



National Wooden Pallet & Container Association  
Pallets Move the World®

## Pallets Inside/Outside Storage



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*Pallets Move the World...*

**Brad Gething, PhD**  
Director of Science & Technology Integration



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### Presentation Agenda



Background      Details on 2018 Codes and Compliance      Q & A



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**NOTHING IS MORE IMPORTANT TO MEMBERS OF THE NATIONAL WOODEN PALLET & CONTAINER ASSOCIATION (NWPCA) THAN THE SAFETY OF THEIR EMPLOYEES, THE PEOPLE WHO LIVE NEAR THEIR FACILITIES, AND FIRST RESPONDERS.**

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**Jargon**

Code Bodies:

1. The International Code Council (ICC)
2. The National Fire Protection Association (NFPA)

The Codes:

1. ICC → International Fire Code (IFC)
2. NFPA → NFPA 1

Inspectors:

1. ICC → "Code or Fire Official"
2. NFPA → "Authority Having Jurisdiction (AHJ)"

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Which Code applies to me?

Which Version applies to me?

What does my local municipality have to say?

ICC NFPA BOTH

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### Fire Codes, as of 2013

<b>ICC</b> No existing code language on the external storage of wood pallets	<b>NFPA</b> Existing language on <u>idle pallets</u> : -Maximum pile size of 400 ft <sup>2</sup> , w/ 8 ft spacing in between -50 ft spacing from storage area -15ft maximum storage height
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**All pallets are idle pallets**



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### Timeline of Code Changes



**Summer 2013**  
NWPCA learns of new ICC Fire Code proposal for outdoor storage of pallets

**Fall 2013**  
NWPCA and partners request reworking of proposal- *commit to working with fire safety community*



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### How did we get here?



**Spring 2015**  
NWPCA begins development of ICC/NFPA code proposals, forms Fire Code Task Group

**Fall/Winter 2015**  
NWPCA submits ICC/NFPA proposals

**Spring/Summer 2016**  
Code committees review NWPCA proposals and approve drafts with comments



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**How did we get here?**

Fall 2016

2018

ICC and NFPA approve final versions of NWPCA proposal

Publication of new 2018 IFC and NFPA1 that include NWPCA authored codes



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**New Codes**

The 2018 ICC and NFPA codes on outdoor pallet storage apply specifically to manufacturers and recyclers of wood pallets – idle pallets are considered separately

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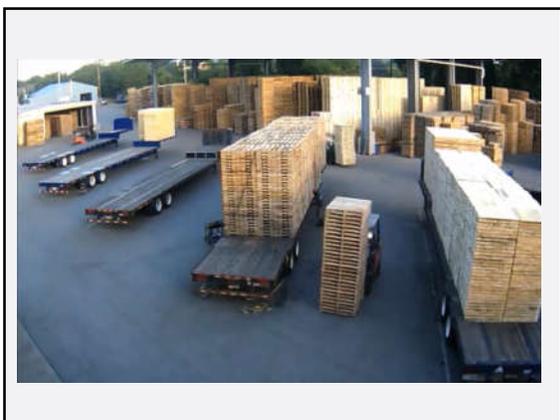
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**New Codes** | The 2018 ICC and NFPA codes are performance-based, rather than prescriptive, focused around industry best practices

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*Expertly Engineering Safety From Fire*

**Bill Koffel**  
President, Koffel Associates

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**Key Components of Both Codes**

- Site Plan
- Fire Prevention Plan
- Fire Emergency Response Plan
- Security Plan

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**Site Plan**

1. Lot lines
2. Utilities
3. Size, location, and type of construction of the building
4. Presence of fire protection systems
5. Water supply sources for fire-fighting purposes
6. Locations of hazardous material storage areas
7. Locations of pallet storage
8. Equipment protected with a dust collection system
9. Fire department access routes
10. Designated smoking areas
11. Locations of fire alarm control panels

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**Site Plan**



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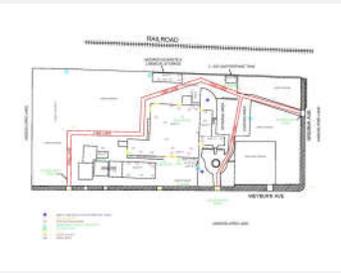
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**Site Plan**

1. Lot lines
2. Utilities
3. Bldg. construction
4. Fire protection systems
5. Water supply
6. Hazardous material storage areas
7. Pallet storage
8. Dust collection systems
9. Fire department access
10. Smoking areas
11. Fire alarm panels



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### Site Plan – Water Supply



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### Fire Prevention Plan

1. Walk through inspections
2. Hot work permit process
3. Preventative maintenance program for equipment
4. Outdoor storage requirements

*It is imperative that good housekeeping is routinely performed to maintain high fire safety on site. Moreover, the level of cleanliness makes an immediate impression on your fire inspector. A clean site typically indicates a well-run and well-maintained site.*



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### Fire Prevention Plan



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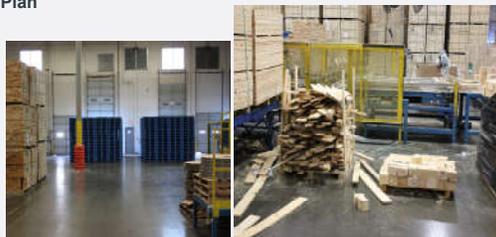
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### Fire Prevention Plan



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### Fire Prevention Plan



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### Fire Prevention Plan – Outside Storage

**34.10.4.6** Unless permitted by 34.10.4.12, stacks of pallets shall not be stored within 0.75 times the stack height or 8 ft (2.4 m), whichever is greater, of any property line.

**34.10.4.7** Unless permitted by 34.10.4.12, stacks of pallets shall not be stored within 0.75 times the stack height of any important building on site.

**34.10.4.8** Pallet stacks shall not exceed 20 ft (6 m) in height.

**34.10.4.12** The AHJ shall be permitted to allow pallet stacks closer to a property line or structure on site where additional fire protection is provided, including, but not limited to, the following:

- (1) The storage yard areas and materials-handling equipment selection, design, and arrangement are based upon an approved risk assessment.
- (2) Automatic fire detection transmits an alarm signal to a supervising station in accordance with NFPA 72.
- (3) Fire department access roads are provided around all storage areas

NFPA 1-2018 Edition



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### Fire Emergency Response Plan



1. Procedures for reporting fire emergencies
2. Personnel training
3. Evacuation procedures
4. Fire drills

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### Security Plan

1. Security roles and practices being performed by personnel
2. Security measures on site (safeguarding, organization, oversight)
3. Security systems

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### Security Plan



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**Tools**



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**Compliance Manual**

1. Introduction
2. Supervisor's Guide
3. Examples
4. Appendix

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**Compliance Manual - Introduction**

1. Outline of the Manual
2. Working with your Code inspector
3. What code applies

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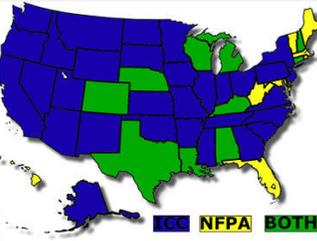
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Which Code applies to me?  
Which Edition applies to me?  
What does my local municipality have to say?



ICC NFPA BOTH

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**Compliance Manual – Supervisor’s Guide**

1. Summary – “Daily Reminder”
2. More detailed information on the other major sections

Between the Introduction and Supervisor’s Guide – eight pages of text



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**Compliance Manual - Examples**

1. Site Plan example
2. Program outlines
3. Check lists



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### Compliance Manual - Appendix

Supplemental information for a deeper dive and reference materials



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### Compliance Manual

How to sign up for more information:  
<http://www.palletcentral.com/page/compliancemanual>



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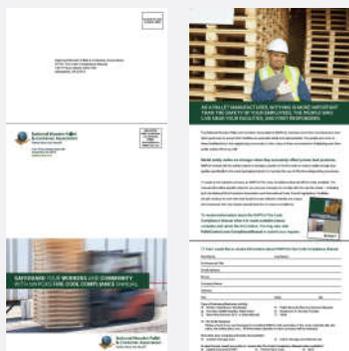
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### Compliance Manual

The Manual is **Free** to all members and non-members



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**Summary**

- Post webinar survey
  - Pop-up
  - Email
- Handout material (after Friday May 25<sup>th</sup>)
  - [www.palletcentral.com](http://www.palletcentral.com)
- Certificates upon request
  - Email request to [kreffitt@koffel.com](mailto:kreffitt@koffel.com)



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**Questions???**

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