

2004/2005 PROPOSED CHANGES TO THE INTERNATIONAL URBAN WILDLAND-INTERFACE CODE

Proposed changes to the International Urban Wildland-Interface Code are heard by the International Fire Code Committee. See the tentative order of discussion for the International Fire Code Committee.

IUWIC1-04/05 102

Proponent: Jakki MacLean, Yakima County, WA Fire Protection Bureau, representing Washington State Association of Fire Marshals

Revise as follows:

SECTION 102 AUTHORITY OF THE FIRE CODE OFFICIAL

NOTE: All subsequent references to “code official” would also be changed to “fire code official.”

Reason: The objective of this code is “to provide for special regulations to mitigate fire- and life-safety hazards of the urban-wildland interface areas.” The fire code official is the recognized authority with regard to determining fire hazards and identifying appropriate mitigation measures in the urban wildland interface. The fact that the Fire Code Committee hears the IUWIC proposals lends credence to this presumption. Specifying “fire code official” in the body of the code clarifies the appropriate enforcement authority.

Cost Impact: None

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

IUWIC2-04/05 105.2

Proponent: Jakki MacLean, Yakima County, WA Fire Protection Bureau, representing Washington State Association of Fire Marshals

Revise as follows:

105.2 Permits required. Unless otherwise exempted, no building or structure regulated by this code shall be erected, constructed, altered, repaired, moved removed, converted, ~~or~~ demolished, or changed in use or occupancy unless a separate permit for each building or structure has first been obtained from the code official.

(No change to remainder of section)

Reason: Changes in use or occupancy may result in an increased risk due to operations or the presence of additional occupants. These occupants may be unfamiliar with the facility, local surroundings, and fire dangers specific to wildland areas. The local fire department may not be aware of the increased need for specialized resources to properly evacuate these facilities. Requiring permits would provide a mechanism to notify local agencies of the potential need for additional resources

Cost Impact: None

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

IUWIC3-03/04 504.3

Proponent: Joseph T. Holland, Hoover Treated Wood Products, Daytona Beach, FL

Revise as follows:

504.3 Protection of eaves. Eaves and soffits shall be protected on the exposed underside by materials approved for a minimum of 1-hour fire-resistance-rated construction, ~~or~~ 2-inch (51mm) nominal dimension lumber or 1-inch nominal fire-retardant-treated lumber or 3/4-inch nominal fire-retardant-treated plywood, identified for exterior use and meeting the requirements of Section 2303.2 of the International Building Code. Fascias are required and must be protected on the backside by materials approved for a minimum of 1-hour fire-resistance-rated construction or 2-inch (51mm) nominal dimension lumber

Reason: According to Appendix G, the flame front from the wildfire moves through an area very quickly, usually no more than 6 minutes. FRTW will perform very well under the conditions found in this type of fire. It has a very low flame spread, less than 25 (typically in the 10 to 15 range), and will self extinguish once the source of ignition is removed or consumed. In addition, a fire cannot be started with FRTW. Insurance companies consider the product slow-burning. Because of the enhanced fire protection requirements of Section 504 the fire load will be very low preventing continued burning once the fire has past through.

Cost Impact: None

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

IUWIC4-03/04 504.5

Proponent: Joseph T. Holland, Hoover Treated Wood Products, Daytona Beach, FL

Revise as follows:

504.5 Exterior walls. Exterior walls of buildings or structures shall be constructed with materials approved for a minimum of 1-hour fire-resistance-rated construction on the exterior side or constructed with approved noncombustible materials.

Exception: Heavy timber or log wall construction or fire-

retardant-treated wood identified for exterior use and meeting the requirements of Section 2303.2 of the International Building Code.

Such material shall extend from the top of the foundation to the underside of the roof sheathing.

Reason: While not noncombustible fire retardant treated wood will resist spreading the fire like a noncombustible material. It has a flame spread in the 10 to 15 range and will self extinguish when the source of ignition is consumed or removed.

Cost Impact: None

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

IUWIC5-03/04

504.6

Proponent: Joseph T. Holland, Hoover Treated Wood Products, Daytona Beach, FL

Revise as follows:

504.6 Unenclosed underfloor protection. Buildings or structures shall have all underfloor areas enclosed to the ground with exterior walls in accordance with Section 504.5

Exception: Complete enclosure may be omitted where the underside of all exposed floors and all exposed structural columns, beams and supporting walls are protected as required for exterior 1-hour fire-resistance-rated construction or heavy timber construction or fire-retardant-treated wood identified for exterior use and meeting the requirements of Section 2303.2 of the International Building Code.

Reason: According to Appendix G, the flame front from the wildfire moves through an area very quickly, usually no more than 6 minutes. FRTW will perform very well under the conditions found in this type of fire. It has a very low flame spread, less than 25 (typically in the 10 to 15 range), and will self extinguish once the source of ignition is removed or consumed. In addition, a fire cannot be started with FRTW. Insurance companies consider the product slow burning. Because of the enhanced fire protection requirements of Section 504 the fire load will be very low preventing continued burning once the fire has passed through.

Cost Impact: None

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

IUWIC6-04/05

504.7

Proponent: Joseph T. Holland, Hoover Treated Wood Products, Daytona Beach, FL

Revise as follows:

504.7 Appendages and projections. Unenclosed accessory structures attached to buildings with habitable spaces and projection, such as decks, shall be a minimum of 1-hour fire-resistance-rated construction, heavy timber construction or constructed of approved noncombustible materials or fire-retardant-treated wood identified for exterior use and meeting the requirements of Section 2303.2 of the International Building Code.

When the attached structure is located and constructed so that the structure or any portion thereof projects over a descending slope surface greater than 10 percent, the area below the structure shall have all underfloor areas enclosed to within 6 inches (152 mm) of the ground, with exterior wall construction in accordance with Section 504.5.

Reason: According to Appendix G, the flame front from the wildfire moves through an area very quickly, usually no more than 6 minutes. FRTW will perform very well under the conditions found in this type of fire. It has a very low flame spread, less than 25 (typically in the 10 to 15 range), and will self extinguish once the source of ignition is removed or consumed. In addition, a fire cannot be started with FRTW. Insurance companies consider the product slow-burning. Because of the enhanced fire protection requirements of Section 504 the fire load will be very low preventing continued burning once the fire has past through.

Cost Impact: None

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

IUWIC7-04/05

504.7

Proponent: Rolland M. Crawford, City of Loma Linda, CA, representing California Fire Chiefs Assn. (CFCA), Fire Prevention Officers Section (FPO), Southern Division, Urban-Wildlife Interface Committee

Revise as follows:

504.7 Appendages and projections. Unenclosed accessory structures and projections attached to buildings, ~~with habitable spaces and projections,~~ such as decks and fences, shall be a minimum of 1-hour fire-resistance-rated construction, heavy timber construction, ~~or constructed of approved noncombustible materials,~~ or other materials

approved by the code official. Such attached components shall not increase the risk of fire spread to the structure.

When the attached structure is located and constructed so that the structure or any portion thereof projects over a descending slope surface greater than 10 percent, the area below the structure shall have all underfloor areas enclosed to within 6 inches (152 mm) of the ground, with exterior wall construction in accordance with Section 504.5.

Reason: Attached structures and projections such as decks and fences routinely provide a ready conduit for fire propagation from vegetative fuels to structures.

Significant numbers of houses were lost or damaged during the 2003 Southern California wildfires due to ignition of wooden fences that were directly attached to the structure. Rather than prohibiting the use of wood entirely, an alternative is to require a transitional section of noncombustible materials for sufficient distance out from the attachment point to the structure so that heat and flames from the burning fence do not ignite the wall, eaves or roof of the structure.

Newer manufactured components, such as plastic or plastic-fiber composites, are increasingly being used for the construction of decks. Many homeowners and builders are using such alternative materials with the desire to have an attractive deck that doesn't need a lot of care and maintenance. However, in many instances the components are actually much more of a hazard than regular dimensional lumber due to the materials used in their manufacture. Fire tests conducted at the University of California Forest Products Lab have shown serious softening, melting, ignition and fire propagation for some of these products. The likelihood of fire spreading to a structure from a deck made of such products is dramatically increased.

The addition of performance-based language allows the code official to ask for test data or demonstration that alternate materials used for the construction of appendages and projections will not increase the risk of fire spread to the structure

Cost Impact: None

Public Hearing: Committee: AS AM D
Assembly: ASF AMF DF

IUWIC8-04/05

504.8

Proponent: Rolland M. Crawford, City of Loma Linda, CA representing California Fire Chiefs Assn. (CFCA), Fire Prevention Officers Section (FPO), Southern Division, Urban-Wildlife Interface Committee

Revise as follows:

504.8 Exterior glazing. Exterior windows, window walls and glazed doors, windows within exterior doors, and skylights shall be tempered glass, multilayered glazed panels, glass block or have a fire protection rating of not less than 20 minutes, or shall be otherwise designed to prevent flame or ember penetration into the structure.

