CUFCA ESSENTIAL LEARNINGS TASK LIST
FOR MD CC SPF

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Function A: Introduction to Spray Polyurethane Foam

A.1 What is Spray Polyurethane Foam?

Learning Objective	*Upon completion of this section, the individual shall be able to:*	*Skill or Knowledge or both*
	1. Provide a general description of medium density spray polyurethane foam	
	2. Explain the difference between the various density types	
	3. Describe the difference between open cell and closed cell	
	4. List the two main components in spray polyurethane foam	
	5. Record the basic ingredients included in the resin	
	6. Describe the impact each ingredient has on the manufacturer of the spray polyurethane foam to produce the final product	

A.2 History of Spray Polyurethane Foam

Learning Objective	*Upon completion of this section, the individual shall be able to:*	*Skill or Knowledge or both*
	1. Identify when spray polyurethane foam was first developed	
	2. Name the purported inventor of spray polyurethane foam	
	3. Provide two historical concerns with spray polyurethane foam applications	
	4. Explain the difference between SPF and UFFI	

A.3 Product Knowledge

Learning Objective	*Upon completion of this section, the individual shall be able to:*	*Skill or Knowledge or both*
	1. Explain the difference between a product that meets the standard and an unapproved product.	
	2. Provide the current blowing agent being used	
	3. Describe for a homeowner what medium density spray polyurethane foam is	

Function B: Codes, Standards & Product Knowledge

B.1 Building Code

Learning Objective	*Upon completion of this section, the individual shall be able to:*	*Skill or Knowledge or both*
	1. Identify the two standards in the national building code which references medium density spray polyurethane foam material in the building code.	
	2. Explain what a thermal barrier is.	
	3. Name which spray polyurethane foam type is referenced in the National Building Code	

	4. *Explain what an air barrier is*	
	5. *Explain what a vapour barrier is*	
	6. *Provide the difference between a vapour barrier and an air barrier*	

B.2 Material Standard (CAN/ULC S705.1)

Learning Objective	*Upon completion of this section, the individual shall be able to:*	*Skill or Knowledge or both*
	1. *Identify who is required to comply with the material standard*	
	2. *Give the reason why CAN/ULC S705.1 is unusual for a material standard*	
	3. *Identify the key physical properties of spray polyurethane foam*	
	4. *Provide one reason density is required as a physical property*	
	5. *Explain the difference between initial Thermal Resistance and Long Term Thermal Resistance*	
	6. *List the property which would indicate shrinkage of the material*	
	7. *Provide one requirement which is not required by any other thermal insulation standard*	
	8. *Show the difference between a CAN S102 test and a UL E 84 test*	

B.3 Installation Standard (CAN/ULC S705.2)

Learning Objective	*Upon completion of this section, the individual shall be able to:*	*Skill or Knowledge or both*
	1. *Identify the parties are required to comply with the installation standard*	
	2. *Provide a reason why this installation standard is critical to the final product*	
	3. *List the key areas covered by this installation standard*	
	4. *Give one reason why the qualifications of sprayers are included in this installation standard*	
	5. *Explain why health and safety issues which may be provincial or territorial regulations are included in this standard*	
	6. *List the factors which impact on the quality of the installed material*	

Function C: Health & Safety

C.1 Basic Understanding of the Liquid Chemicals

Learning Objective	*Upon completion of this section, the individual shall be able to:*	*Skill or Knowledge or both*
	1. *Provide the potential health issue with the resin component*	
	2. *Provide the potential health issue with the isocyanate component*	

C.2 WHMIS

Learning Objective	*Upon completion of this section, the individual shall be able to:*	*Skill or Knowledge or both*
	1. Explain what WHMIS stands for	
	2. Provide the basic principles of WHMIS	

