

DRAFT REQUEST FOR PROPOSAL

GPA PROJECT No. _____

Title

Date

Title

GPA Project No. _____

Sponsored by the Gas Processors Association

INTRODUCTION

The Gas Processors Association (GPA) is soliciting proposals from interested parties to study

BACKGROUND

Insert material from Research Brochure write up....

VALUE TO INDUSTRY

Insert material form Research Brochure write up.....

OBJECTIVE & SCOPE

Need to develop detailed objective and scope....

STUDY FUNDING

GPA Project ___ is expected to be completed in ___ years with a total budget of \$_____. The first year's budget has been approved at \$_____. It is anticipated that \$_____ per year will be approved for the next ___ years, but this can not be guaranteed at this time. This project may be terminated at the end of any year if funding is not approved by the GPA membership.

REQUIREMENTS FOR THE PROPOSAL (*modify as necessary*)

1. General

The Proposal shall include a discussion of how the Investigator intends to meet the Study Objective. A detailed description of the apparatus to be used for the experiments and the experimental procedure to be followed shall be provided. The description shall also contain estimates of the accuracy and of the precision obtainable, and references to other data that have been generated on said equipment.

2. Project Schedule

A schedule that indicates the key activities and the associated tasks shall be included with the Proposal. The schedule shall identify project milestones and when they will occur.

3. Budget

Anticipated staff, material, and funding requirements shall be included in a project budget. The budget shall be coordinated with the schedule and reflect the scope given herein.

Since the work specified is approximate in nature, the pricing scheme shall cover the cost of the targeted experimental data points to be generated plus any additional points that could be subsequently requested. The latter shall be quoted on a cost per point basis. Quotations shall reflect the cost of meeting all the terms specified in this RFP.

4. Principal Investigator

The Proposal shall include a resume of the Principal Investigator and a summary of the other personnel involved.

5. Terms of Agreement

The successful bidder will be asked to execute a contract to cover this project with the terms and conditions outlined in Attachment #1. **Any exceptions to the terms and conditions contained in the agreement form must be pointed out in bidder's proposal.** Upon notice of award, the successful bidder shall have 30 days maximum to execute the contract prepared by GPA. If the contract has not been executed and returned to GPA in this 30 day period, the award may become null and void and GPA may re-open the remaining bids.

6. Reports

The Investigator shall issue semi-annual progress reports to the research steering committee and a final report in the form of a GPA Research Report at the end of the project.

The semi-annual progress report shall include a concise written summary of progress, percent completion, description of key findings, and presentation of all data obtained during the period. The report is to be provided to the project coordinator for distribution to the GPA prior to the steering committee meetings in March and September.

Additionally, the Investigator or his/her designee(s) shall attend one GPA steering committee meeting per year (in March) to present the semi-annual report and discuss work progress.

A formal Research Report (RR) prepared in accordance with the format described in Attachment 2 will be required at the completion of the work. The data shall be presented in usable tabular (Excel Spreadsheets) and graphical form for easy incorporation into the GPSA Engineering Data Book. The errors associated with the measurements shall be reported.

The final report shall be available in electronic format, (Excel/Word or equivalent), including plots, tables and text. One hard copy and one electronic copy of the RR will be required.

7. Project Direction - Project Coordinator

A member of the GPA Steering Committee has been assigned as coordinator to closely follow and help guide the work. GPA staff will handle project administrative details.

The Proposal shall be submitted to GPA no later than _____. Proposals are preferred to be sent by e-mail.

Questions of technical nature regarding this project should be directed to:

*GPA Steering Committee Project Coordinator
Complete with Coordinators contact information*

Questions of administrative nature shall be directed to:

Ron Brunner
Gas Processors Association
6526 East 60th Street
Tulsa, Oklahoma 74145

Telephone: 918/493-3872
Facsimile: 918/493-3875
Email: rbrunner@gasprocessors.com

GPA RESEARCH REPORT FORMAT

The following format is applicable to GPA Research Reports. It differs from theses, journal articles, and other reports primarily in the order of major sections. The objective is to emphasize the results and the use of the results by position in the report and by text. The purpose is to make it very clear to GPA Participants what their monies have yielded and what the product means. Other parts of conventional papers or reports are present but are in the back. The basic form will vary somewhat for different types of work (experimental, correlation, bibliographic, or testing) but the basic idea should be preserved. Unless otherwise advised, one hard copy and one electronic copy of the research report, along with electronic data files, will be required of the selected investigator.

