

Supplemental Information for December 16, 2014 NFPA 805 FAQ Meeting

FAQ 14-0070, Revision 0b – Use of Non-Fire Treated Wood – [ML14191B262](#)

The staff has the following questions and observations about the above captioned FAQ.

- 1) How does the author differentiate between wood that is “[W]aste, debris, scrap, packing material . . .”? Section 3.3.1.2(3) of NFPA 805, includes a discussion of the treatment of these materials, is it the author’s understanding that treated wood (either listed or coated) is subject to both 3.3.1.2(1) and 3.3.1.2(3), or only under 3.3.1.2(1)?
- 2) NFPA 805 3.3.1.2(4) identifies combustible storage and staging areas, is it the author’s understanding that treated wood is excluded from section 3.3.1.2(4)?
- 3) The FAQ would appear to require that wood is “constantly attended.” If a licensee stores new fuel in the untreated shipping container for an extended period of time, is it the author’s intention that a continuous fire watch would be needed in the area where the new fuel is located until all the wood is removed? Is this consistent with industry practice?
- 4) Does the author have examples of where the NRC has used the broad interpretation of 3.3.1.2(1) to bound incidental items made of wood?

The staff agrees that 3.3.1.2(1) could be interpreted broadly and that a clarification may be appropriate. The information in the FAQ does not appear to consider other possible protections of combustibles as described in NFPA 805, 3.3.1.2(3) and (4), nor does it appear to be consistent with industry practice.

FAQ 14-0071 – Acceptable Use for Non IEEE 383 Cables - [ML14191B265](#)

The staff has the following questions and observations about the above captioned FAQ.

The FAQ appears to have a concern with, NFPA 805, 3.3.5.3, *Electrical Cable Propagation Limits – Electrical cable construction shall comply with a flame propagation test as acceptable to the AHJ*. The FAQ then introduces the concept of integral without a definition and without a specific context for this FAQ. If it is the author's intention to pursue the concept of integral cables, the staff would need more information about the definition of integral and the application of the concept with respect to flame propagation tests.

The staff offers the observation that, similar to FAQ 06-0022, the Office of Nuclear Reactor Regulation (the AHJ) has authority within the rule to find flame propagation tests acceptable. The staff would be better equipped to evaluate this FAQ if it were in the context of a specific type of installation (not plant specific) with a specific flame propagation test. Long, exposed lengths of highly flexible cable that, because of its application, may not be capable of meeting a currently acceptable fire propagation test may be such a specific application. The FAQ should include other factors, such as typical locations; fire hazards; and impact on the approved fire protection program, safe shutdown, and the Fire PRA.

NFPA 805, 3.3.5.3 requires the NRC staff to find acceptable any flame propagation test used by a plant under NFPA 805. The proposed language Item 2) of the FAQ, states that specific application cable should be permissible upon the evaluation of the licensee is not consistent with the rule, and therefore is not subject to consideration under the FAQ process.

## FAQ 14-0073 – Acceptable Uses of Fuel Fired Equipment

The staff has the following questions and observations about the above captioned FAQ.

- 1) The FAQ does not address NFPA 805 3.3.1.3.2, “(O)ther possible sources of ignition shall be restricted to properly designated and supervised safe areas of the plant.” Fuel fired equipment involves hot surfaces that are possible sources of ignition, yet FAQ 14-0073, does not include a discussion of restricting such equipment to designated and supervised safe areas of the plant.
- 2) The FAQ does not address NFPA 805 3.3(1), “Prevention of fires and fire spread by control on operational activities.” Fuel fired equipment has the potential to cause fires, and liquid combustibles have the potential for fire spread if not contained. Combustible liquids are typically contained by an enclosure (tank), a dike if the enclosure leaks, and typically a fire suppression system is installed. The FAQ does not discuss how the fire prevention is considered with the use of fuel fired equipment.
- 3) This FAQ does not address NFPA 805 1.5.1 on how the possible fires resulting in the use of fuel fired equipment may impact nuclear safety performance criteria.
- 4) This FAQ does not address NFPA 805 2.4.3 on how fuel fired equipment is addressed in the fire probabilistic risk assessment. For example, it may be reasonable to infrequently use fuel fired equipment (such as welding, lifts, etc.) with a fire watch under normal plant conditions, but following an emergency unknowns regarding human performance may be difficult to quantify. As such, introducing complexity to an emergency to include hot surfaces and lack of redundant containment for combustible fuels, should be avoided unless the potential impact of such actions is fully considered both deterministically and within the fire probabilistic risk assessment.
- 5) This FAQ lists several examples of fuel fired equipment used by licensees which is part of an approved design. However, this FAQ does not provide locations of the fuel fired equipment in regards to plant areas containing equipment important to nuclear safety or where there is a potential for radiological releases resulting from a fire.