C.3 Personal Protection

Learning Objective	*Upon completion of this section, the individual shall be able to:*	*Skill or Knowledge or both*
	1. Explain what is the key health and safety issue when spraying polyurethane foam	
	2. Describe the personal protection requirement for "Head" and explain why it is required	
	3. Describe the personal protection requirement for "Breathing" and explain why it is required	
	4. Describe the personal protection requirement for "Eyes" and explain why it is required	
	5. Describe the personal protection requirement for "Ears" and explain why it is required	
	6. Describe the personal protection requirement for "Body" and explain why it is required	
	7. Describe the personal protection requirement for "Hands" and explain why it is required	
	8. Describe the personal protection requirement for "feet" and explain why it is required	

C.4 Transportation of Dangerous Goods (TDG)

Learning Objective	*Upon completion of this section, the individual shall be able to:*	*Skill or Knowledge or both*
	1. Explain what is required to comply with TDG	

C.5 Confined Spaces

Learning Objective	*Upon completion of this section, the individual shall be able to:*	*Skill or Knowledge or both*
	1. Describe when the sprayer is required to comply with confined spaces requirements	
	2. Explain the basic requirements of confined spaces requirements for a sprayer	

C.6 Electrical Hazards

Learning Objective	*Upon completion of this section, the individual shall be able to:*	*Skill or Knowledge or both*
	1. Advise whether electrical wires can be encapsulated in spray polyurethane foam	
	2. Explain potential problems with electrical wiring and over spray	

Function D: Fire Protection

D.1 Fire Extinguishers

Learning Objective	*Upon completion of this section, the individual shall be able to:*	*Skill or Knowledge or both*
	1. Describe the type of fire extinguisher required for use on spray polyurethane foam	
	2. List the location(s) where a sprayer is required to have a fire extinguisher	

D.2 Warning Signs

Learning Objective	*Upon completion of this section, the individual shall be able to:*	*Skill or Knowledge or both*
	1. List the general types of warning signs that can be used	
	2. Determine where the warning signs shall be located	

D.3 Smoking

Learning Objective	*Upon completion of this section, the individual shall be able to:*	*Skill or Knowledge or both*
	1. Identify the health hazards to the sprayer when smoking in an area which has just been sprayed with polyurethane foam	
	2. Identify the smoking hazards to the work site	

D.4 Welding

Learning Objective	*Upon completion of this section, the individual shall be able to:*	*Skill or Knowledge or both*
	1. Explain why welding should not be done in the area being sprayed	
	2. List precautions to take when welding around spray-applied polyurethane foam	

D.5 Acetylene Torch Cutting

Learning Objective	*Upon completion of this section, the individual shall be able to:*	*Skill or Knowledge or both*
	1. List precautions to take with spray-applied polyurethane foam when cutting with an acetylene torch is unavoidable	

D.6 Metal Grinding

Learning Objective	*Upon completion of this section, the individual shall be able to:*	*Skill or Knowledge or both*
	1. Explain why metal grinding should not be done in the area being sprayed	
	2. List precautions to take when grinding metal around spray-applied polyurethane foam	

D.7 Open Flame

Learning Objective	*Upon completion of this section, the individual shall be able to:*	*Skill or Knowledge or both*
	1. Explain why an open flame should be avoided in the area being sprayed	

Function E: Site Isolation and Protection

E.1 Warning Signs

Learning Objective	*Upon completion of this section, the individual shall be able to:*	*Skill or Knowledge or both*
	1. Describe the wording requirements for this specific warning sign	
	2. List places where this warning sign should be placed	

E.2 Barriers

Learning Objective	*Upon completion of this section, the individual shall be able to:*	*Skill or Knowledge or both*
	1. List the types of barriers required to isolate an area	
	2. List places where a barrier needs to be installed	

E.3 Protection of Apprentice / Helper

Learning Objective	*Upon completion of this section, the individual shall be able to:*	*Skill or Knowledge or both*
	1. Describe what is required for the protection of the spray polyurethane foam apprentice / helper	
	2. Identify when this protection would not be required	

E.4 Protection of Others (Trades, Vehicles, Building Components, Owners, etc.)

