

FIELD MANUFACTURING**Reclassification and review of *Pulp and Paper Manufacturing* unit standards****Existing classification name**

Subfield	Domain	Id
Pulp and Paper Manufacturing	Paper Making	3577, 3581-3586, 3588-3596, 3600-3602, 3604, 12900-12903, 15815-15817, 17217
	Pulp and Paper – Chemical Plants	3616-3627, 15818-15824, 16287-16294, 17218, 17219
	Pulp and Paper – Stores and Warehousing	8361-8369, 8371-8376
	Pulp and Paper Manufacturing Skills	3509-3514, 3517-3519, 3521-3524, 3572, 3575, 3580, 3597, 10833-10835, 12898, 12899, 15825-15833
	Pulp and Paper Technology	3637, 3638, 5634, 5637, 5638, 5655, 5660, 5671-5676, 5680, 15835-15838, 17856-17869
	Pulp Making	3538-3548, 3551-3556, 3559, 3561-3565, 3569, 3573, 3576, 17215, 17216

New classification name

Subfield	Domain	Id
Wood Fibre Manufacturing	Paper Making	3523, 3577, 3582, 3584, 3585, 3589-3592, 3595, 3602, 3604, 12900, 12903, 15815, 15816, 15817
	Pulp and Paper – Chemical Plants	3617-3620 3622-3627, 3637, 3638, 5680, 15821, 15823, 16287, 16292
	Pulp and Paper Manufacturing Skills	3509-3511, 3513, 3514, 3517-3519, 3524, 3572, 3580, 3596, 3597, 10833, 10834, 15827, 15829, 15831-15833
	Pulp and Paper Technology	5671, 5676, 17856, 17858, 17859, 17863-17868
	Pulp Making	3543, 3547, 3551-3553, 3555, 3559, 3562-3564
	Tissue Converting	3594
Wood Handling and Distribution	Wood Preparation	3538, 3539, 3541, 3544, 3561, 12898, 12899, 15825
Wood Manufacturing – Generic Skills	Wood Manufacturing Foundation Skills	5634, 5638, 5655, 17860-17862, 17869

Forest Industries Training and Education Council (FITEC) has completed the review of the unit standards listed above.

Date new versions published

December 2006

Planned review date

December 2011

Summary of review and consultation process

Unit standards in the Pulp and Paper subfield were due for review in 2004. FITEC has taken a broader view and these unit standards have been reviewed in conjunction with the Solid Wood Processing, Wood Product Manufacturing, and Wood Panels subfields.

Working teams comprising of key representatives of the pulp and paper industry were formed to undertake the review process. Consultation meetings were held with stakeholders (expert panels) for each of the domains. A wider consultation of drafts was managed through members of the expert panels and their site assessors. Feedback from these meetings and written submissions identified the need for new unit standards, changes to existing unit standards, and designation as expiring of unit standards that no longer met the needs of industry.

Final drafts have been endorsed by the panel members and the pulp and paper sector advisory group.

Main changes resulting from the review

The review has resulted in the following changes:

- The subfield Paper and Paper Manufacturing has been replaced by the subfield Wood Fibre Manufacturing
- Credits have been amended for some unit standards to more accurately reflect the time taken for delivery, learning, assessment, and alignment with those in other wood processing sectors
- Levels amended for some unit standards to more accurately reflect the changes in accountability and responsibility as the sector increases its automation of processes
- Unit standards updated to incorporate industry changes and technological advances
- Unit standards updated to meet current NZQA registration criteria
- Special notes have been improved and updated
- New unit standards have been developed to fill gaps
- The Pulp and Paper – Stores and Warehousing domain has been allowed to expire in line with agreements made with the registration of the Materials Management unit standards
- 72 unit standards were considered no longer fit for purpose. They will expire and will not be replaced.

Unit standards categorised as category C or D expire at the end of December 2010.

Impact on Accreditation and Moderation Action Plan (AMAP)

All standards previously registered on AMAP 0036 have been transferred to AMAP 0173. AMAP 0036 has been designated as expiring and has been removed from the NQF.

