



RESEARCH FOUNDATION

RESEARCH FOR THE NFPA MISSION

RESEARCH PROJECT GUIDELINES FOR CONTRACTORS

PREPARATION, EVALUATION, AND IMPLEMENTATION OF
RESEARCH PROJECT PROPOSALS

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1.0 Introduction

1.1 Background

The Fire Protection Research Foundation (hereinafter referred to as Research Foundation or Foundation) is an independent nonprofit whose mission is to plan, manage and communicate research projects in support of the NFPA mission¹.

1.2 Scope

This document is intended for contractors² and describes the process used by the Research Foundation to develop and implement research projects through an RFP (Request for Proposal) process. Note that the Foundation reserves the right to undertake projects that do not follow these guidelines; for these projects, which will be clearly identified in the RFP, refer to Foundation staff for guidance.

1.3 Policies and Procedures

These guidelines provide guidance information intended to supplement the *Research Foundation Policies for the Conduct of Research Programs*, other applicable policies and procedures used by the Research Foundation, and issued RFPs. For any conflict between these guidelines and the [Research Foundation Policies for the Conduct of Research Programs](#), the latter shall prevail.

1.4 Conduct of Participants

In fulfilling the general roles and obligations set forth under these Guidelines, all participants should adhere to the following general principles:

- a) To promote and support the overall mission of the Research Foundation and the NFPA;
- b) To adhere, both in letter and in spirit, to all duly established policies and procedures of the Research Foundation and NFPA;
- c) To enhance creativity and innovation in the development of new methods and technologies;
- d) To promote research that is scientifically and technically sound; and
- e) To adhere to the highest levels of professional integrity and ethical scholarship.

2.0 Research Proposal Process

2.1 Participants and Steps

The primary participants in the research proposal process are:

- 1) RFP-Respondents;
- 2) Project Primary Contractor;
- 3) Members of the Project Technical Panel (PTP); and
- 4) Research Foundation Staff.

The typical steps of the research proposal process are illustrated in Figure 1.

¹ NFPA Mission: We help save lives and reduce loss with information, knowledge and passion.

² The contractor is the RFP respondent to whom funding is awarded to complete a proposed project. A contractor can be the Project Primary Contractor or a subcontractor working under the responsibility of the Project Primary Contractor.

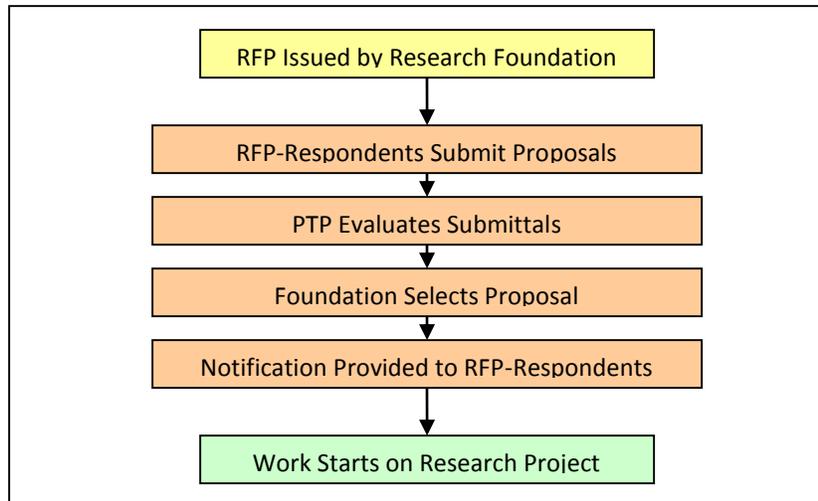


Figure 1 - Typical Steps of the Research Proposal Process

2.2 Conflict of Interest

Financial, business, family, or other relationship that might be interpreted as a possible conflict of interest with duties as a contractor to the Foundation is a criterion in final contractor selection. All contractors must submit a completed disclosure statement prior to initiation of Foundation research contracts. See Annex A: Disclosure Statement for Research Foundation Contractors.

