Sprinkler Fitter

Transition Plan

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Abbreviations

CCDA	Canadian Council of Directors of Apprenticeship
CL	Current level (2011)
DA	Direct Access (ITA's registration system)
F2F	Face to face (a training delivery method)
FDN	Foundation program
HL	Harmonized level (April 2019)
NOA	Red Seal National Occupational Analysis
RSOS	Red Seal Occupational Standard; replaces NOA
SLE	Standardized Level Exam
TP	Training provider
TT	Technical training
TW	Trade worker
WBT	Work-based training

Introduction: Harmonization

The Canadian Council of Directors of Apprenticeship (CCDA) is responsible for the Red Seal Program, which develops common interprovincial standards and examinations. The CCDA is undertaking the Harmonization Initiative in 30 Red Seal trades by 2020. British Columbia is an active participant in this initiative.

The goal is to substantively align apprenticeship systems across Canada by making apprenticeship training requirements more consistent in the Red Seal trades.

Harmonization Priorities

1. Use of Red Seal trade name
2. Consistent total training hours (in-school and on-the-job)
3. Same number of training levels
4. Consistent sequencing of training content, including use of most recent Red Seal Occupational Standard (RSOS).

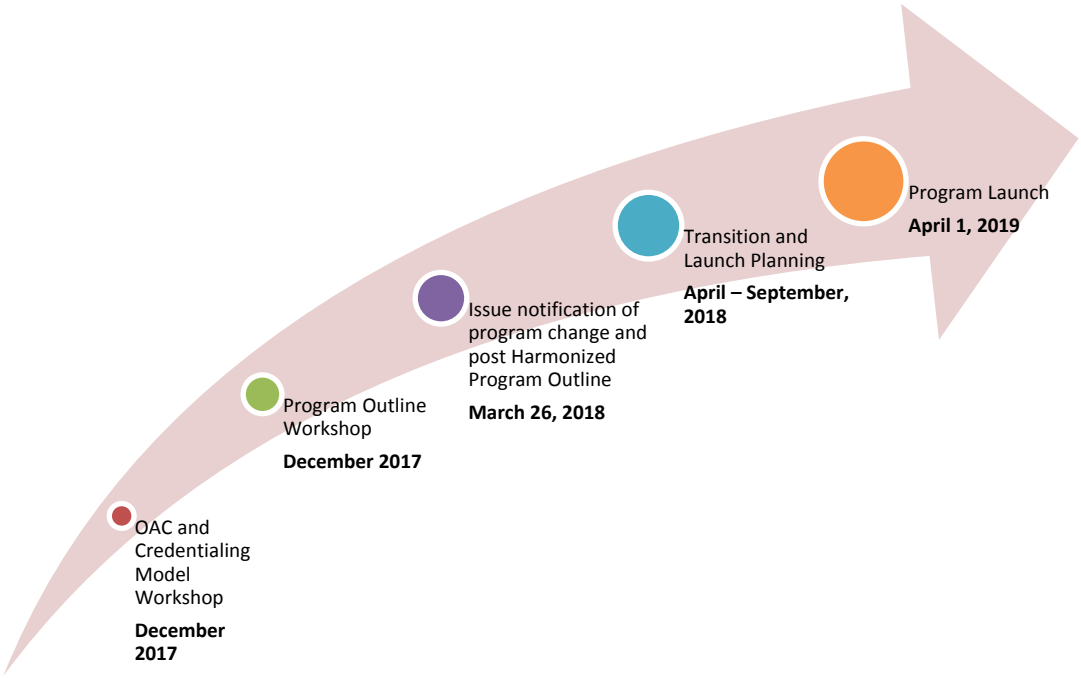
What's changing for **SPRINKLER SYSTEM INSTALLER**	Changing in BC?	What will it be?
TRADE NAME	**YES**	**Sprinkler Fitter**
NUMBER OF TRAINING LEVELS	**YES**	**3**
TOTAL HOURS technical + work-based training	**YES**	**7200 hours**
TRAINING SEQUENCE order of subjects taught	**YES**	**Changes to sequence**

Transition Planning

The re-sequencing of the Sprinkler Fitter program through the Harmonization Initiative has resulted in significant changes to the sequencing of technical training.

We consulted with the 1 public and 2 private post-secondary institutions that deliver the Sprinkler Fitter program, and also considered the input of our internal partners. We evaluated a number of scenarios, and the transition plan outlined in this document was identified as the best option. We have also ensured that there are options for all current apprentices to complete their apprenticeship.