Vinyl window frame assemblies shall be prohibited, except when they have the following characteristics:

1. Frame and sash are comprised of vinyl material with welded corners;
2. Metal reinforcement in the interlock area;
3. Annealed insulating or tempered glass.

Reason: The addition of performance-based language specifies that whatever type of glazing materials are used, including various types of alternative materials or assemblies, that the overriding criteria is the prevention of ember or flame penetration into the structure. Fire analysis has shown significant problems with certain types of plastic or vinyl assemblies, to the extent that numerous jurisdictions have prohibited them entirely. Vinyl softens at 325°F, allowing the glazing to fall out of the frame. Radiant heat and/or burning embers then freely enter into the structure, with corresponding ignition of contents. However, when vinyl window assemblies are constructed according to these specifications, the frame stays intact, thereby continuing to hold the glazing in place. Intact dual pane vinyl window assemblies are actually holding up quite well—even though the outer glazing may become broken, the inner pane typically remains intact, thereby withstanding the entry of flame or embers for sufficient time for the fire front to pass by. This is supported by discussions and testing with the University of California Forest Products Lab and AAMA, as well as direct field observations during fires.

Discussions with vinyl window manufactures indicate that while the inclusion of welded corners and metal interlocks does increase the cost for the window assembly, the amount is really not all that significant (e.g., \$2-3). Their main concern is that they be given a level playing field in the competitive bidding process against “fly-by-night” manufactures who set up shop in temporary facilities, using the cheapest of materials, and then move on when the development is over.

Cost Impact: This code change will increase the cost of construction.

Public Hearing: Committee: AS AM D
Assembly: ASF AMF DF

IUWIC9-04/05

504.8.1 (New), Chapter 7

Proponent: William Koffel, P.E., Koffel Associates, Inc., Ellicott City, MD, representing Pilkington North America

1. Add new text as follows:

504.8.1 Fire test. At least one layer of glazing shall be tested to limit the radiant heat flux to 12.5 kW/m² measured at a distance of 6 ft (1.83 m) from the glazing when exposed to the standard fire prescribed in NFPA 257.

2. Add new standard to Chapter 7 as follows:

NFPA 257-00 Test for Critical Radiant Flux of Floor Covering Systems Using a

Radiant Heat Energy
Source504.8.1

Reason: Current Code text would permit exterior glazing that has virtually no capability to resist the spread of fire thru the opening by radiant heat transfer. The proposed revision would require the glass to be tested to limit heat transfer thru the glass. Testing has been done to demonstrate that products are readily available that can meet one of the two performance criteria.

NFPA 257, Appendix C provides a methodology for testing the radiant heat transfer thru fire protection rated glazing. The 12.5 kW/m² is a well documented value for the piloted ignition of volatiles from wood and has been used elsewhere in the International Codes (see Table 1406.2.1.2 of the International Building Code).

Analysis: The standard being proposed, NFPA 257-00, has been previously determined to be in compliance with the ICC Referenced Standards policy, being currently referenced in the IBC.

Cost Impact: This code change will increase the cost of construction.

Public Hearing: Committee: AS AM D
Assembly: ASF AMF DF

IUWIC10-04/05

504.10

Proponent: Rolland M. Crawford, City of Loma Linda, CA representing California Fire Chiefs Assn. (CFCA), Fire Prevention Officers Section (FPO), Southern Division, Urban-Wildlife Interface Committee

Revise as follows:

504.10 Vents. Attic ventilation openings, foundation or underfloor vents, or other ventilation openings in vertical exterior walls and vents through roofs shall not exceed 144 square inches (0.0929 m²) each. Such vents shall be covered with noncombustible corrosion-resistant mesh with openings not to exceed ¼ inch, or shall be designed and approved to prevent flame or ember penetration into the structure.

Attic ventilation openings shall not be located in soffits, in eave overhangs, between rafters at eaves, or in other overhang areas. Gable end and dormer vents shall be located at least 10 feet (3048 mm) from property lines. Underfloor ventilation openings shall be located as close to grade as practical.