Impact on existing provider accreditations

The new subfield Wood Fibre Manufacturing takes in domains from two previous subfields in Pulp and Paper, and Wood Panels Manufacturing. FITEC has determined that it is not appropriate to extend subfield accreditation from Pulp and Paper Manufacturing to Wood Fibre Manufacturing on the grounds that such providers will not have the experience to deliver in the additional domains. The relevant Pulp and Paper domains covered in the expiring Pulp and Paper Manufacturing subfield are therefore listed in the table below.

As many of the new domain names are the same as the previous classifications the table shows the Subfield > Domain format to distinguish between them.

Current Accreditation for			Accreditation extended to		
Nature of accreditation	Classification	Level	Nature of accreditation	Classification or Id	Level
Subfield	Pulp and Paper Manufacturing	Any	Domain	Wood Fibre Manufacturing > Paper Making	Same
				Wood Fibre Manufacturing > Pulp and Paper – Chemical Plants	Same
				Wood Fibre Manufacturing > Pulp and Paper Manufacturing Skills	Same
				Wood Fibre Manufacturing > Pulp and Paper Technology	Same
				Wood Fibre Manufacturing > Pulp Making	Same
				Wood Fibre Manufacturing > Tissue Converting	Same
				Wood Fibre Manufacturing > Wood Manufacturing Foundation Skills	Same
				Wood Handling and Distribution > Wood Preparation	Same
Domain	Pulp and Paper Manufacturing > Paper Making	Any	Domain	Wood Fibre Manufacturing > Paper Making	Same
				Wood Fibre Manufacturing > Pulp and Paper Manufacturing Skills	Same
				Wood Fibre Manufacturing > Tissue Converting	Same
		2	Standard	21498	3
Standards	21901, 21902	2	Standard	23075	2
Domain	Pulp and Paper Manufacturing > Pulp and Paper – Chemical Plants	Any	Domain	Wood Fibre Manufacturing > Pulp and Paper – Chemical Plants	Same
Domain	Pulp and Paper Manufacturing > Pulp and Paper Manufacturing Skills	Any	Domain	Wood Fibre Manufacturing > Pulp and Paper Manufacturing Skills	Same
				Wood Fibre Manufacturing > Paper Making	Same
				Wood Handling and Distribution > Wood Preparation	Same
		3	Standards	3523, 21490, 21491	4
2	Standard	21498	3		

Current Accreditation for			Accreditation extended to		
Nature of accreditation	Classification	Level	Nature of accreditation	Classification or Id	Level
Domain	Pulp and Paper Manufacturing > Pulp and Paper Technology	Any	Domain	Wood Fibre Manufacturing > Pulp and Paper Technology	Same
				Wood Fibre Manufacturing > Pulp and Paper – Chemical Plants	Same
				Wood Manufacturing – Generic Skills > Wood Manufacturing Foundation Skills	Same
Domain	Pulp and Paper Manufacturing > Pulp Making	Any	Domain	Wood Fibre Manufacturing > Pulp Making	Same
				Wood Handling and Distribution > Wood Preparation	Same

Impact on existing qualifications

FITEC Qualifications:

The following qualifications are affected by the outcome of this review and will be revised/ reviewed to take account of the changes in 2007.

Qualification Title	Classification or Id
National Certificate in Pulp and Paper Manufacturing (Level 2) [Ref: 0237]	All domains
National Certificate in Pulp and Paper Manufacturing (Level 3) [Ref: 0238]	All domains
National Certificate in Pulp and Paper Manufacturing (Level 4) [Ref: 0239]	All domains
National Certificate in Pulp and Paper Manufacturing (Tissue Converting) (Level 2) [Ref: 0650]	Papermaking, Pulp and Paper Technology, Pulp and Paper Stores and Warehousing
National Certificate in Pulp and Paper Manufacturing (Tissue Converting) (Level 3) [Ref: 0651]	Papermaking, Pulp and Paper Technology, Pulp and Paper Stores and Warehousing
National Certificate in Pulp and Paper Manufacturing (Tissue Converting) (Level 4) [Ref: 0652]	Papermaking, Pulp and Paper Technology, Pulp and Paper Stores and Warehousing

The following FITEC qualifications are not materially affected by the changes. They will be updated when they are next reviewed or revised.

