Appendix 6: Hands-on Exercises

The following exercises can be used in place of the hands-on exercises or as supplemental activities. Exercise worksheets and answers are provided.

- Skill Set #1: Using EPA-Recognized Test Kits and Paint Chip Sample Collection Procedure
- Skill Set #2: Setting up Barriers, Signs, and Flapped Entry Doors
- Skill Set #3: Cover or Remove Furniture
- Skill Set #4: Establish Interior Containment
- Skill Set #5: Establish Exterior Containment
- Skill Set #6: Personal Protective Equipment
- Skill Set #7: Interior Final Cleaning
- Skill Set #8: Exterior Final Cleaning
- Skill Set #9: Bagging Waste
- Skill Set #10: Visual Inspection
- Skill Set #11: Cleaning Verification Procedure

Recommended Supplies for Hands-on Activities

Test Kits Supplies List

- Disposable plastic drop cloth 2' by 2'
- Disposable shoe covers
- Disposable wet cleaning wipes
- Disposable, non-latex gloves
- HEPA vacuum with attachments (for cleanup after sampling)
- EPA-recognized test kit(s) w/ manufacturer's instructions
- Heavy duty garbage bags
- Kit-specific supplies as required in the manufacturer's instructions
- Manufacturer provided test verification card with lead-based paint layer
- Painted wood surface with no lead-based paint layer
- Participant Progress Log
- Pen or pencil
- Tape (duct, painters, and masking)
- Test Kit Documentation Form
- Digital camera (Optional)
- Numbered index cards (Optional)

Recommended Supplies for Hands-on Activities - Continued

Paint Chip Sample Collection Supplies List

- Resealable Rigid Walled Container, for use as paint collection containers, e.g. screw-top plastic
- · centrifuge tube
- Steel or Plastic Measuring Ruler-Metric Only
- Cloths
- White Paper
- Indelible Marking Pen
- Personal Safety Gear
- Cutting and Scraping Tools
- Flashlight
- Trash bags
- Plastic Gloves
- Paint Chip Sample Collection Form
- Painted wood surface

Setup Supplies List

- Barrier tape
- Broom handle, or dowels, or 1" x 1" x 30" wood or metal stock
- Cutting tool (e.g., razor knife, box cutter or scissors)
- Disposable tack pad
- Doorway to use for work area entry setup
- Fencing stakes
- Heavy duty plastic sheeting
- Magnetic covers
- Orange cones
- Rope and/or barrier tape (bright color preferable)
- Stapler and Staples
- Tape (duct, painters, and masking)
- Tape measure
- Warning signs
- Pre-engineered containment systems (Optional for Skill Set 2)

Personal Protective Equipment (PPE) Supplies List

- Disposable coveralls
- Disposable non-latex gloves
- Disposable foot covers
- Eye protection
- Leather or canvas work gloves
- N-100 respirators
- Disposable waste bags
- Duct tape
- Hand washing facilities and hand soap

Recommended Supplies for Hands-on Activities - Continued

Cleanup Supplies List

- Baby powder or corn starch
- Cleaning verification card, one per student to take away and retain
- Cutting tool (e.g., razor knife, box cutter or scissors)
- Disposable foot covers
- Disposable non-latex gloves
- Disposable wet cleaning wipes
- Electrostatically charged, white, disposable cleaning cloths designed for cleaning hard surfaces
- Flashlight
- Garden sprayer
- Heavy duty plastic bags
- Heavy duty plastic sheeting
- HEPA vacuum with attachments and a powered beater bar
- Long-handled mop designed for wet cleaning wipes
- Tape (duct, painters, and masking)
- Tape measure
- Two-sided mop bucket with wringer (or equivalent), disposable mop heads, long handled mop to which disposable cleaning cloths can be attached; or, a wet mopping system.
- Watch or clock

Participant Progress Log

	Module 3 (15 Min)		Module (45 Mir	4		Module 5 (10 Min)	Module 6 (50 Min)				
Name of Trainee	Skill Set 1: Using EPA-Recognized Test Kits and Paint Chip Sample Collection Procedure	Skill Set 2: Setting up Barriers, Signs, and Flapped Entry Doors	Skill Set 3: Cover or Remove Furniture	Skill Set 4: Establish Interior Containment	Skill Set 5: Establish Exterior Containment	Skill Set 6: Personal Protective Equipment	Skill Set 7: Interior Final Cleaning	Skill Set 8: Exterior Final Cleaning	Skill Set 9: Bagging Waste	Skill Set 10: Visual Inspection	Skill Set 11: Cleaning Verification Procedure

Date of Training:	Certified Renovator Name:

Participant Progress Log

	Module 3 (15 Min)		Module (45 Mir	4		Module 5 (10 Min)	Module 6 (50 Min)				
Name of Trainee	Skill Set 1: Using EPA-Recognized Test Kits and Paint Chip Sample Collection Procedure	Skill Set 2: Setting up Barriers, Signs, and Flapped Entry Doors	Skill Set 3: Cover or Remove Furniture	Skill Set 4: Establish Interior Containment	Skill Set 5: Establish Exterior Containment	Skill Set 6: Personal Protective Equipment	Skill Set 7: Interior Final Cleaning	Skill Set 8: Exterior Final Cleaning	Skill Set 9: Bagging Waste	Skill Set 10: Visual Inspection	Skill Set 11: Cleaning Verification Procedure

Date of Training:	Certified Renovator Name:
•	

Certified Renovator Training Hands-On Skills Assessment Date: _____ City & State _____ Student Name: _____ Student Signature: _____ Skill Student has demonstrated proficiency at the following skills Skill Trainer's Description consistent with the requirements of the EPA RRP Rule. Initials Set Using test kits and collecting paint chip samples for #1 Using EPA Recognized laboratory lead analysis to properly test for lead-based paint Test Kits and and document results. Paint Chip Sample Collection Procedure #2 Placing critical barriers and posting signs to isolate work area Setting up Barriers, from access by unauthorized individuals. Signs, and Flapped Entry Doors #3 Cover or Identifying the proper steps in determining when and how to Remove cover or remove furniture and belongings from the work area. Furniture Using the proper steps to cover floors and close and seal #4 Establish Interior doors and windows in the work area. Containment #5 Taking proper steps to restrict entry to the exterior work area Establish Exterior and to protect the ground under and around the work area from becoming contaminated. Containment Using dust reduction techniques while performing common Personal #6 Protective renovation, repair, and painting work activities. Equipment #7 Interior Final Cleaning the interior work area after the completion of work and prior to the visual inspection and cleaning verification Cleaning procedure or dust clearance examination. Cleaning the exterior work area after the completion of the #8 **Exterior Final** Cleaning work and prior to visual inspection and (if required) cleaning verification or dust clearance examination. #9 Bagging Taking steps to bag and gooseneck waste, wrap large pieces Waste of debris, and to carry them out of the work area. #10 Visual Conducting a visual inspection of the work area prior to the Inspection cleaning verification procedure.

