Public Input No. 5-NFPA 1585-2022 [Global Input]

I propose that NFPA 1585 include or submit a TIA to change the 2021 language for NFPA 1500 10.1.5* (will be 12.1.5* after the 1550 consolidation) to include Air Purification Systems for reducing exposure for emergency service personnel within emergency facilities apparatus bays.

1585 - 3.3.14.1* Contamination Control Area, 4.4.2 (1) & (2a), 4.3.12.2*, 5.3.1.2*

We ask that you kindly review NFPA 1500 10.1.5* of recommending only direct or source capture systems for exhaust removal for apparatus bay areas and include "Air Purification" or define Source Capture as including Air Purification. A direct capture system is not the only effective method for reducing exposure to engine exhaust for emergency service personnel within emergency facilities & apparatus bays (hot/red zones). We ask that you reword or amend the Current 2021 Chapter 10.1.5* language back to the 2018 language that does not exclude other viable methods of removal: 2018: "The fire department shall prevent exposure to fire fighters and contamination of living and sleeping areas to exhaust emissions." OR include the proven technology within the 2021. For example: "The fire department shall prevent exposure to the firefighters and contamination of living and sleeping areas to exhaust emissions through the use of direct or source capture systems including air purification

To not burden you with a large comment I have not included a basis of air purification for exhaust removal within emergency facilities apparatus bays. Please contact me and I will send this information or add it to this comment. Thank you for your time.

Statement of Problem and Substantiation for Public Input

NFPA 1585 include or submit a TIA to change the 2021 language for NFPA 1500 10.1.5* (will be 12.1.5* after the 1550 consolidation) to include Air Purification Systems for reducing exposure for emergency service personnel within emergency facilities apparatus bays

Submitter Information Verification

Submitter Full Name: Thomas Vitko
Organization: Air Vacuum Corp
Street Address:
City:
State:
Zip:
Submittal Date: Tue May 03 13:44:25 EDT 2022
Committee: ERH-AAA

Committee Statement

Resolution: The technical committee recognizes that the requested change is outside of the scope of the ERH-AAA. This proposal is an attempt to remove the requirement from NFPA 1500 for a direct or source capture exhaust system in apparatus bays in favor for a more lenient requirement that would allow general exhaust systems and air scrubbers.

Public Input No. 6-NFPA 1585-2022 [Section No. 5.3.2.2.2]

5.3.2.2.2

The transition area ~~shall include~~ should include restroom and shower facilities.

[The need for Hot Zone decon showers and restrooms are critical for the facility. The obvious need for Cold Zone showers and restrooms comes without question. Making the Transition or Yellow Zone *required* to have showers and restrooms as well is creating added costs and space requirements that may not be able to be supported by many departments/station. I feel the wording needs to be reduced to "should".]

Statement of Problem and Substantiation for Public Input

Duplication of facility services

Submitter Information Verification

Submitter Full Name: Kenneth Gale
Organization: Mitchell Associates Architects
Street Address:
City:
State:
Zip:
Submittal Date: Wed May 18 08:47:50 EDT 2022
Committee:

Committee Statement

Resolution: FR-18-NFPA 1585-2022
Statement: Transition areas (yellow) must include restroom and shower so that anyone who needs to shower before they enter the Living, Administrative, or Public Areas (green) can shower and transition from the Contamination control area (red) to the Living, Administrative, or Public Area (green).

The committee will correlate NFPA 1500 requirements to this requirement so that showers are not required in all three areas.

Other areas of the facility can have showers, using “shall” for the transition area maintains the requirement for restrooms and shower facilities.

Public Input No. 7-NFPA 1585-2022 [Section No. 5.3.5]

5.3.5*

Ice machines and bulk water bottle storage shall not be located in contamination control or transition areas.

Statement of Problem and Substantiation for Public Input

Proposed addition is to eliminate the consumption of harmful toxins coating bulk, disposable water bottles that are stored in the Hot Zone.

Submitter Information Verification

Submitter Full Name: Kenneth Gale
Organization: Mitchell Associates Architects
Street Address:
City:
State:
Zip:
Submittal Date: Wed May 18 08:52:45 EDT 2022
Committee:

Committee Statement

Resolution: FR-1-NFPA 1585-2022
Statement: The technical committee identified other items that should not be placed in contamination control or transition areas. Bulk water storage may need to be placed temporarily in contamination control or transition areas, or protected by approved means.