BC Program Development



Training Providers (3)

Camosun College

Pacific Vocational College

UA Piping Industry College

Transition Scenario

Full Implementation

Implementation Timelines	
All Levels	April 1, 2019

Year 0 18/19	**CL1**	**CL2**	**CL3**	**CL4**
Year 1 19/20	**HL1**	**HL2** Gap Training 30 hours	**HL3**	
Year 2 20/21	**HL1**	**HL2** Gap Training 30 hours	**HL3**	
Year 3 21/22	**HL1**	**HL2** Gap Training 30 hours *(if needed)*	**HL3**	

Training Providers will be required to fill out an ITA Technical Training Result Report to report completion of Gap A Training.
The form can be found at http://www.itabc.ca/sites/default/files/docs/apply/forms.

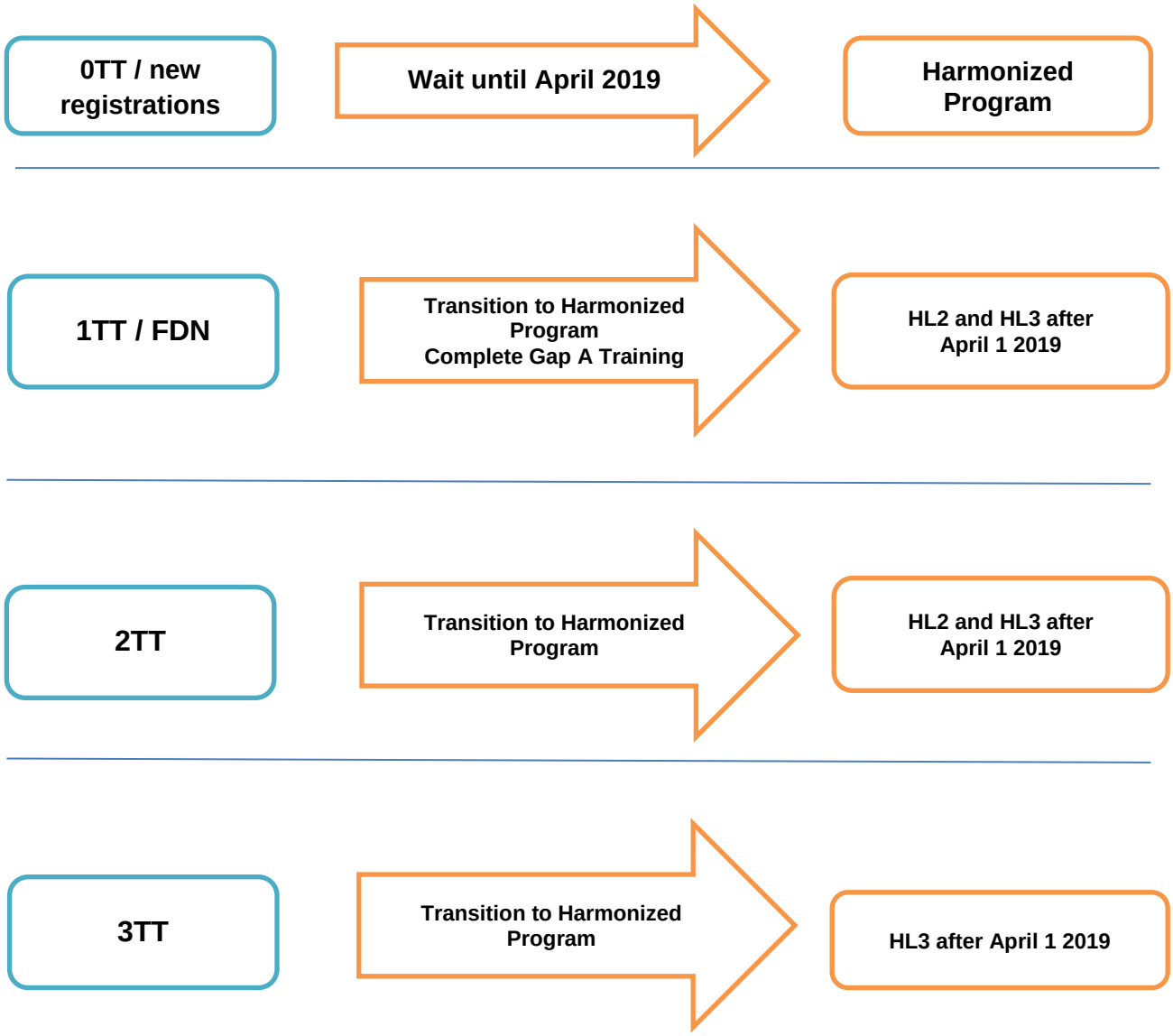
An example of the form can be found in Appendix D: ITA Technical Training Result Report.

