practices for the reporting and investigation of incidents, to ensure that root causes are identified, and that appropriate recommendations are identified and implemented to address these root causes in order to prevent recurrence of similar incidents.

This guideline also addresses good practices for learning from external incidents, identifying implications and incorporating required follow-up actions into the incident investigation arrangements.

1.2 EXPECTATIONS FOR ELEMENT 19: INCIDENT REPORTING AND INVESTIGATION

Element 19 of EI *High level framework for process safety management* ('*PSM framework*') describes 14 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:

'Overview — An essential aspect of HS&E and process safety performance improvement is learning from incidents and 'near hits' and taking appropriate action to prevent their recurrence.
Management must ensure that incidents and 'near hits' are consistently reported and investigated and that identified actions and learnings are implemented on a timely basis.

19.1 — A system is in place for incident reporting, investigation, follow-up and capturing lessons learned from incidents and near hits including:
- injury to people;
- work causal ill health;
- environment incidents;
- damage to assets;
- loss of process containment;
- energy release;
- demands on SCDs, and
- business interruption.

19.2 — The reporting of incidents and near hits by all personnel including contractors and suppliers is obligatory.

19.3 — Incidents and near hits are classified and investigated on the basis of actual and potential outcome.

19.4 Incidents and near hits are investigated on a timely basis.

19.5 Investigations identify root causes, including human and organisational factors, and recommendations to address them are identified.

19.6 Effective arrangements are in place to ensure that incidents or near hits are appropriately investigated when they involve contractor or supplier personnel.

19.7 There are processes in place to learn from relevant incidents and near hits, and good practices in other organisations and sectors.

19.8 Adequate numbers of competent personnel are available to carry out the required investigation arrangements.

19.9 Completed investigations are reviewed and approved by specific levels of management appropriate to the classification of the incident.

19.10 Where appropriate and recognising legal and security constraints all stakeholders are kept informed about the findings and recommendations from investigations.

19.11 Recommendations are tracked to completion.

19.12 Senior management periodically reviews the effectiveness of corrective and preventative actions.

19.13 Arrangements for incident reporting and investigation are understood and followed; understanding of arrangements and compliance with them is regularly tested.

19.14 Compliance, HS&E and process safety incident statistics 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.