3.0 Preparation of Research Project Proposals

3.1 Purpose

The purpose of this section is to provide guidance to those individuals who are preparing and submitting research project proposals (i.e., RFP-Respondents) and to provide suggestions on proposal elements that will be evaluated.

3.2 Format

Research proposal submittals should be no more than 6 pages in length (not including CVs, resumes, or letters of support) and provided in electronic media based on 8 ½ inch by 11 inch or A4 paper format. Submittals should be single spaced, single sided, 11-point font or greater, use 1 inch (25 mm) margins, and be written in English. An effort should be made to make the submittal as understandable as possible for the reviewers by clearly organizing the content, and being grammatically clear and correct. Additionally, detailed information of all people proposed to participate in the research including a designation of applicable roles and responsibilities should be provided. Any submittals or portions thereof that contain proprietary information should be clearly identified and include requested processing information. Further explanation of the evaluation criteria is covered in Section 4.2 Evaluation Criteria. A Project Proposal Template is provided in Annex C: Sample Research Project Proposal Template.

3.3 Submittal Content

Research proposal submittals should include the submitter's name, affiliation, address and other contact information, and should contain adequate information for the PTP to assess the quality of the proposal against the proposal evaluation criteria presented in Section 4.2 Evaluation Criteria and as modified by the RFP. This typically includes a statement of the research objective, tasks to be completed, approach(es)

to completing tasks, relevant expertise, experience, facilities, and dissemination plan. Additionally, detailed information of all those individuals proposed to participate in the research including a designation of applicable roles and responsibilities should be provided. Any submittals or portions thereof that contain proprietary information should be clearly identified and include requested processing information.

4.0 Proposal Evaluation, Selection, and Notification

4.1 Purpose

The purpose of this section is to provide a description of how proposals are reviewed, evaluated, and how the RFP-Respondents are notified of the results.

4.2 Evaluation Criteria

Each submittal in response to an RFP will be evaluated based on the RFP and the following evaluation criteria as applicable:

- a) Problem Understanding. The importance of the problem should be addressed, including limitations of current solutions to the problem. The proposal should demonstrate an awareness of the potential contribution of the results to the scientific community and to the codes and standards development process.
- b) Technical Merit. The proposal should contain sufficient detail to demonstrate how the research objective(s) will be met. Tasks and subtasks should be described and appropriate progress benchmarks identified. The quality, rationality, innovation, imagination, robustness, technical rigor, relevance and other aspects of the proposed research should be demonstrated as well as awareness of related research and current technology. The inherent project challenges should be addressed as applicable. The anticipated impact of the deliverables and the relevance to the scientific community should be indicated. See *Section 6.0 References* for useful references that relate to these guidelines.
- c) Experience and Capabilities. Relevant qualifications and experience of the individuals involved with the research team should be demonstrated, including the ability to plan, manage and complete the proposed project, as well as research and technical capabilities.
- d) Current Level of Active Foundation Engagement. The proposer's level of engagement with concurrently active Foundation project contracts that have been awarded through the Foundation's competitive evaluation process will be considered. Excessive contractual engagement by any one organization is defined as no more than ten percent of active projects in ratio with the total completed project count from the prior calendar year, which currently equates to three concurrent project contracts. This definition will be reviewed and revised as needed based on the total completed project count from the prior calendar year. This evaluation criterion will be assigned by Foundation staff, with all Proposers receiving a rating of 5 (the highest rating) unless they meet the definition for excessive contractual engagement, in which case they will be assigned a rating of 1 (the lowest rating).
- e) Dissemination and Distribution Strategy. A well-defined plan to disseminate and distribute the results to the appropriate audiences and constituent groups should be demonstrated. The Foundation encourages publication in *Fire Technology*, presentations to relevant NFPA Technical Committees, and at the NFPA Annual Conference.

- f) Budget (optional; not applicable with fixed price projects). When a project budget is not specified in the RFP, the appropriateness of the project budget relative to the level of effort should be addressed, including consideration for the most cost effective and efficient use of available resources. For projects having a budget over \$100,000, allocation of cost by project task should be provided.
- g) Deliverables (optional; not applicable for all project types). If not specified in the RFP, deliverables (e.g. reports, workshops, presentations, etc.) shall be identified and scheduled at critical points in the project lifetime.
- h) Schedule and Project Timeline (optional; not applicable with fixed time frame projects). When a project timeline is not specified in the RFP, a realistic and appropriate research schedule and timeline should be included in the proposal.