Pathways for Apprentices

- **Completed CL1 –** complete HL2 and HL3
- **Completed CL1 and CL2 –** complete HL2 and HL3
- **Completed CL1, CL2 and CL3 –** complete HL3

Risks	Mitigation Strategies
Apprentices who have completed CL2 and CL3 may think they are repeating a level	Communicate with TW and ER that they are still receiving a 4 level program and not "re-doing" a level
Apprentices in CL3 will be missing competency E5 – Install Standpipe Systems	First intakes will be mostly CL3 (no HL2s) Training Providers to use time associated with identified overlap content to deliver this competency Ensure TW and ER are aware of the gap and overlap

Pathways for Current Apprentices (Summary)



Total Training Hours

The following changes to training time for Sprinkler Fitter will come into effect **April 1, 2019**:

- Redistribution of technical training hours to accommodate the reduction of the number of training levels, **Level 1 – 3 will be 240 hours each**
- Increase of work-based training (WBT) hours in order to align with the harmonized standard of 7,200 hours of total training **(increase of 800 hours)**

Apprenticeship Pathway

Current Program	Hours
Technical Training Level 1 = 180 hours Level 2 = 180 hours Level 3 = 180 hours Level 4 = 180 hours	720
WBT Hours	5,680
Current Total Training Hours	**6,400**

Harmonized Program	Hours
Technical Training Level 1 = 240 hours Level 2 = 240 hours Level 3 = 240 hours	720
WBT Hours	6,480
Harmonized Total Training Hours	**7,200**

Challenge Pathway and Sign-off Authority

Current Program	Hours
WBT Hours	5,680
ITA Formula for Calculating Challenge WBT	X 1.5
Current Challenge WBT Hours	**8,520**

Harmonized Program	Hours
Harmonized WBT Hours	6,480
ITA Formula for Calculating Challenge WBT	X 1.5
Harmonized Challenge WBT Hours	**9,720**

NOTE: All TWs who have Technical Training left to complete from the current program will be transitioned to the Harmonized program and receive the difference of hours.

Exams

Exams for the Harmonized Program

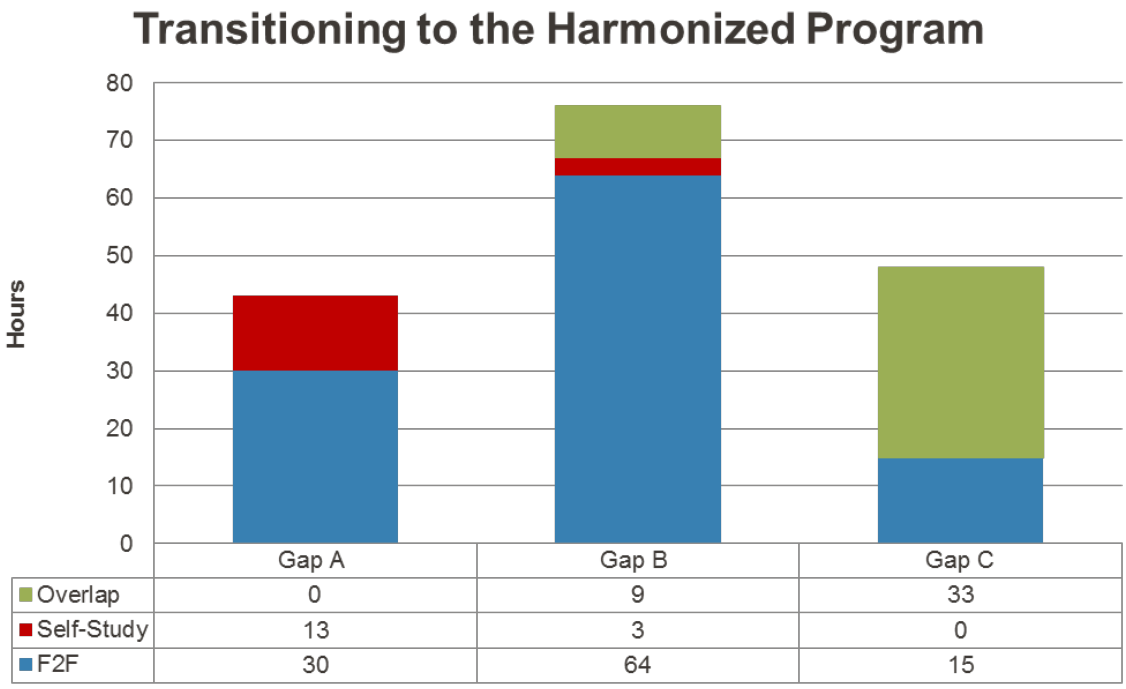
Because the harmonized Sprinkler Fitter program has three levels of technical training there will be a standardized level exam (SLE) for HL1 and HL2. Apprentices completing HL3 will take the IPSE as their final exam.

