LOCATION	CURRENT TEXT	<b>REVISED TEXT</b>
p. 4	<b>Research and Development</b>	Research and
	Narrative	Development
		Narrative
	The narrative portion of the application should contain supporting information that allows for evaluation of your project(s). If you are applying for a grant in the <b>Research</b> <b>and Development</b> Activity, your Narrative Statement must address the evaluation elements outlined in the Program Guidance: <b>Technical Evaluation Process - Research</b> <b>and Development Activity</b>	The narrative portion of the application should contain supporting information that allows for evaluation of your project(s). If you are applying for a grant in the <b>Research and Development</b> Activity, your Narrative Statement must address the evaluation elements outlined in the Funding Opportunity Announcement.
	For R&D applications, a panel of reviewers will be assigned who have an area of expertise based on the subject matter of the proposal. Reviewers will assess each application's merits with respect to the detail provided in application, addressing specifically each criterion listed in the "Review and Selection Process" section below.	Please attach your narrative and appendix for each project submitted. A header or footer on each page of the Narrative Statement and the Appendix should contain: PI (family name), Institution Name (abbreviated), Project Short Title and page number.
	The panel of reviewers will independently score each application and if necessary discuss the merits or shortcomings of the application in order to reconcile any major discrepancies identified by the reviewers. A consensus is not required. The highest ranked applications, based on the average score, will receive further technical review to assess their strengths and weaknesses,	Please see the Funding Opportunity Announcement for details regarding the R&D Activity formatting requirements and page number maximums for the Narrative and Appendix documents. The Appendix document for each
	how readily weaknesses may be resolved, and the likely impact of the proposed R&D project to enable improvement in firefighter safety, health, or wellness.	project may include other items, such as data collection instruments, additional tables and figures, illustrations and
	Evaluation Criteria:	specifications for product designs, and letters of commitment from
	The characteristics listed below will be used as the guidelines in making funding decisions. The extent to which projects reflect these characteristics will be assessed in the technical evaluation using the weighted evaluation criteria (items 1-8) to	partners. Curriculum Vitae (CV's) for Project Investigators (PI) and lead scientists should also be included in the appendix but are limited to a two (2) page maximum per CV. Applicants are strongly

# FEMA Form 080-0-3b, Research and Development

score the application. These scores and will impact the likelihood that a project will be funded. In addition, other considerations are indicated (items 9-10) in the list below:

1) Project purpose(s), goals and objectives, and specific aims (15%): Applicants need to address how the results of a successful project will improve firefighter safety, health and wellness, particularly in the short term. For multi-year projects, greater detail should be given for the first year. Also describe the specific goals and objectives for the second and third years.

**2) Literature Review (10%):** With reference to the project's goals, objectives, and specific aims, provide a literature review that includes citations in the text and references at the end of the narrative. The review should be in sufficient depth to make it clear that the proposed project is necessary, adds to an existing body of knowledge, is different from current studies, and offers a unique contribution.

**3) Project Methods (20%):** This is a description of how the project will be carried out including demonstration of the overall scientific and technical rigor and merit of the project. This provides the operations to accomplish the purpose, goals and objectives, and the specific aims previously stated. Plans to recruit and retain human subjects, where applicable, should be described. Where human subjects are involved in the project, describe plans for submission to the Institutional Review Board (IRB) (see Appendix 1 for further guidance and requirements).

**4) Project Measurements (10%):** This includes specification of measurement methods, including instruments, procedures, and standards used in the project. Data are collected to evaluate the performance of methods, technologies and products proposed to enhance firefighter safety,

encouraged to follow the biographical sketch same outlined in the Funding Opportunity Announcement in preparing CV's.

Font: Times New Roman or other standard font. Font Size: Font size must be 11 points (11 pt) or larger. Page Dimensions: Page dimensions must be 8.5" x 11" (21.6 cm x 27.9 cm) or smaller. Margins: All margins (top, bottom, left, and right) must be at least 1" (2.54 cm).

Page limit requirements for both the Narrative and Appendix are specified in the Funding Opportunity Announcement.

All files should be in MS Word, MS Excel or as a PDF. Each project is limited to one narrative and one appendix attachment. health, and wellness. Measurement methods and equipment selected for use should be appropriate and sufficient to the project objectives.

**5) Project Analysis (10%):** Indicates the planned approach for analysis of the data obtained from measurement, questionnaires or computations. Specify within the plan, what will be analyzed, the statistical methods that will be used, the sequence of steps, and interactions, as appropriate. It should be clear that the R&D team has the expertise available to perform the planned analysis and defend the results in a peer review process.

## 6) Resources - People and Facilities

(15%): Describe the strengths of the PI, the lead scientists, and other staff of the research and development team especially with regard to similar R&D activities, or studies involving the fire service, and successful completion of prior grant funded research and development. Also describe the institutional resources (e.g., labs, experimental facilities) to be used to support and carry out the proposed project. Emphasis should be given to unique people and facilities that contribute substantially to the project.

7) Partners (10%): Describe the fire service partners that will support the ongoing project efforts from design through dissemination and implementation (of successful results). The specific roles and contributions of the partners to the project should be described. Partnerships many be formed with local and regional fire departments and national fire-related organizations. Because AFG R&D grants aim to improve the safety, health, and wellness of firefighters, having strong partnerships with the fire service is essential to the likely relevance and effectiveness of the project. Letters of commitment to actively participate in the project are encouraged and may be submitted in the

Appendix.

#### 8) Dissemination and Implementation

(10%): Indicate dissemination plans for scientific audiences (such as plans for submissions to specific peer review publications) and for Firefighter audiences (such as via websites, magazines, and conferences). Also, assuming positive results and where applicable, indicate future steps that would support dissemination and implementation throughout the fire service. These are likely to be beyond the current study. All applicants should specify how the results of the project, if successful, might be disseminated and implemented in the fire service to improve firefighter safety, health and wellness, especially in the short term. It is expected that successful R&D (Activity II) projects may give rise to future programs including Fire Prevention and Safety (Activity I) projects.

### 9) Cost vs. Benefit (additional

**consideration):** Cost vs. benefit in this evaluation element refers to the costs of the grant for the research and development project vs benefits that are projected for firefighters who would have improved safety, health, and wellness. Projects will be evaluated on the extent to which they demonstrate a high benefit for the cost incurred.

#### 10) Financial Need (additional

**consideration):** Applicants should provide in their narrative details on the need for Federal financial assistance to carry out the proposed project(s).

• Attach your narrative and appendix for each project submitted. Each page must also include a header or footer with the University or Institution name, the Project Title, and page number. The appendix for each project may include data

p.1, #2 Old question wording. New question wording.		<ul> <li>collection instruments, data tables, illustrations and specifications for product designs. Curriculum Vitae (CV's) for Project Investigators (PI) and lead scientists should also be included in the appendix but are limited to a maximum of two pages (2) per CV. A sample of the biographical sketch format for CV's is available in the Program Guidance Appendix 2. The sum number of pages for each attachment is limited to 20 pages (12pt font, Times New Roman or other standard font, 1" margins). All files should be printed in MS Word, MS Excel or as a PDF. Each project is limited to one narrative and one appendix attachment.</li> <li>PLEASE NOTE: This narrative section is for the details of your Research and Development Activity only. The information for Fire Prevention and Safety Activities should be included in the Fire Prevention request details section. Any information on Fire Prevention Activities in this narrative area will not be given consideration during the application review.</li> </ul>	
	p.1, #2	consideration during the application review.	New question wording.