I am the trainer for the Certified Renovator course offered on the date and location described above. I verify that the student has demonstrated the skills as described above.

Conducting cleaning verification procedure.

Trainer Name: _	Trainer Signature: _	
Trainer Phone:	Organization:	Date:

Cleaning

Verification Procedure

#11

Skill Set #1: Using EPA-Recognized Test Kits and Collecting Paint Chip Samples for Laboratory Lead Analysis

<u>Time</u>: **25 minutes** October 2011

Test Kit Supplies needed:

- EPA-recognized test kit(s) w/ manufacturer's instructions
- Kit-specific supplies as required in the manufacturer's instructions
- Disposable plastic drop cloth 2' by 2'
- Tape (duct, painters, and masking)
- Disposable, non-latex gloves
- Disposable shoe covers
- Manufacturer provided test verification card with lead-based paint layer
- Disposable wet cleaning wipes
- Heavy duty garbage bags
- Painted wood surface with no lead-based paint layer
- Test Kit Documentation Form
- Participant Progress Log
- Pen or pencil
- Digital camera (Optional)
- Numbered index cards (Optional)
- EPA vacuum with attachments (for cleanup after sampling)

Paint Chip Sample Collection Supplies needed:

- Resealable Rigid Walled Container, for use as paint collection containers, e.g. screw-top plastic centrifuge tube
- Steel or Plastic Measuring Ruler-Metric Only
- Cloths
- White Paper
- Indelible Marking Pen
- Personal Safety Gear
- Cutting and Scraping Tools
- Flashlight
- Plastic gloves
- Painted wood surface
- Trash bags
- Paint Chip Sample Collection Form

Note to Instructor: It is strongly suggested that instructors prepare plastic bags containing all materials needed for the hands-on exercises, prior to the exercise, in order to meet the time limits allocated to Skill Set #1.

<u>Purpose:</u> The purpose of this hands-on exercise is to teach students how to correctly use EPA-recognized test kits to determine if lead-based paint is present on components and surfaces affected by renovation work. In addition, students will learn an alternative method for determining the presence of lead-based paint by collecting paint chip samples that are submitted to a NLLAP-recognized laboratory for analysis.

<u>Note to Instructor:</u> Read the purpose of this activity to students and remind them to document all areas where the paint color or substrate reactions may cause an incorrect result. These surfaces should not be tested with a test kit, but should either be tested by Certified Inspectors or Certified Risk Assessors; or must be assumed to contain lead-based paint.

<u>Demonstration</u>: The course instructor must show and explain all of the steps involved in the use of EPA-recognized test kits as well as the collection of paint chip samples for lead analysis. The demonstration should not take longer than 5 minutes for each method including the time needed to hand out materials.

Evaluating the Students: Allow students to practice the required steps on the following pages. Watch each student follow the steps. Make corrections and suggestions as the exercise proceeds and determine if additional practice is necessary. This should take no longer than 10 minutes. Students must complete all required steps to be "Proficient". Evaluate the work of each student and once the student can use a test kit and sample paint chips correctly, the instructor should write the word "Proficient" in the field on the Participant Progress Log that corresponds to Skills Set #1 and that particular student's name.

Skill Set #1: Using EPA-Recognized Test Kits and Collecting Paint Chip Samples - Continued

Skills Practice:

Test Kit Procedure

- Step 1: Read the manufacturer's instructions
- Step 2: Write required information and observations about the test location on the *Test Kit Documentation Form.**
- Step 3: (Optional) Secure a small disposable plastic drop cloth (2ft x 2 ft) on the floor beneath the test location with masking tape.
- Step 4: Put on disposable non-latex gloves and shoe covers.
- Step 5: Follow the manufacturer's instructions for use of the test kit to conduct the test.* If possible, perform one test where a positive test result can be observed; and conduct one test of a painted wood surface with no lead-based paint layer to observe a negative test result.*
- Step 6: Use one wet cleaning wipe to remove residual chemicals left on the surface tested. Use a second cleaning wipe to remove any visible debris or dust on the floor beneath the sample collection area and place the used cleaning wipe in the trash bag.*
- Step 7: Check documentation for completeness and note the result of the testing on the *Test Kit Documentation Form*.*
- Step 8: (Optional) Number the test location in sequence on the *Test Kit Documentation Form*, then select the corresponding numbered index card and tape it next to the test location with masking tape and take a picture of the numbered test location to photo-document conduct and possibly the result of the test.

*Indicates required skills that must be accomplished for a "Proficient" rating.

Interpreting the Results of Test Kit Sampling:

The manufacturer's instructions will indicate how to determine the absence of lead in paint. Once the test is conducted, note the result and refer to the manufacturer's guidelines for interpreting the result. All painted surfaces where lead is not determined to be absent must be treated as lead-based paint until additional testing performed by a Certified Lead Inspector or Risk Assessor proves it is not.

Documenting Test Kit Results:

A report of the findings from use of the test kit must be submitted to the person contracting the work within 30 days following the completion of the renovation work. The completed *Test Kit Documentation Form* should be kept by the Certified Firm for 3 years after the work is completed.