Learning Objective	*Upon completion of this section, the individual shall be able to:*	*Skill or Knowledge or both*
	1. Explain why trades, vehicles, and building components need to be protected	
	2. Describe how trades can be protected	
	3. Describe how vehicles can be protected	
	4. Describe how building components can be protected	
	5. Describe how owners can be protected	

Function F: Environmental Conditions

F.1 Ambient Temperature

Learning Objective	*Upon completion of this section, the individual shall be able to:*	*Skill or Knowledge or both*
	1. Identify the acceptable ambient temperature range for spraying polyurethane foam	

F.2 Humidity

Learning Objective	*Upon completion of this section, the individual shall be able to:*	*Skill or Knowledge or both*
	1. Identify the acceptable humidity range for spraying polyurethane foam	

F.3 Wind

Learning Objective	*Upon completion of this section, the individual shall be able to:*	*Skill or Knowledge or both*
	1. Explain how wind conditions impact the spray application of polyurethane foam	

F.4 Substrate Temperature

Learning Objective	*Upon completion of this section, the individual shall be able to:*	*Skill or Knowledge or both*
	1. Identify the acceptable substrate temperature range for spraying polyurethane foam	

F.5 Substrate moisture

Learning Objective	*Upon completion of this section, the individual shall be able to:*	*Skill or Knowledge or both*
	1. Identify the acceptable moisture content of the substrate for spraying polyurethane foam	
	2. Describe what happens when spraying polyurethane foam where there is condensation or surface water on a substrate	

Function G: Material Selection

G.1 Factors Effecting Material Selection

Learning Objective	*Upon completion of this section, the individual shall be able to:*	*Skill or Knowledge or both*
	1. List the applications or environments where medium density spray polyurethane foam shall not be applied	

Function H: Installation Equipment

H.1 Material Component Heating

Learning Objective	*Upon completion of this section, the individual shall be able to:*	*Skill or Knowledge or both*
	1. Describe the proper way to heat material component in containers	

H.2 Transfer Pumps

Learning Objective	*Upon completion of this section, the individual shall be able to:*	*Skill or Knowledge or both*
	1. Explain the purpose of transfer pumps	
	2. List the types of transfer pumps available	

H.3 Proportioner

Learning Objective	*Upon completion of this section, the individual shall be able to:*	*Skill or Knowledge or both*
	1. Explain the main functions of the proportioner	
	2. List the main parts of a proportioner	
	3. Provide the two main functions for a proportioner	

H.4 Hoses

Learning Objective	*Upon completion of this section, the individual shall be able to:*	*Skill or Knowledge or both*
	1. Describe the function the hose provides	
	2. List typical and maximum length	
	3. Explain the purpose of a whip	

H.5 Hose Heaters

Learning Objective	*Upon completion of this section, the individual shall be able to:*	*Skill or Knowledge or both*
	1. Describe the function the hose heater provides	
	2. Provide a description of how a hose heater works	
	3. List a limitation of a hose heater	

H.6 Spray Guns

Learning Objective	*Upon completion of this section, the individual shall be able to:*	*Skill or Knowledge or both*
	1. Describe the function of a spray gun	
	2. List the typical parts of a spray gun	
	3. Explain a crossover	
	4. Disassemble and re-assemble a spray gun	
	5. Unblock a spray gun	

H.7 Compressor

Learning Objective	*Upon completion of this section, the individual shall be able to:*	*Skill or Knowledge or both*
	1. Describe the function of a compressor	
	2. List the typical equipment driven by a compressor	
	3. Explain why a dryer is installed on a air line	
	4. Provide a reason why oil must not be added to the compressed air that goes to the spray gun	

H.8 Generators

Learning Objective	*Upon completion of this section, the individual shall be able to:*	*Skill or Knowledge or both*
	1. Describe the function of a generator	
	2. List a alternative power source that can be used	

H.9 Fresh Air Pump

Learning Objective	*Upon completion of this section, the individual shall be able to:*	*Skill or Knowledge or both*
	1. Describe the function of a fresh air pump	
	2. Describe where the intake for a fresh air pump is to be located	
	3. Explain why location of the fresh air intake is important	
	4. Provide the conditions where fresh air may be supplied by the compressor	

