



**REQUEST FOR PROPOSAL - INVITATION TO BID ON SCOPING PROPOSAL**

DATE: **June 20, 2014**

BID NO: 2014-01

DIRECT INQUIRIES TO: Tom Moore  
PHONE NO: (970) 491-8837  
E-MAIL: [tmoore@westar.org](mailto:tmoore@westar.org)

RETURN BID TO: Western States Air Resources (WESTAR) Council  
1218 Third Ave, Suite 1518  
Seattle, WA 98101  
Attn: Tom Moore

DATE BID DUE: **Tuesday, July 8, 2014 by 2:00 PM Pacific Daylight Time**

Bids properly marked as to BID NO., DATE, and HOUR of opening, subject to the conditions herein stipulated and in accordance with the specifications set forth and/or attached hereto, will be accepted at the address listed above, prior to the date and time listed for the bid opening. All bids shall be quoted F.O.B. destination, unless otherwise specified, to the delivery location or jobsite listed herein.

SEALED COMPETITIVE PROPOSAL FOR:

**Drill Rig NO<sub>2</sub> Monitoring Project**

Prices shall be quoted F.O.B. destination and include delivery to WESTAR. See attached pages for terms and conditions and proposal requirements.

**IMPORTANT:** Bidders should read the entire document before submitting bid.

**BIDS MUST BE SIGNED IN INK.**

TERMS: Terms of less than 30 calendar days will not be considered.

\_\_\_\_\_  
TYPED OR PRINTED SIGNATURE

\_\_\_\_\_  
Handwritten signature by Authorized  
Officer or Agent of Vendor (in ink)

TITLE \_\_\_\_\_

DATE \_\_\_\_\_

PHONE # \_\_\_\_\_

E-MAIL \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

\_\_\_\_\_  
VENDOR NAME AND ADDRESS

The above bid is subject to Terms and Conditions on attached sheets.

**RETURN A COMPLETED COPY OF THIS PAGE WITH THE PROPOSAL**

**PROPOSER COST SUBMITTAL**

\_\_\_\_\_  
PROPOSER'S NAME

\_\_\_\_\_  
PROPOSER'S ADDRESS STREET AND NUMBER

\_\_\_\_\_  
CITY STATE ZIP CODE

\_\_\_\_\_  
NAME OF AUTHORIZED OFFICIAL (PRINT OR TYPE)

\_\_\_\_\_  
OFFICIAL TITLE

\_\_\_\_\_  
SIGNATURE OF AUTHORIZED OFFICIAL

\_\_\_\_\_  
TELEPHONE NUMBER

\_\_\_\_\_  
E-MAIL ADDRESS

TOTAL COST \_\_\_\_\_

**RETURN A COMPLETED COPY OF THIS PAGE WITH THE PROPOSAL**

## **RFP TERMS AND CONDITIONS**

1. **LATE BIDS/PROPOSALS WILL NOT BE ACCEPTED OR CONSIDERED.** It is the responsibility of the bidder/proposer (hereinafter “bidder” or “proposer”) to ensure that the bid/proposal (hereinafter “bid” or “proposal”) arrives prior to the time and at the place indicated in the bid. Telephone or facsimile responses will not be accepted.
2. Specifications are provided to identify product/service required and to establish an acceptable quality level. Bids on products of equal quality and usability will normally be considered unless otherwise stated. The Western States Air Resources (WESTAR) Council will be the sole judge in determining “equals” in regard to quality, price and performance. Samples of product(s), when required, must be furnished free of expense to WESTAR, and, if not destroyed by tests, may upon request at the time the sample is furnished, be returned at bidder’s expense. Failure to furnish brochures, specifications, and/or samples as requested may be sufficient cause for rejection of bids.
3. Bidders shall furnish all the information required and are expected to examine the drawings, specifications, schedule of delivery and all instructions. Should the bidder find any part of the listed specifications, terms and conditions to be discrepant, incomplete or otherwise questionable in any respect, it shall be the responsibility of the bidder to call such matters to the attention of WESTAR immediately. Failure to do so will be at the bidder’s risk. All official changes to this bid will be furnished, in writing by WESTAR.
4. The bidder shall furnish the products and/or services in strict accordance with the specifications, and at the price set forth for each item. In case of error in extension, the unit price will prevail. All products quoted shall be newly manufactured and of the manufacturer’s current model, unless otherwise specified.
5. The bid should be returned in an envelope sealed and properly marked as to bid number and opening time and date.
6. No bid shall be withdrawn for a period of less than sixty (60) calendar days subsequent to the opening of the bids, unless otherwise stipulated by WESTAR.
7. **Americans with Disabilities Act (ADA) Requirements.** The vendor assures that, at all times during the performance of this contract, no qualified individual with a disability shall, by reason of that disability, be excluded from participation in, or be denied benefits of services, programs, or activities performed by the vendor or be subject to any discrimination by the vendor.
8. **Independent Contractor.** The contractor shall perform its duties herein as an independent contractor and not as an employee. Neither the contractor nor any agent or employee of the contractor shall be, or shall be deemed to be, an employee or agent of WESTAR. Contractor shall pay when due all required employment taxes and income tax withholding, shall provide and keep in force workers compensation (and show proof of such insurance) and employment compensation insurance in the amounts required by law, and shall be solely responsible for the acts of the contractor, its employees, and its agents.
9. Bidder agrees to comply with all applicable federal and state laws, regulations and policies, as amended, including those regarding discrimination and unfair labor practices.