Public Input No. 8-NFPA 1585-2022 [Section No. 5.5.5]

5.5.5 Gross ~~Contamination~~ Decontamination .

5.5.5.1*

Where possible, gross decontamination shall be completed outside the facility before apparatus and equipment are brought into the facility.

5.5.5.2

Where an outside location is not possible, the ESO shall designate a specific area within the facility where gross decontamination can occur.

Statement of Problem and Substantiation for Public Input

Correction of a typo.

Submitter Information Verification

Submitter Full Name: Kenneth Gale
Organization: Mitchell Associates Architects
Street Address:
City:
State:
Zip:
Submittal Date: Wed May 18 08:54:21 EDT 2022
Committee:

Committee Statement

Resolution: FR-3-NFPA 1585-2022
Statement: The committee corrected the title of the section to match the use of the term decontamination used in the section. The TC will continue to review this process in conjunction with PER.

Public Input No. 9-NFPA 1585-2022 [Sections 5.6.2, 5.6.3]

Sections 5.6.2, 5.6.3

5.6.2*

All transition areas ~~shall~~ should have a shower and a changing room.

5.6.3*

Transition areas shall have decontamination protocols, staging for responders to decontaminate, and cleaning equipment, including, but not limited to, the following:

(1) * Hand wash sink or station with hot and cold running water and soap
~~* Boot washer or cleaner~~

(2) within or at the entrance to the transition space

(3) *[Boots should not be walked out of the Hot Zone so decon and doffing of boots should occur in Bay or decon room]

(4) Touchless towel dispenser filled with disposable towels within or at the entrance to the transition space

(5) Trash receptacle within or at the entrance to the transition space

(6) Walk-off mat—recessed or surface

(7) Solid, nonporous surface bench or seating if transition space is provided with a shower or changing room

(8) Clothing hooks if transition space is provided with a shower or changing room

(9) Hamper for soiled clothing if transition space is provided with a shower or changing room

Statement of Problem and Substantiation for Public Input

Reducing duplication of services in the facility and making the language "should" instead of "shall".

Submitter Information Verification

Submitter Full Name: Kenneth Gale
Organization: Mitchell Associates Architects
Street Address:
City:
State:
Zip:
Submittal Date: Wed May 18 08:55:22 EDT 2022
Committee:

Committee Statement

Resolution: The technical committee identified that the explanatory text for sections provide the guidance as suggested by the public input. Current text allows flexibility for organizations to comply with the standard.

Public Input No. 10-NFPA 1585-2022 [Section No. 6.2]

6.2 Preventive Contamination Activities for RSVs.

6.2.1

RSV interior materials shall be physically and chemically inert to detergents and other solvents or solutions used to clean and disinfect.

6.2.2

The ESO shall limit contaminated equipment in the interior cab of RSVs.

6.2.3*

The ESO shall establish a process to transport contaminated equipment and PPE in a container or outside of an RSV cab.

6.2.4

The ESO shall provide exhaust capture or diversion systems on RSVs.

6.2.5*

The ESO shall establish methods to minimize the cleaning and decontamination process for RSVs.

6.2 Preventive Contamination Activities - The Clean Cab Concept for RSVs

6.2.1 The clean cab concept is the initiative to maintain and improve a healthy and safe environment. Keeping your passenger compartment free from contaminated gear and equipment is vital. Studies have already identified numerous carcinogenic exposure issues to post-fire incidents.

6.2.2 Everyone shall ensure that the cab of the vehicle is kept clean. The potential for secondary exposures during routine vehicle use is high and must be limited, and reducing secondary exposures and vehicle cabs shall be cleaned and decontaminated regularly.

6.2.3 The type of vehicle recommended for the clean cab concept completely separates the vehicle's passenger compartment from the stored equipment and gear. The use of non-absorbent vinyl seats and a smooth flooring surface of the vehicle will reduce embedded debris, making decontamination easier. The interior material(s) shall be physically ane chemically inert to detergent and other cleaning solutions utilized and approved to clean and disinfect.

