

## **17.3 OHSBoK LO: Process Hazards (Chemical)**

|   | What cognitive<br>level? | What should the graduate be<br>able to do?  | In what context?   | To what level?  |
|---|--------------------------|---|--|---|
| Operational activities that a<br><u>new graduate</u> generalist OHS<br>professional would be<br>expected to undertake related<br>to the topic                               | 3                        | <b>17.3.1</b> Identify hazardous substances and sources of ignition that present process hazards.   | For a nominated situation or workplace.<br>Within a small organization or section of a<br>larger organization.<br>With support/input by experienced OHS<br>and/ or process safety professionals.                   | In liaison with supervisors and<br>technical personnel.<br>With reference to the GHS<br>Classification and Labelling of<br>Chemicals.   |
| Well-developed/advanced<br>cognitive and technical skills to<br>analyse, critically evaluate and<br>transform information to<br>complete activities related to<br>the topic | 5                        | <b>17.3.2</b> <u>Contribute</u> to processes<br>to monitor and evaluate<br>effectiveness of barriers,<br>particularly planned<br>maintenance, to prevent or<br>mitigate process safety events         | For a nominated situation or workplace.<br>Within a small organization or section of a<br>larger organization.<br>For a nominated scenario.<br>Within a small organization or section of a<br>larger organization. | Documented in a report to management.   |
| Analyse and generate<br>solutions to complex problems<br>related to the topic   | 5                        | <b>17.3.4</b> <u>Apply</u> knowledge of the<br>process hazards, their potential<br>consequences and principles of<br>control to contribute to hazard<br>management strategies for<br>process hazards. | For a nominated situation or workplace.<br>For a nominated scenario.<br>Within a small organization or section of a<br>larger organization.  | Documented as a management<br>system document.<br>Taking account of relevant<br>legislation, standards and codes<br>of practice.<br>Control strategies focus on<br>elimination of the hazard and<br>sources of ignition with layers of<br>protection<br>Control strategies include<br>minimization of escalation. |
| Transmit knowledge, skills and ideas to others  | 3                        | <b>17.3.5</b> Interpret information to explain the potential outcomes and consequences of events involving process hazards.   | For a nominated situation or workplace.<br>Information may include specialist reports.   | Communication strategies and<br>language appropriate to the<br>audience.  |



|  | What cognitive<br>level? | What should the graduate be able to do?   | In what context?   | To what level?   |  |  |
|--|--------------------------|---|--|--|--|--|
|  | 2                        | <b>17.3</b> <u>Explain</u> the principles of causation of fire and explosion and including dust explosions.                                 | In induction, worker training and similar<br>processes.<br>For a nominated situation or workplace. | With reference to the fire<br>tetrahedron and dust explosion<br>pentagon.<br>To workers and contractors.<br>Communication strategies and<br>language appropriate to the<br>audience. |  |  |
| Demonstrate the required underpinning science<br>and/or psychology knowledge |                          | Underpinning science: as it relates to the behavior of chemicals including concept of energy, behavior of gases and reactivity of chemicals |  |  |  |  |
| Integration of knowledge from other chapters                                 |                          | Chemical hazards<br>Causation; Control; Risk as it applies to process safety<br>Managing Process Safety                                     |  |  |  |  |