H.10 Maintenance

Learning Objective	*Upon completion of this section, the individual shall be able to:*	*Skill or Knowledge or both*
	1. Describe why proper maintenance is important	
	2. List the key maintenance issue for each piece of equipment	

Function I: Start Up Procedure

I.1 Check Equipment

Learning Objective	*Upon completion of this section, the individual shall be able to:*	*Skill or Knowledge or both*
	1. Provide the acceptable pressure range for the material being used	
	2. List the temperature range for spraying the material	
	3. Explain key equipment conditions that are to checked on every start-up	

I.2 Check Material Supply

Learning Objective	*Upon completion of this section, the individual shall be able to:*	*Skill or Knowledge or both*
	1. Explain what to look for on the material containers to confirm the material	
	2. Provide a quick calculation of coverage based on the amount of material on hand	
	3. List conditions to look for to indicate material is acceptable for use	

I.3 Test Pattern

Learning Objective	*Upon completion of this section, the individual shall be able to:*	*Skill or Knowledge or both*
	1. Explain why you would spray a test pattern before	

	commencing the spray application	
	2. Describe a proper spray pattern	
	3. Provide a reason for a solid steady stream	
	4. Provide a reason for a "doughnut" shaped spray pattern	
	5. List steps taken to correct a improper spray pattern	

I.4 Checklist

Learning Objective	*Upon completion of this section, the individual shall be able to:*	*Skill or Knowledge or both*
	1. Explain the purpose of a checklist	
	2. Provide a reason for each requirement of a checklist	

I.5 Work Order / Job Requirements

Learning Objective	*Upon completion of this section, the individual shall be able to:*	*Skill or Knowledge or both*
	1. List various means for providing a sprayer the project requirements	
	2. Provide four key pieces of information required on every project	

I.6 Manufacturer Instructions

Learning Objective	*Upon completion of this section, the individual shall be able to:*	*Skill or Knowledge or both*
	1. Explain where manufacturer's instructions can be obtained	
	2. Provide examples of when the manufacturer's instruction would override the project requirements	

Function J: Substrate Preparation

J.1 Types

Learning Objective	*Upon completion of this section, the individual shall be able to:*	*Skill or Knowledge or both*
	1. List the various types of substrate acceptable	
	2. Provide the preparation requirements for bare steel	
	3. Give requirements for preparing aluminum	
	4. List what conditions you would verify before spraying on wood or wood products	
	5. Describe the proper preparation of galvanized steel	
	6. Explain why you would not spray polyurethane foam over a loose fill or fibrous material	
	7. List the one substrate spray polyurethane foam will not stick to	

J.2 General Conditions

Learning Objective	*Upon completion of this section, the individual shall be able to:*	*Skill or Knowledge or both*
	1. List the three general requirements for any substrate	
	2. Provide the continuous service temperature limitations of any	

	substrate	
	3. Explain why liquid water or a substrate with high moisture content is not an acceptable substrate	

J.3 Cleaning

Learning Objective	*Upon completion of this section, the individual shall be able to:*	*Skill or Knowledge or both*
	1. Explain why the substrate needs to be clean	
	2. Describe what happen to the spray polyurethane foam when the substrate is not clean	
	3. Provide the cleaning method for galvanized aluminum	
	4. Provide the cleaning method for rusty steel	
	5. Provide a method for checking whether the substrate is properly cleaned	

J.4 Priming

Learning Objective	*Upon completion of this section, the individual shall be able to:*	*Skill or Knowledge or both*
	1. Explain when priming is required	
	2. Describe where you could obtain information on proper primers to use	
	3. Describe a test to check whether priming is required on a substrate	

J.5 Masking and Covering

Learning Objective	*Upon completion of this section, the individual shall be able to:*	*Skill or Knowledge or both*
	1. Explain why a sprayer would be required to protect objects or surfaces in the spray area	
	2. Provide examples of when covering and masking is required	
	3. Explain how spray polyurethane may be removed from a surface	

