

OMB CONTROL # 0693-0051

Evacuation Movement and Behavior Questionnaire

Current Expiration Date: 8/31/2011

### Request for a Nonmaterial/Nonsubstantive Change to the Questionnaire

The Building and Fire Research Laboratory (BFRL) at the National Institute of Standards and Technology (NIST) would like to make changes to the "Questionnaire on Emergency Evacuation Procedures." BFRL and the U.S. General Services Administration (GSA) provided this questionnaire to a building population after an evacuation in December of 2008. This event identified some areas of the questionnaire that were confusing to the respondents. Also, the event identified some aspects of the evacuation that were missing from the questionnaire. Therefore, BFRL would like to make some nonsubstantive changes to the questionnaire to improve data collection efforts from a future event (especially since GSA is interested in distributing this questionnaire to employees immediately after an event takes place). The changes are nonsubstantive because the changes are made either to the questions' answer responses or the questions' instructions. Any changes to the wording of the question itself are made to improve comprehension of the meaning of the original question. Also, there are a few questions that BFRL would like to add to the questionnaire; however, these questions do not change the scope of the questionnaire. This document will outline each change to the questionnaire in detail and provide justification for each change.

#### **Change 1:**

Currently, there are instructions given for Section 1, stating the following: "SECTION 1: Please answer the following questions about the time period between being alerted (e.g., from the alarm) to the incident in this building and entering the stairwell/elevator/exit."

BFRL would like to change this to say "SECTION 1: Please answer the following questions about the time period between being alerted (e.g., from the **initial** alarm) to the incident in this building and entering the stairwell/elevator/exit."

Justification: The word "initial" is added to the instruction (as highlighted above) to more clearly define what is meant by "being alerted." Since there could be several alarms (or messages from the alarm system) given during the event, the word "initial" was added to refer to an initial alarm or cue.

#### **Change 2:**

Currently, question 3 of the questionnaire states:

**(3) How did you become alerted to the incident?** Mark all that apply.

- Alarm tone
- Voice alarm message to evacuate
- Flashing strobe light
- Member of building staff (management or fire safety)
- Evacuation coordinator/fire warden
- Colleague/resident

- Other, please specify \_\_\_\_\_.

BFRL would like to change this to say the following (changes are highlighted):

“(3) How did you **first** become alerted to the incident? Mark **all** that apply.

- Alarm tone
- Voice alarm message to evacuate
- Voice alarm message to wait on floor/remain on floor
- Flashing strobe light
- Evacuation coordinator/fire warden
- Manager of company/Boss
- Fire safety/security staff for the building
- Colleague/coworker
- Smoke (dark/dense) OR • Smoke (light/diluted)
- Flames/fire
- Fire department personnel or equipment/trucks
- Other, please specify \_\_\_\_\_.”

Justification: In the instructions of the question, the word “first” has been added to more clearly state that the respondent should choose the method of alert that they observed initially. Also, since more than one of these methods/sources could have been observed by the occupant at the same time, for emphasis, an underline to the word “all” was added.

Seven additional response options were added to this question to more accurately account for the types of alerts that respondents could observe from a fire event. The first set applies to information given to the respondent over the voice alarm system, e.g., “Voice alarm message to evacuate” and “Voice alarm message to wait on floor/remain on floor.” If possible, BFRL would like these response options to remain flexible. That way, BFRL could include as many responses as necessary to reflect the different content of information provided to the occupants in a given building at the beginning of the incident. For example, initially, some occupants (on a set of floors away from the fire) could have been given instructions to wait on their floors, while occupants on other floors could have been told to evacuate. Flexibility in these questions could allow BFRL to alter these response options to reflect all of the types of information that occupants were given at the beginning of the incident.

The additional highlighted response options were included to more accurately account for the different types of alert methods/sources that occupants could observe. In the original questionnaire, the following response option was offered, “• Member of building staff (management or fire safety).” However, this was confusing for some occupants because a member of building staff could mean their manager, on one hand, or the building fire safety manager. Therefore, a response option was added for “Manager of company” and another option was revised for “Fire safety or security staff for the building.” The last set of response options, including an option for seeing smoke, seeing fire/flames, and seeing/hearing fire department personnel or equipment, was included to account for other types of cues that could be present in a building fire, but were not captured in the original questionnaire.

