



## Storm Shelter Quality Verification

*Compiled by*

**Ernst W. Kiesling<sup>1</sup>, P.E., Ph.D.**

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Use of this document is intended to verify and improve the quality of storm shelters offered by builders and manufacturers. It is intended for use by funding agencies, building inspectors, or others in positions to influence or require quality assurance in storm shelters. The form should be completed by any company or party offering shelters and having responsibility to the purchaser for the quality of the product. It may be used as a checklist by consumers to interact with shelter providers on the most fundamental quality issues.

Ability to answer "Yes" to the first question implies that all concerns following have been addressed in acquiring membership in NSSA and that the shelter design complies or exceeds the NSSA Standard.

### Quality Verifications

Are you a MEMBER of NSSA, verifying compliance with the Standard?

Yes  No

**If yes**, show evidence of membership such as a membership acceptance letter or a shelter seal.

OR

Has it been verified by an independent, registered engineer that the shelter you offer complies in all respects to existing quality standards, currently the National Storm Shelter Association (NSSA) Standard available at [www.nssa.cc](http://www.nssa.cc)? This verification must include evidence of successful debris impact testing.

Yes  No

**If yes**, show the sealed engineering report or verification letter.

**If no to both questions**, show documentation (e.g., engineering calculations, testing or reports) that the following questions have been addressed and affirmed.

Are the credentials provided for the persons involved?

Yes  No

Are reports provided?

Yes  No

## Above Ground Shelters

### Debris Impact Resistance

Have all exposed elements been tested for debris impact resistance?

Yes

No

### Structural Integrity

Has the structure been designed to withstand the pressures exerted by extreme winds?

Yes

No

Is the roof adequately connected to the walls?

Yes

No

Are the walls adequately anchored to the floor?

Yes

No

Is the shelter anchored to a slab that has reinforcement and is in good condition?

Yes

No

Is the shelter separate from other load resisting elements of the building?

Yes

No

### Doors

Has the door assembly been tested to meet impact loads and wind pressures?

Yes

No

Are there three deadbolts with adequate strength to withstand the wind forces?

Yes

No

Do the locking mechanisms engage and disengage without undue force?

Yes

No

Can the locks be operated from the outside?

Yes

No

Is the door provided with 3 heavy-duty hinges capable of withstanding wind-induced forces?

Yes

No

### Venting

Is the shelter adequately vented to provide breathing air for maximum occupancy and to relieve atmospheric pressure changes?

Yes

No

Are the vents protected from intrusion of wind-borne debris?

Yes

No

## **Below Ground Shelters**

### **Debris Impact Resistance**

Have all exposed elements been tested for debris impact resistance?

Yes

No

### **Structural Integrity**

Has the structure been designed to handle hydrostatic pressures?

Yes

No

Is the shelter ballasted to prevent uplift from buoyancy of saturated soils?

Yes

No

Is the shelter adequately sealed to prevent water leakage?

Yes

No

Is the shelter designed to resist deterioration from moisture and/or corrosive soils?

Yes

No

### **Doors**

Is the door designed and tested to resist debris impacts and wind induced uplift forces?

Yes

No

### **Venting**

Is the shelter adequately vented to provide breathing air for maximum occupancy and to relieve atmospheric pressure changes?

Yes

No

Are the vents protected from intrusion of wind-borne debris?

Yes

No

### **Access/Egress**

Do the steps or ladders comply with the NIOSH standard or OSHA standards?

Yes

No

## **Emergency Provisions**

Does the shelter contain a required battery powered emergency radio transmitter or signal-emitting device

Yes

No

## Site Location

Is the shelter located to permit quick access without outdoor exposure?  Yes  No

Is the shelter location free from large falling objects such as towers or tall chimneys?  Yes  No

## Business Practices

Does the company offering the shelter carry substantial liability insurance?  Yes  No

Are the installation personnel bonded or otherwise show responsibility?  Yes  No

## Clarification or Additional Information

The National Storm Shelter Association posts it's industry standard on the web at [www.nssa.cc](http://www.nssa.cc) It is consistent with FEMA guidelines as followed in FEMA 320, *Taking Shelter from the Storm -- Building a Safe Room Inside Your House* and with FEMA 361 *Design and Construction Guidance for Community Shelters*. Additional information may be obtained from Texas Tech University (806) 742-3476 and the National Storm Shelter Association at 877-700-6772. A national consensus standard, the International Code Council/National Storm Shelter Association (ICC/NSSA) Standard for Design and Construction of Storm Shelters can be obtained through the National Storm Shelter Association ([www.nssa.cc](http://www.nssa.cc)) or the International Code Council ([www.icc.org](http://www.icc.org)).

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1 Professor of Civil Engineering at Texas Tech University. Director of the Storm Shelter Program of the Wind Science and Engineering (WISE) Center at Texas Tech.  
Executive Director, National Storm Shelter Association