Function K: Installation Methodology

K.1 Distance

Learning Objective	*Upon completion of this section, the individual shall be able to:*	*Skill or Knowledge or both*
	1. List the acceptable range in distance between the spray gun and the substrate	
	2. Explain what happens to the foam and the foam surface when spraying too close to the substrate	
	3. Explain what happens to the foam and the foam surface when spraying too far away from the substrate	

K.2 Angle of Spray

Learning Objective	*Upon completion of this section, the individual shall be able to:*	*Skill or Knowledge or both*
	1. Provide the appropriate angle of spray application	
	2. Explain the impact on the foam cells when spraying at a incorrect angle	
	3. Explain what shadowing is when spraying brick ties or other protrusions	

K.3 Cross Hatching

Learning Objective	*Upon completion of this section, the individual shall be able to:*	*Skill or Knowledge or both*
	1. Explain cross-hatching	
	2. Provide the reason for a cross-hatch installation procedure	
	3. Provide an alternative spray application process other than cross-hatching	

K.4 Thickness

Learning Objective	*Upon completion of this section, the individual shall be able to:*	*Skill or Knowledge or both*
	1. Provide the minimum and maximum thickness range per pass	
	2. Explain why there is a minimum thickness	
	3. Provide a reason for a maximum thickness	
	4. List the maximum installation thickness in a given day	
	5. Explain why the sprayer should not apply spray polyurethane foam too thick	
	6. Explain what happens when spray polyurethane foam is applied too quickly between two 50 millimetre passes	
	7. Give the industry tolerance for final foam thickness	
	8. Conduct a proper thickness measurement	
	9. Explain the corrective action required when the spray polyurethane foam is too thick	
	10. Explain the corrective action required when the spray polyurethane foam is too thin	

K.5 Surface Texture

Learning Objective	*Upon completion of this section, the individual shall be able to:*	*Skill or Knowledge or both*
	1. Choose an acceptable surface finish	
	2. Explain how to correct a improper surface texture	
	3. Provide a reason for a proper surface texture	

K.6 Coverage

Learning Objective	*Upon completion of this section, the individual shall be able to:*	
	1. Explain the basic concept of coverage	
	2. Provide the minimum core density requirement for medium density	

	spray polyurethane foam	
	3. With a given thickness, calculate the coverage of a set of spray polyurethane foam	
	4. Explain the impact the density has on amount of material used for an application	
	5. Provide other factors that will affect coverage	
	6. Explain how to calculate coverage	

K.7 Hot / Cold Weather Installation

Learning Objective	*Upon completion of this section, the individual shall be able to:*	*Skill or Knowledge or both*
	1. Describe two sub-types of a spray polyurethane foam material	
	2. Explain how heat / cold affects installation	
	3. Provide the impact of a hot / cold substrate	
	4. Explain the difference between ambient air temperature and substrate temperature in sun / shade	

K.8 High Wind Installation Requirements

Learning Objective	*Upon completion of this section, the individual shall be able to:*	*Skill or Knowledge or both*
	1. Provide the wind speed limit for spraying polyurethane foam	
	2. Explain the process to be used when wind speeds exceed the upper limit	

Function L: Thermal Barrier Requirements

L.1 Building Code Requirements

Learning Objective	*Upon completion of this section, the individual shall be able to:*	*Skill or Knowledge or both*
	1. Provide the requirements for the protection of foamed plastics listed in the National Building Code	
	2. Explain the basic reason for thermal barriers	
	3. Describe the difference between a thermal barrier and a ignition barrier	

L.2 Contractor's Responsibility

Learning Objective	*Upon completion of this section, the individual shall be able to:*	*Skill or Knowledge or both*
	1. Identify what the spray polyurethane foam contractor is required to provide to the building owner	

L.3 Sprayer's Awareness

Learning Objective	*Upon completion of this section, the individual shall be able to:*	*Skill or Knowledge or both*
	1. Explain what the sprayer needs to be aware of regarding thermal barriers	

Function M: Troubleshooting

M.1 Blisters

Learning Objective	*Upon completion of this section, the individual shall be able to:*	*Skill or Knowledge or both*
	1. Explain why blisters develop	
	2. Provide the repair procedure for blisters	

