First Revision No. 1-NFPA 18-2015 [ Section No. 2.2 ]

2.2 NFPA Publications.
National Fire Protection Association, 1 Batterymarch Park, Quincy, MA 02169-7471.

Submitter Information Verification
Submitter Full Name: Jacqueline Wilmot
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Street Address:
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Submittal Date: Sun Apr 26 16:56:54 EDT 2015

Committee Statement
Committee Statement: The references in this section were updated to the latest edition in accordance with the NFPA Manual of Style.
Response Message:
2.3.1 ASTM Publications.
ASTM International, 100 Barr Harbor Drive, P.O. Box C700, West Conshohocken, PA 19428-2959.

Submitter Information Verification
Submitter Full Name: Jacqueline Wilmot
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Submittal Date: Sun Apr 26 17:59:34 EDT 2015

Committee Statement
Committee Statement: The references in this section were updated to the latest edition in accordance with the NFPA Manual of Style.
2.3.4 UL Publications.
Underwriters Laboratories Inc., 333 Pfingsten Road, Northbrook, IL 60062-2096.

Submitter Information Verification
Submitter Full Name: JACQUELINE WILMOT
Organization: NATIONAL FIRE PROTECTION ASSOC
Street Address:
City:
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Submittal Date: Fri May 01 16:32:38 EDT 2015

Committee Statement
Committee Statement: Update referenced standard to most recent edition as indicated.
Response Message:
Public Input No. 1-NFPA 18-2012 [Section No. 2.3.4]
2.3.6 U.S. Government Publications.

Submitter Information Verification

Submitter Full Name: Jacqueline Wilmot
Organization: [ Not Specified ]
Street Address: 
City: 
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Submittal Date: Sun Apr 26 17:57:34 EDT 2015

Committee Statement

Committee Statement: The references in this section were updated to the latest edition in accordance with the NFPA Manual of Style.
2.4 References for Extracts in Mandatory Sections.

Submitter Information Verification

Submitter Full Name: Jacqueline Wilmot
Organization: [ Not Specified ]
Street Address:
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Submittal Date: Sun Apr 26 17:58:27 EDT 2015

Committee Statement

Committee Statement: The references in this section were updated to the latest edition in accordance with the NFPA Manual of Style.
Response Message:
First Revision No. 11-NFPA 18-2015 [ Section No. 4.1.1.3 ]

4.1.1.3 Wetting agent concentrate shall be used at the prescribed proportion(s), in accordance with its listing(s).

Submitter Information Verification

Submitter Full Name: Jacqueline Wilmot
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Street Address:
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Submittal Date: Tue Apr 28 09:20:38 EDT 2015

Committee Statement

Committee Statement: Section 4.1.1.3 was modified to emphasize all aspects of the listing must be observed.
Response Message:
4.4 Concentrations.
Wetting agent solutions concentrate shall be used only in concentrations specified by their listing, at the prescribed proportion(s), in accordance with its listing(s).

Submitter Information Verification

Submitter Full Name: Jacqueline Wilmot
Organization: [ Not Specified ]
Street Address:
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Submittal Date: Tue Apr 28 09:14:39 EDT 2015

Committee Statement

Committee Statement: The Technical Committee modified Section 4.4 with the language from Section 4.1.1.3 to clarify the committee intent.
5.2.7 Alternate Viscosity Test Methods.

5.2.7.1* Where the preferred method does not provide usable results, an alternative test method shall be permitted.

5.2.7.2 Where an alternative test method is used, the method, test conditions, and results shall be documented and reported.

Supplemental Information

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<td>A.5.2.7.1_Alternate_Viscosity_Method.docx</td>
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Submitter Information Verification

Submitter Full Name: JACQUELINE WILMOT
Organization: NATIONAL FIRE PROTECTION ASSOC
Street Address:
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Submittal Date: Fri Jun 05 09:36:26 EDT 2015

Committee Statement

Committee Statement: In situations where the viscosity is too low to obtain meaningful results, other recognized methods can be used, provided the test method and test conditions used to obtain the reported results are included in the documentation.

Response Message:
A.5.2.7.1 One example of a case where an alternative test method might be used is when the viscosity is too low to produce meaningful results.
The wetting agent and its solutions shall be tested for corrosion with sample coupons of 4130 mild steel, 2024-T3 aluminum, and UNS C27000 yellow brass (65 percent copper, 35 percent zinc), which is 65 percent copper and 35 percent zinc.

