

**Field      Engineering and Technology****Review of *Hot Dip Galvanizing* unit standards**

<b>Subfield</b>	<b>Domain</b>	<b>ID</b>
Hot Dip Galvanizing	Hot Dip Galvanizing Operations	21163, 21164, 21166-21173, 21175-21178, 21181-21184, 25434
	Hot Dip Galvanizing Safety	21162, 21165, 21174, 21180, 21185, 25130-25134, 25433

The NZ Motor Industry Training Organisation (Incorporated) (MITO) has completed the review of the unit standards listed above.

**Date new versions published**

**16 April 2015**

**Planned review date**

**31 December 2019**

**Summary**

This review of unit standards was conducted in conjunction with the mandatory review of galvanizing qualifications. The domains Hot Dip Galvanizing and Hot Dip Operations in the Hot Dip Galvanizing subfield were replaced by a new Hot Dip Galvanizing domain in the Industrial Coatings subfield. New unit standards were developed to meet industry need, and existing unit standards in Hot Dip Galvanizing subfield were revised.

**Main changes**

- Replacement of the Hot Dip Galvanizing Operations and the Hot Dip Galvanizing Safety domains by one Hot Dip Galvanizing domain in the Industrial Coatings subfield.
- Registration of 24 new unit standards.
- Review of 19 existing unit standards.
- Expiry and replacement of 9 unit standards

**Category C unit standards will expire at the end of December 2016**

## Impact on existing organisations with consent to assess

Current consent for			Consent extended to		
Nature of consent	Classification or ID	Level	Nature of consent	Classification or ID	Level
Subfield	Engineering and Technology>Hot Dip Galvanizing	Any	Domain	Engineering and Technology>Industrial Coatings>Hot Dip Galvanizing	Same
Domain	Hot Dip Galvanizing Operations	Any	Domain	Engineering and Technology>Industrial Coatings>Hot Dip Galvanizing	Same
Domain	Hot Dip Galvanizing Safety	Any	Domain	Engineering and Technology>Industrial Coatings>Hot Dip Galvanizing	Same

## Detailed list of unit standards – classification, title, level, and credits

All changes are in **bold**.

Key to review category	
<b>A</b>	Dates changed, but no other changes are made - the new version of the standard carries the same ID and a new version number
<b>B</b>	Changes made, but the overall outcome remains the same - the new version of the standard carries the same ID and a new version number
<b>C</b>	Major changes that necessitate the registration of a replacement standard with a new ID
<b>D</b>	Standard will expire and not be replaced

### Engineering and Technology > Hot Dip Galvanizing> Hot Dip Galvanizing Operations Engineering and Technology > Industrial Coatings > Hot Dip Galvanizing

ID	Title	Level	Credit	Review Category
21164	Assess and jig metal components for hot dip galvanizing	2	5	C
<b>28439</b>	<b>Jig metal components for hot dip galvanizing</b>	<b>3</b>	<b>5</b>	
<b>28443</b>	<b>Plan and monitor quality of jiggling for hot dip galvanizing</b>	<b>4</b>	<b>5</b>	
21166	Inspect and fettle metal components after hot dip galvanizing	2	5	C
21177	Describe the reasons for weighing, and weigh items at a hot dip galvanizing facility	3	2	C
<b>28442</b>	<b>Fettle components after hot dip galvanizing</b>	<b>3</b>	<b>10</b>	

ID	Title	Level	Credit	Review Category
21167	Demonstrate knowledge of the degreasing process and degrease metal components at a hot dip galvanizing facility	3	6	C
21168	Demonstrate knowledge of the pickling process and pickle metal components at a hot dip galvanizing facility	3	8	C
21169	Demonstrate knowledge of the rinsing process and rinse metal components at a hot dip galvanizing facility	3	1	C
21170	Demonstrate knowledge of the fluxing process and flux metal components at a hot dip galvanizing facility	3	3	C
<b>28440</b>	<b>Degrease, pickle, rinse and flux for hot dip galvanizing</b>	<b>3</b>	<b>10</b>	
21171	Demonstrate knowledge of zinc coating and galvanize and quench metal components at a hot dip galvanizing facility	3	11	C
<b>28441</b>	<b>Dip, quench, and air dry for hot dip galvanizing</b>	<b>3</b>	<b>10</b>	
21173	Demonstrate knowledge of and hot dip galvanize and centrifuge small metal components	3	13	C
<b>28462</b>	<b>Use a centrifuge to hot dip galvanize small metal components</b>	<b>3</b>	<b>10</b>	

Engineering and Technology > Hot Dip Galvanizing> Hot Dip Galvanizing Operations  
**Engineering and Technology > Industrial Coatings > Hot Dip Galvanizing**