M.2 Resin Rich

Learning Objective	*Upon completion of this section, the individual shall be able to:*	*Skill or Knowledge or both*
	1. Explain how the spray polyurethane foam can become resin rich	
	2. Explain how to correct the resin rich problem	
	3. Provide the repair procedure for resin rich spray polyurethane foam	

M.3 ISO Rich

Learning Objective	*Upon completion of this section, the individual shall be able to:*	*Skill or Knowledge or both*
	1. Explain how the spray polyurethane foam can become ISO rich	
	2. Explain how to correct the ISO rich problem	
	3. Provide the repair procedure for ISO rich spray polyurethane foam	

M.4 Stress Cracking

Learning Objective	*Upon completion of this section, the individual shall be able to:*	*Skill or Knowledge or both*
	1. Provide reasons for stress cracking	
	2. Explain how to correct for stress cracking	
	3. Provide the repair procedure for stress cracking	
	4. Explain why stress cracking can occur at a later date	

M.5 Scorching

Learning Objective	*Upon completion of this section, the individual shall be able to:*	*Skill or Knowledge or both*
	1. Provide reasons for scorching	
	2. Explain how to correct for scorching	
	3. Provide the repair procedure for scorching	

M.6 Friability

Learning Objective	*Upon completion of this section, the individual shall be able to:*	*Skill or Knowledge or both*
	1. Provide reasons for friability	
	2. Explain how to correct for friability	

	3. *Provide the repair procedure for friability*	

M.7 Tackiness

Learning Objective	*Upon completion of this section, the individual shall be able to:*	*Skill or Knowledge or both*
	1. *Provide reasons for tackiness*	
	2. *Explain how to correct for tackiness*	
	3. *Provide the repair procedure for tackiness*	

M.8 Shrinkage

Learning Objective	*Upon completion of this section, the individual shall be able to:*	*Skill or Knowledge or both*
	1. *Provide reasons for shrinkage*	
	2. *Explain how to correct for shrinkage*	
	3. *Provide the repair procedure for shrinkage*	
	4. *Explain the difference between reversion and shrinkage*	

M.9 Speed of Reaction

Learning Objective	*Upon completion of this section, the individual shall be able to:*	*Skill or Knowledge or both*
	1. *Explain how the speed of reaction can be used to determine the quality of the spray polyurethane foam system*	
	2. *Provide a reason for the reaction to slow down*	
	3. *Provide a reason for the reaction to speed up*	

M.10 Improper adhesion

Learning Objective	*Upon completion of this section, the individual shall be able to:*	*Skill or Knowledge or both*
	1. *Provide reasons for improper adhesion*	
	2. *Explain how to correct for improper adhesion*	
	3. *Provide the repair procedure for improper adhesion*	

M.11 Improper Cohesion

Learning Objective	*Upon completion of this section, the individual shall be able to:*	*Skill or Knowledge or both*
	1. *Provide reasons for improper co-adhesion*	
	2. *Explain how to correct for improper co-adhesion*	
	3. *Provide the repair procedure for improper co-adhesion*	

Function N: Quality Control

N.1 Site Testing

Learning Objective	*Upon completion of this section, the individual shall be able to:*	*Skill or Knowledge or both*
	1. *Describe how to conduct a visual inspection*	

	2. List what would be included in a visual inspection report	
	3. Conduct a core density test	
	4. Explain what the core density results mean	
	5. Conduct a adhesion ⁄cohesion test	
	6. Explain what is an acceptable and what is a failed adhesion ⁄ cohesion test	
	7. Conduct a substrate and ambient temperature measurement	

N.2 Documentation

Learning Objective	*Upon completion of this section, the individual shall be able to:*	*Skill or Knowledge or both*
	1. Explain why each of the items are required on a start-up checklist	
	2. Complete a Daily Quality Control Work Record sheet	
	3. Complete a Job Site Declaration Form and a Job Site Label	
	4. Explain who the Job Site Declaration Form is sent to	
	5. List typical places a Job Site Label can be attached	
	6. Prove a reason for the Job Site Declaration Form and a Job Site Label	