Reason: Fire analysis is showing significant problems with both new and existing vent installations where typical ¼-inch mesh has been used. A very large proportion of structures lost during the 2003 Southern California wildfires were due to ember penetration into attic spaces through eave or roof venting of all types. This was documented by the Urban-Wildland Interface Committee in numerous instances where adequate defensible space was provided, and direct flame impingement was not a factor.

There is a need to provide performance-based language into the

code because industry has not been able to fully address the problem of ember penetration into attic and other spaces. This performance-based language will allow the code official to stipulate or allow alternative designs that will still permit adequate airflow into the attic, while not facilitating ember intrusion. There currently are on-going discussions being conducted with venting and roofing manufactures regarding coming up with more acceptable designs that will better address this problem in the future. Until such time as more of those designs enter the market, this modified language will a way to mitigate the problem.

Cost Impact: None

Public Hearing: Committee: AS AM D
Assembly: ASF AMF DF

IUWIC11-04/05

504.11

Proponent: Joseph T. Holland, Hoover Treated Wood Products, Daytona Beach, FL

Revise as follows:

504.11 Detached accessory structures. Detached accessory structures located less than 50 feet (15,240 mm) from a building containing habitable space shall have exterior walls constructed with materials approved for a minimum of 1-hour fire-resistance-rated construction, heavy timber, log wall construction or constructed with approved noncombustible materials or fire-retardant-treated wood identified for exterior use and meeting the requirements of Section 2303.2 of the International Building Code on the exterior side.

When the detached structure is located and constructed so that the structure or any portion thereof projects over a descending slope surface greater than 10 percent, the area below the structure shall have all underfloor areas enclosed to within 6 inches (152 mm) of the ground, with exterior wall construction in accordance with Section 504.5 or underfloor protection in accordance with Section 504.6.

Exception: The enclosure may be omitted where the underside of all exposed floors and all exposed structural columns beams and supporting walls are protected as required for exterior 1-hour fire-resistance-rated construction or heavy-timber construction or fire-retardant-treated wood identified for exterior use and meeting the requirements of Section 2303.2 of the International Building Code.

See Section 504.2 for roof requirements.

Reason: According to Appendix G, the flame front from the wildfire moves through an area very quickly, usually no more than 6 minutes.

FRTW will perform very well under the conditions found in this type of fire. It has a very low flame spread, less than 25 (typically in the 10 to 15 range), and will self extinguish once the source of ignition is removed or consumed. In addition, a fire cannot be started with FRTW. Insurance companies consider the product slow-burning. Because of the enhanced fire protection requirements of Section 504 the fire load will be very low preventing continued burning once the fire has past through.

Cost Impact: None

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

IUWIC12-04/05

505.5

Proponent: Joseph T. Holland, Hoover Treated Wood Products, Daytona Beach, FL

Revise as follows:

505.5 Exterior walls. Exterior walls of buildings or structures shall be constructed with materials approved for a minimum of 1-hour fire-resistance-rated construction on the exterior side or constructed with approved noncombustible materials.

Exception: Heavy timber or log wall construction or fire-retardant-treated wood identified for exterior use and meeting the requirements of Section 2303.2 of the International Building Code.

Such material shall extend from the top of the foundation to the underside of the roof sheathing.

Reason: While not noncombustible fire retardant treated wood will resist spreading the fire like a noncombustible material. It has a flame spread in the 10 to 15 range and will self extinguish when the source of ignition is consumed or removed.

Cost Impact: None

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

IUWIC13-03/04

505.6

Proponent: Joseph T. Holland, Hoover Treated Wood Products, Daytona Beach, FL

Revise as follows:

505.6 Unenclosed underfloor protection. Buildings or structures shall have all underfloor areas enclosed to the ground with exterior walls in accordance with Section 504.5.

Exception: Complete enclosure may be omitted where the underside of all exposed floors and all exposed structural columns, beams and supporting walls are protected as required for exterior 1-hour fire-resistance-rated construction or heavy timber construction or fire-retardant-treated wood identified for exterior use and meeting the requirements of Section 2303.2 of the International Building Code.

Reason: According to Appendix G, the flame front from the wildfire moves through an area very quickly, usually no more than 6 minutes. FRTW will perform very well under the conditions found in this type of fire. It has a very low flame spread, less than 25 (typically in the 10 to 15 range), and will self extinguish once the source of ignition is removed or consumed. In addition, a fire cannot be started with FRTW. Insurance companies consider the product slow burning. Because of the enhanced fire protection requirements of Section 504 the fire load will be very low preventing continued burning once the fire has passed through.