6.2.4 The area of the vehicle shall be separated from the passenger compartment. It is recommended that contaminated gear and equipment leaving a fire scene not be stored in the passenger compartment. Contaminated gear should be bagged and sealed and tools and equipment cleaned at the scene or as soon as possible after leaving.

6.2.5 Any equipment used in an IDLH environment should not be stored in the passenger compartment. Transporting contaminated equipment and PPE shall be placed in a outside compartment of the RSV or utilizing tight-sealing containers to store contaminated equipment.

6.2.6 Decontaminate tools and equipment as soon as possible to reduce exposure to harmful substances. Every attempt to decontaminate your equipment on the scene is recommended.

6.2.7 The ESO shall provide exhaust capture or a diversion system for the approximate RSV.

Statement of Problem and Substantiation for Public Input

Adding the proposed language to the existing chapter would mirror the language for the clean cab concept in the upcoming NFPA 921 edition.

Submitter Information Verification

Submitter Full Name: Brian Gordon
Organization: Palm Beach County Fire Rescue
Street Address:
City:
State:
Zip:
Submittal Date: Wed May 18 09:12:26 EDT 2022
Committee:

Committee Statement

Resolution: The technical committee determined that the submission is already addressed in the standard. A task group will continue to review this concept for possible inclusion into Annex A. The submitter is encouraged to submit a public comment to Annex A.

Public Input No. 12-NFPA 1585-2022 [New Section after 8.15.15]

TITLE OF NEW CONTENT

Type your content here ...

Additional Proposed Changes

File Name	Description	Approved
Comment_to_1585.docx	Decontamination of ignitable liquid detection K9	

Statement of Problem and Substantiation for Public Input

Comment to 1585

This standard has been put together in a very clear and easy to read and understand manor. In my opinion this document will help strengthen and normalize our policies and procedures on exposure and contamination control.
I would suggest adding a section to 8.5 Fire Investigator Specific PPE Considerations, speaking specifically to the ignitable liquid detection K-9. We understand that fire investigators are becoming contaminated and have developed steps to limit the spread of those contaminates. I would like to see a section added addressing the ignitable liquid detection K-9's, and the type of on scene decontamination that could be preformed like giving the K9 a bath on scene and for instances that a bath can't be accomplished would decon wipes be a stop gap.
Often the ignitable liquid detection K-9's live with their human partners and are also house hold pets to the investigator and their family. These working dogs are being exposed to all of the same carcinogens as the investigator and aren't being decontaminated at all thus spreading contamination to the fire investigator, co workers, friends and family.

Please consider adding a section describing K-9 decontamination.

Sincerely,

Timothy Graves

Submitter Information Verification

Submitter Full Name: Timothy Graves
Organization:
Street Address:
City:
State:
Zip:
Submittal Date: Tue May 24 13:51:00 EDT 2022
Committee: ERH-AAA

Committee Statement

Resolution: FR-4-NFPA 1585-2022

Statement: The technical committee recognizes that canines used for the ignitable liquid detection or site search may become contaminated and steps should be developed for decontamination.

Comment to 1585

This standard has been put together in a very clear and easy to read and understand manor. In my opinion this document will help strengthen and normalize our policies and procedures on exposure and contamination control.

I would suggest adding a section to 8.5 Fire Investigator Specific PPE Considerations, speaking specifically to the ignitable liquid detection K-9. We understand that fire investigators are becoming contaminated and have developed steps to limit the spread of those contaminates. I would like to see a section added addressing the ignitable liquid detection K-9's, and the type of on scene decontamination that could be preformed like giving the K9 a bath on scene and for instances that a bath can't be accomplished would decon wipes be a stop gap.

Often the ignitable liquid detection K-9's live with their human partners and are also house hold pets to the investigator and their family. These working dogs are being exposed to all of the same carcinogens as the investigator and aren't being decontaminated at all thus spreading contamination to the fire investigator, co workers, friends and family.

Please consider adding a section describing K-9 decontamination.

Sincerely,

Timothy Graves

Public Input No. 11-NFPA 1585-2022 [Section No. 9.2.2]

9.2.2 Storage.

Tools and equipment shall be stored outside of the passenger compartment, in segregated storage areas dedicated to tools and equipment or on an apparatus within the ESF.

Statement of Problem and Substantiation for Public Input

Including the proposed addition would reassure the importance of keeping the passenger compartment free of contaminated items.