Test Kit Documentation Form

Page 1 of ___

Name of Owner/Occup Address:	ant:		
City:	State:	Zip code:	Contact #: ()

Renovation Information

Fill out all of the follow Certified Renovator.	ing inform	ation that is availab	le about the Renovation Site, Firm, and	
Renovation Address: City:			Unit#	
Certified Firm Name: Address:				_
City:Email:	_ State:	Zip code:	Contact #: ()	
Certified Renovator Nan			Date Certified: / /	

Test Kit Information

Use the following blanks to identify the test kit or	test kits u	used in testing components.
Test Kit #1		
Manufacturer:		Manufacture Date:
/		
Model:	_ Serial #:	
Expiration Date:		
Test Kit #2		
Manufacturer:		Manufacture Date:
/		
Model:	_ Serial #:	
Expiration Date:		
Test Kit #3		
Manufacturer:		Manufacture Date:
/		
Model:	_ Serial #:	
Expiration Date:		
•		

Test Kit Documentation Form

Page __ of___

Renovation Address:	Ctoto	7in anda.		Un	it#
City:	State	_ Zip code			
Test Location # Description of compone				Test Kit # 2	Test Kit # 3
Result: Is lead present Date of test:/		ne) YES	NO	Presumed	
Test Location # Description of compone					Test Kit # 3
Result: Is lead present Date of test:/_	•	ne) YES	NO	Presumed	
Test Location # Description of compone					Test Kit # 3
Result: Is lead present Date of test:/_		ne) YES	NO	Presumed	
Test Location # Description of compone				Test Kit # 2	Test Kit # 3
Result: Is lead present Date of test:/_		ne) YES	NO	Presumed	
Test Location # Description of compone		` ,	Test Kit # 1	Test Kit # 2	Test Kit # 3
Result: Is lead present Date of test:/_		ne) YES	NO	Presumed	
Test Location # Description of compone				Test Kit # 2	Test Kit # 3
Result: Is lead present Date of test:/_		ne) YES	NO	Presumed	

Skill Set #1: Using EPA-Recognized Test Kits and Collecting Paint Chip Samples - Continued

Skills Practice:

Paint Chip Collection Procedure

- Step 1: Read Paint Chip Sample Collection Guide (see Appendix 9) Step 2: Write required information and observations about the test location on the *Paint Chip Sample Collection Form.*
- Step 3: Mark the Collection Area either using a template or freehand.
- Step 4: Set up a paint collection tray using a sheet of letter-sized white paper for making a paper funnel for paint sample collection.
- Step 5: Remove the paint using a cold scraping method (see step 5-1 below). Don plastic gloves as appropriate
- Step 5-1: Cold Scraping Method. Using the appropriate cutting tool, begin removing the paint from the substrate. Carefully scrape away all paint within the marked area down to the substrate and ensure that all the scraped paint lands in or is pushed into the paint collection tray
- Step 6: Cleaning all cutting tools used during paint sample collection.
- Step 7: Check documentation for completeness on the *Paint Chip Sample Collection*Form
- Step 8: Transfer the Collected Sample to the Paint Collection Container.
- Step 9: Label the container with sufficient information to uniquely identify the sample. Be sure to record the dimensions of the sample surface, including the measurement units.
- Step 10: Submit the paint chip sample for lead analysis to a NLLAP-recognized laboratory. Record all results reported from the laboratory.

Documenting Paint Chip Sample Lead Analysis Results:

A report of the findings from the submitted paint chip samples to a NLLAP-recognized entity must be given to the person contracting the work within 30 days following the completion of the renovation work. The Certified Firm should keep the completed Paint Chip Sample Collection Form for 3 years after the work is completed.

Paint Chip Sample Collection Form Client/Project Information

Page	1	of	

Chemy Project information				
Name of Owner/Project:				
Address:				
City:	State:	Zip code: _	Contac	ct # ()
Email:				
Renovation Information				
Fill out all of the following informat Renovator.	ion that is a	vailable abou	ut the Renovatio	n Site, Firm and Certified
Renovation Address:				Unit #:
City:	State:		Zip code:	
Certified Firm Name:				
Address:				
City: State:		Zip code:	Con	ntact #: ()
Email:				_
Certified Renovator Name:				
Date Certified/	<i></i>			
Paint Chip Sample Information				
For each sample collected, fill out a	all of the foll	lowing inforn	nation	
Sample Identifier:				
Sample Collector Name:				
Sampling Location:				
Sampling site description:			Date of Co	ollection:/
Sample Dimensions (cm):		Calculat	e Sample Area (c	cm²):
NLLAP-recognized entity and location	ı:	· · · · · · · · · · · · · · · · · · ·		
Submission date:/	Results: _		Resu	ult Date://

Paint Chip Sample Collection Form

Renovation Address: _____ Unit #: _____ State: Zip code: For each sample collected, fill out all of the following information Sample Identifier: Sample Collector Name: Sampling Location: _____ Sampling site description: ______ Date of Collection: ____/____ Sample Dimensions (cm): ______Calculate Sample Area (cm²):_____ NLLAP-recognized entity and location: Submission date: ___/___ Results: _____ Result Date: ___/___ For each sample collected, fill out all of the following information Sample Identifier: Sample Collector Name: Sampling Location: ______ Date of Collection: ____/____ Sampling site description: Sample Dimensions (cm): ______Calculate Sample Area (cm²):_____ NLLAP-recognized entity and location: Submission date: ___/___ Results: _____ Result Date: ___/____

Page __ of __

Skill Set #2: Setting Up Barriers, Signs and Flapped Entry Doors

Time: 10 minutes

October 2011

Supplies needed:

- Barrier tape
- Warning signs
- Doorway to use for work area entry setup
- Cutting tool (e.g., razor knife, box cutter or scissors)
- Heavy duty plastic sheeting
- Tape (duct, painters, and masking)
- Stapler and staples
- Broom handle, or dowels, or 1" x 1" x 30" wood or metal stock
- Optional: Pre-engineered containment systems may also be used for this exercise.

<u>Note to Instructor:</u> It is strongly suggested that instructors prepare plastic bags containing all materials needed for the skills practice prior to the exercise in order to meet the time limits allocated to Skill Set #2.

<u>Purpose:</u> The purpose of this hands-on exercise is to show students the proper steps in determining where to place critical barriers, and to give them practice in erecting barriers and posting signs to isolate the work area from access by unauthorized personnel.

<u>Note to Instructor:</u> Read the purpose of this activity to students. Remind them that these setup steps must be completed before the disturbance of more than 6 ft₂ per room of lead-based paint, or, whenever window replacement or demolition is to be accomplished.