Supplemental material may be submitted in the appendices of the proposal. This material is not considered part of the official proposal and may or may not be used for consideration by the reviewing parties.

4.3 Evaluation Process

The winning proposal will be determined by Foundation Staff based on guidance from the PTP. Each proposal will be fully and fairly evaluated based on the evaluation criteria in these Guidelines, and the Foundation will not discriminate because of race, color, religion, gender, sexual orientation, national origin, ancestry, age, or disability.

4.4 Debriefing Process

All RFP-Respondents will receive written notification of the status of their submittal and indication of the winning proposal from Research Foundation Staff. Unsuccessful RFP-Respondents are encouraged to contact Foundation Staff for further details of the evaluation of their proposals.

5.0 Project Implementation

5.1 Purpose

The purpose of this section is to describe for the Project Primary Contractor the fundamental details necessary to implement a research project.

5.2 Project Administration

A Project Primary Contractor will be engaged by the Foundation for each project through the RFP process with input from the PTP. In cases where there is a requirement, at the direction of the PTP, for more than one contractor (e.g. a consultant and a testing laboratory), other contractors may be under the supervision of the Project Primary Contractor. In these cases the Project Primary Contractor will have responsibility for the deliverables and the draft final report in accordance with the project schedule and to respond substantially and fully to the PTP comments, followed by submittal of the final report.

5.3 Sample Contract

Sample contracts are on file with the Foundation and are available for review upon request.

5.4 PTP and Contractor Interaction

The contractor for a project shall use the PTP as a resource to enhance the project implementation. Unless otherwise directed, all correspondence between the PTP and the contractor should pass through Foundation staff. For a typical project, the PTP will review the scope of the proposed work and provide guidance to the Project Primary Contractor at the following project stages:

- a) The beginning of a project;
- b) As the draft report is being finalized; and
- c) Any intermediate step deemed to be an appropriate point to provide useful guidance.

5.5 Format of Final Report

Final reports should be provided in electronic media based on 8 ½ inch by 11 inch or A4 paper format and use the English language. An effort should be made to make the final report as understandable as possible by clearly organizing the content, focusing on grammatical clarity, and making the submittal visually appealing as appropriate by including diagrams, tables, lists, or images. The final report should include a Table of Contents, List of Figures, List of Tables, Executive Summary, Project Background, Methodology, Results, Discussion, Conclusions, and Recommendations (or Summary Observations as applicable).

5.6 Ethical Scholarship; Referencing Other Work; Plagiarism; Permissions

All reports or other material submitted to the Foundation are expected to be the original work of the Project Primary Contractor and any collaborators. Researchers should always take great care to distinguish their own ideas and knowledge from information derived from published primary and secondary material, and from information and opinions obtained from other people or sources. Proper attribution is a matter of good scholarship but, even more importantly, helps to preserve and protect the professional integrity and reputation of the researcher and the Foundation. The responsibility for understanding the requirements of proper attribution and the proper forms of citation lies with the Project Primary Contractor. All researchers involved in the project are responsible for obtaining permission to use copyrighted material (photographs or other images or artwork, graphs, tables, etc.) as appropriate. Plagiarism (the use of another person's words, thoughts or ideas without property attribution), regardless of whether it is intentional or the result of carelessness, will not be tolerated. All references and citations should at least utilize the citation style that is published, respected, and industry accepted. While not mandatory, the Foundation recommends all references and citations utilize the Chicago Manual of Style, 16th Edition. Further guidance is provided in Annex B: Research Foundation Research Guidelines for Reference Materials.

5.7 Research Involving Human Subjects

For any and all projects in which the research being conducted involves human subjects, it is the responsibility of the Project Primary Contractor to ensure full compliance with U.S. Department of Health & Human Services (HHS) policies and guidance. Primary project contractor is responsible for coordinating with the applicable institutional review board (IRB) or equivalent. The latest HHS policies and guidance can be accessed through the HHS web portal, <http://www.hhs.gov/ohrp/policy/index/index.html>. For work conducted outside of the U.S., the Project Primary Contractor shall comply with local requirements associated with research involving human subjects applicable for that jurisdiction.