Exam	Exam Development	Exam Launch (tentative)
HL1	August 2018	Fall 2019
HL2	October 2018	Fall 2019

Each harmonized SLE will need to be piloted with the first cohort of apprentices that complete each harmonized level and then further validated by peer review. This means the respective harmonized SLEs will not launch until the at least the tentative launch schedule. For any harmonized classes that finish before the launch of the harmonized SLE, the final mark for the level will be based solely on in-class assessments. **An OPSN will be sent to announce the launch of each harmonized SLE.**

Appendix A: Gaps and Gap Details

The Gaps



	Gap A	Gap B	Gap C
Overlap	0	9	33
Self-Study	13	3	0
F2F	30	64	15

Gap A (CL1→HL2) applies to a student who has completed Current Level 1 or Foundation and is moving into Harmonized Level 2.

Gap B (CL2→HL3) applies to a student who has completed Current Levels 1 & 2 and is moving into Harmonized Level 3.

Gap C (CL3→HL3) applies to a student who has completed Current Levels 1, 2 & 3 and is moving into Harmonized Level 3 (as a 4th level).

Gap is an estimate of the hours of self-study and face-to-face instruction a student would need in order to complete the missing competencies if they transition to the harmonized program.

Overlap refers to the hours of content that a student who transitions to the harmonized program will be repeating.

GAP A: CL1→HL2

Gap (Missing Content)

This table lists the content that a student will be **missing** if they have completed Current Level 1 (CL1) and then take Harmonized Level 2 (HL2).

	Competency	Objectives/LT	Self-Study	F2F	Achievement Criteria
B1	Use Common Tools and Equipment	Use leveling equipment to establish elevations Determine groove compatibility	0	6	Y
C1	Use Mathematics and Science	Describe the fundamentals of electricity Describe electrical circuits Use laws and formulas (Ohm's Law) Describe single phase power characteristics Identify transformers	0	10	N
D6	Install Piping Components	Identify piping components Describe and select sprinklers	0	12	N
E1	Install Wet Pipe Systems	Describe wet pipe systems	0	2.25	N
E2	Install Dry Pipe Systems	Describe dry pipe systems	0	2.25	N
E3	Install Antifreeze Systems	Describe antifreeze systems	0	2.25	N
E4	Install Preaction/Deluge Systems	Describe preaction/deluge systems	0	2.25	N
F1	Use Communication Techniques	Describe effective communication practices	0	0	N
		Total Gap Hours	**0**	**37**	

Overlap (Repeated Content)

There is no significant overlap from CL1 to HL2

GAP B: CL2→HL3

Gap (Missing Content)

This table lists the content that a student will be **missing** if they have completed Current Level 2 (CL2) and then take Harmonized Level 3 (HL3).

	Competency	Objectives/LT	Self-Study	F2F	Achievement Criteria
B1	Use Common Tools and Equipment	Use leveling equipment to establish elevations	2	0	Y
E5	Install Standpipe Systems	Describe standpipe systems Describe standpipe system components Describe standpipe system design criteria Describe the installation of standpipe systems	0	15	N
F1	Use Communication Techniques	Describe effective communication practices	1	0	N
G1	Install Underground Water Supply	Describe underground piping and components Describe underground piping layout Describe hydrant application and installation Describe the installation of underground piping	0	12	N
G2	Install Fire Department Connections	Describe fire department connection components Describe the installation of fire department connections	0	3	N
G5	Install and Test Cross Connection Control Components	Describe cross connection controls Install cross connection control components Test cross connection control components	0	40	Y
			3	**64**	

Overlap (Repeated Content)

This table lists the content that a student will be **repeating** if they have completed Current Level 2 (CL2) and then take Harmonized Level 3 (HL3). Also applies to CL3→HL3.

