

NRCA and CNA Insurance Cos. have revised the NRCA/MRCA Certified Roofing Torch Applicator (CERTA) program safety practices to reflect current roofing products available and application procedures for torch-applied roofing materials. The most notable changes in the new 2008 safety practices include:

- The acceptance of limited direct torching during flashing applications using low-output "detail" torches
- The acceptance of self-adhering polymer-modified bitumen products as flashing base plies

Several other changes have been made to help clarify their intended purposes and ease implementation.

To maintain your status as an authorized NRCA/MRCA CERTA trainer you *must* do the following:

1. Download and read the April 2008 NRCA/MRCA CERTA Safety Practices document from NRCA's Web site: [www.nrca.net/emails/pdf/0508\\_certa.pdf](http://www.nrca.net/emails/pdf/0508_certa.pdf)
2. Confirm you have read the new document either by:
  - a. An e-mail to [certaadmin@nrca.net](mailto:certaadmin@nrca.net) stating "Confirming receipt of new CERTA 2008 safety practices."
  - b. A fax including your name and the statement "Confirming receipt of new CERTA 2008 safety practices." Fax the document to Janice Davis, NRCA's manager of education and risk management, at (847) 299-1183.
3. Distribute a copy of the attached new 2008 safety practices document to all active certified applicators you have trained.
4. Incorporate this new document and the changes into any training you perform from this date forward.

In addition, it is important you share this with those you have previously trained by:

1. Explaining and discussing the changes to the safety practices with all active certified applicators you have trained
2. Explaining and discussing the changes to the safety practices with your employer or the employer(s) of the active certified applicators you have trained and providing these employers with a copy of the attached document

All English and Spanish NRCA/MRCA CERTA program training manuals, related documents and the training video are being revised to adopt the new 2008 safety practices. The training manuals and related documents will be made available for download free of charge through NRCA's Web site in about 90 to 120 days. The video will only be available in DVD format and shipped to you if you complete and fax NRCA a CERTA video request form (also available on NRCA's Web site at [www.nrca.net](http://www.nrca.net)). You will be notified when the new documents and video are ready for download.

If you have any questions concerning these new safety practices, e-mail the NRCA CERTA program administrator at [certaadmin@nrca.net](mailto:certaadmin@nrca.net).

Thanks for doing an excellent job with your CERTA training!

Sincerely,  
John G. Schehl  
Senior director of education programming  
NRCA

**NRCA/MRCA**  
**CERTA Safety Practices for Roofing Torch Use**  
**April 2008**

## **1. CHECKLIST**

1.1 Complete daily checklist for all torching jobs.

## **2. PREJOB PLANNING**

2.1 Identify and protect plywood, oriented strand board (OSB), wood plank, wood fiberboard and other combustible building components as follows:

2.1.1 The job foreman or supervisor shall review daily with the building owner conditions that could present hazards during torching and address them.

2.1.2 Address possible fire traps and hidden hazards; see “Torching Application Safety” below.

2.2 Have a minimum of two 4A:60B:C fire extinguishers available within 10 feet of torch operations.

2.3 All personnel on the roof shall be trained on how to use a fire extinguisher.

2.4 Inspect penetrations, such as exhaust vents, inside and outside. Lint, grease or other substances, if present, shall be cleaned prior to torching work.

2.5 Have a cell phone available or other means of communicating with “911” or another emergency responder

2.6 Comply with state and local ordinances where applicable.

### **2.7 Field-of-the-roof Installation**

2.7.1 Over combustible<sup>1</sup> roof decks:

2.7.1.1 A thermal barrier shall be incorporated into the roof system design using torch-applied polymer-modified bitumen sheet products. Acceptable thermal barriers include one of the following:

- minimum 3/4-inch-thick perlite board insulation
- minimum 3/4-inch-thick fiberglass board insulation
- minimum 1/4-inch thick gypsum roof board

2.7.1.2 When a thermal barrier is installed, comply with the manufacturer’s recommendations and the recommendations contained in *The NRCA Roofing Manual: Membrane Roof Systems—2007*.