5.8 Publication and Distribution

All project final reports will be made available to the public. Where appropriate, the final report will be distributed to the relevant NFPA Technical Committees. All Foundation reports will carry a standard release waiver indicating that the report was prepared by the contractor and reviewed by the PTP.

5.9 Intellectual Property Rights

The Foundation retains the copyright on all data, written materials, computerized software, and other information developed under contract. The disposition of patents and inventions are the responsibility of the contractor, and its obligations in this regard are set forth in the contract as necessary. The general knowledge, know how, expertise, generalized ideas, concepts, methods, techniques and skills developed by the project contractor(s) during the course of the project can be used by the contractor in any dealings with third parties and/or in other projects so long as the contractor can do so without using any confidential information learned as a result of the project.

5.10 Code Change Proposals

Contractors shall not represent the Foundation on any public inputs, public comments, requests for Tentative Interim Amendments (TIAs), Notices of Intent to Make a Motion (NITMAM), or code change proposals.

6.0 References

The following are useful references that relate to these Guidelines:

- 1) ASTM E 2536, Standard Guide for Assessment of Measurement Uncertainty in Fire Tests, 2006 edition
- 2) ASTM E 1355, Standard Guide for Evaluating the Predictive Capability of Deterministic Fire Models, 2005 edition
- 3) ASTM E 691, Standard Practice for Conducting an Interlaboratory Study to Determine the Precision of a Test Method, 1999 edition

Annex A: Disclosure Statement for Research Foundation Contractors

**DISCLOSURE STATEMENT FOR
FIRE PROTECTION RESEARCH FOUNDATION
CONTRACTORS/PANEL MEMBERS**

Name _____

In responding to these questions, please note that a "YES" answer does not imply that the relationship or transaction was necessarily inappropriate.

1. Are you an officer or director of any corporation which will be impacted in any way by the results of the project for which you have been engaged by the Foundation?
Yes _____ No _____

If so, please list the names of such corporations, the office held, and the nature of that impact.

2. Do you, does any member of your family, have a financial interest in, or receive any remuneration or income from any business organization which will be impacted in any way by the results of the project for which you have been engaged by the Foundation?

Yes _____ No _____

If the answer to the foregoing question is "YES" please supply the following information:

- A. Names of the business organizations in which such interest is held and the person(s) by whom such interest is held:

Figure 2 - Disclosure Statement for Research Foundation Contractors, Page 1 of 2

B. Nature and amount of such financial interest, remuneration or income:

3. Did you or any member of your family* receive, during the past year, any remuneration, gifts or loans from any business organization which will be impacted in any way by the results of the project for which you have been engaged by the Foundation? Yes

_____ No _____

If the answer to the foregoing question is "YES", please describe.

*Family is considered to include only the immediate family

5. Were you involved in any other activity during the past year that might be interpreted as a possible Conflict of Interest with your duties as a contractor/panel member to the Foundation?

Yes _____ No _____

If yes, please describe.

I certify that the foregoing information is true and complete to the best of my knowledge.

Date

Signature

Return completed Questionnaire to **Casey Grant, Executive Director, The Fire Protection Research Foundation, One Batterymarch Park, Quincy, MA 02169** in an envelope marked confidential.

Figure 3 - Disclosure Statement for Research Foundation Contractors, Page 2 of 2

Annex B: Research Foundation Research Guidelines for Reference Materials

The Research Foundation (the Foundation) respects and honors the intellectual property rights of creators of information. It is the expectation that all authors who contribute content to the Foundation to fully cite all sources and to abide by the U.S. laws which govern copyright protection. See: <http://www.copyright.gov/>. Permission should be gained when required. Unless the work you are referencing was written prior to 1923, assume that it is protected and must be cited.

The following guidelines should be used, whether the original source is paper-based or online.