21163	Demonstrate basic knowledge of the hot dip galvanizing process	2	1	B
21172	Demonstrate knowledge of removal, and remove dross and ash from a galvanizing kettle at a hot dip galvanizing facility	3	2	B
21175	Demonstrate knowledge of workflow and schedule workflow for galvanizing at a hot dip galvanizing facility	4	20	B
21176	Describe the process of measuring zinc coating and measure thickness of hot dip galvanized zinc coatings	3	2	B
21178	Recover an object from a preparation tank and a galvanizing kettle	3	3	B
21182	Supervise quality management at a hot dip galvanizing facility	4	6	B
21183	Demonstrate knowledge of hot dip galvanizing metallurgy	4	5	B
21184	Plan and supervise operations, and supervise staff and equipment maintenance at a hot dip galvanizing facility	4	20	B
25434	Plan for and manage the emptying of a zinc kettle at a hot dip galvanizing facility	4	8	B

Engineering and Technology > Hot Dip Galvanizing > Hot Dip Galvanizing Safety  
**Engineering and Technology > Industrial Coatings > Hot Dip Galvanizing**

ID	Title	Level	Credit	Review Category
21165	Demonstrate basic knowledge of chemicals used at a hot dip galvanizing facility	2	2	B
21174	Demonstrate knowledge of hot dip galvanizing discharges and waste	3	10	B
21180	Demonstrate knowledge of and supervise health and safety at a hot dip galvanizing facility	4	15	B
21185	Respond to temperature alarm at a hot dip galvanizing facility <b>Respond to a temperature alarm at a hot dip galvanizing facility</b>	3	1	B
25130	Describe hazards, safety and emergency procedures, and exhibit safe working practices at a hot dip galvanizing facility	2	4	B
25131	Describe potential environmental effects and methods of mitigation at a hot dip galvanizing facility	2	2	B
25132	Explain environmental regulatory requirements relating to hot dip galvanizing	4	2	B
25133	Demonstrate knowledge of venting and draining for hot dip galvanizing	3	3	B
25134	Respond to an accidental emission or spill incident at a hot dip galvanizing facility	3	4	B
25433	Manage chemicals at a hot dip galvanizing facility	4	15	B

Engineering and Technology > Industrial Coatings > Hot Dip Galvanizing

ID	Title	Level	Credit	Review Category
<b>28444</b>	<b>Direct jiggling for hot dip galvanizing</b>	<b>4</b>	<b>10</b>	<b>New</b>
<b>28445</b>	<b>Plan, perform, and direct venting and draining for hot dip galvanizing</b>	<b>4</b>	<b>10</b>	<b>New</b>
<b>28446</b>	<b>Direct degreasing for hot dip galvanizing</b>	<b>4</b>	<b>5</b>	<b>New</b>
<b>28447</b>	<b>Direct pickling for hot dip galvanizing</b>	<b>4</b>	<b>10</b>	<b>New</b>
<b>28448</b>	<b>Direct rinsing for hot dip galvanizing</b>	<b>4</b>	<b>5</b>	<b>New</b>
<b>28449</b>	<b>Direct fluxing for hot dip galvanizing</b>	<b>4</b>	<b>10</b>	<b>New</b>
<b>28450</b>	<b>Plan and monitor quality of hot dipping for hot dip galvanizing</b>	<b>4</b>	<b>10</b>	<b>New</b>
<b>28451</b>	<b>Direct hot dipping for hot dip galvanizing</b>	<b>4</b>	<b>10</b>	<b>New</b>
<b>28452</b>	<b>Direct double-end hot dipping for hot dip galvanizing</b>	<b>4</b>	<b>5</b>	<b>New</b>
<b>28453</b>	<b>Direct quenching and air drying for hot dip galvanizing</b>	<b>4</b>	<b>5</b>	<b>New</b>
<b>28454</b>	<b>Plan and monitor quality of centrifuging operations for hot dip galvanizing</b>	<b>4</b>	<b>10</b>	<b>New</b>
<b>28455</b>	<b>Perform and direct hot dipping of small metal components for centrifuging</b>	<b>4</b>	<b>10</b>	<b>New</b>

<b>ID</b>	<b>Title</b>	<b>Level</b>	<b>Credit</b>	<b>Review Category</b>
28456	Perform and direct centrifuging of small metal components	4	10	New
28457	Inspect galvanized items and plan fettling for hot dip galvanizing	4	5	New
28458	Direct fettling for hot dip galvanizing	4	10	New
28459	Direct weighing of galvanized components at a hot dip galvanizing facility	4	5	New
28460	Monitor quality of completed galvanized items	4	10	New
28461	Plan, perform, and direct dross removal for hot dip galvanizing	4	10	New