<u>Demonstration</u>: The course instructor must show and explain all of the steps involved in establishing a critical barrier and in placement of signage. Critical barriers are plastic sheeting barriers secured over openings, doors, and windows that must remain in place until cleaning verification or clearance is achieved in order to keep dust inside of the work area. While they are not always required, they can assist with controlling the spread of dust to other areas of the home. Use students to assist in the erection of the demonstration critical barriers. Note: In the interest of time, use precut barriers for installation in the doorway. Velcro attached barriers may be used for demonstration and practice. Velcro sign attachments may also be used.

Evaluating the Students: The instructor should allow students to practice the steps on the following page while watching each student follow the steps. Make corrections and suggestions as the exercise proceeds and determine if additional practice is necessary. *Option: Have students say the steps as they work.* Students must complete all required Steps to be "Proficient". Evaluate the work of each student and once the student has completed all required elements of the exercise correctly record the performance as "Proficient" in the field on the Participant Progress Log that corresponds to Skill Set #2 and that particular student's name.

Skill Set #2: Setting up Barriers, Signs, and Flapped Entry Doors - Continued

Skills Practice:

- Step 1: Ask occupants to leave and remain out of the room where work will be done.
- Step 2: Have them stay out until the cleaning verification procedure is complete or until clearance is passed. Install barrier tape to establish a controlled perimeter.
- Step 3: Post a "Do Not Enter" sign at the doorway to the work area.* Also post a sign that states that no eating, drinking, or smoking is allowed the doorway to the work area.*
- Step 4: Cover the work area entry doorway with 2 layers of plastic sheeting, by doing the following:*
- Step 5: Cut first plastic sheeting layer slightly wider and longer than (about 3 inches longer) than the door frame.*
- Step 6: Make a small "S" fold at the top of plastic sheeting and tape so that all layers are secured to the top of the door frame.* Make a similar "S" fold at the bottom of the plastic sheeting and tape so that all layers are secured to the floor.* This will ensure that the plastic sheeting is not tight and allows it to give instead of tearing when people move through it. Secure both sides of the plastic sheeting to the door frame with tape.
- Step 7: Staple top corners to the door frame for reinforcement.*
- Step 8: For exiting and entering the room, use duct tape to create a vertical line about the size of a man from floor to header in the middle of the plastic sheeting on both sides.* Cut a long vertical slit through the duct tape; leave about 6 inches at the top and the bottom uncut.* Reinforce the top and bottom of the slit with horizontal duct tape to prevent the plastic sheeting from tearing.*
- Step 9: Tape a second layer of plastic sheeting to the top of the door frame.* This layer is cut slightly shorter than the door frame so that it will hang down flat against the first sheet of plastic sheeting.
- Step 10: Weight the bottom of the second layer of plastic sheeting by taping a dowel rod to the bottom of the second layer of plastic sheeting with duct tape. This creates a self-sealing flap over the doorway and seals the opening that was cut in the plastic sheeting during step 8.

*Indicates required skills that must be accomplished for a "Proficient" rating.

Skill Set #3: Cover or Remove Furniture

<u>Time:</u> 10 minutes October 2011

Supplies needed:

- Heavy duty plastic sheeting
- Cutting tool (e.g., razor knife, box cutter or scissors)
- Tape (duct, painters, and masking)

<u>Purpose:</u> The purpose of this hands-on exercise is to show students the proper steps for determining when and how to cover or remove furniture and belongings from a work area.

<u>Note to Instructor:</u> Read the purpose of this activity to students. Remind them that these setup steps must be completed before the disturbance of more than 6 ft₂ per room of lead-based paint, or, whenever window replacement or demolition is to be accomplished. Also remind them that the best solution to the problem of moving furniture and belongings is to notify residents to remove them prior to the work. Remind them also that it is better to remove personal property than to cover it. Provide students with the opportunity to observe/practice both methods (covering and removal).

<u>Demonstration</u>: The course instructor should explain all of the steps involved in covering and/or removing furniture and belongings from the work area. Use students to demonstrate moving chairs out of the work area. Then cover a table with plastic sheeting and secure the plastic sheeting with tape so that no part of the table is exposed. Discuss placing other items under the table for maximized efficiency in preparing the work area. The demonstration should not take longer than 3 minutes including the time needed to hand out materials.

Evaluating the Students: The instructor should allow students to practice the steps on the following page while watching each student follow the steps. Make corrections and suggestions as the exercise proceeds and determine if additional practice is necessary. *Option: Have students say the steps as they work.* Students must complete all required Steps to be "Proficient". Evaluate the work of each student and once the student has completed all required elements of the exercise correctly record the performance as "Proficient" in the field on the Participant Progress Log that corresponds to Skill Set #3 and that particular student's name.

Skill Set #3: Cover or Remove Furniture - Continued

Skills Practice:

Step 1: Move all the furniture out of the work area.

Note: If the training area is small, designate an area against one wall that is "out of the work area", where furniture removed from the work area can be placed. In a classroom setting, move the chairs and most of the tables to the designated area, and cover the tables.

- Step 2: Have the students team into groups of 2 to 6 per group. Cover several of the tables where students were sitting. This is done as follows:
- Step 3: Cut a piece of plastic sheeting large enough to cover the table and to overlap the floor by 3-6 inches.*
- Step 4: Secure the plastic sheeting to the table and/or the floor with tape.*
- Step 5: If the table will not need to be moved during the work, the plastic sheeting can be secured to the floor using duct tape or masking tape as is appropriate to the surface.*
- Step 6: If the table will need to be moved during the work, wrap the table with plastic sheeting including the legs and secure the plastic sheeting to the table with tape. Take care when applying tape so that there is no damage to the finished surfaces of the furniture.*

Note: Students should understand that they are to remove or cover all window treatments, furniture and rugs within 6 feet of surfaces that will be renovated, repaired or painted. Removal of furniture is recommended whenever possible.

*Indicates required skills that must be accomplished for a "Proficient" rating.

Skill Set #4: Establish Interior Containment

<u>Time:</u> 10 minutes October 2011

Supplies needed:

- Orange cones
- Rope and/or barrier tape (bright color preferable)
- Warning signs
- Tape measure
- Tape (duct, painters, and masking)
- Heavy duty plastic sheeting
- Cutting tool (e.g., razor knife, box cutter or scissors)
- Magnetic covers
- Disposable tack pad

<u>Purpose:</u> The purpose of this hands-on exercise is to show students the proper steps in covering floors, and closing and sealing the doors, windows and HVAC in the work area.