Qualification Title	Classification or Id
National Certificate in Solid Wood Processing (Level 2) [Ref: 0807]	Pulp and Paper Technology
National Certificate in Solid Wood Processing (Level 3) [Ref: 0808]	Pulp and Paper Technology
National Certificate in Wood Panels Manufacturing (Level 2) [Ref: 0433]	Pulp and Paper Technology
National Certificate in Wood Product Manufacturing (Level 2) [Ref: 0814]	Pulp and Paper Technology
National Certificate in Wood Product Manufacturing (Level 3) [Ref: 0815]	Pulp and Paper Technology
National Certificate in Solid Wood Processing (Level 4) with strands in Sawmilling, Timber Grading, Timber Yarding, Wood Drying, and Wood Preservation [Ref: 0809]	Pulp and Paper Technology
National Certificate in Wood Panels Manufacturing (Level 4) [Ref: 0254]	Pulp and Paper Technology
National Certificate in Wood Product Manufacturing (Level 4) [Ref: 0816]	Pulp and Paper Technology

Other ITO qualifications:

Qualification title	Unit Standards
National Certificate in Occupational Health and Safety (Workplace Safety) (Level 3) [Ref:0801]	5634
National Certificate in Stevedoring and Ports Industry (Log Handling and Ship Loading) [Ref: 0934]	12898, 12899

Summary of main changes

All changes are in **bold**.

Key to review category

- A** Dates changed, but no other changes are made – the replacement standard carries the same Id and a new version number
- B** Changes made, but the overall outcome remains the same – the replacement standard carries the same Id and a new version number
- C** Major changes that necessitate the registration of a replacement standard with a new Id
- D** Standard will expire and not be replaced

Classification Pulp and Paper Manufacturing
Wood Fibre Manufacturing

Id	Domain	Title	Level	Credit	Review Category
3593 and 10835	Paper Making	Wrap pulp and paper products with shrinkwrap	3	2	C
21498	Pulp and Paper Manufacturing Skills	Handle off line product	2	2	C
	Wood Product Manufacturing Skills	Wrap wood products	3	5	

Id	Domain	Title	Level	Credit	Review Category
3556 and 15828	Pulp Making	Wash wood pulp using diffuser washer	3	4	C
	Pulp and Paper Manufacturing Skills	Wash wood pulp	3	4	C
21486	Pulp Making	Wash wood pulp	3	5	

Classification Pulp and Paper Manufacturing > Pulp and Paper Manufacturing Skills
Wood Fibre Manufacturing > Paper Making

Id	Title	Level	Credit	Review Category
3523	Refine wood pulp at low consistency	3	10	B
	Refine paper furnish at low consistency	4		

Classification Pulp and Paper Manufacturing > Paper Making
Wood Fibre Manufacturing > Paper Making

Id	Title	Level	Credit	Review Category
3577	Disperse softened coloured material in repulped waste for paper making	3	5	B
3582	Dry paper web using infra red dryers	3	6 5	B
3583	Dry paper web using a machine-glazed cylinder	3	6	C
3600 and 3601	Dry paper web with direct fired hood	3	6	C
	Produce crepe in paper web for paper manufacturing	3	8	C
23076	Crepe and dry paper web	4	20	
3584	Calender pulp and paper	3	4 5	B
3585	Coat paper in the paper making industry	4	10	B
3589	Prepare paper rolls for sheeting	2	4 5	B
3590	Precision cut paper to size in the paper manufacturing industry	3	4 5	B
3591	Continuous cut and pack paper in the paper manufacturing industry	3	4 5	B
3592	Wrap paper reels with paper	3	4 5	B
3595	Load and re-pulp dry furnish	2 3	5	B
3602	Reel paper	3	4 5	B
	Make parent reel			
3604	Cut reeled paper to sheet size	3	10	B
12900	Wind paper	4	16 15	B
	Operate and maintain a paper winder			

Id	Title	Level	Credit	Review Category
12901 and 12902 23075	Prepare cores for paper products Make paper joins on a winder Prepare cores and make paper joins for paper products	2 2 2	1 1 3	C C
12903	Maintain paper product records	3	4 5	B
15815	Form paper web from wood pulp furnish	4	20	B
15816	Blend chemical additives for paper production	3	6 3	B
15817	Operate paper web profiling system	4	3 5	B
23074	Store and load dry furnish for re-pulping	3	5	New

Classification Pulp and Paper Manufacturing > Pulp and Paper – Chemical Plants
Wood Fibre Manufacturing > Pulp and Paper – Chemical Plants