1. Copyright – no permission needed for inclusion, but must be referenced

- The Fair Use Doctrine allows copyrighted materials to be used in research papers in small amounts—both qualitative and quantitative. See: <http://www.copyright.gov/fls/fl102.html>
- Excerpts of text copied verbatim from a source should be in quotation marks and if lengthy, set off with indentions.
- Paraphrased text need not be in quotation marks, but must be cited.
- Summarized text must be cited.

2. Copyright—permission needed from owner

- Artwork, photographs, poems, song lyrics, etc. (A short citation must accompany the figure when a full citation is not directly indicated).
- Charts, tables and graphs (A short citation must accompany the figure when a full citation is not directly indicated).
- An amount of material in excess of what is permitted by the Fair Use Doctrine.
- Screen shots of Internet or other online pages.

3. Public Domain and copyright free

- The copyright has expired
- The copyright was not renewed
- The copyright owner deliberately placed it in the public domain
- It was created by a U.S. federal government employee or officer in his/her official capacity
- Short phrases
- Facts and theories
- Ideas

4. Key points to remember

- Failing to properly cite others' work is plagiarism and is an ethical violation in the scholarly community.
- The most common manifestation of plagiarism is direct copying without quotes and without citation.
- The nature of a literature review is such that the reader is aware that none of the information presented is original.

- If it is online, it is most likely protected by copyright, even if there is no copyright statement on the page.

Annex C: Sample Research Project Proposal Template

Cover Page (not included in 6 page limit)

Cover page should include the following information:

- Title of project for which the proposal is being submitted
- Company information
 - Name and title of submitter
 - Name, address, and phone number of submitter's company
- Date of submittal

Body of Proposal

Background

The history of the issue being investigated, including any information relevant to the needs of the project should be described in 1-2 paragraphs. This section should include more than a restatement of the information contained within the RFP. It should communicate the importance of the problem and demonstrate an awareness of the potential contribution of the results to the scientific community and to the codes and standards developing process. Any other beneficiaries of the work should be identified.

Objective

The goal(s) of the research being conducted should be communicated in a brief paragraph. Further, the anticipated impact of the deliverables and the relevance to the scientific community should be indicated.

Approach

The proposed approach to addressing the project's objective(s) shall be explained in detail. An overview of any work plans for all relevant testing or data collection should be included in this section. The submitter should demonstrate how the research objective will be met. Tasks and subtasks should be described, at least as outlined in the project Request for Proposals (RFP), and appropriate progress benchmarks or measures of success should be identified. Risks and challenges should be acknowledged, along with contingency plans for dealing with serious potential setbacks. The quality, rationality, innovation, imagination, robustness, technical rigor, relevance and other aspects of the proposed research should be demonstrated as well as awareness of related research and current technology. The inherent project challenges should be addressed as applicable. Any other beneficiaries of the work should be identified.

Reporting and Deliverables

All deliverables to be included in the project, along with a well-defined plan for dissemination of the results to the appropriate audiences and constituent groups, shall be described. The Foundation encourages publication in Fire Technology and presentations to relevant NFPA Technical Committees and at the NFPA Annual Meeting.

Schedule and Cost

This section should justify the project budget relative to the level of effort, including consideration for the most cost effective and efficient use of available resources. For projects having a budget over \$100,000, allocation of cost by project task should be provided. If not specified in the RFP, a proposed research schedule and deliverable timeline that is realistic and appropriate for the work required should be described.

Personnel

Detailed information of all people proposed to participate in the research including a designation of applicable roles and responsibilities should be provided. In particular, the qualification and experience of the individuals involved with the research team should be demonstrated, including the ability to plan, manage and complete the proposed project, as well as research and technical expertise. Full CVs and resumes can be included as Appendices (CVs, resumes, or letters of support do not count towards the 6 page limit).

Facilities and Other Capabilities

Any relevant facilities and other capabilities of the RFP-Respondent's organization should be described in a brief paragraph.

Appendices

Any additional relevant information not covered in the body of the proposal should be included in an Appendix, which can include, but is not limited to:

- Project participants' CVs or resumes
- Letters of support
- Detailed description of past relevant experience
- Detailed description of RFP-Respondent's organizational facilities, competencies, and other capabilities
- References