	Competency	Objectives	Overlap Hours
H1	Install Detection Systems and Devices	Describe air sampling systems Describe installation of air sampling systems Describe electrical detection systems Describe the installation of electrical detection systems	4.5
H5	Install Spark Detection Systems	Describe spark detection systems Describe the installation of spark detection systems	4.5
		Total Overlap Hours	**9**

GAP C: CL3→HL3

Gap (Missing Content)

This table lists the content that a student will be **missing** if they have completed Current Level 3 (CL3) and then take Harmonized Level 3 (HL3).

	Competency	Objectives/LT	Self-Study	F2F	Achievement Criteria
E5	Install Standpipe Systems	Describe standpipe systems Describe standpipe system components Describe standpipe system design criteria Describe the installation of standpipe systems	0	15	N
			0	**15**	

Overlap (Repeated Content)

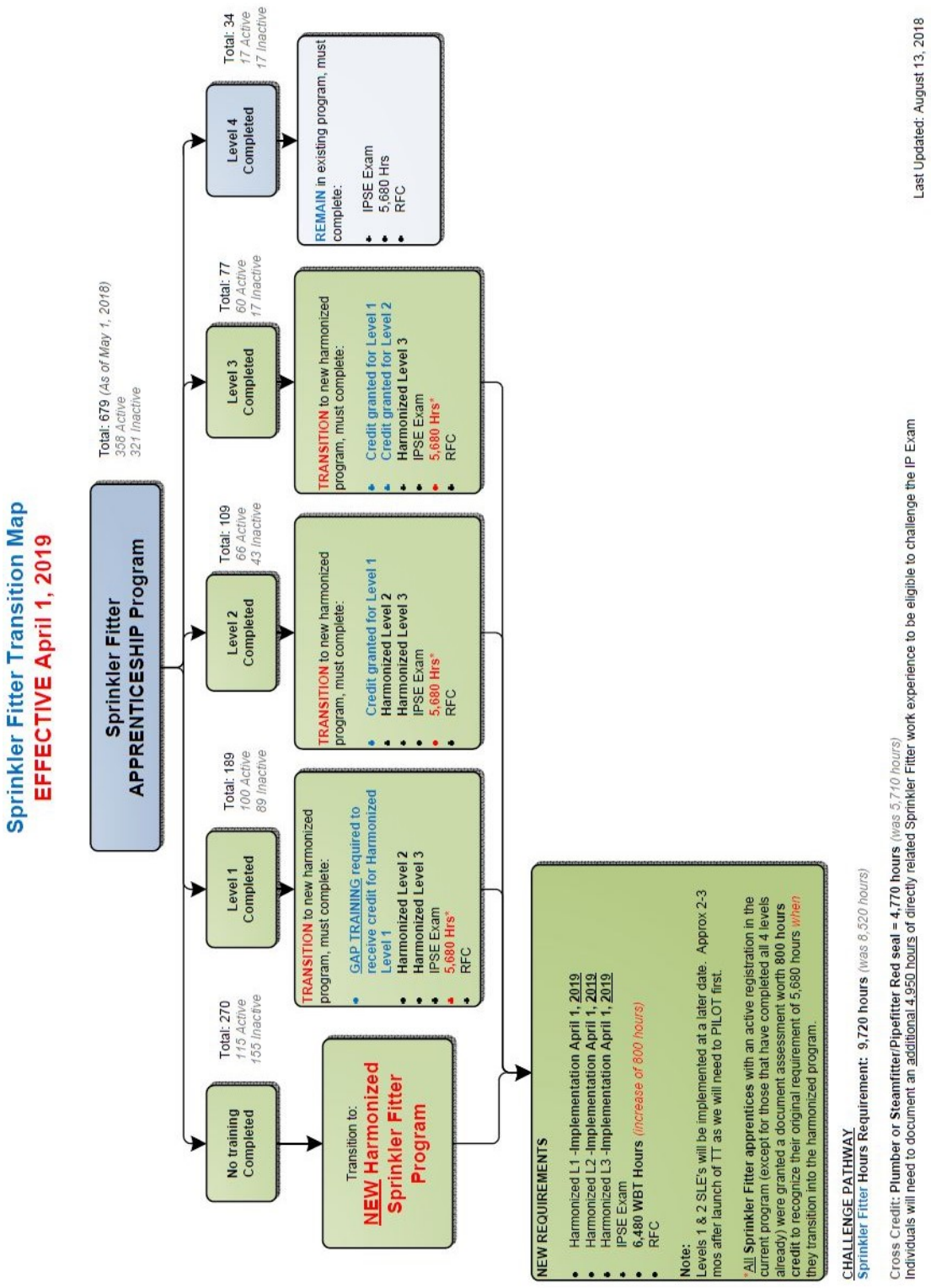
This table lists the content that a student will be **repeating** if they have completed Current Level 3 (CL3) and then take Harmonized Level 3 (HL3).