Note to Instructor: Read the purpose of this activity to students. Remind them that these setup steps must be completed before the disturbance of more than 6 ft₂ per room of lead-based paint, or, whenever window replacement or demolition is to be accomplished.

<u>Demonstration</u>: The course instructor should explain all of the steps involved in covering and sealing floors and other horizontal surfaces in the work area, and in closing and sealing doors and windows between the work area and non-work areas. Use students to demonstrate closing and taping the windows and doors with masking tape. Remind them that they are trying to keep dust from escaping the work area.

Evaluating the Students: Allow students to practice the steps for covering the floors, closing and sealing windows, and closing and sealing doors. Watch each student follow the steps on the following page. Make corrections and suggestions as the exercise proceeds and determine if additional practice is necessary. *Option: Have students say the steps as they work.* Students must complete all required Steps to be "Proficient". Evaluate the work of each student and once the student has completed all required elements of the exercise correctly, record the performance as "Proficient" in the field on the Participant Progress Log that corresponds to Skill Set #4 and that particular student's name.

Skill Set #4: Establish Interior Containment - Continued

Skills Practice:

Step 9:

Step 1:	At each non-entry doorway leading from the work area, place an orange cone, barrier tape, and a "Do Not Enter" sign.*
Step 2:	Close all doors and windows leading to/from the work area.*
Step 3:	Tape the seams around each door and window casing with painter's tape, masking tape, or duct tape.*
Step 4:	Cut plastic sheeting so that it covers all exposed surfaces within 6 feet of the component(s) that are to be affected by the work.*
Step 5:	Secure the plastic sheeting to the floor and walls as appropriate with tape.*
Step 6:	Use plastic sheeting floor runners to avoid stepping on the carpet or floors when walking out of the work area. Secure them to the floor with tape.*
Step 7:	Close and cover all air and heat diffusers and intakes with magnetic covers, tape, or plastic sheeting and tape.* Also, if possible, turn off the HVAC system while working.* HVAC units may be turned on after cleaning verification or clearance has been achieved.
Step 8:	Stage all of the tools, supplies and equipment you will need to conduct the renovation, repair or painting work on the plastic sheeting in the work area to avoid contaminating the work area.*

*Indicates required skills that must be accomplished for a "Proficient" rating.

entry door to control tracking dust off of the plastic sheeting.*

Place a disposable tack pad at the corner of the plastic sheeting nearest the

Skill Set #5: Establish Exterior Containment

<u>Time:</u> 15 minutes October 2011

Supplies needed:

- Orange cones
- Rope and/or barrier tape (bright color preferable) and fencing stakes
- Warning signs
- Heavy duty plastic sheeting
- Tape (duct, painters, and masking)
- Cutting tool (e.g., razor knife, box cutter or scissors)
- Tape measure
- Disposable tack pad

<u>Purpose:</u> The purpose of this hands-on exercise is to show students the proper steps for restricting entry to the exterior work area, and to protect the ground under and around the work area from becoming contaminated.

<u>Note to Instructor:</u> Read the purpose of this activity to students. Remind them that these setup steps must be completed before the disturbance of more than 20 ft₂ of paint on components that have been determined to be lead-based paint, or, whenever window replacement or demolition is to be accomplished.

<u>Demonstration:</u> The course instructor should explain all of the steps involved in restricting access to and containing dust within the work area. Emphasize to students that proper setup will restrict access, and will keep dust and debris from escaping the work area.

Evaluating the Students: Allow students to cover the ground and establish barriers to prevent unauthorized access to the work area. Watch each student follow the steps on the following page. Make corrections and suggestions as the exercise proceeds and determine if additional practice is necessary. *Option: Have students say the steps as they work.* Students must complete all required Steps to be "Proficient". Evaluate the work of each student and once the student has completed all required elements of the exercise correctly, record the performance as "Proficient" in the field on the Participant Progress Log that corresponds to Skill Set #5 and that particular student's name.

Skill Set #5: Establish Exterior Containment - Continued

Skills Practice:

Step 10:

- At each non-entry doorway leading into the work area, place an orange cone, Step 1: barrier tape, and a "Do Not Enter" sign.* Close all doors and windows within 20 feet of the work area.* Step 2: Step 3: Place plastic sheeting as ground cover a minimum of 10 feet in all directions from the actual location of a paint disturbance.* Weigh down the edges of the plastic sheeting with 2x4s or bricks or stake Step 4: down the edges of the plastic sheeting.* Step 5: Secure the plastic sheeting to the floor and walls with tape or furring strips and tacks.* Step 6: Place barrier fencing or a rope around the perimeter of the work area 20 feet from the work area and on all exposed sides.* Step 7: Establish an entry point to the work area and place a "Do Not Enter, No Food or Drinks or Smoking Allowed"sign.*. Step 8: Curb the edges of the plastic sheeting to prevent dust from blowing off.* Curbs can be made by running a low rope near the ground and draping the plastic sheeting over the top of the rope. The rope should be only a few inches above the ground. A staked 2x4 may also be used to raise the edges of the plastic sheeting instead of the rope method. Step 9: Stage all of the tools, supplies, and equipment you will need to conduct the renovation, repair, or painting work on the plastic sheeting in the work area to avoid contaminating the work area.*
 - *Indicates required skills that must be accomplished for a "Proficient" rating.

entry door to control tracking dust off of the plastic sheeting.*

Place a disposable tack pad at the corner of the plastic sheeting nearest the

Skill Set #6: Personal Protective Equipment

<u>Time:</u> 10 minutes October 2011

Supplies needed:

- Disposable coveralls
- Disposable non-latex gloves
- Disposable foot covers
- Eve protection
- Leather or canvas work gloves
- N-100 respirators
- Disposable waste bags
- Duct tape
- Hand washing facilities and hand soap

<u>Purpose:</u> The purpose of this hands-on exercise is to show students the proper steps for putting on (donning) and taking off (doffing) personal protective equipment, and the steps for decontaminating and disposing of used equipment.

Note to Instructor: Read the purpose of this activity to students.