Submitter Information Verification

Submitter Full Name: Jacqueline Wilmot
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Street Address:
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Submittal Date: Tue Apr 28 08:53:18 EDT 2015

Committee Statement

Committee Statement: The word "coupon" was added to clarify the intent of the use in response to public input #9.
Response Message:
First Revision No. 24-NFPA 18-2015 [Section No. 5.2.8.7]

5.2.9.7 Corrosion Weight Rate

5.2.9.7.1* The corrosion weight rate \((Cr)\) in mils per year (MPY) shall be calculated for each sample as follows:

\[
Cr = 534 \left( \frac{W_t - W_i - W_c}{A A t} \right)
\]

where:

- \(W_t\) = initial coupon weight (mg)
- \(W_f\) = final coupon weight (mg)
- \(W_c\) = weight loss of the control (mg)
- \(A\) = area of the coupon (in.\(^2\))
- \(t\) = exposure (hours)

\(\rho\) = density of the alloy \([\text{g/cm}^3 \text{ (lb/in.}^3\text{)}]\) as follows:

- 4130 steel = 7.86 g/cm\(^3\) (0.28 lb/in.\(^3\))
- yellow brass = 8.53 g/cm\(^3\) (0.3 lb/in.\(^3\))
- 2024-T3 aluminum = 2.77 g/cm\(^3\) (0.1 lb/in.\(^3\))

5.2.9.7.2 Results of replicate tests shall be averaged.

Supplemental Information

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Submitter Information Verification

Submitter Full Name: JACQUELINE WILMOT
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Street Address:
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Submittal Date: Wed Jul 08 20:06:41 EDT 2015

Committee Statement

The correct title for the section was updated to corrosion rate \((Cr)\) as this value is in mils per year (MPY). In addition, the metric densities were removed because the equation uses a mixed system of both U.S. and metric units. The constant value of 534 accounts for this and using the metric units for density will produce an incorrect value. Annex language was added to Section 5.2.8.7.1 to explain the equation uses mixed units.

Response Message:
A.5.2.8.7.1

This equation uses a mixed system of units (weight is in milligrams, area of the coupon square inches, and density in pound per cubic inch). The constant value in the equation (534) accounts for the use of mixed units.
6.2.2 Tests shall be conducted according to the procedures detailed in this section and ANSI/UL 711 CAN/ULC S508 for Class A fires utilizing a 3-A wood crib.

Submitter Information Verification

Submitter Full Name: JACQUELINE WILMOT
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Submittal Date: Fri May 01 16:33:22 EDT 2015

Committee Statement

Committee Statement: Add ANSI approval designation to UL 300 as UL 300 is ANSI approved.
Response Message: Public Input No. 2-NFPA 18-2012 [Section No. 6.2.2]
7.2 Listing.
Wetting agent solutions at the concentrations specified by the manufacturer shall be evaluated to and comply with the requirements of UL 711/ULC ANSI/UL 711 CAN/ULC S508 for Class B fires.

7.3 Test Method.
Tests for Class B fires shall be conducted as follows:

1. A 4.65 m² (50 ft²) 20 B pan fitted as described in UL 711/ULC ANSI/UL 711 CAN/ULC S508 with a backboard that is the width of the pan and 0.9 m (3 ft) high shall be used.
2. A 51 mm (2 in.) layer of heptane fuel shall be floated on a 102 mm (4 in.) depth of water.
3. The fuel in the pan shall be ignited and allowed to free burn for 60 seconds.
4. A 37.9 L/min (10 gpm) nozzle shall be used to apply the wetting agent solution to the fire using one, or a combination, of the following methods:
   a. The nozzle shall be fixed in position at an angle above the horizontal in order to direct the discharge across the pan onto the backboard for the entire duration of the test.
   b. The nozzle shall be permitted to be moved as necessary for control and extinguishment.
5. In no case shall the nozzle extend over any part of the test pan.
6. The fire shall be extinguished within 5 minutes of the start of application of the wetting agent solution.

Submitter Information Verification

Submitter Full Name: Jacqueline Wilmot
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Submittal Date: Tue Apr 28 09:52:51 EDT 2015

Committee Statement

Committee Statement: Update references.
Response Message:
Public Input No. 3-NFPA 18-2012 [Section No. 7.2]
Public Input No. 4-NFPA 18-2012 [Section No. 7.3]
First Revision No. 19-NFPA 18-2015 [ Section No. A.4.2.3.2 ]

A.4.2.3.2
Fire test requirements for protection of commercial cooking equipment are addressed by ANSI/ UL 300 for fixed fire extinguishing systems. The fire protection requirements for combustible cooking media protection are addressed under NFPA 17 and NFPA 17A.