**Change 3:**

Currently, question 4 of the questionnaire states:

**(4) What did you think was going on?**

- Real fire emergency
- False alarm (the alarm is sounding by mistake)
- Test of equipment
- Regularly scheduled fire drill
- Security situation
- Weather emergency
- I didn't know what was going on
- Other, please specify \_\_\_\_\_.

BFRL would like to change this to say the following (changes are highlighted):

**(4) What did you initially think was going on?**

- Real **fire** emergency
- False alarm (the alarm is sounding by mistake)
- Test of equipment
- Regularly scheduled fire drill
- Security situation
- Weather emergency
- I didn't know what was going on
- Other, please specify \_\_\_\_\_.

Justification: In the instructions of the question, the word "initially" has been added to more clearly state that the respondent should focus on the initial time period of the event. This change is especially important since their interpretation of the fire event is likely to change throughout their evacuation from the building.

Another change is in the first response option originally stated as the following: "• Real fire emergency." If possible, BFRL would like this response option to remain flexible. That way, BFRL could change "fire" to any other type of event that may warrant an emergency response, such as a bomb threat. Since the U.S. General Services Administration performs terrorism response drills and would like to use this questionnaire for these types of evacuation drills as well, this change would be beneficial.

**Change 4:**

Currently, question 5 of the questionnaire states:

**(5) Once you were alerted to the incident, did you receive any instructions on where to go or what to do from one of the following? If yes, mark all that apply.**

- Voice alarm message
- A member of building staff (management or fire safety)
- A colleague/resident
- An evacuation coordinator/fire warden
- Other, please specify \_\_\_\_\_.

BFRL would like to change this to say the following (changes are highlighted):

**(5) After initial alert, did you receive any additional instructions/information from any of the following while you were on the floor? If yes, number all that apply in the order that you received these instructions beginning with (1). If necessary, you can number the same source of information more than once.**

- \_\_\_\_ Voice alarm message (What did the message say? \_\_\_\_\_)
- \_\_\_\_ Manager of company/Boss (What did he/she say? \_\_\_\_\_)
- \_\_\_\_ Evacuation coordinator/fire warden (What did he/she say? \_\_\_\_\_)
- \_\_\_\_ Fire safety/security staff for the building (What did he/she say? \_\_\_\_\_)
- \_\_\_\_ A colleague/coworker (What did he/she say? \_\_\_\_\_)
- \_\_\_\_ Other, please specify \_\_\_\_\_.

Justification: The instructions of Question 5 have been rewritten. First, the text referring to the nature of the question, i.e., “on where to go or what to do ...” has been removed and replaced with “any additional instructions/information from any of the following...” That way, respondents could report all of the information that they received rather than just the information about what to do or where to go. This is especially important if respondents are receiving information about additional cues, e.g., smoke on the floor (rather than information on what to do), throughout their time period on the floor. Also, the instructions were added to number all of the sources listed below the question. That way, BFRL can monitor the order in which respondents were given additional information. Last, instructions were added that the respondent can number the same source more than once. This is important if a manager, for example, gives the respondent one piece of information, then some time later, gives the respondent another piece of information.

Additional response options were added to this question to more accurately account for the types of information sources from which respondents could receive information. Similar to the response option changes in Question 3, a response option was added for “Manager of company/Boss” and another option was revised for “Fire safety or security staff for the building.” Also, at the end of each response option, an open blank option was added asking the respondent more about the information/message received from each source. This will allow respondents to provide additional information, if they want, on the content of the information received.

### **Change 5:**

Currently, question 6 of the questionnaire states:

**(6) Please number the following actions from what you did first (1) to what you did next (2), and continue to number all of the actions that you performed until you entered the stairwell/exit. Please number the following actions (only those that apply) on the lines provided**

- \_\_\_\_ Continued prior activity.
- \_\_\_\_ Waited (for instructions •, to see what others were doing •, to see if anything else would happen •).
- \_\_\_\_ Looked around.
- \_\_\_\_ Investigated - looked for the source of the alarm. (Where did you go? \_\_\_\_\_)
- \_\_\_\_ Sought more information about the alarm/alert.