<u>Demonstration</u>: The course instructor should explain all of the steps involved in putting on personal protective equipment while actually dressing a volunteer student in personal protective equipment. Emphasize to students that this equipment prevents their exposure to lead as well as prevents the contamination of areas outside of the work area.

<u>Evaluating the Students:</u> Watch each student as they follow the steps on the next page. Make corrections and suggestions as the exercise proceeds and determine if additional practice is necessary. *Option: Have students say the steps as they work.* Students must complete all required Steps to be "Proficient". Evaluate the work of each student and once the student has completed all required elements of the exercise correctly record the performance as "Proficient" in the field on the Participant Progress Log that corresponds to Skills Set #6 and that particular student's name.

Skill Set #6: Personal Protective Equipment - Continued

Skills Practice:

Step 1: Put on (don) a set of protective coveralls.*

Step 2: Put on disposable gloves.*

Step 3: Put on boot covers over shoes.*

Step 4: Put on safety glasses.*

Step 5: Put on work gloves.*

Step 6: When dressed in this Personal Protective Equipment, discuss the use of

respirators and show the proper method for putting on and securing the

respirator in place.

Note: Students should not wear a respirator if they are not currently enrolled in the training firm's respiratory protection program. Watch the demonstration

but do not try on a respirator if this note applies you.

Step 7: Remove the work gloves and place them in a marked waste bag.*

Step 8: Remove the boot covers by pulling them off from the heel and rolling the

cover inside out as it is rolled toward the toes. Once removed, place them in

a marked waste bag.*

Step 9: Remove your suit by unzipping it and rolling it dirty side in to prevent

releasing dust. Once removed, place the suit in a marked waste bag.*

Step 10: Remove your disposable non-latex gloves by grasping the cuff of one glove

and peeling the glove inside out off of the hand. Hold the glove that was removed in the palm of the gloved hand. Place one finger under the cuff of the gloved hand and remove this glove by peeling it off of the gloved hand inside out and over the balled up glove you had already removed. Once removed, you should have one glove inside the other, with the dirty side

contained. Dispose of the gloves in the marked waste bag.*

Step 11: Wash your hands, face and shoes with soap and water. Dry your hands and

face with a disposable towel.*

^{*}Indicates required skills that must be accomplished for a "Proficient" rating.

Skill Set #7: Interior Final Cleaning

Time: 10 minutes

October 2011

Supplies needed:

- Heavy duty plastic sheeting
- Duct tape
- HEPA vacuum with attachments and a powered beater bar
- Garden sprayer
- Cutting tool (e.g., razor knife, box cutter or scissors)
- Disposable wet cleaning wipes
- Heavy duty plastic bags
- Two-sided mop bucket with wringer (or equivalent), disposable mop heads, long handled mop to which disposable cleaning cloths can be attached; or, a wet mopping system.

<u>Purpose:</u> The purpose of this hands-on exercise is to show students the proper steps for cleaning the interior work area after the completion of the work and prior to the visual inspection and cleaning verification procedure, or a clearance examination.

<u>Note to Instructor:</u> Read the purpose of this activity to students. Remind them that they are trying to completely clean all visible dust and debris in the work area, and that their work will be checked. Remind them that this level of cleanliness is achievable, but does require attention and careful execution.

- The course instructor should explain all of the steps involved in cleaning the work area. Emphasize to students that there are no short cuts to passing the visual inspection.
- Recommended personal protective equipment during final cleaning activities is a set of disposable coveralls, disposable gloves, and shoe covers.
- If plastic sheeting is not already in place from previous exercises, have plastic sheeting for the floor or carpets put down.

<u>Evaluating the Students:</u> Watch each student follow the steps on the following page. Make corrections and suggestions as the exercise proceeds and determine if additional practice is necessary. Students must complete all required Steps to be "Proficient". Evaluate the work of each student and once the student has completed all required elements of the exercise correctly, record the performance as "Proficient" in the field on the Participant Progress Log that corresponds to Skills Set #7 and that particular student's name.

Skill Set #7: Interior Final Cleaning - Continued

Skills Practice:

- Step 1: Wrap and seal, or bag all components and other large materials and then remove them from the work area.*
- Step 2: Clean off the plastic sheeting using a HEPA vacuum (this procedure is not required, but it is faster than wiping up dust and debris by hand). Mist the plastic sheeting and fold dirty side inward. Either seal the edges of the folded plastic sheeting with tape or place it in a heavy-duty plastic bag. Dispose of the protective sheeting.*
- Step 3: Remove all waste from the work area and place in appropriate waste containers.*
- Step 4: Clean all surfaces within the work area and in the area 2 feet beyond the work area until no dust or debris remains. Start cleaning at the top of the walls and work down toward the floor, HEPA vacuum or wet wipe all wall surfaces in the work area. HEPA vacuum all remaining surfaces in the work area, including furniture and fixtures. Use the upholstery attachment for the window surfaces and the crevice tool along the edge of the walls. Use the HEPA vacuum with a beater bar for carpeting. Work from the end farthest from the work area entrance back to the entrance, making sure never to step back into areas that have already been cleaned.*
- Step 5: Next, wipe all remaining surfaces and objects in the work area except for carpeted and upholstered surfaces, with a disposable wet cleaning wipes. Also mop uncarpeted floors using a two-bucket method or wet mopping system. Work from the end farthest from the work area entrance back to the entrance, making sure never to step back into areas that have already been cleaned. For carpeted areas, conduct a second pass with the HEPA vacuum using the beater bar attachment instead of wiping with a wet cleaning cloth.*
- Step 6: If the property is HUD-regulated, repeat Step 4 for walls, countertops and floors, and then continue to Step 7. Otherwise, continue to Step 7.
- Step 7: After completion of cleaning procedures, check your work. Conduct a careful visual inspection of the work area for visible dust and debris. If visible dust or debris is found, repeat Steps 4 and 5 as needed to make sure no visible dust or debris is present, and then re-check your work with a thorough visual inspection of the work area. When there is no visible dust or debris present, proceed to step 8.*
- Step 8: Notify the Certified Renovator in charge of the project that the work area is ready for visual inspection.*

*Indicates required skills that must be accomplished for a "Proficient" rating.