Function O: Storage & Handling

O.1 Proper Storage of Liquid Chemicals

Learning Objective	*Upon completion of this section, the individual shall be able to:*	*Skill or Knowledge or both*
	1. Explain how containers should be stored on a job site	
	2. Provide a reason for tarping containers or storing them on their side	
	3. Give the temperature range for storing the liquid components	
	4. Explain what should be done to the bungs of empty containers	

O.2 Handling of Liquid Chemicals

Learning Objective	*Upon completion of this section, the individual shall be able to:*	*Skill or Knowledge or both*
	1. Explain the precautions that shall be taken when handling the liquid components	

O.3 Water Seepage into Containers

Learning Objective	*Upon completion of this section, the individual shall be able to:*	*Skill or Knowledge or both*
	1. Explain what happens when water seems into a container	
	2. Provide a reason why empty containers can be more dangerous that full containers	
	3. List potential problems of allowing water into the containers	

Function P: Isolation & Ventilation

P.1 Isolation Requirements

Learning Objective	*Upon completion of this section, the individual shall be able to:*	*Skill or Knowledge or both*
	1. Explain why isolation is required in occupied buildings	
	2. Provide a procedure for isolating	

P.2 During Installation and Post Installation Ventilation Requirements

Learning Objective	*Upon completion of this section, the individual shall be able to:*	*Skill or Knowledge or both*
	1. Explain why ventilation is required in occupied buildings	
	2. List when ventilation is required	
	3. Obtain the time period for isolation and ventilation	

Function Q: Empty Container Handling

Q.1 ISO Containers

Learning Objective	*Upon completion of this section, the individual shall be able to:*	*Skill or Knowledge or both*
	1. Provide the procedure for handling empty ISO containers	

Q.2 Resin Containers

Learning Objective	*Upon completion of this section, the individual shall be able to:*	*Skill or Knowledge or both*
	1. Provide the procedure for handling empty resin containers	

Function R: Spill Handling

R.1 Spill Containment

Learning Objective	*Upon completion of this section, the individual shall be able to:*	*Skill or Knowledge or both*
	1. Provide the procedure for containing sills of ISO or resin	

R.2 Spill Clean Up

Learning Objective	*Upon completion of this section, the individual shall be able to:*	*Skill or Knowledge or both*
	1. Provide the procedure for cleaning up spills of ISO or resin	

R.3 Decontamination

Learning Objective	*Upon completion of this section, the individual shall be able to:*	*Skill or Knowledge or both*
	1. List the ingredients in decontamination solution for ISO drums	
	2. List the ingredients in decontamination solution for resin drums	

	3. Provide the procedure for the decontamination of empty drums	

R.4 Disposal

Learning Objective	*Upon completion of this section, the individual shall be able to:*	*Skill or Knowledge or both*
	1. Provide the procedure for disposing of decontaminated containers	

R.5 Reporting

Learning Objective	*Upon completion of this section, the individual shall be able to:*	*Skill or Knowledge or both*
	1. Explain when sills are required to be reported	

Function S: Housekeeping

S.1 Removing Excess Foam

Learning Objective	*Upon completion of this section, the individual shall be able to:*	*Skill or Knowledge or both*
	1. Explain the procedure for removing excess foam	

S.2 Clean Up

Learning Objective	*Upon completion of this section, the individual shall be able to:*	*Skill or Knowledge or both*
	1. Provide a reason for keeping spray polyurethane foam waste cleaned up on the project site	

S.3 Site Waste

Learning Objective	*Upon completion of this section, the individual shall be able to:*	*Skill or Knowledge or both*
	1. Provide the procedure handling site waste	

S.4 Buns of Foam

Learning Objective	*Upon completion of this section, the individual shall be able to:*	*Skill or Knowledge or both*
	1. Provide the procedure for handling buns of foam	
	2. Explain why buns of foam need to be dealt with	

S.5 Disposal

Learning Objective	*Upon completion of this section, the individual shall be able to:*	*Skill or Knowledge or both*
	1. Provide the procedure for disposal of spray polyurethane foam	