Cost Impact: None

Public Hearing:	Committee:	ASAM	D	
	Assembly:	ASF	AMF	DF

IUWIC14-03/04

505.7

Proponent: Joseph T. Holland, Hoover Treated Wood Products, Daytona Beach, FL

Revise as follows:

505.7 Appendages and projections. Unenclosed accessory structures attached to buildings with habitable spaces and projection, such as decks, shall be a minimum of 1-hour fire-resistance-rated construction, heavy timber construction or constructed of approved noncombustible materials or fire-retardant-treated wood identified for exterior use and meeting the requirements of Section 2303.2 of the International Building Code.

When the attached structure is located and constructed so that the structure or any portion thereof projects over a descending slope surface greater than 10 percent, the area below the structure shall have all underfloor areas enclosed to within 6 inches (152 mm) of the ground, with exterior wall construction in accordance with Section 505.5.

Reason: According to Appendix G, the flame front from the wildfire moves through an area very quickly, usually no more than 6 minutes. FRTW will perform very well under the conditions found in this type of

fire. It has a very low flame spread, less than 25 (typically in the 10 to 15 range), and will self extinguish once the source of ignition is removed or consumed. In addition, a fire cannot be started with FRTW. Insurance companies consider the product slow-burning. Because of the enhanced fire protection requirements of Section 504 the fire load will be very low preventing continued burning once the fire has past through.

Cost Impact: None

Public Hearing: Committee: AS AM D
Assembly: ASF AMF DF

IUWIC15-04/05

505.7

Proponent: Rolland M. Crawford, City of Loma Linda, CA representing California Fire Chiefs Assn. (CFCA), Fire Prevention Officers Section (FPO), Southern Division, Urban-Wildlife Interface Committee

Revise as follows:

505.7 Appendages and projections. Unenclosed accessory structures and projections attached to buildings, ~~with habitable spaces and projections,~~ such as decks and fences, shall be a minimum of 1-hour fire-resistance-rated construction, heavy timber construction, ~~or constructed of~~ approved noncombustible materials, or other materials approved by the code official. Such attached components shall not increase the risk of fire spread to the structure.

(Remainder of section unchanged)

Reason: Attached structures and projections such as decks and fences routinely provide a ready conduit for fire propagation from vegetative fuels to structures.

Significant numbers of houses were lost or damaged during the 2003 Southern California wildfires due to ignition of wooden fences that were directly attached to the structure. Rather than prohibiting the use of wood entirely, an alternative is to require a transitional section of noncombustible materials for sufficient distance out from the attachment point to the structure so that heat and flames from the burning fence do not ignite the wall, eaves or roof of the structure.

Newer manufactured components, such as plastic or plastic-fiber composites, are increasingly being used for the construction of decks. Many homeowners and builders are using such alternative materials with the desire to have an attractive deck that doesn't need a lot of care and maintenance. However, in many instances the components are actually much more of a hazard than regular dimensional lumber due to the materials used in their manufacture. Fire tests conducted at the University of California Forest Products Lab have shown serious softening, melting, ignition and fire propagation for some of these products. The likelihood of fire spreading to a structure from a deck made of such products is dramatically increased.

The addition of performance-based language allows the code official to ask for test data or demonstration that alternate materials used for the construction of appendages and projections will not increase the risk of fire spread to the structure

Cost Impact: None

Public Hearing: Committee: AS AM D
Assembly: ASF AMF DF

IUWIC16-04/05

505.8

Proponent: Rolland M. Crawford, City of Loma Linda, CA representing California Fire Chiefs Assn. (CFCA), Fire Prevention Officers Section (FPO), Southern Division, Urban-Wildlife Interface Committee

Revise as follows:

505.8 Exterior glazing. Exterior windows, window walls and glazed doors, windows within exterior doors, and skylights shall be tempered glass, multilayered glazed panels, glass block or have a fire protection rating of not less than 20 minutes, or shall be otherwise designed to prevent flame or ember penetration into the structure. Vinyl window frame assemblies shall be prohibited, except when they have the following characteristics:

1. Frame and sash are comprised of vinyl material with welded corners;
2. Metal reinforcement in the interlock area;
3. Annealed insulating or tempered glass.