Submitter Information Verification

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Submittal Date: Fri May 01 15:12:53 EDT 2015

Committee Statement

Committee Statement: Add ANSI approval designation to UL 300 as UL 300 is ANSI approved.
Response Message: 
Public Input No. 5-NFPA 18-2012 [Section No. A.4.2.3.2]
A.4.2.5
Fire test requirements for protection of Class D hazards are addressed by UL 711/ULC ANSI/UL 711 CAN/ULC S508.

Different wetting agent concentrates and their solutions can be incompatible. Such incompatibilities can result in any or all of, but are not be limited to, the following conditions:

1. Loss of fire-fighting performance
2. Coagulation or jelling of the concentrate or solution, which can alter flow
3. Improper proportioning rates
4. Increased corrosion or other structural damage
5. Inability to maintain a stable solution

Provided that the blending and application of water agent and water additive solutions is conducted using separate delivery equipment (to avoid the potential conditions noted in the preceding list), it can be beneficial to apply more than one type of wetting agent and/or water additive solution (including conventional foam solutions as governed by NFPA 11 and NFPA 1150), to take advantage of different product features and benefits.

It can be beneficial to use two or more different technologies to suppress a fire. For example, apply a wetting agent solution on a three-dimensional fuel fire to achieve suppression and then apply a conventional Class B foam blanket to provide an extra margin of safety and additional exposure protection for the resulting pooled fuel collected underneath the three-dimensional object.

Every care should be taken to avoid applying divergent technologies together, directed at the same delivery point or target, to avoid one product interfering with another, rendering one or both less effective.

Submitter Information Verification

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Submittal Date: Fri May 01 15:09:25 EDT 2015

Committee Statement

Committee Statement: Add ANSI approval designation to UL 711 as UL 711 is ANSI approved.
Response Message:
Public Input No. 8-NFPA 18-2012 [Section No. A.4.2.5]
A.8.2.2
Where such equipment is also used to take suction from a hydrant supplied by potable water supply, extra care should be exercised to prevent contamination of potable water supplies with the wetting agent concentrate or solution.

Submitter Information Verification

<table>
<thead>
<tr>
<th>Submitter Full Name:</th>
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Submittal Date: Tue Apr 28 10:11:56 EDT 2015

Committee Statement

| Committee Statement: | The extra care needed to assure no contamination of a potable supply should be exercised regardless if that supply comes through a hydrant or not. |

Response Message:

Public Input No. 7-NFPA 18-2012 [Section No. A.8.2.2]
B.1.1 NFPA Publications.
National Fire Protection Association, 1 Batterymarch Park, Quincy, MA 02169-7471.


Submitter Information Verification

Submitter Full Name: Jacqueline Wilmot
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Street Address:
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Submittal Date: Sun Apr 26 18:13:28 EDT 2015

Committee Statement

Committee Statement: The references in this section were updated to the latest edition in accordance with the NFPA Manual of Style.

Response Message:
First Revision No. 18-NFPA 18-2015 [Section No. B.1.2.1]

B.1.2.1 UL Publications.
Underwriters Laboratories Inc., 333 Pfingsten Road, Northbrook, IL 60062-2096.


Submitter Information Verification

Submitter Full Name: JACQUELINE WILMOT
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Street Address:
City:
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Submittal Date: Fri May 01 15:11:43 EDT 2015

Committee Statement

Committee Statement: Add ANSI approval designation to UL 300 and UL 711 as these standards are ANSI approved.
Response Message: Update referenced standards to most recent edition as indicated.

Public Input No. 6-NFPA 18-2012 [Section No. B.1.2.1]
First Revision No. 6-NFPA 18-2015 [ Section No. B.1.2.3 ]

B.1.2.3 U.S. Government Publications.


Submitter Information Verification

Submitter Full Name: Jacqueline Wilmot
Organization: [ Not Specified ]
Street Address:  
City: 
State: 
Zip: 
Submittal Date: Sun Apr 26 18:22:11 EDT 2015

Committee Statement

Committee Statement: The references in this section were updated to the latest edition in accordance with the NFPA Manual of Style.

Response Message: