

**STATE OF CALIFORNIA
AIR RESOURCES BOARD
RESEARCH DIVISION
P.O. BOX 2815
SACRAMENTO, CA 95812**

**GUIDELINES FOR:
UNIVERSITIES OF CALIFORNIA AND CALIFORNIA STATE UNIVERSITIES
FOR
PREPARING AND SUBMITTING *DRAFT* PROPOSALS
TO THE
AIR RESOURCES BOARD¹**

May 2017

¹ Note that these guidelines are abbreviated from the formal agreement guidelines, and proposals selected for funding will require some modification in order to be finalized into an agreement.

A. The technical proposal (Scope of Work).

Electronic proposal submissions (as Word or PDF files) should be submitted through ARB's research planning website at: <http://researchplanning.arb.wagn.org/Home>. Mailed hard copies are discouraged, but can be sent to the California Air Resources Board, Research Division, P.O. Box 2815, Sacramento, CA 95812-2815.

1. Technical proposal.

The technical proposal should be clear and concise, no more than approximately 50 pages in length. To conserve paper, please use single or one-and-a-half spacing. The technical proposal should be paginated as a stand alone document using the "Page xx of xx" format in the top right corner.

The technical proposal must include the following parts:

- a. Title page². The purpose of this page is to provide in one location information needed by our administrative staff. It must contain all of the following items (see Example A):
 - 1) the title of the proposal
 - 2) the name of the principal investigator
 - 3) a statement that the proposal was prepared for ARB's Research Division
 - 4) the name and address of the university
 - 5) the date of the proposal
 - 6) check box if proposed research uses human or animal subjects
- b. Table of contents.
- c. Statement of significance. The proposal must contain a one-page discussion of the relevance of this project to the Air Resources Board. Please include in this discussion, the objectives of this project and how the results will be beneficial to the Air Resources Board.
- d. Abstract. A one-page abstract of the proposed research briefly summarizing the main points of the various sections of the proposal.
- e. Project objectives/Project summary. Relate the objectives generally to the tasks specified in the work plan.

² For draft proposals, the university does not need to formally review and approve this proposal before it is submitted to the Air Resources Board. Proposals selected for funding will need to be reviewed and approved by the university before formal submission.

- f. Technical plan. This shall include at least the following topics:
- 1) A detailed description of experimental techniques or research methods to be employed, including requirements for test specimens, laboratory animals, or human subjects.
 - 2) A discussion of the tasks to be conducted and how those tasks will be performed.
 - 3) A data management plan that identifies the data to be collected, the sample size required to assure statistical validity of the data, methods of data handling, reduction, and analyses, data format, and approach to addressing quality assurance of the data.
 - 4) A description of testing procedures necessary to demonstrate required performance of equipment to be used in the study, if applicable.
 - 5) A description of existing facilities available for conducting the proposed research, including the physical plant, laboratory, other equipment, and requisite instrumentation.
 - 6) If applicable, a description of proposed human or animal subjects, including criteria for inclusion/exclusion, overview of recruitment plans, and need plans for Institutional Review Board (IRB) approval.
 - 7) References to publications describing similar work done by others.

2. Project schedule (see Example B).

List each task specified in the work plan. Addressing each task, display the projected timespan, with beginning and ending dates, of each individual task over the life of the contract. If tasks are extensive, they may be subdivided. Denote progress review meeting dates and dates of deliverables such as the draft final report.

3. Project management plan.

Identify key personnel (e.g., principal investigator, project manager, subcontractors, researchers) required to conduct the proposed research as follows:

- a. Provide an organizational chart of the principal investigator and technical personnel to be involved in the project.
- b. Provide a summary statement of assigned responsibilities for each of these personnel.
- c. Discuss how the project will be managed and coordinated. For example, use of a Gantt chart or other project tracking method, weekly meetings of the research team, assignment of a specific person to coordinate project tasks with their budgeted amounts.
- d. Include curricula vitae or résumés of the key scientific personnel.

4. Related research.

List all related research projects that have been completed, are underway, and/or are pending approval by key personnel on the project. The source of funds, project title, and term dates are to be included in this list (see Example C). All related research activities funded by other governmental or private entities are to be included in this listing.

5. Pre-existing Data Requirements

List any third-party or pre-existing data or copyrighted works, which have restrictions on use, which will be used during the performance of the Scope of Work. Additionally, if it is anticipated that any of the Project Data generated during the performance of the Scope of Work will have a restriction on use then those restrictions must also be identified. For all pre-existing data and/or copyrighted works and Project Data to be generated, identify the owner, type of data or copyrighted work (restricted or unrestricted), description, and nature of restriction (if applicable).

B. The cost proposal (Budget).

1. Estimated cost breakdown by task (see Example C).

For proposal purposes only. Not to be included as part of the contract. A summary of cost broken down by task must be included in the cost proposal packet.

C. Administrative documents

1. In the event that subawardees or subrecipients are to be used who are not a University of California campus, a California State University campus, another state's public university, or federal or local government, and are more than 25 percent of the total budget, they should be competitively bid. If they are not competitively bid, the University must provide sufficient justification for the inclusion of that particular subawardee or subrecipient.
2. Any private subcontract over \$10,000 must comply with DVBE participation requirements.
3. Any agreement resulting from this proposal will use the model agreement negotiated by the Department of General Services, University of California, and California State University.

D. Research Screening Committee Review

The Board's legislatively mandated Research Screening Committee (RSC) consists of scientists, engineers, and others knowledgeable, technically qualified, and

experienced in air pollution problems. The Committee meets approximately four times a year to review proposed and completed research projects. Full proposals and draft Final Reports for research projects are distributed to the RSC prior to each meeting.

EXAMPLE A³

SAMPLE TECHNICAL PROPOSAL TITLE PAGE

Page 1 of xx

TECHNICAL PROPOSAL

*Concentrations of Volatile Organic Compounds
in Urban Homes*

Principal Investigator:
Joanna Phillips

Official Authorized to Bind this Proposal:

Name _____

Signature _____

Prepared for:

State of California Air Resources Board
Research Division
PO Box 2815
Sacramento CA 95812

Prepared by:

University of California, Davis
One Shields Avenue
Davis, CA 90210
(888) 555-4433

August __, ____

Check if applicable:

Animal subjects _____

Human subjects _____

³ For draft proposals, the university does not need to formally review and approve this proposal before it is submitted to the Air Resources Board. Proposals selected for funding will need to be reviewed and approved by the university before formal submission.

EXAMPLE B

SAMPLE PROJECT SCHEDULE

PROJECT SCHEDULE

- Task 1:** Purchase equipment
- Task 2:** Install equipment
- Task 3:** xxxxx
- Task 4:** xxxxx
- Task 5:** xxxxx
- Task 6:** Draft final report
- Task 7:** Amend final report

	MONTH	1	2	3	4	5	6	7	8	9	10	11	12	13	14	
TASK																
1																
2																
3																
4																
5																
6																
7																
		m	p			m		p		m				dm		F

- p = Quarterly progress report
- d = Deliver draft final report (to be submitted 6 months prior to contract expiration)
- f = Deliver final report
- m = Meeting with ARB staff

EXAMPLE D

ESTIMATED COST BY TASK

*For Proposal Submittal
(not to be included in the contract)*

Task	Labor	Employee Fringe Benefits	Subs, Consultant s	Equip	Travel Subsist	EDP	Copy Print	Mail Phone Fax	Materials and Supplies	Analyses	Misc.	Overhead	Total
1	\$4,200	\$1,260	\$0	\$5,200	\$4,240	\$0	\$15	\$5	\$25	\$0	\$0	\$840	\$15,785
2	\$5,000	\$3,000	\$5,430	\$0	\$0	\$0	\$45	\$60	\$34	\$0	\$0	\$2,000	\$15,569
3	\$10,000	\$1,500	\$0	\$0	\$0	\$450	\$10	\$10	\$66	\$365	\$0	\$1,000	\$13,401
4	\$8,000	\$102	\$0	\$72	\$340	\$0	\$5	\$10	\$52	\$1,024	\$0	\$68	\$9,673
5	\$4,500	\$1,350	\$0	\$0	\$0	\$0	\$10	\$10	\$52	\$0	\$0	\$900	\$6,822
6	\$340	\$2,400	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$245	\$1,600	\$4,585
	\$32,040	\$9,612	\$5,430	\$5,272	\$4,580	\$450	\$85	\$95	\$229	\$1,389	\$245	\$6,408	\$65,835