Reason: The addition of performance-based language specifies that whatever type of glazing materials are used, including various types of alternative materials or assemblies, that the overriding criteria is the prevention of ember or flame penetration into the structure. Fire analysis has shown significant problems with certain types of plastic or vinyl assemblies, to the extent that numerous jurisdictions have prohibited them entirely. Vinyl softens at 325°F, allowing the glazing to fall out of the frame. Radiant heat and/or burning embers then freely enter into the structure, with corresponding ignition of contents. However, when vinyl window assemblies are constructed according to these specifications, the frame stays intact, thereby continuing to hold the glazing in place. Intact dual pane vinyl window assemblies are actually holding up quite well—even though the outer glazing may become broken, the inner pane typically remains intact, thereby withstanding the entry of flame or embers for sufficient time for the fire front to pass by. This is supported by discussions and testing with the University of California Forest Products Lab and AAMA, as well as direct field observations during fires.

Discussions with vinyl window manufactures indicate that while the inclusion of welded corners and metal interlocks does increase the cost for the window assembly, the amount is really not all that significant (e.g., \$2-3). Their main concern is that they be given a level playing field in the competitive bidding process against "fly-by-night" manufactures who set up shop in temporary facilities, using the cheapest of materials, and then move on when the development is over.

Cost Impact: This code change will increase the cost of construction

Public Hearing: Committee: AS AM D
Assembly: ASF AMF DF

IUWIC17-04/05

505.10

Proponent: Rolland M. Crawford, City of Loma Linda, CA representing California Fire Chiefs Assn. (CFCA), Fire Prevention Officers Section (FPO), Southern Division, Urban-Wildlife Interface Committee

Revise as follows:

505.10 Vents. Attic ventilation openings, foundation or underfloor vents, or other ventilation openings in vertical exterior walls and vents through roofs shall not exceed 144 square inches (0.0929 m²) each. Such vents shall be covered with noncombustible corrosion-resistant mesh with openings not to exceed ¼ inch, or shall be designed and approved to prevent flame or ember penetration into the structure.

Attic ventilation openings shall not be located in soffits, in eave overhangs, between rafters at eaves, or in other overhang areas. Gable end and dormer vents shall be located at least 10 feet (3048 mm) from property lines. Underfloor ventilation openings shall be located as close to grade as practical.

Reason: Fire analysis is showing significant problems with both new and existing vent installations where typical ¼-inch mesh has been used. A very large proportion of structures lost during the 2003 Southern California wildfires were due to ember penetration into attic spaces through eave or roof venting of all types. This was documented by the Urban-Wildland Interface Committee in numerous instances where adequate defensible space was provided, and direct flame impingement was not a factor.

There is a need to provide performance-based language into the code because industry has not been able to fully address the problem of ember penetration into attic and other spaces. This performance-based language will allow the code official to stipulate or allow alternative designs that will still permit adequate airflow into the attic, while not facilitating ember intrusion. There currently are on-going discussions being conducted with venting and roofing manufactures regarding coming up with more acceptable designs that will better address this problem in the future. Until such time as more of those designs enter the market, this modified language will a way to mitigate the problem.

Cost Impact: None

Public Hearing: Committee: AS AM D
Assembly: ASF AMF DF

IUWIC18-03/04

505.11

Proponent: Joseph T. Holland, Hoover Treated Wood Products, Daytona Beach, FL

Revise as follows:

505.11 Detached accessory structures. Detached accessory structures located less than 50 feet (15,240 mm) from a building containing habitable space shall have exterior walls constructed with materials approved for a minimum of 1-hour fire-resistance-rated construction, heavy timber, log wall construction or constructed with approved noncombustible materials or fire-retardant-treated wood identified for exterior use and meeting the requirements of Section 2303.2 of the *International Building Code* on the exterior side.

When the detached structure is located and constructed so that the structure or any portion thereof projects over a descending slope surface greater than 10 percent, the area below the structure shall have all underfloor areas enclosed to within 6 inches (152 mm) of the ground, with exterior wall construction in accordance with Section 505.5 or underfloor protection in accordance with Section 505.6.

Exception: The enclosure may be omitted where the underside of all exposed floors and all exposed structural columns beams and supporting walls are protected as required for exterior 1-hour fire-resistance-rated construction or heavy-timber construction or fire-retardant-treated wood identified for exterior use and meeting the requirements of Section 2303.2 of the *International Building Code* .

See Section 505.2 for roof requirements.