I. Cover.

Author provides title, project number, agency, location of investigators, and date.

II. Foreword, i.

The forewords are written by the project coordinator, approved and signed by the committee chairs. Gives project background including previous RR reports, purpose of investigation, and intended application of results.

III. Disclaimer, ii.

Furnished, by GPA.

IV. Table of Contents, iii.

List major headings II through XIII. Subheadings may be used, if author desires.

V. List of Tables iv.

Actual or raw data are required. Smoothed data suitably identified are optional. All data must be reported in both English and SI units. If possible, tables should be reduced to half-size when printed to decrease bulk of final report. In general, Roman numerals should be used for Table identification. Tables are shown in Appendix A-1.

VI. List of Figures, v.

May be combined with List of Tables, if space permits. Plotted data should include all raw data points. English units are required – SI units optional. In general, Arabic numerals should be used for Figure identification. Data plots follow immediately after data tables in Appendix A-2. Figures (or tables) associated with experimental apparatus or detail are shown in Appendix A-3.

VII. Authors Introduction.

Brief introduction by author if warranted and desired.

VIII. Results and Conclusion.

Tells the reader/user what he wants to know immediately in clear and concise form for maximum utility.

IX. Discussion of Results.

Gives reader meaning and potential application of results. Compares present data with results of previous investigators, as available. Discusses and presents proposed or existing method for correlating data, when applicable.

X. Experimental Detail.

Briefly summarizes pertinent experimental and analytical background, equipment, procedures, and significant detail. Details will be different for experimental data-taking projects or modeling projects.

XI. Experimental Accuracy of Precision.

Include purity of materials, accuracy of measurements, precision of analyses, and other pertinent items. Author should give or estimate overall range of uncertainty for reported data when possible.

XII. Reference.

List all references cited in the report.

XIII. Appendix

A-1 Data Tables

A-2 Data Plots (Figures)

A-3 Other Figures (Equipment, apparatus, etc.)

Agreement for Research

An agreement entered into on _____, 200__ between the Gas Processors Association (GPA), a non-profit corporation having an office and place of business in Tulsa, Oklahoma, and _____ (Contractor), having a place of business in _____.

For the purpose of promoting the increase of useful knowledge and in consideration of the mutual promises herein contained, the parties hereto agree as follows:

1. GPA hereby engages Contractor to {conduct research relating to _____}, GPA Project No.____, as detailed in _____'s Technical Proposal #____, dated _____which is incorporated as a part of this agreement and included as Attachment I.

2. This agreement shall be in effect for a period of one year, commencing on the effective date of the agreement shown above.

3. GPA agrees to appropriate a sum not to exceed \$_____ for funding this project during its first year. It is anticipated that this project will be continued to conclusion as described in the proposal. However, GPA's budget procedures require annual approval and funding, and there can be no assurance of funding beyond the current term. An initial payment of \$_____ will be made upon receipt of the executed agreement. Additional payments will be made quarterly, subject to adequate progress, with a final payment of \$20,000 due upon receipt of one hard copy and one electronic copy of the final Research Report.

4. Contractor shall submit semi-annual written reports of its progress and findings along with its invoices. These progress reports shall report the per cent completion of the entire project. Contractor further agrees that all records relating to work on the project shall be made available to GPA for inspection at any reasonable time.

5. Upon completion of this project, Contractor will provide a final report to GPA summarizing all data and results of the work. The final report will be prepared as a Research Report and will conform to the format shown in Attachments 2 and 3. If a computer program is part of the final report, it will conform to the format outlined in GPA Standard 9175, attached as Exhibit C.

6. In order that full cooperation between the parties may be achieved and optimum research results obtained, a project committee shall be established consisting of representatives of GPA and appropriate representatives of Contractor. The committee shall meet as frequently as may be mutually agreed upon for the purpose of determining the general course of the project, reviewing its progress, planning further activities and providing such other assistance as may enable Contractor to best accomplish the objectives of the project. PROVIDED HOWEVER, it is understood that the work to be performed by Contractor shall be done as an independent contractor and that GPA shall have no direction or control over the employees of the Contractor, GPA being interested only that Contractor's performance is in compliance with this agreement.