Skill Set #8: Exterior Final Cleaning

<u>Time:</u> 10 minutes October 2011

Supplies needed:

- Heavy duty plastic sheeting
- Heavy duty plastic bags
- Tape (duct, painters, and masking)
- Cutting tool (e.g., razor knife, box cutter or scissors)
- Flashlight
- Disposable wet cleaning wipes
- HEPA vacuum with attachments
- Two-sided mop bucket with wringer (or equivalent), disposable mop heads, long handled mop to which disposable cleaning cloths can be attached, or, a wet mopping system.

<u>Purpose:</u> The purpose of this hands-on exercise is to show students the proper steps for cleaning an exterior work area after the completion of the work and prior to the visual inspection and (if required) the cleaning verification procedure or a clearance examination.

<u>Note to Instructor:</u> Read the purpose of this activity to students. Remind them that they are trying to clean all visible dust and debris within the work area, and that their work will be checked. Remind them that this level of cleanliness is achievable, but does require attention and careful execution.

- The course instructor should explain all of the steps involved in cleaning the work area. Emphasize to students that there are no short cuts to passing the visual inspection.
- Recommended personal protective equipment during cleaning activities is a set of disposable coveralls, disposable gloves, and shoe covers.
- If plastic sheeting is not already in place from previous exercises, have plastic sheeting for the floor or carpets put down.

Evaluating the Students: Watch each student follow the steps on the following page. Make corrections and suggestions as the exercise proceeds and determine if additional practice is necessary. Option: Have students say the steps as they work. Students must complete all required Steps to be "Proficient". Evaluate the work of each student and once the student has completed all required elements of the exercise correctly, record the performance as "Proficient" in the field on the Participant Progress Log that corresponds to Skills Set #8 and that particular student's name.

Skill Set #8: Exterior Final Cleaning – Continued

Skills Practice:

- Step 1: Wrap and seal, or bag all components and other large materials and then remove them from the work area.*
- Step 2: Clean off the plastic sheeting using a HEPA vacuum (this procedure is not required, but it sure is faster than wiping up dust and debris by hand). Mist the plastic sheeting and fold dirty side inward. Either seal the edges of the plastic sheeting with tape or place it in a heavy-duty plastic bag. Dispose of plastic sheeting.*
- Step 3: Remove all waste from the work area and place in appropriate waste containers.*
- Step 4: Clean all surfaces in the work area and areas within 2 feet beyond the work area until no visible dust, debris, or paint chips remain.*

Suggested Cleaning Procedure For Exterior Cleanable Surfaces: Start cleaning at the top of the walls and work down to the floor, HEPA vacuum or wet wipe all cleanable surfaces in the work area, including furniture and fixtures. Use the HEPA vacuum with the upholstery attachment for windows and use the crevice tool along the walls. Work from the end farthest from the work area entrance back to the entrance, making sure never to step back into areas that have already been cleaned.

- Step 5: After completion of cleaning, check your work. This is done by conducting a careful visual inspection of the work area for visible dust, debris, or paint chips on hard surfaces, and for visible dust, debris, or paint chips in the soil areas under the work area protective sheeting. If dust or debris is found, reclean, and then re-check your work with a thorough visual inspection of the work area. Once there is no visible dust, debris, or paint chips present, proceed to step 6.*
- Step 6: Notify the Certified Renovator in charge of the project that the work area is ready for visual inspection.*

*Indicates required skills that must be accomplished for a "Proficient" rating.

Skill Set #9: Bagging Waste

<u>Time:</u> 10 minutes October 2011

Supplies needed:

- Used plastic sheeting and used personal protective equipment (from previous exercises)
- Dust and debris (from previous exercises)
- Heavy duty plastic sheeting
- Heavy duty plastic bags
- Cutting tool (e.g., razor knife, box cutter or scissors)
- HEPA vacuum with attachments
- Duct tape

<u>Purpose:</u> The purpose of this hands-on exercise is to show the students the proper steps to bag and gooseneck waste, wrap large pieces of debris, and remove waste from the work area.

Note to Instructor: Read the purpose of this activity to students.

- <u>Demonstration:</u> The course instructor should demonstrate the proper gooseneck technique for sealing waste bags.
- Optional Bagging Relay Race: This exercise can be conducted as a relay race. Divide students into teams and have each team member select a waste bag, load it with simulated waste material, make a gooseneck in the waste bag, vacuum the bag and submit it as complete in the simulated waste storage area. This will allow the instructors to observe proficiency in the method of closing the bags and making goosenecks and provides a fun way to learn for the students.

Evaluating the Students: Watch each student make a gooseneck closure on a waste bag. Students must complete all required Steps to be "Proficient". Once the student has completed all required elements of the exercise correctly, record the performance as "Proficient" in the field on the Participant Progress Log that corresponds to Skills Set #9 and that particular student's name.

Skill Set #9: Bagging Waste - Continued

Skills Practice:

Note: This exercise requires that the waste materials generated throughout the exercises be stored in unsealed bags or in sheets of plastic.

Gooseneck Procedure for Waste Bags:

- Step 1: Each student should get a waste bag and place some material in it that will be discarded as simulate waste. Do not overfill bags.
- Step 2: Gather the open end of the bag just below the opening into one hand.*
- Step 3: Twist the bag so that the neck of the bag twists in the same direction and forms an 8"-10" column.*
- Step 4: Fold the twisted column over on itself, in a similar manner to how you would fold a hose over onto itself to cut off the flow of water.*
- Step 5: Grasp the folded neck of the bag in one hand and wrap tape around the folded neck to secure the fold in place.*
- Step 6: Now wrap the tape about 2 or 3 inches from the top of the fold, several times so that the bag cannot come open. The resulting bags neck looks like the neck of a goose folded back on itself (a goose neck seal).*
- Step 7: Use the HEPA vacuum to remove any dust from the exterior of the bags. Carry the bags out of the work area to the appropriate waste container.*

Wrapping large pieces of debris:

- Step 1: Cut a piece of plastic so that it can be wrapped around the debris to be disposed of.*
- Step 2: Once wrapped in plastic, tape the seams of the package.*
- Step 3: Wrap tape around the width of the package in three spots to keep the package from unraveling.*
- Step 4: Use the HEPA vacuum to remove any dust from the exterior of the package and carry the wrapped debris out of the work area to the appropriate waste container.*

*Indicates required skills that must be accomplished for a "Proficient" rating.