- \_\_\_ Followed instructions. From whom? \_\_\_\_\_
- \_\_\_ Gave instructions to others on what to do.
- \_\_\_ Discussed with others (inside the building •, outside of the building •).  
About what? \_\_\_\_\_
- \_\_\_ Looked for others in the building.
- \_\_\_ Gathered coat / shoes, dressed. (What things? \_\_\_\_\_)
- \_\_\_ Gathered valuables. (What things? \_\_\_\_\_)
- \_\_\_ Gathered emergency/coordinator supplies. (What things? \_\_\_\_\_)
- \_\_\_ Saved file/turned off computer.
- \_\_\_ Secured files/documents.
- \_\_\_ Secured office/room/space (shut door •, turned out light(s) •, other? \_\_\_\_\_).
- \_\_\_ Moved to a stairwell/elevator/exit (Started evacuation).
- \_\_\_ Other, please specify \_\_\_\_\_.
- \_\_\_ Other, please specify \_\_\_\_\_.

BFRL would like to change this to say the following (changes are highlighted):

**(6) Please number the following actions from what you did first (1) after the first alert to what you did next (2), and continue to number all of the actions that you performed until you entered the stairwell/exit. Please number the following actions (only those that apply) on the lines provided. If necessary, you can number the same action more than once.**

- \_\_\_ Continued prior activity.
- \_\_\_ Waited (for instructions •, to see what others were doing •, to see if anything else would happen •, other reasons to wait? \_\_\_\_\_) (How long? \_\_\_ mins)
- \_\_\_ Looked around.
- ~~\_\_\_ Investigated—looked for the source of the alarm.~~
- \_\_\_ Sought more information about the event. (What information did you find? \_\_\_\_\_)
- ~~\_\_\_ Followed instructions. From whom? \_\_\_\_\_~~
- \_\_\_ Gave instructions to others. (About what? \_\_\_\_\_)
- \_\_\_ Discussed with others (inside the building •, outside of the building •).  
About what? \_\_\_\_\_
- \_\_\_ Looked for others in the building.
- \_\_\_ Gathered coat / shoes/valuables, dressed. (What things? \_\_\_\_\_)
- ~~\_\_\_ Gathered valuables. (What things? \_\_\_\_\_)~~
- \_\_\_ Gathered emergency/coordinator supplies. (What things? \_\_\_\_\_)
- ~~\_\_\_ Saved files/turned off computer/Secured files or documents.~~
- ~~\_\_\_ Secured files/documents.~~
- \_\_\_ Secured office/room/space (shut door •, turned out light(s) •, other? \_\_\_\_\_).
- ~~\_\_\_ Moved to a stairwell/elevator/exit (Started evacuation).~~
- \_\_\_ Other, please specify \_\_\_\_\_.
- \_\_\_ Other, please specify \_\_\_\_\_.

Justification: The instructions of Question 6 have been modified slightly. The words “after the first alert” have been added to the instructions to make it clearer when this time period of interest begins (i.e., the first moment that respondents should begin recording their actions in Question 6). Also, instructions were added that the respondent can number the same source more than once. That way, if respondents performed an action more than once, this behavior can be captured in the survey. In the original

questionnaire, a statement about marking (or numbering) a behavior more than once was not included, which may have confused respondents or caused them to think that behaviors could not be marked more than once.

Changes to Question 6 were also made to the response options. First, a few additional questions were added to the second response option, "Waited." An "other" option was added to give respondents an opportunity to state why they were waiting on their floor, in case the other response options, i.e., "for instructions, to see what others were doing, to see if anything would happen," were not appropriate. Also, a question was added to the "Waited" response option asking the respondents how long they waited. This was added because, from the previous incident from which BFRL collected surveys, some respondents in the building waited for 5 minutes, while some waited for 30 minutes. It would have been helpful to ask respondents how long they waited on the floor and why they waited.

Second, changes were made to the response option: "Sought more information..." Originally, the option stated "Sought more information about the alarm/alert." The response option should be made more generic to "Sought more information about the event." BFRL is really interested in whether a respondent performed this action at all, and it is possible that respondents can seek information for many reasons; not just about the alarm/alert. Also, a question was added to this response option asking the respondents about the information that they found if they sought information. This will allow BFRL to better understand the reasons, possibly, for the behaviors that follow "Sought more information."

Third, changes were made to the response option: "Gave instructions..." Originally, the option stated "Gave instructions to others on what to do." The response option should be made more generic to "Gave instructions to others." BFRL is really interested in whether a respondent performed this action at all, and it is possible that respondents gave instructions to others that may be wider in scope than simply instructions on "what to do." Also, a question was added to the response option asking the respondents about what they told others to do. This was added because just knowing that a respondent gave instructions to others is not sufficient, and it is important to know what they were telling other people to do. This will give BFRL some insight on their thought process throughout the event.

