

Title	Describe environmental management of air discharges in a primary products food processing operation		
Level	5	Credits	5

Purpose	People credited with this unit standard are able to describe: effects of contaminants in air discharges; methodologies used to monitor contaminants in air discharges from, and ambient air in the vicinity of; use of computer modelling to predict the effect of air discharges on ambient air quality; use of measures to reduce the effects of air discharges on ambient air quality; and effects of legislative requirements on air discharge and climate change, in a primary products food processing operation.
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Classification	Primary Products Food Processing > Primary Products Food Processing - Operational Skills
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Available grade	Achieved
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Guidance Information

- 1 Legislation and standards relevant to this unit standard includes but are not limited to:
 - Health and Safety at Work Act 2015;
 - Health and Safety in Employment Regulations 1995;
 - Resource Management Act 1991;
 - Resource Management (National Environmental Standards for Air Quality);
 - Regulations 2004 (SR 2004/309, SR 2004/433, SR 2005/214, SR 2008/375); and any subsequent amendments.

- 2 Definitions

Organisational requirements – instructions to staff on policies and procedures which are documented in memo, electronic or manual format and are available in the workplace.

Primary products food processing operation – covers a meat, dairy, seafood, fruit and vegetable and honey processing, food and beverage manufacturing, and other related industries.

- 3 All evidence presented in this unit standard must be in accordance with organisational requirements.

Outcomes and performance criteria

Outcome 1

Describe effects of contaminants in air discharges from a primary products food processing operation.

Performance criteria

1.1 Describe effects of fuel sources on particulates and gas contaminants in terms of air discharges.

Range fuel sources may include but are not limited to – natural gas, coal, biofuels;
evidence of two is required.

Outcome 2

Describe methodologies used to monitor contaminants in air discharges from, and ambient air in the vicinity of, a primary products food processing operation.

Performance criteria

2.1 Describe methodologies used to monitor contaminants in air discharges in terms of applications and limitations.

Range methodologies include but are not limited to – inline measurement, periodic measurement.

2.2 Describe methodologies used to monitor ambient air quality in the vicinity of food processing plants in terms of applications and limitations.

Outcome 3

Describe use of computer modelling to predict the effect of air discharges on ambient air quality from a primary products food processing operation.

Performance criteria

3.1 Describe environmental effects assessment of air discharges on ambient air quality using computer modelling as a tool.

3.2 Describe effects of climate, terrain, and discharge characteristics on ambient air quality in terms of the accuracy of computer modelling.

3.3 Describe methodologies used to measure meteorological conditions and terrain in terms of their use for computer modelling.

Outcome 4

Describe use of measures to reduce the effects of air discharges on ambient air quality in a primary products food processing operation.

Performance criteria

4.1 Describe measures used to reduce levels of contaminants from air discharges in terms of their effectiveness.

Range measures may include but are not limited to – bag filters, electrostatic precipitation, wet-scrubbers, cyclones; evidence of two measures is required.

4.2 Describe effects of air discharge on ambient air quality in terms of location and height.

4.3 Describe selection and setting of fuel specifications in terms of reducing contaminants in air discharges.

Range contaminants include but are not limited to – sulphur, particulates.

Outcome 5

Describe effects of legislative requirements on air discharge and climate change.

Performance criteria

5.1 Describe effects of carbon dioxide emissions on climate change.

5.2 Describe effects of Resource Management (National Environmental Standards for Air Quality) Regulations 2004 for particulates and sulphur dioxide in terms of granting resource consents.

5.3 Describe monitoring of air discharges for compliance with resource consent conditions of legislative requirements.

Replacement information	This unit standard replaced unit standard 25674.
Planned review date	31 December 2026

Last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	17 September 2015	31 December 2024
Review	2	24 March 2022	N/A

Consent and Moderation Requirements (CMR) reference

0033

This CMR can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.

Comments on this unit standard

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