Id	Title	Level	Credit	Review Category
3617	Condition liquor for wood pulp manufacturing Clarify liquor for wood pulp manufacturing	3	2 3	B
3618	Slake lime and regenerate liquor for wood pulp manufacturing	3	4 5	B
3619	Control chemical recovery boiler systems for wood pulp manufacturing	5	14 20	B
3620	Condition liquor using black liquor evaporator for wood pulp manufacturing	4	15	B
3622	Condition liquor using blox plant for wood pulp manufacturing Condition liquor using BLOX plant for wood pulp manufacturing	3	4 5	B
3623	Produce crude tall oil from tall oil soap as a by-product of wood pulp manufacturing Process crude tall oil from tall oil soap as a by-product of wood pulp manufacturing	3	5	B
3624	Produce crude sulphate turpentine as a by-product of wood pulp manufacturing Process crude sulphate turpentine and red oil as a by-product of wood pulp manufacturing	3	3	B
3625	Operate white liquor pressure filter for wood pulp manufacturing Operate and acid a wash white liquor pressure filter for wood pulp manufacturing	3	4 8	B
3626	Manufacture burnt lime for kraft liquor production in a pulp and paper plant	3	6 5	B
3627	Wash lime mud for burnt lime manufacture in a pulp and paper plant Filter lime mud for burnt lime manufacture in a pulp and paper plant	3	2 3	B

Id	Title	Level	Credit	Review Category
15821	Prepare brine for electrolysis in pulp and paper chemical plants Prepare primary brine for electrolysis in pulp and paper chemical plants	3	8	B
15822	Start up hydrochloric furnaces in pulp and paper chemical plants	2	4	C
15824	Compress chlorine gas in pulp and paper chemical plants	3	8	C
16288	Manufacture sodium hydroxide and chlorine for wood pulp bleaching	4	16	C
16289	Manufacture sodium hypochlorite for wood pulp manufacturing	3	8	C
16290	Manufacture hydrochloric acid for wood pulp manufacturing	3	8	C
16291	Manufacture liquid chlorine for the wood pulp bleaching process	3	8	C
21493	Manufacture sodium hydroxide and chlorine products for pulp bleaching	4	30	
15823	Prepare, test, and wash electrolyzers for pulp and paper chemical plant production	2 4	9 10	B
16287	Produce purified brine for wood pulp bleaching Prepare purified brine for electrolysis in pulp and paper chemical plants	4	10	B
16292	Manufacture sodium chlorate for wood pulp bleaching Manufacture sodium chlorate in a pulp and paper chemical plant	4	12 15	B
16293	Generate chlorine dioxide by the integrated dioxide process for wood pulp bleaching	4	16	C
16294	Generate chlorine dioxide by the single vessel process for wood pulp bleaching	4	16	C
21492	Generate chlorine dioxide for wood pulp bleaching	4	15	
21494	Shut for maintenance and restart a chlorine-based chemical plant in pulp manufacturing	5	20	New
21495	Operate a waste gas system in a kraft pulp chemical plant	3	5	New
21496	Load chemical by-products into road or rail tankers	4	3	New

Classification Pulp and Paper Manufacturing > Pulp and Paper Technology
Wood Fibre Manufacturing > Pulp and Paper – Chemical Plants

Id	Title	Level	Credit	Review Category
3637	Explain principles of causticising and lime kiln operation in wood pulp manufacturing Describe principles of causticising and lime kiln operation in wood pulp manufacturing	2	8	B

Id	Title	Level	Credit	Review Category
3638	Explain principles of black liquor combustion for wood pulp manufacturing Describe principles of black liquor combustion for wood pulp manufacturing	2	6 5	B
5680	Explain principles of the chemical recovery process in the production of kraft wood pulp	3	5	B

Classification Pulp and Paper Manufacturing > Pulp and Paper Manufacturing Skills
Wood Fibre Manufacturing > Pulp and Paper Manufacturing Skills

Id	Title	Level	Credit	Review Category
3509	Clean wood pulp Clean furnish	3	3 5	B
3510	Test in-process pulp and chemicals as a pulp and paper manufacturing plant operator	2	3	B
3511	Laboratory test pulp, paper and chemical products	4	12 10	B
3513	Run machine clothing for pulp and paper making machines Run machine clothing in pulp and paper manufacturing	4	5	B
3514	Assist with changing machine clothing on pulp and paper making machines Assist with changing machine clothing in pulp and paper manufacturing	1 2	2 3	B
3517	Package pulp bales in the pulp manufacturing industry Operate a pulp bale unit making process	3	10 5	B
3518	Control a pulp storage system in the pulp and paper manufacturing industry	3	7 5	B
3519	Press wet pulp and paper webs in the pulp and paper manufacturing industry	3 4	5	B
3521 and 3575	Dry pulp and paper webs using multi cylinders	3	8	C
21490	Control pulp and paper machine drive and sheet tensioning systems Operate multi-cylinders to dry pulp and paper webs	4 4	4 8	C
3522 and 3575	Air-dry pulp and paper webs	3	6	C
21491	Control pulp and paper machine drive and sheet tensioning systems Dry pulp and paper webs using air drying	4 4	4 8	C
3524	Blend wood pulp Blend furnish	4	4 5	B
3572	Dewater wood pulp using twin wire	3	10	B
3580	Form wood pulp web using a vat former Form wood pulp web using a vat former for pulp manufacture	3	8	B

Id	Title	Level	Credit	Review Category
3597	Operate white water systems for pulp and paper manufacturing	4	4 5	B
10833	Operate pulp and paper mill auxiliary equipment	2	4 5	B
10834	Operate bark burner systems	3	7 8	B
15827	Prepare chemical additives in the pulp and paper industry Prepare and monitor chemical additives in the pulp and paper industry	3	4 3	B
15829	Screen wood pulp using a pulp screening system Screen furnish	3	4 5	B
15831	Dewater wood pulp at high consistency Dewater furnish at high consistency	3	5	B
15832	Reclaim wood pulp fibre at low consistency for pulp and paper manufacturing	2	2 3	B
15833	Form wood pulp web for pulp manufacturing using a fourdriner former	4	16 15	B
21489	Press wet pulp and paper webs using an extended nip press	4	5	New

Classification Pulp and Paper Manufacturing > Paper Making

Wood Fibre Manufacturing > Pulp and Paper Manufacturing Skills

Id	Title	Level	Credit	Review Category
3596	Control a paper machine broke system Control a pulp or paper machine broke system	3	4 5	B

Classification Pulp and Paper Manufacturing > Pulp and Paper Technology

Wood Fibre Manufacturing > Pulp and Paper Technology

Id	Title	Level	Credit	Review Category
5671	Explain principles of paper tissue manufacture	3	5	B
5676	Explain processes used for paper coating in the pulp and paper manufacturing industry Explain processes used for paper coating in paper making	3	4 5	B
17856	Demonstrate knowledge of paper and paper board products Demonstrate knowledge of pulp and paper products	1 2	3	B
17858	Demonstrate knowledge of manufacturing processes involved in pulp and paper manufacturing Demonstrate knowledge of manufacturing processes involved in wood pulping and paper making	2	10	B

Id	Title	Level	Credit	Review Category
17859	Demonstrate knowledge of stock preparation for papermaking Demonstrate knowledge of furnish preparation for paper making	2 3	7 8	B
17863	Explain principles of pulp and paper sheet formation, pressing, and drying Explain principles of pulp and paper sheet formation, pressing, drying and reeling	3	10	B
17864	Explain fundamentals of paper finishing	2 3	8 5	B
17865	Explain fundamentals of mechanical wood pulps and pulping processes	3	8 10	B
17866	Explain fundamentals of kraft pulps and pulping processes	3	8 10	B
17867	Explain fundamentals of kraft pulp bleaching	3	7 8	B
17868	Explain fundamentals of the recycling of fibre for papermaking	2 3	6 8	B

Classification Pulp and Paper Manufacturing > Pulp Making
Wood Fibre Manufacturing > Pulp Making

Id	Title	Level	Credit	Review Category
3543	Pressure refine wood fibre for pulp and paper production	4	20	B
3545 and 3546	Bleach wood pulp with hydrosulphite	3	2	C
21484	Bleach mechanical wood pulp with peroxide in wood pulp manufacturing Bleach mechanical wood pulp in wood pulp manufacturing	4	5	C
3547	Bleach kraft pulp in wood pulp manufacturing	4	24 30	B
3551	Flash dry wood pulp	4	15 20	B
3552	Form and pack bales of flash dried wood pulp Form and press flash dried wood pulp	4	9 10	B
3553	Form bales from wood pulp sheet	3	10	B
3555	Continuous digest wood chips Digest wood chips	4	30	B
3559	Delignify wood pulp with oxygen	4	6 10	B
3562	Supply wood billets for groundwood pulp production	2	9 10	B
3563	Grind billets to produce wood pulp	3	9 10	B
3564	Manage technical aspects of groundwood operations	4	20	B
21485	Atmospherically refine pulp	4	10	New

Id	Title	Level	Credit	Review Category
21487	Empty and restart a continuous digester in a pulp manufacturing operation	5	30	New
21488	Empty and restart a bleach plant in a pulp manufacturing operation	5	30	New

Classification Pulp and Paper Manufacturing > Paper Making
Wood Fibre Manufacturing > Tissue Converting

Id	Title	Level	Credit	Review Category
3594	Wrap pulp and paper products with stretchwrap Wrap tissue products with stretch wrapper systems	3	2 3	B

Classification Pulp and Paper Manufacturing > Pulp Making
Wood Handling and Distribution > Wood Preparation

Id	Title	Level	Credit	Review Category
3538	Manage wood chip and waste storage systems Operate wood chip and waste storage systems	2 3	6 5	B
3539	Control a log reception deck	3	5	B
3541	Reclaim and convey wood chips	3	3 5	B
3544	Wash wood chips for pulp production Wash wood chips for further processing	3	2 3	B
3561	Screen wood chips for pulp production Screen wood chips for further processing	2 3	3	B
21497	Describe wood chip and wood fibre material quality requirements	2	3	New

Classification Pulp and Paper Manufacturing > Pulp and Paper Manufacturing Skills
Wood Handling and Distribution > Wood Preparation

Id	Title	Level	Credit	Review Category
12898	Handle logs for further processing	3	10	B
12899	Sort and load logs onto a log deck for further processing	3	4 5	B
15825	Operate a wheeled loader in the pulp and paper industry Operate a wheeled loader in the wood manufacturing industry	3	6 5	B

Classification Pulp and Paper Manufacturing > Pulp and Paper Technology
Wood Manufacturing – Generic Skills > Wood Manufacturing Foundation Skills

Id	Title	Level	Credit	Review Category
5634	Demonstrate knowledge of workplace health and safety in the pulp and paper industry Demonstrate knowledge of workplace health and safety in the wood manufacturing industries	2	2 3	B
5638	Demonstrate knowledge of principles of quality systems in the pulp and paper industry Demonstrate knowledge of principles of quality systems in the wood manufacturing industries	2	5	B
5655	Demonstrate knowledge of pumps and valves used in the pulp and paper industry Demonstrate knowledge of pumps and valves used in wood manufacturing industries	3	5	B
17860	Demonstrate knowledge of concepts of matter and chemistry used in the pulp and paper industry Demonstrate knowledge of principles of matter, energy, and chemistry used in the wood manufacturing industries	2	8	B
17861	Demonstrate knowledge of principles of heat and work as they are used in the pulp and paper industry Demonstrate knowledge of principles of heat, energy, and work as used in wood manufacturing	2	9 8	B
17862	Demonstrate knowledge of mechanical engineering systems used in the pulp and paper industry Demonstrate knowledge of mechanical engineering systems used in wood manufacturing industries	2	10	B
17869	Demonstrate knowledge of fundamentals of process control systems used in the pulp and paper industry Demonstrate knowledge of fundamentals of process controls used in wood manufacturing industries	3	6 10	B

Category D standards

Classification Pulp and Paper Manufacturing > Paper Making

Id	Title	Level	Credit	Review Category
3581	Produce watermark in wet paper sheet	4	4	D
3586	Size press paper	3	3	D
3588	Laminate cartonboard in the paper making industry	3	10	D
17217	Co-ordinate paper production across multiple process stages	5	40	D

Classification Pulp and Paper Manufacturing > Pulp and Paper – Chemical Plants

Id	Title	Level	Credit	Review Category
3616	Control gas emissions produced by wood pulp manufacturing	3	4	D
3621	Condition liquor using soap removal system for wood pulp manufacturing	3	2	D
15818	Operate demineralised water plant in pulp and paper chemical plants	3	4	D
15819	Dilute and supply caustic soda in pulp and paper chemical plants	3	3	D
15820	Fill transportable liquid chlorine containers in pulp and paper chemical plants	2	4	D
17218	Co-ordinate chlorine-based chemical production in the pulp and paper industry	5	60	D
17219	Co-ordinate steam production and chemical recovery in the pulp and paper industry	5	40	D

Classification Pulp and Paper Manufacturing > Pulp and Paper – Stores and Warehousing

Id	Title	Level	Credit	Review Category
8361	Demonstrate knowledge of storekeeping and warehousing in a pulp and paper store or warehouse	2	2	D
8362	Receive inwards and/or finished goods in a pulp and paper store or warehouse	2	4	D
8363	Process inwards goods in a pulp and paper store or warehouse	3	6	D
8364	Store goods in a pulp and paper store or warehouse	2	4	D
8365	Receive returned stock into a pulp and paper store or warehouse	3	6	D
8366	Issue internal stock in a pulp and paper store or warehouse	2	4	D
8367	Deliver goods within the workplace from a pulp and paper store or warehouse	3	4	D
8368	Dispatch goods from a pulp and paper store or warehouse	3	8	D
8369	Monitor stock in a pulp and paper store or warehouse	3	8	D
8371	Maintain safety procedures in a pulp and paper store or warehouse	3	10	D
8372	Manage stock in a pulp and paper store or warehouse	4	12	D
8373	Demonstrate knowledge of purchasing and costing goods for a pulp and paper store or warehouse	4	6	D
8374	Catalogue items in a pulp and paper store or warehouse	4	8	D
8375	Demonstrate knowledge of allied functions for a pulp and paper finished goods store	4	6	D

Id	Title	Level	Credit	Review Category
8376	Demonstrate knowledge of allied functions in a pulp and paper raw materials store or warehouse	4	6	D

Classification Pulp and Paper Manufacturing > Pulp and Paper Manufacturing Skills

Id	Title	Level	Credit	Review Category
3512	Identify visual paper defects for paper manufacturing	3	1	D
15826	Operate, control, and monitor an effluent treatment process in the pulp and paper industry	3	8	D
15830	Screen wood pulp using a pulp screen	2	2	D

Classification Pulp and Paper Manufacturing > Pulp and Paper Technology

Id	Title	Level	Credit	Review Category
5637	Demonstrate knowledge of the environment and pulp and papermaking	2	3	D
5660	Demonstrate knowledge of the performance of the drying section of a pulp and/or papermaking process	3	5	D
5672	Explain factors affecting the performance of corrugated box components	2	3	D
5673	Explain fundamentals of newsprint manufacture	3	5	D
5674	Explain fundamentals of printing and writing paper manufacture	3	5	D
5675	Explain processes used for paper sizing in the paper manufacturing industry	3	2	D
15835	Explain fundamentals of dry air systems in pulp and paper chemical plants	2	4	D
15836	Explain fundamentals of water systems in pulp and paper chemical plants	2	4	D
15837	Explain fundamentals of nitrogen systems in pulp and paper chemical plants	2	4	D
15838	Explain chemical plant processes, hazards, and safety procedures in the pulp and paper industry	1	3	D
17857	Demonstrate knowledge of resources required for pulp and paper manufacturing	1	5	D

Classification Pulp and Paper Manufacturing > Pulp Making

Id	Title	Level	Credit	Review Category
3540	Identify minor wood species logs for pulp production	2	1	D
3542	Control shower systems for wood grinding	3	2	D
3548	Scrub gas produced by wood pulp manufacturing and bleaching	3	3	D
3554	Batch digest wood chips	4	30	D

Id	Title	Level	Credit	Review Category
3565	Atmospherically refine wood fibre for pulp and paper production	3	10	D
3569	Chemically pre-treat wood chips	3	4	D
3573	Digest wood chips by the vapour phase method	4	8	D
3576	Refine high consistency wood pulp	3	4	D
17215	Co-ordinate wood chip production across multiple process stages	5	30	D
17216	Co-ordinate wood pulp production across multiple process stages	5	40	D