Reason: According to Appendix G, the flame front from the wildfire moves through an area very quickly, usually no more than 6 minutes. FRTW will perform very well under the conditions found in this type of fire. It has a very low flame spread, less than 25 (typically in the 10 to 15 range), and will self extinguish once the source of ignition is removed or consumed. In addition, a fire cannot be started with FRTW. Insurance companies consider the product slow-burning. Because of the enhanced fire protection requirements of Section 504 the fire load will be very low preventing continued burning once the fire has past through.

Cost Impact: None

Public Hearing: Committee: AS AM D
Assembly: ASF AMF DF

IUWIC19-03/04

506.3

Proponent: Joseph T. Holland, Hoover Treated Wood Products, Daytona Beach, FL

Revise as follows:

506.3 Unenclosed underfloor protection. Buildings or structures shall have all underfloor areas enclosed to the ground with exterior walls.

Exception: Complete enclosure may be omitted where the underside of all exposed floors and all exposed structural columns, beams and supporting walls are protected as required for exterior 1-hour fire-resistance-rated construction or heavy timber construction or fire-retardant-treated wood identified for exterior use and meeting the requirements of Section 2303.2 of the International Building Code.

Reason: According to Appendix G, the flame front from the wildfire moves through an area very quickly, usually no more than 6 minutes. FRTW will perform very well under the conditions found in this type of fire. It has a very low flame spread, less than 25 (typically in the 10 to 15 range), and will self extinguish once the source of ignition is removed or consumed. In addition, a fire cannot be started with FRTW. Insurance companies consider the product slow-burning. Because of the enhanced fire protection requirements of Section 504 the fire load will be very low preventing continued burning once the fire has past through.

Cost Impact: None

Public Hearing: Committee: AS AM D
Assembly: ASF AMF DF

IUWIC20-04/05

603.2

Proponent: Rolland M. Crawford, City of Loma Linda, CA representing California Fire Chiefs Assn. (CFCA), Fire Prevention Officers Section (FPO), Southern Division, Urban-Wildlife Interface Committee

Revise as follows:

603.2 Fuel modification. In order to qualify as a conforming defensible space for the purpose of Table 503.1, for individual buildings or structures on a property, fuel modification shall be provided within a distance from buildings or structures as specified in Table 603.2. For all other purposes, the fuel modification distance shall not be less than ~~10~~ 30 feet (~~3048~~ 91467mm) or to the property line, whichever is less. Distances specified in Table 603.2 shall be measured on a horizontal plane from the perimeter or projection of the building or structure as shown in Figure 603.2. Distances specified in Table 603.2 may be increased by the code official because of a site-specific analysis based on local conditions and the fire protection plan.

Persons owning, leasing, controlling, operating or maintaining buildings or structures requiring defensible spaces are responsible for modifying or removing nonfire-resistive vegetation on the property owned, leased or controlled by said person.

Trees are allowed within the defensible space, provided the horizontal distance between crowns of adjacent trees and crowns of trees and structures, overhead electrical facilities or unmodified fuel is not less than 10 feet (3048 mm). Deadwood and litter shall be regularly removed from trees.

Where ornamental vegetative fuels or cultivated ground cover, such as green grass, ivy, succulents or similar plants are used as ground cover, they are allowed to be within the designated defensible space, provided they do not form a means of transmitting fire from the native growth to any structure.

Reason: Defensible space is one of the most critical components of the fire protection system for urban-wildland interface or intermix structures. Ten feet just does not provide sufficient space to prevent the propagation of flame to the building or structure from adjacent vegetative fuels. Requiring a minimum of 30 feet fuel modification distance, i.e., defensible space, will much better support Table 603.2 that accompanies this section. Additionally, measuring the tabulated distance on a ground plane (as indicated in Figure 603.2) gives a much less accurate perspective of the needed distance than the horizontal plane due to the variations in slope typically seen in such settings.

Cost Impact: None

Public Hearing: Committee: AS AM D
Assembly: ASF AMF DF

IUWIC21-04/05

Table 603.2

Proponent: Rolland M. Crawford, City of Loma Linda, CA representing California Fire Chiefs Assn. (CFCA), Fire Prevention Officers Section (FPO), Southern Division, Urban-Wildlife Interface Committee

Add footnote to table as follows:

**TABLE 603.2
REQUIRED DEFENSIBLE SPACE**

URBAN-WILDLAND INTERFACE AREA	FUEL MODIFICATION DISTANCE (feet) ^a
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(No change to table contents)

For SI: 1 foot = 304.8 mm.

a. Distances may be modified based on site-specific conditions.