Also, some of the response options were deleted from the questionnaire because they were repetitive of another option, they could be combined with another option, or they were not appropriate to be included in this response list. The "Investigated" response option was removed because it is essentially the same behavior as (the newly altered) "Sought more information about the event." The "Gathered valuables" response and the "Secured files/documents" options were removed and combined with other response options in the list. These options were similar to or already part of another response option; therefore, two other response options ("Gathered coat/shoes, dressed" and "Saved files/turned off computer") were expanded slightly to incorporate the two deleted actions. The "Followed instructions" response option was removed because it is not appropriate to be included in this list, since it is not a specific type of behavior or action. A respondent could "follow instructions" and actually be performing a variety of actions, such as saving files, continuing prior activity, etc. Similarly, "Moved to a stairwell..." was removed because this information is acquired in Section 2 of the questionnaire, specifically from Question 11.

### **Change 6:**

Currently, question 8 of the questionnaire states:

**(8) Did you feel at risk (in danger) at any time before you entered the stairwell?**

- Yes - high level
- Yes - moderate level
- No

BFRL would like to change this to say the following (changes are highlighted):

**(8a) Did you feel at risk (in danger) at any time before you entered the stairwell?**

- Yes - high level
- Yes - moderate level
- No

**(8b) If yes, did your feeling of risk (in danger) increase before your entered the stairwell?**

- Yes
- No

If yes, why? \_\_\_\_\_.

Justification: A question (8b) was added about whether the respondent's perception of risk was increased before he/she entered the stair. BFRL would like to ask this question because a respondent's perception of risk can change as more cues are gathered. The original version of the questionnaire does not capture this potential for change. Also, BFRL would like to add an open blank for the respondent to state why (if yes) did his/her feeling of risk increase. Since perception of risk can affect actions taken and time spent on the floor, this new question can help BFRL to understand 1) if risk increased during this time period, and 2) if yes, what cues caused this increase.

### **Change 7:**

Currently, question 11a of the questionnaire states:

**(11a) How did you evacuate the building?**

- Stairwell
- Elevator
- Walked directly outside to exit
- Other, please specify \_\_\_\_\_.

BFRL would like to change this to say the following (changes are highlighted):

**(11a) How did you evacuate the building?**

- Stairwell
- Elevator
- Both Stair and Elevator
- Walked directly outside to exit
- I did not evacuate the building.
- Other, please specify \_\_\_\_\_.

Justification: Two different options were added to Question 11a about how the respondent chose to evacuate. First, the option of taking "• Both Stair and Elevator" during the evacuation was added. For a variety of reasons, respondents could choose to alter their egress path during evacuation. For example, a respondent could start descending the stairs, but, part way down the building, decide that it will be too tiring to continue walking and instead chooses to finish evacuating in an elevator. The "• Both Stair and Elevator" option will allow respondents to better explain the path that they used to evacuate. Another response option was added to Question 11a: "• I did not evacuate the building." This option allows for BFRL to capture a wider range of respondents. In some building evacuations, some occupants will choose not to leave the building. This option will enable BFRL to identify these occupants.

### **Change 8:**

Currently, question 11b of the questionnaire states:

**(11b) If you used an elevator, what was your primary reason for not using a stairwell?**

- I have a condition that requires me to use an elevator.
- Elevators are more convenient.
- I could not find a stairwell.
- Other \_\_\_\_\_.

BFRL would like to change this to say the following (changes are highlighted):

**(11b) If you used an elevator, what was your primary reason for not using a stairwell?**

- I have a condition that requires me to use an elevator.
- Elevators are quicker.
- Elevators are easier to use (physically).
- Others were using the elevators
- Elevators are my normal way of leaving the building.
- I was instructed to use the elevator.
- I could not find a stairwell.
- Other \_\_\_\_\_.

