

CODES & STANDARDS

Codes and standards specify criteria necessary to ensure that a product, material or process will consistently and safely perform its intended function. Although standards provide minimum design requirements, conforming to a standard is not always sufficient in preventing an accident. A key aspect of accident investigation consists in determining the applicable standards and whether it was satisfied in the subject instance. Our extensive research capabilities ensure that you will be provided with the appropriate standard. We will also assess whether the standard was satisfied and if compliance with the standard served as adequate protection.



Expertise

We have a large library of codes and standards and extensive experience in their interpretation and application including:

- Extensive in house library of ANSI, ASTM & OSHA standards as well as national, state, and city building codes
- Active member of ANSI A14 Ladder safety standard committee
- SAE standards for autos and heavy construction vehicles

Questions Answered

Through extensive experience and scientific analysis, we can help you answer pertinent questions such as:

- What are the applicable standards?
- How can I obtain the applicable standard?
- Has the standard in question been violated?
- Is the standard sufficient for the issue at hand.

Case Examples

Exterior Staircase Fall Down:

After exiting a building, an elderly woman descended an outdoor, wooden, wide set of stairs. While doing so, she lost her balance, fell, and was seriously injured. Upon inspection, we determined that the rise-height of the step where she fell was a half-inch higher than the previous steps. In addition, there was no handrail nearby. Both these items represented significant hazards and building code violations. The defendant settled the lawsuit after receiving our report.

Analysis of Current Ladder Safety Standard:

We have conducted tests and analyses to investigate the effectiveness of the ANSI ladder standards to address the dynamic flexibility of stepladders. Through physical testing and the use of finite element models of six and eight foot stepladders, we determined that the twist flexibility of most stepladders was far greater than necessary to safely accommodate uneven surfaces. We then showed that the increased flexibility contributed to the heightened potential for a three-leg contact instability.