7. Contractor agrees to devote such time, attention, and personnel to the project as is needed for its proper conduct, and to provide the project with the necessary scientific equipment and laboratory and service facilities.

8. Contractor represents that each employee employed by it in a position requiring exercise of scientific or technical skill has executed an agreement to assign to GPA any inventions or patents made under the terms of this agreement. Accordingly, at the request of GPA and at its expense, Contractor shall use its best efforts to cause its employees to execute all necessary documents for application for patent under the laws of the United States and all foreign countries and to convey the title to GPA of all inventions relating exclusively to the subject matter of this project.

9. Under the terms of this agreement, GPA shall have exclusive rights to all information, data, and results produced and to any computer programs developed as a part of the research project. GPA shall also have the right to modify and market said programs. Any proposal by Contractor or its employees to exploit commercially the research information and results developed under this project will require approval by GPA. In connection with any such request, it is understood that GPA will not ordinarily extend its permission for commercial exploitation until at least one year has elapsed from the completion of the project or the submission of the final report, whichever is later, and further, GPA may at its option condition its approval to require, among other things, the payment of a reasonable royalty to GPA from any such commercial exploitation.

10. In the event that the funds appropriated for this project are expended prior to the expiration of the agreement, this project shall be terminated, unless GPA, in writing, authorizes Contractor to continue the project. GPA reserves the right, at any time, to cancel this agreement upon 30 day written notice to Contractor.

11. Contractor agrees to defend, protect, indemnify and hold GPA, their officers, agents and employees harmless against all claims, fines, judgments, liabilities, losses and expenses, including attorney's fees in connection therewith, arising out of Contractor's or Contractor's subcontractor's performance or nonperformance of the work hereunder.

Every notice, request or statement provided for in this agreement shall be in writing and shall be directed, made or delivered as follows:

Notice to Contractor:

Notice to GPA:

Executive Director
Gas Processors Association
6526 East 60th Street
Tulsa, OK 74145
Fax: (918) 493-3875

This Agreement shall not be assigned by either party without the other party's prior written consent. In witness whereof the parties hereto have caused this agreement to be executed by their duly authorized representatives the day and year first written above.

Gas Processors Association

By: _____

By:
Mark F. Sutton

Title: _____

Executive Director

Date: _____

Date:

Recommended Reporting Units for RRs and Progress Reports

Quantity	FPS (ENG)	SI (Mod.)	Conversion Factors*
Area	ft ²	m ²	0.09290304
Diffusivity	ft ² /hr	m ² /sec	2.5806 x 10 ⁻⁵
Enthalpy-Flow	Btu/hr	W	0.293071
Force	lb [force]	N	4.44822
Heat	Btu	kJ	1.055056
Length	Ft	m	0.3048
Mass	Lb	kg	0.4535924
Mass-Density	lb/ft ³	kg/m ³	16.018462
Mass-Enthalpy	Btu/lb	kJ/kg	2.326
Mass-Entropy	Btu/lb-°F	kJ/kg-K	4.1868
Mass-Flow	lb/hr	kg/sec	1.25997x 10 ⁻⁴
Mass-Heat Capacity	Btu/lb-°F	kJ/kg-K	4.1868
Mole-Density	lb-mol/ft ³	k-mol/m ³	16.018462
Mole-Enthalpy	Btu/lb-mol	kJ/k-mol	2.326
Mole-Flow	lb-mol/hr	k-mol/sec	1.25997x 10 ⁻⁴
Mole-Heat Capacity	Btu/lb-mole-°F	kJ/k-mol-K	4.1868
Mole Volume	ft ³ /lb-mol	m ³ /k-mol	0.062428
Pressure (abs)	Psia	bar	0.06894757
Surface Tension	dyne/cm	dyne/cm	•
Temperature	°F	°C	°C = (°F - 32.0)/1.8
Thermal Conductivity	Btu-ft/hr-ft ² -°F	W/m-K	1.73073
Time	Hr	sec	3600
Viscosity	cP	cP	•
Volume	ft ³	m ³	0.02831685

To convert from FPS to SI multiply by given Conversion Factor.

Note: The Btu used in this table is the International Steam Tables (IT) Btu.