Justification: Additional response options were added to this question to more accurately account for the reasons for not using the stairwell during evacuation. These options are the following: Elevators are quicker, Elevators are easier to use, Others were using the elevators, Elevators are my normal way of leaving the building, and I was instructed to use the elevator. First, the “• Elevators are quicker” option allows respondents that are considering time to be a convenience factor to explain their choice of using elevators. Respondents that choose “• Elevators are easier to use (physically)” option are the ones that could consider themselves in good enough condition to not be required to use an elevator, but still not feel comfortable using the stairs for the entire evacuation. The “• Others were using the elevators” option will allow BFRL to identify if the respondent was following others during the evacuation process. Another form of convenience is following a known path, so the “• Elevators are my normal way of leaving the building” option was included. The final new option, “• I was instructed to use the elevator,” is intended to allow respondents to identify if their choice was part of the evacuation plan as implemented at the time of the evacuation. One response option, “Elevators are more convenient,” was removed from Question 11b because it was too vague, since convenience can mean time, energy expended, or distance traveled, for example. The newer response options more specifically describe reasons for not using a stairwell.

### **Change 9:**

Currently, question 11c of the questionnaire states:

**(11c) How did you find the stairwell/elevator/exit that you used to evacuate?**

- I followed others.
- I followed EXIT signs.



- I knew the exit.
- I used the way I came in.
- I was instructed to use this exit.
- Other, please specify \_\_\_\_\_.

BFRL would like to change this to say the following (changes are highlighted):

**(11c) How did you find the stairwell/elevator/exit that you used to evacuate from your floor?**

- I followed others/**others were using this exit**
- I followed EXIT signs.
- I knew the exit/**I am familiar with the exit.**
- **I used the closest exit.**
- I used the way I came in.
- I was instructed to use this exit.
- Other, please specify \_\_\_\_\_.

Justification: The instructions to Question 11c were altered to provide clarification to the respondents about the information that BFRL is interested in. It is possible that a respondent could start evacuating in one stair and then change to a second stair for some reason. The intent of this question is not to understand why that change happened, but is only intended to capture how the respondent made the initial decision to evacuate via the stair. To make this distinction clear, “from your floor” was added as highlighted above.

For two of the response options in Question 11c, words were added that only rephrase the original option as is shown above. The option “• I followed others” was increased to include “• I followed others/others were using this exit”. While the respondents might not consider themselves to be following others, choosing the exit because others were using it is the motivation that BFRL is interested in. Similarly, “• I knew the exit” is increased to include “• I knew the exit/I am familiar with the exit” as indicated above. This again is only a change in phrasing to allow the respondent to better understand what BFRL desires to know.

The response option “• I used the closest exit” was also included in the revised Question 11c. This option allows the respondent to better explain the reason why a particular exit was chosen. It is expected that some occupants, in an effort to evacuate as quickly as possible, will go to the closest exit. While the selection of this exit would be based on observations of others, signs, or previous knowledge, some respondents may not consider those pieces of information to be the ones that led them to choose the exit that they did.

### **Change 10:**

Currently, question 12 of the questionnaire states:

**12) If you left by a stairwell,**

**(a) Did you use...** • Stairwell \_\_ • Stairwell \_\_ [*Designations, e.g., A, 1, north, blue, to be tailored to involved stairwell*]

**(b) Please check any of the conditions you encountered during the evacuation:**

€ Furniture or other object(s) obstructed entry to stairwell.

- € Crowding in the stairwell.
- € Difficulty opening stairwell or exit doors (Which doors? \_\_\_\_\_).
- € Uncomfortable handrails.
- € Poor lighting.
- € Emergency responders were coming up stairwell.
- € People in front of you were moving too slowly.
- € People were standing /resting on the landings.
- € Confusion with which way to proceed.
- € Shoes were uncomfortable for the required distance.

Other, please specify \_\_\_\_\_.

BFRL would like to change this to say the following (changes are highlighted):

**(12) If you left by a stairwell,**

**(a) Did you use... • Stairwell \_\_ • Stairwell \_\_**

**(b) Please check any of the conditions you encountered during the evacuation:**

- € Furniture or other object(s) obstructed entry to stairwell.
- € Crowding in the stairwell.
- € Difficulty opening stairwell or exit doors (Which doors? \_\_\_\_\_).
- € Uncomfortable handrails.
- € Poor lighting.
- € Emergency responders/other people were coming up stairwell.
- € People in front of you were moving too slowly.
- € People were standing /resting on the landings.
- € Confusion with which way to proceed.
- € Shoes were uncomfortable for the required distance.

Other, please specify \_\_\_\_\_.