	Competency	Objectives/LT	Self-Study	F2F	Achievement Criteria
E6	Install Foam Systems	Describe foam systems Describe foam system components Describe foam system design criteria Describe the installation of foam systems	0	12	N
E7	Install Water Mist and Hybrid Systems	Describe water mist and hybrid systems Describe water mist and hybrid system components Describe water mist and hybrid system design criteria Describe the installation of water mist and hybrid systems	0	12	N
H3	Install Dry and Wet Chemical, Clean Agent and Carbon Dioxide Systems	Describe dry and wet chemical, clean agent and carbon dioxide systems and components Describe the installation of dry and wet chemical, clean agent and carbon dioxide systems	0	3.5	N
H4	Install Portable Fire Extinguishers	Describe the installation of portable fire extinguishers	0	2	N
H5	Install Spark Detection Systems	Describe spark detection systems Describe the installation of spark detection systems	0	3.5	N
			0	**33**	

Appendix B: Overall Communication Plan

Audience	Purpose	Mode
Training Providers	To announce the changes to training standards and the publication of a new Program Outline and Program Profile on the trade webpage on the ITA website	Official Program Standards Notification (OPSN) via email and posting on trade webpage
Training Providers	To plan for transitioning to the new program	Webinar(s), phone calls and/or face to face meetings
Training Providers	To announce the final transition plan	Program Update and Transition Plan via email and posting on trade webpage
Training Providers	To announce the launch of the harmonized level exams	OPSN via email and posting on trade webpage
Employers	To gather input on transition scenarios	Webinar(s), phone calls and/or face to face meetings
Employers	To inform on the upcoming changes to the program and the pathways to completion for their apprentices	Letters sent through ITA Direct Access (DA)
Employers	To inform on the upcoming changes to the program and the pathways to completion for their apprentices	Presentations at Program Advisory Committees (PAC) and other industry events
Apprentices	To inform on the upcoming changes to the program and their pathways to completion	Letters sent through ITA Direct Access (DA)
Apprentices	To inform on the upcoming changes to the program and their pathways to completion	Targeted outreach via phone and email
Apprentices	To inform on the upcoming changes to the program and their pathways to completion	Classroom visits by Apprenticeship Advisors

Appendix C: Transition Map



Appendix D: ITA Technical Training Result Report

ITA TECHNICAL TRAINING RESULT REPORT

ITA Customer Service
800 - 8100 Granville Ave
Richmond, BC V6Y 3T6
Tel: 778-328-8700
Toll Free: 1-866-660-6011
examrequest@itabc.ca

Please complete this form and **email it to ITA no later than 15 days after class end-date.** Missing information may delay the process. The completed form should be emailed to examrequest@itabc.ca

1 GENERAL INFORMATION

Training Provider Name	Training Provider Location	Instructor Email

Training Provider Session ID	Program and Level	Start Date (mm/dd/yyyy)	End date (mm/dd/yyyy)

***If Applicable, please indicate if student has completed Gap Training.**

2 TECHNICAL TRAINING RESULTS

	ITA Individual ID #	Legal Last Name	Legal First Name	Result (%)	*Completed Gap Training	ITA Use Only
1					☐	
2					☐	
3					☐	
4					☐	
5					☐	
6					☐	
7					☐	
8					☐	
9					☐	
10					☐	
11					☐	
12					☐	
13					☐	
14					☐	
15					☐	
16					☐	
17					☐	
18					☐	
19					☐	
20					☐	

3 SIGNATURE

Signature of authorized representative of the training provider	Date (mm/dd/yyyy)

The Industry Training Authority is an agency of the Government of British Columbia.
www.itabc.ca

April 2018

Please download the PDF of this form at
http://www.itabc.ca/sites/default/files/docs/apply/forms.