Submitter Information Verification

Submitter Full Name: Brian Gordon
Organization: Palm Beach County Fire Rescue
Street Address:
City:
State:
Zip:
Submittal Date: Wed May 18 09:33:03 EDT 2022
Committee:

Committee Statement

Resolution: The technical committee determined that section 9.2.2 is not needed.

Public Input No. 3-NFPA 1585-2022 [Section No. A.7.6.4.12]

A.7.6.4.12

The choice between dry or wet mitigation depends on the resources available to the ESO and the conditions on-scene. Studies have shown that wet mitigation techniques are more effective at removing surface contamination as compared to dry mitigation techniques.

Wet mitigation techniques remove a significant amount of products of combustion, whereas dry mitigation techniques only remove a portion of this contamination. Techniques involving blowing air onto ensembles or ensemble elements, such as with a leaf blower, are not effective and can redistribute contaminates at the scene and create inhalation hazards for unprotected members, and therefore should be avoided. See Fent, Kenneth W., et al., "Contamination of firefighter personal protective equipment and skin and the effectiveness of decontamination procedures."

If used, dry mitigation techniques should be performed by brushing debris from the exterior of ensembles and ensemble elements with a soft bristle brush prior to removal. Results are best by starting at the top of the ensemble and working downward.

Wet mitigation techniques should be performed by gently rinsing the exterior of ensembles and ensemble elements using low-pressure and low-volume-flow water. A mild detergent can be used to aid wet mitigation, followed by gentle rinsing. Heavy scrubbing or spraying with high-pressure water jets, such as a power washer, should be avoided.

There are several means by which wet mitigation techniques can be carried out. One method is to use a reducer from the apparatus pump panel to supply a small hose line, such as a forestry hose or a garden hose with an adjustable nozzle, at low pressure and low volume. Caution should be used when using ordinary fire hoses and nozzles for this technique where the lowest possible flow rate is used. Most departments have a booster line or trash line that is usually ¾ in. (19 mm) or 1 in. (25 mm) in diameter that can be applied at a low pressure [less than 30 psi (207 kPa)]. Portable decontamination showers that conform to ANSI/ISEA 113, *American National Standard for Fixed and Portable Decontamination Shower Units,* can also be used and can assist where weather, modesty, or other issues arise.

Wet mitigation should start at the top of the user's ensemble and move downward. Where necessary, a soft bristle brush can be used to gently scrub the ensemble or ensemble elements during the wet mitigation process. The important aspects of the wet mitigation technique are that the spray be light, not soak through the clothing, and be able to be applied over the entire member, as the goal is to remove surface contamination. Wet mitigation techniques cannot remove interior layer soiling or contamination.

It is further recommended that a mild detergent be used as an aid in wet mitigation where the surfactant in the detergent is helpful for removing exterior soils. Where a mild detergent is used, it should be followed by gentle rinsing of the ensemble or ensemble elements.

Organizations performing wet mitigation should apply procedures that take the runoff of any contaminated rinse water into consideration to minimize the spread of contamination to the environment.

If used in combination, dry mitigation should precede wet mitigation.

PER procedures should require members being decontaminated to remain in full PPE with face piece donned and breathing air on. Members performing decontamination should be in PPE appropriate to the ongoing risk assessment.

During PER actions, the use of a brush or any other abrasive cleaning devices on radiant reflective outer shells and other such components of protective ensembles and ensemble elements should not be permitted.

"Can you please expand on operational considerations between wet and dry decon? Especially for departments that have the second set of gear and the ability to clean gear between fire ground uses."

Statement of Problem and Substantiation for Public Input

“Can you please expand on operational considerations between wet and dry decon? Especially for departments that have the second set of gear and the ability to clean gear between fire ground uses.”

Submitter Information Verification

Submitter Full Name: Jamie Denison
Organization: Arvada Fire Prot Dist
Street Address:
City:
State:
Zip:
Submittal Date: Thu Feb 24 10:46:24 EST 2022
Committee: ERH-AAA

Committee Statement

Resolution: The technical committee identified that the first sentence of the annex section suggests consideration to the resources available to the ESO. The submitter is encourage to submit a change at the public comment stage to recommend a change that is needed.