Justification: The option in Question 12b “• Emergency responders were coming up stairwell” has been modified as shown above to include “• Emergency responders/other people were coming up stairwell.” BFRL is interested to know if people moving up the stairwell in the opposite travel direction caused a difference in how occupants evacuate. While this could be emergency responders moving towards the fire or other source of the alarm, it could also be individuals returning for forgotten items or some other reason. If the respondents encountered someone other than emergency responders in the stair, this change in wording will allow the respondents to indicate that the condition BFRL is interested in was present or not.

**Change 11:**

Currently, there is no question asking about changing stairwells.

BFRL would like to add a question to say the following (changes are highlighted):

**(12\*a) During your evacuation, did you leave the stairwell for any reason other than exiting the building or entering a transfer hallway?**

• Yes • No

**(12\*b) If yes, on which floor(s) did this occur? \_\_\_\_\_**

**(12\* c) And, what caused this change? Please mark all that apply.**

- Smelled Smoke.
- The stair was blocked (How? \_\_\_\_\_).
- Crowding in the stairwell.
- Thought another way would be quicker.
- Instructed to do so  
By Who? \_\_\_\_\_  
What were the instructions? \_\_\_\_\_
- Followed other people.
- Forgot something (What? \_\_\_\_\_).
- Other \_\_\_\_\_

Justification: A question asking the respondent to identify if they left the stairwell and, if so, where and why was added. This question is intended to identify what led the respondent to leave the stairwell. In an evacuation, occupants are generally safer in the stairwell than on the floors. Also, changing stairwells could lead to longer evacuation times and increased risk to the occupant. If respondents are undertaking this course of action, it is important to understand what is causing this to occur.

**Change 12:**

Currently, question 14 of the questionnaire states:

**(14) From the time you entered the stairwell/elevator/exit until you left the building, how many minutes passed? \_\_\_\_\_min.**

BFRL would like to change this to say the following (changes are highlighted):

**(14a) From the time you entered the stairwell/elevator/exit until you left the building, how many minutes passed? \_\_\_\_\_min.**

**(14b) What time was it when you exited the building? \_\_\_\_\_ (e.g., 10:30 am)**

Justification: A question asking the respondent to identify “What time was it when you exited the building?” was added to Question 14. This question is intended to facilitate the respondent’s memory of the event. During the evacuation, the respondent might not be considering how long the various actions are taking. By identifying what time it was when he/she left the building, the respondent might be able to then give better estimates of how long segments of the evacuation required. By knowing the approximate time of the initial alarm, the end time, and the perceived relative amounts of time spent on each segment of evacuation, the respondents might be able to better estimate the time that they required.

**Change 13:**

Currently, question 15 of the questionnaire states:

**(15a) Did you receive information or instructions that influenced your behavior while in the stairwell/elevator?** • Yes • No;

**(15b) If Yes, where did it come from (mark all that apply):**

- Voice (public announcement) system in the building
- Member of building staff (management or fire safety)
- Another evacuee
- Manager of your company (if a business occupancy)
- Other, please specify \_\_\_\_\_.

**(15c) If Yes, what was this information?** \_\_\_\_\_.

BFRL would like to change this to say the following (changes are highlighted):

**(15a) Did you receive information or instructions that influenced your behavior while in the stairwell/elevator?** • Yes • No;

**(15b) If Yes, where did it come from (mark all that apply):** If yes, number all that apply in the order that you received these instructions beginning with (1) until you exited the building. If necessary, you can number the same source of information more than once.

- \_\_\_\_ Voice alarm message (What did the message say? \_\_\_\_\_)
- \_\_\_\_ Manager of company/Boss (What did he/she say? \_\_\_\_\_)
- \_\_\_\_ Evacuation coordinator/fire warden/fire safety staff for building (What did he/she say? \_\_\_\_\_)
- \_\_\_\_ A colleague/coworker (What did he/she say? \_\_\_\_\_)
- \_\_\_\_ Other, please specify \_\_\_\_\_.

- Voice alarm message
- Manager of company/Boss
- Evacuation coordinator/fire warden/fire safety staff for building
- Another evacuee
- Other, please specify \_\_\_\_\_.

**(15c) If Yes, what was this information?** \_\_\_\_\_.

Justification: The instructions for Question 15b were changed to instruct the respondent to order the information and instructions they received rather than just indicating if they received the information or instructions (yes/no). This change is similar to the justification noted for Question 5 (Change 4 in this document).

