40385 Explain work control procedures in an energy and chemical plant

Kaupae | Level	3
Whiwhinga | Credit	3
Whāinga | Purpose	This skill standard is intended for people working as boiler operators and energy and chemical process operators in an energy and chemical plant. People credited with this skill standard are able to: explain work control procedures in an energy and chemical plant; and describe the work control removal sequence plan, and communication procedures. This skill standard can be used in the New Zealand Energy and Chemical qualifications at Level 3 and above.

Hua o te ako me Paearu aromatawai \| Learning outcomes and assessment criteria

Hua o te ako | Learning outcomes	**Paearu aromatawai** | Assessment criteria
1. Explain work control procedures in an energy and chemical plant.	a. Describe the overarching intent of the Health and Safety at Work Act 2015 for the control of work on an energy or chemical plant.
	b. Describe the overarching intent of the Health and Safety at Work Act (Hazardous Substances) Regulations 2017 for the control of Hazardous Chemicals on an energy or chemical plant.
	c. Describe how the need for work controls is identified and communicated.
	d. Explain how work controls are used to control identified risks.
	e. Describe the factors to be considered, and their implications, for planning a work control boundary.
	f. Describe responsibilities of personnel when planning work controls to enable work to be undertaken.
	g. Explain how system derived hazards within the work control boundary are controlled and/or communicated to the work party prior to work commencing.
	h. Explain the methods used to maintain integrity and effectiveness of work control during the work.

Hua o te ako | Learning outcomes	**Paearu aromatawai** | Assessment criteria
2. Describe the work control removal sequence plan, and communication procedures.	a. Describe factors to be considered in the work control removal sequence plan.
	b. Describe communication procedures ensuring that all relevant information is transferred to stakeholders.

Pārongo aromatawai me te taumata paearu | Assessment information and grade criteria

Assessment specifications:

- evidence for all outcomes must be presented in accordance with organisational requirements.
- 1c: evidence of four is required.
- 1d: work controls include but are not limited to – barriers; job hazard analysis (JHA), recovery plans, responsible parties, checklists, safe and fit for purpose positive isolation, positions verification methods (e.g. prove-test-prove method and/or bump testing).
- 1e: includes but is not limited to – plant drawings, plant identification, physical inspection, limitations, mechanical isolation standards, access requirements, timeframe, communication procedures.
- 1f: permit issuer, area operator, permit recipient, worker.
- 1g: evidence of four (4) is required.
- 1h: lockout and tagout, barriers, Personal Hold cards, permit for work, communication, monitoring and isolation management.
- 2a: completed status of work objective(s), other affected work, stakeholders, plant availability.

Definitions:

Energy or chemical plant may be in – petrochemical, agri-nutrient, power generation, dairy processing, meat processing, and wood fibre manufacturing, or other plants that operate with a combination of high temperatures, pressures, steam and/or chemicals in gas, liquid or solid form.

Organisational requirements – documented policies and procedures. These may include: equipment manufacturers' procedures; plant procedures; suppliers' instructions; site signage; codes of practice; company health and safety plans; on site briefings; and supervisor's instructions. This includes all regulatory and legislative obligations that apply to the plant.

Work controls may also include isolations.

Ngā momo whiwhinga | Grades available

Achieved

Ihirangi waitohu | Indicative content

- Identification of need for work controls, such as – defect maintenance report, job card, work order, scope of work, logbooks, communication, observation card.
- Control of system derived hazards, such as – isolation, draining, venting, purging, flushing, cleaning, ventilation, earthing, testing.

Rauemi | Resources

Legislation and the code of practice relevant to this skill standard include but are not limited to:

- *Approved Code of Practice for the Design, Safe Operation, Maintenance and Servicing of Boilers* (the Code), Published by the Occupational Safety and Health Service Department of Labour, 2004;
- Health and Safety at Work Act 2015;
- Health and Safety at Work (Hazardous Substances) Regulations 2017;

and any subsequent amendments.

Pārongo Whakaū Kounga | Quality assurance information

Ngā rōpū whakatau-paerewa | Standard Setting Body	Hanga-Aro-Rau Manufacturing, Engineering and Logistics Workforce Development Council
Whakaritenga Rārangi Paetae Aromatawai | DASS classification	Manufacturing > Energy and Chemical Plant > Operation of Energy and Chemical Plant
Ko te tohutoro ki ngā Whakaritenga i te Whakamanatanga me te Whakaōritenga | CMR	0079

Hātepe | Process	**Putanga** | Version	**Rā whakaputa** | Review Date	**Rā whakamutunga mō te aromatawai** | Last date for assessment
Rēhitatanga | Registration	1	27 March 2025	N/A
Kōrero whakakapinga | Replacement information	This skill standard replaced unit standard 32028.		
Rā arotake | Planned review date	31 December 2029		

Please contact Hanga-Aro-Rau Manufacturing, Engineering and Logistics Workforce Development Council at qualifications@hangaarorau.nz to suggest changes to the content of this skill standard.