Skill Set #10: Visual Inspection

<u>Time:</u> 5 minutes October 2011

Supplies needed:

- Disposable foot covers
- Flashlight

<u>Purpose:</u> The purpose of this hands-on exercise is to show the students the proper steps for conducting a visual inspection of the work area prior to conduct of the cleaning verification procedure.

Note to Instructor: Read the purpose of this activity to students. Remind them that they are trying to verify that all visible dust and debris has been cleaned from the work area. Remind them that this level of cleanliness is achievable, but does require attention and careful execution. Also read the note to the students below.

Note to Students: If a clearance examination is to be performed, the Certified Renovator should still conduct a visual inspection before submitting to the two-part clearance examination. A clearance examination consists of a separate visual inspection and dust wipe testing. The two-part clearance examination is conducted by a Certified Lead Inspector, Certified Lead Risk Assessor, or Certified Sampling Technician.

<u>Demonstration:</u> The course instructor should explain all of the steps involved in performing a visual clearance in the work area. Emphasize to students that there are no short cuts to passing the visual inspection.

<u>Evaluating the Students:</u> Watch each student conduct a visual inspection and listen as they point out problems that must be fixed. Students must complete all required Steps to be "Proficient". Evaluate the work of each student and once the student has completed all required elements of the exercise correctly, record the performance as "Proficient" in the field on the Participant Progress Log that corresponds to Skills Set #10 and that particular student's name.

Skill Set #10: Visual Inspection - Continued

Skills Practice:

Step 1: Put on disposable foot covers so that you do not track dust and debris into the work area, then enter the work area.*

Step 2: Turn on all of the lights that are available in the work area. Bring a bright, white-light flashlight to make sure there is adequate lighting.*

Step 3: Systematically look at every horizontal surface in the work area, working from the farthest area from the entry to the entry without recovering your tracks. Get close to the surfaces you are inspecting.*

Note: Remember this is a visual inspection, but the cleaning verification is going to wipe dust up to compare with the cleaning verification card. If you suspect a surface to be dirty, have it re-cleaned with a wet cleaning cloth.

Step 4: If you find visible dust or debris, re-clean the work area and repeat step 3.*

Step 5: Once you have carefully inspected all of the surfaces and have found no dust or debris, proceed to the cleaning verification procedure in Skill Set #11.*

*Indicates required skills that must be accomplished for a "Proficient" rating.

Skill Set #11: Cleaning Verification Procedure

<u>Time:</u> 15 minutes October 2011

Supplies needed:

- Baby powder or corn starch
- Disposable foot covers
- Flashlight
- Disposable non-latex gloves
- Disposable wet cleaning wipes
- Cleaning verification card, one per student to take away and retain
- Electrostatically charged, white, disposable cleaning cloths designed for cleaning
- hard surfaces
- Long-handled mop designed for wet cleaning wipes
- Tape measure
- Watch or clock

<u>Purpose:</u> The purpose of this hands-on exercise is to show the students the proper steps for conducting the cleaning verification procedure.

 The course instructor should explain all of the steps involved in performing the cleaning verification procedure.

<u>Evaluating the Students:</u> Watch each student conduct the cleaning verification procedure and listen as they point out problems that must be fixed. Students must complete all required steps to be "Proficient". Evaluate the work of each student and once the student has completed all required elements of the exercise correctly, record the performance as "Proficient" in the field on the Participant Progress Log that corresponds to Skills Set #11 and that particular student's name.

Skill Set #11: Cleaning Verification Procedure - Continued

Skills Practice:

- Step 1: As you enter the work area put on disposable foot covers so that you do not track dust and debris into the work area.*
- Step 2: Turn on all of the lights that are available in the work area. Make sure there is adequate lighting.*

For window sills:

- Step 3: While wearing gloves, wipe each window sill in the work area with a clean, white, damp cleaning wipe.*
- Step 4: Compare the cleaning wipe to the cleaning verification card. If the first wipe is the same as or whiter (lighter) than the cleaning verification card, the window sill is clean; continue to Step 6. If the first cleaning wipe is not the same as or whiter (lighter) than the cleaning verification card, re-clean the window sill, and, repeat Step 3 and then proceed to Step 5 (skip this step).*
- Step 5: Compare the second cleaning wipe to the cleaning verification card. If the second wipe is the same as or whiter (lighter) than the cleaning verification card, the window sill is clean; continue to Step 6. If the second cleaning wipe is not the same as and not whiter (not lighter) than the cleaning verification card, wait one hour or until the wet surface is dry (for the purposes of this exercise you do not wait). Then re-clean the surface with a dry, electrostatically charged, white, disposable cleaning cloth designed for use on hard surfaces. The window sill is now clean and has completed the cleaning verification procedure.*

For Floors and Countertops:

- Step 6: While wearing gloves, wipe each floor or countertop in the work area with a clean, white, damp cleaning wipe. For floors, use a long handled mop designed to hold a wet cleaning wipe. For floors, wipe no more than 40 square feet per wipe. For countertops wipe the whole surface of the countertop up to 40 square feet per wipe.*
- Step 7: Compare each floor and countertop cleaning wipe to the cleaning verification card. If the first wipe is the same as or whiter (lighter) than the cleaning verification card, the floor or countertop is clean. If the first cleaning wipe is not the same as and not whiter (not lighter) than the cleaning verification card, re-clean the floor section or countertop section, wipe the floor or countertop section with a wet cleaning wipe, and repeat Step 6 for that section and proceed to Step 8 (skip this step).*

Step 8:

Compare the second floor or countertop cleaning wipe to the cleaning verification card. If the second wipe is the same as or whiter (lighter) than the cleaning verification card, the floor or countertop section has been adequately cleaned. If the second cleaning wipe is not the same as and not whiter (not lighter) than the cleaning verification card, wait one hour or until the wet surface is dry (for the purposes of this exercise you do not wait). Then reclean the surface with a dry, electrostatically charged, white, disposable cleaning cloth designed for use on hard surfaces. The floor or countertop section is now clean and has completed the cleaning verification procedure.*

Step 9:

Once the cleaning verification shows that all areas have been adequately cleaned, remove the signs and critical barriers around the work area.*

*Indicates required skills that must be accomplished for a "Proficient" rating