

LEARNING OUTCOMES

13 Managing Process Safety



Participating in the management of process safety is not a core function for OHS professionals. However, these learning outcomes address the role of an OHS professional who may be working in a process environment.

| | Cognitive level | What the graduate should be able to do | Context | Level |
|---|-----------------|---|--|--|
| Operational activities that a <u>new graduate</u> generalist OHS professional would be expected to undertake related to the topic | 3 | 13-1 <u>Interpret</u> a range of very basic engineering drawings to <u>contribute</u> to hazard identification and risk assessment in a process environment. | For a nominated situation or workplace. Within a small organisation or section of a larger organisation. With support/input by experienced process safety professionals and /or technical specialists. | Where engineering drawings represent non-complex situations or a segment of more complex drawings. In liaison with managers, supervisors, technical personnel and worker representatives. |
| | 5 | 13-2 <u>Collaborate</u> and share information to optimise the outcomes of OHS and process safety audits. | For a nominated situation or workplace. Within a small organisation or section of a larger organisation. With support/input by experienced OHS and process safety professionals. | In liaison with managers, supervisors, technical personnel and worker representatives. Taking account of relevant legislation, and standards. |
| | 5 | 13-3 <u>Contribute</u> to the development of indicators that facilitate evaluation of effectiveness of OHS and process safety. | For a nominated situation or workplace. Within a small organisation or section of a larger organisation. With support/input by experienced OHS and process safety professionals. | In liaison with managers, supervisors, technical personnel and worker representatives. Taking account of relevant legislation, and standards. |
| | 4 | 13-4 <u>Contribute</u> to emergency planning in a process environment. | For a nominated situation or workplace. Within a small organisation or section of a larger organisation. With support/input by experienced process safety professionals and /or technical specialists | Taking account of the relevant legislation, codes of practice and standards. Considering available resources including local emergency response agencies. |

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| Well-developed/advanced cognitive and technical skills to analyse, critically evaluate and transform information to complete activities related to the topic | 4 | 13-5 <u>Apply</u> knowledge of the process environment <u>to contribute</u> to hazard identification and risk assessments. | For a nominated situation or workplace. Within a small organisation or section of a larger organisation. With support/input by experienced process safety professionals and /or technical specialists. | In liaison with managers, supervisors, technical personnel and worker representatives. Applying an understanding of failure rates and modes. Taking account of relevant legislation, and standards. |
| | 6 | 13-6 <u>Contribute</u> to technical and organisational management of change processes to <u>identify, evaluate and communicate</u> implications for OHS and process safety. | For a nominated situation or workplace. Within a small organisation or section of a larger organisation. With support/input by experienced process safety professionals and /or technical specialists. | Taking account of documented MoC processes within the organisation. |
| | 4 | 13-7 <u>Compare</u> the elements of an OHSMS with guidelines/principles of process safety to identify potential for an integrated approach. | For a nominated situation or workplace. Within a small organisation or section of a larger organisation. | In liaison with managers, supervisors, technical personnel and worker representatives. Taking account of relevant legislation and standards. |
| Analyse and generate solutions to complex problems related to the topic | 5 | 13-8 <u>Integrate</u> principles of control for OHS and for process safety to contribute to the development of risk controls for process hazards. | For a nominated situation or workplace. Within a small organisation or section of a larger organisation. With support/input by experienced process safety professionals and /or technical specialists. | Taking account of the relevant legislation, codes of practice and standards. Controls focus on elimination through design. Control documentation identifies safety critical elements and their maintenance requirements. |
| Transmit knowledge, skills and ideas to others | 3 | 13-9 <u>Differentiate</u> between process safety and OHS to explain the difference in management approach and scale of potential consequences. | For a nominated situation or workplace. | With independence. To staff, contractors, workers and other professionals. Communication strategies and language appropriate to the audience. |

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| | Cognitive level | What the graduate should be able to do | Context | Level |
|---|-----------------|---|---|---|
| | 3 | 13-10 <u>Explain</u> the interaction of process safety and OHS and the comparative roles of OHS and process safety professionals in controlling risk in a process environment. | In induction and similar processes. For a nominated situation or workplace. Within a small organisation or section of a larger organisation | To staff, contractors and other professionals. Communication strategies and language appropriate to the audience. |
| | 5 | 13-11 <u>Explain</u> the role of OHS in an integrated approach to risk management in a process environment. | For a nominated situation or workplace. Within a small organisation or section of a larger organisation | To staff, contractors, workers and other professionals. Communication strategies and language appropriate to the audience. |
| Demonstrate the required underpinning science and/or psychology knowledge | | Basic chemistry, physics, | | |
| Integration of knowledge from other chapters | | 10.2 Organisational culture; 12.1 Systems, 32 Models of Causation: Safety; 31.1 Risk; 31.2 Risk and Decision-making 34.1 Prevention and Intervention; 34.3 Health and Safety in Design; 36 Emergency Management Hazard specific chapters: 16 Biomechanical,;18 Biological,;17.1 Chemical; 17.4 Process Hazards (Chemical),;22.1 Noise; 22.2 Vibration; 23.1 Electricity; 26 Thermal Environment,;27 Gravitational Hazards; 28 Mechanical Plant | | |