Questions 15b and 15c are also being combined so that the respondents can better explain to BFRL what information they received and who gave them that information. This change allows the question to be similar in nature to Question 5 of the revised questionnaire. Please see the justification noted for Question 5 (Change 4 in this document).

#### **Change 14:**

Currently, question 20 of the questionnaire states:

**(20) How many times do you remember the fire alarm sounding in this building in the last year?**

- None

- 1 or 2 times
- 3 to 5 times
- 6+ times

BFRL would like to change this to say the following (changes are highlighted):

**(20) How many times do you remember the fire alarm sounding in this building in the last year?**  
 \_\_\_\_\_ (please provide a number)

- None —
- 1 or 2 times
- 3 to 5 times
- 6+ times

Justification: Question 20 is being changed to ask the respondent to give the number of times that the fire alarm sounded in the building in the last year rather than to check a box with a range of numbers. This change will not alter the type of information that the respondent is providing. The intent of this change is to not guide the respondent into preconceived notions of what is a normal number of alarms.

**Change 15:**

Currently, question 22a of the questionnaire states:

**(22a) If yes, how did you receive the fire emergency training (check all that apply):**

- Pamphlets or guides
- Video
- Seminars or presentations
- Other, please specify \_\_\_\_\_.

BFRL would like to change this to say the following (changes are highlighted):

**(22a) If yes, how did you receive the fire emergency training (check all that apply):**

- Pamphlets or guides
- Video
- Seminars or presentations
- **Evacuation drills/practice drills**
- Other, please specify \_\_\_\_\_.

Justification: The option “• Evacuation drills/practice drills” is being added to Question 22a. BFRL considers evacuation drills to be a form of training. Respondents might not consider the drills to be training, so including this option will enable BFRL to understand what level of training the respondent remembers having.

**Change 16:**

Currently, question 22b of the questionnaire states:

**(22b) How many fire drills have you participated in for this building in the last year?**

- None
- 1 or 2
- 3+

BFRL would like to change this to say the following (changes are highlighted):

**(22b) How many fire drills have you participated in for this building in the last year?**

- None
- 1 ~~or 2~~
- 3+ **2+**

Justification: The response options for Question 22b will be altered by changing the options “• 1 or 2” to “• 1” and “• 3+” to “• 2+.” BFRL is interested in how familiar the respondent is with the evacuation procedure for the building. The difference between one and two drills is expected to be more significant than the difference between two or more drills. To capture this distinction, the question has been amended as shown.

**Change 17:**

Currently, question 24f of the questionnaire states:

**(24f) What is your native language?** • English • Spanish • Other, please specify \_\_\_\_\_.

BFRL would like to delete this question:

**(24f) What is your native language?** • English • Spanish • Other, please specify \_\_\_\_\_.

Justification: Question 24f will be omitted from the new version of the questionnaire. The original intent of Question 24f was to assess if a language barrier could be preventing the respondent from understanding the instructions that might be given by a voice alarm or building staff. This concern has not been diminished. However BFRL recognizes that the questionnaire is written in English and the population self-selects if they will respond. Thus, if English prevented someone in the building from understanding what was happening, that person would not be able to complete this questionnaire. Since the target population for the question will not be answering the questionnaire, the question is being omitted.

**Change 18:**

Currently, question 24h of the questionnaire does not exist.

BFRL would like to change the demographic questions to include the following question (changes are highlighted):

**(24h) Are you a manager for your office/company?** • Yes • No

Justification: Question 24h will ask the respondents if they are managers in the company. During an evacuation, managers tend to behave differently than other employees. They can have responsibilities to make sure that their area is secure before leaving. Even if they are not assigned specific duties, other employees could respond to the person differently. Managers can be looked at as sources of information and can give their employees instructions that they are more likely to follow. BFRL wants to understand how respondents in a position of authority respond during an evacuation.

**Change 19:**

BFRL would like to add electronic check boxes and text fields so that the questionnaire can be filled out electronically (in WORD on respondents' computers).

Justification: In some buildings that will use the questionnaire, the building management may prefer to email the questionnaire to their employees. In the current version, the respondents that fill out the form electronically end up changing the spacing on the form, potentially making it harder to read. This change was requested by several respondents that filled out the questionnaire in the previous incident.