Reason: The addition of the footnote will better support the language in the last sentence of the first paragraph of Section 603.2.

Cost Impact: None

Public Hearing: Committee: AS AM D
Assembly: ASF AMF DF

IUWIC22-04/05 603.3 (New)

Proponent: Rolland M. Crawford, City of Loma Linda, CA representing California Fire Chiefs Assn. (CFCA), Fire Prevention Officers Section (FPO), Southern Division, Urban-Wildlife Interface Committee

Add new text as follows:

603.3 Community fuel modification zones. Fuel modification zones to protect new communities shall be provided when required by the code official in accordance with Section 603 in order to reduce fuel loads adjacent to communities and structures.

603.3.1 Land ownership. Fuel modification zone land used to protect a community shall be under the control of an association or other common ownership instrument for the life of the community to be protected.

603.3.2 Fuel modification zone plans. Fuel modification zone plans shall be approved prior to fuel modification work and shall be placed on a site grading plan shown in plan view. An elevation plan shall also be provided to indicate the length of the fuel modification zone on the slope. Fuel modification zone plans shall include, but not be limited to, the following:

1. Plan showing existing vegetation.
2. Photographs showing natural conditions prior to work being performed and
3. Grading plan showing location of proposed buildings and structures, and set-backs from top of slope to all buildings or structures.

Reason: Section 603.3: In many instances, fuel modification zones are required for entire developments or communities, rather than for individual properties. This language better enables the code official to require fuel modifications zones for such situations.

Section 603.3.1: This text will help to clarify common vs. individual ownership issues for community fuel modification zones.

Section 603.3.2: Gives guidance for the specific information needed in plans for the fuel modification zones.

Cost Impact: None

Public Hearing: Committee: AS AM D
Assembly: ASF AMF DF

IUWIC23-04/05 604.1

Proponent: Rolland M. Crawford, City of Loma Linda, CA, representing California Fire Chiefs Assn. (CFCA), Fire Prevention Officers Section (FPO), Southern Division, Urban-Wildlife Interface Committee

Revise as follows:

604.1 General. Defensible spaces required by Section 603 shall be maintained annually, or as necessary, in accordance with Section 604.

Reason: Requires more specific regular maintenance of fuel modification zones. One of the major contributing factors in the loss of large amounts of structures during the 2003 Southern California wildfires was none or inadequate maintenance of combustible vegetation surrounding houses or communities. This text will provide more support to the code official for requiring an ongoing maintenance regime.

Cost Impact: None

Public Hearing: Committee: AS AM D
Assembly: ASF AMF DF

IUWIC24-04/05 606.2

Proponent: Jakki MacLean, Yakima County, WA Fire Protection Bureau, representing Washington State Association of Fire Marshals

Revise as follows:

Section 606.2 Location of containers. LP-gas containers shall be located underground. Where practical difficulties prevent underground installation, LP-gas containers shall be located within the defensible space in accordance with the International Fire Code.

Reason: Underground installation eliminates the possibility of direct flame impingement and reduces the likelihood of the tank venting, thereby diminishing the potential for BLEVE and/or exposure fire. Underground installation also minimizes concerns for location of combustible storage and vegetation with respect to the tank.

Cost Impact: This code change will increase the cost of construction.

Public Hearing: Committee: AS AM D
Assembly: ASF AMF DF

UWIC25-04/05

Chapter 7

Proponent: Standards writing organizations as listed below.

Revise as follows:

ASTM

ASTM International
100 Barr Harbor Drive
West Conshohocken, PA 19428-2959

Standard
reference
number

Title

E 84 -~~04~~ ~~03~~

Test Method for Surface Burning Characteristics
of Building Materials

Reason: The *ICC Code Development Process for the International Codes* (Procedures) Section 4.5* requires the updating of referenced standards to be accomplished administratively, and be processed as a Code Proposal. In May 2004, a letter was sent to each developer of standards that are referenced in the I-Codes, asking them to provide ICC with a list of their standards in order to update to the current edition. Above is the list received of the referenced standards under the maintenance responsibility of the IUWIC Committee.

4.5 Updating Standards: The updating of standards referenced by the Codes shall be accomplished administratively by the appropriate code development committee in accordance with these full procedures except that multiple standards to be updated may be included in a single proposal.

Public Hearing: Committee: AS AM D
Assembly: ASF AMF DF