2.7.2 Over noncombustible<sup>2</sup> roof decks:

2.7.2.1 Comply with the manufacturer’s recommendations and the recommendations contained in *The NRCA Roofing Manual: Membrane Roof Systems—2007*

**2.8 Flashing Installation:** Polymer-modified bitumen flashings shall be installed using one of the following flashing system application methods:

- 2.8.1 Torch-and-flop indirect torching
- 2.8.2 Cold-applied adhesives
- 2.8.3 Mop-applied with hot bitumen
- 2.8.4 Direct torching using a single burner, low output (105k Btu or less) “detail” torch over *combustible*<sup>1</sup> or *noncombustible*<sup>2</sup> substrates as follows:

2.8.4.1 Over *combustible*<sup>1</sup> substrates, an air-impermeable backer layer with sealed laps installed over the flashing substrate shall be incorporated into the flashing assembly prior to the application of the torch-applied polymer-modified bitumen sheet finish surface. Acceptable adhered backer layers include one of the following:

- A layer of fiberglass ply sheet, fiberglass base sheet or polymer-modified bitumen base sheet mechanically fastened to the substrate and an additional layer of a minimum of one layer fiberglass ply sheet or polymer-modified bitumen base sheet adhered to the underlying layer in solid moppings of hot asphalt
- Minimum of one layer of self-adhering, smooth-surfaced polymer-modified bitumen sheet.

2.8.4.2 Over *noncombustible*<sup>2</sup> substrates, an adhered backer layer with sealed laps installed over the flashing substrate shall be made part of the membrane flashing assembly prior to the application of the torch-applied polymer-modified bitumen sheet finish surface. Acceptable adhered backer plies include one of the following:

- Minimum of one layer of fiberglass ply sheet, fiberglass base sheet or polymer-modified bitumen base sheet adhered in solid moppings of hot asphalt
- Minimum of one layer of self-adhering, smooth-surfaced polymer-modified bitumen sheet

Note: If the membrane flashing substrate cannot be specifically identified as *noncombustible*<sup>2</sup>, direct torching with a detail torch is permitted if 2.8.4.1 is used.

### 3. TORCHING SAFETY

- 3.1 Only NRCA/MRCA CERTA certified torch applicators shall operate torches when an open flame will come in contact with any part of a roof.
  - 3.1.1 Using an open flame for roof drying or de-icing over *combustible*<sup>1</sup> roof surfaces shall not be permitted.
  - 3.1.2 The use of an open flame torch solely to heat bitumen equipment valves (i.e., hot luggers, felt layers or kettles) or bitumen pipe assemblies is acceptable and may be performed by a noncertified applicator as long as an open flame does not come in contact with *combustible*<sup>1</sup> roof materials.
- 3.2 Protect materials that may burn when in contact with an open flame. Never torch directly to any *combustible*<sup>1</sup> material.
- 3.3 Never torch directly in an area where you cannot see the path of the open flame (including—but not limited to—flashings, corners, curbs, voids, expansion joints and small roof penetrations). Use alternative application methods, such as torch-

and-flop indirect torching, cold-applied adhesives or mop-applied with hot bitumen, in these areas.

3.4 A lit torch shall only be placed on the roof surface using a functional torch stand.

3.5 A lit torch shall never be left unattended.

#### **4. END-OF-DAY FIRE WATCH**

4.1 A minimum two-hour fire watch, as described in the NRCA/MRCA CERTA training program, shall be conducted by a properly trained and dedicated individual; it shall include checking the roof's underside for smoldering (whenever possible), as well as the top side.

<sup>1</sup> combustible, i.e., plywood, oriented strand board (OSB), wood plank or wood fiberboard

<sup>2</sup> noncombustible, i.e., concrete, masonry, concrete block or gypsum