### **General**

1. All products/services produced in response to the contract resulting from this RFP will become the sole property of WESTAR.
2. Products/services resulting from this contract will not be subject to separate renewal or upgrade fees during the life of the contract.

3. Licenses for proprietary software and other products included as part of the package of products/services resulting from this contract will not be subject to separate renewal or upgrade fees.
4. The successful offeror will provide a warranty provision for the products/services resulting from this contract, for the life of the contract, starting from the date that the project deliverables are fully operational.
5. The project data deliverables will be not be distributed, copied, or shared without the prior written approval of WESTAR.
6. The successful offeror may be an individual company, entity, or institution, or may be composed of a team of companies, entities, and/or institutions to handle the development and routine operation portions of this project.
7. No changes to the staffing of the prime and any subcontractors can be made without prior written approval by WESTAR.

## **ADMINISTRATIVE INFORMATION**

- A. **ISSUING OFFICE:** This Request For Proposal (RFP) is issued by the Western States Air Resources (WESTAR) Council. WESTAR is the sole point of contact on this RFP.
- B. **INVITATION TO SUBMIT PROPOSALS:** WESTAR is hereby contacting prospective offerors who have an interest or are known to do business relevant to this RFP. All interested offerors who were not contacted are invited to submit a proposal in accordance with the rules, procedures and dates set forth herein. In the event of “No Bid”, please sign the Invitation for Bid form, indicating “No Bid,” and return it to WESTAR.
- C. **PURPOSE:** This RFP provides prospective offerors with sufficient information to enable them to prepare and submit proposals for consideration by WESTAR to satisfy the need for expert assistance in the completion of the goals of this RFP.
- D. **SCOPE:** This RFP contains the instructions governing the proposal to be submitted and the material to be included therein, including mandatory requirements which must be met to be eligible for consideration.

E. **PROPOSED SCHEDULE OF ACTIVITIES:**

1.	RFP Published	06/20/2014
2.	Pre-Proposal Conference	06/26/2014
3.	Prospective Offerors’ Written Inquiry	06/27/2014
4.	Proposal Submission	
	2 hard copies including original and 1 electronic copy	07/08/2014
5.	Review committee meeting to discuss evaluation criteria and conduct preliminary review	07/10/2014
6.	Review committee bid evaluation meeting	07/14/2014
7.	Bidder Telephone Interviews (option of WESTAR)	07/15/2014
8.	Proposal Selection (estimated)	07/17/2014

- F. **INQUIRIES:** Unless otherwise noted, prospective offerors may make written inquiries concerning this RFP to obtain clarification of the requirements. No inquiries will be accepted after the date/time indicated in the Schedule of Activities. Send all inquiries to:

WESTAR  
1218 Third Ave, Suite 1518  
Seattle, WA 98101  
Attn: Tom Moore ([tmoore@westar.org](mailto:tmoore@westar.org))

Response to offerors inquiries will be made in writing in a timely manner to all prospective offerors. Any oral interpretations of clarifications to this RFP shall not be relied upon. All changes to this RFP must be in writing to be valid.

- G. **MODIFICATION OR WITHDRAWAL OF PROPOSALS:** Proposals may be modified or withdrawn by the offeror prior to the established due date and time.
- H. **PROPOSAL SUBMISSION:** Proposals must be received on or before the date and time indicated in the Schedule of Activities. Late proposals will not be accepted. It is the responsibility of the offeror to ensure that the proposal is received by WESTAR on or before the proposal opening date and time.

Offerors mailing their proposals shall allow sufficient mail delivery time to ensure receipt of their proposals by the time specified. The proposal package shall be delivered or sent by mail to:

WESTAR  
1218 Third Ave, Suite 1518  
Seattle, WA 98101  
Attn: Tom Moore

WESTAR's Invitation for Bid form must be signed in ink by the offeror or an officer of the offeror legally authorized to bind the offeror to the proposal. Proposals that are determined to be at variance with RFP requirements may not be accepted. Proposals must be submitted and sealed in a package showing the following information on the outside of the envelope:

OFFEROR'S NAME  
RFP-NO. 2014-01  
PROPOSAL DUE DATE AND TIME

- I. ADDENDUM OR SUPPLEMENT TO REQUEST FOR PROPOSAL: In the event that it becomes necessary to revise any part of this RFP, an addendum will be provided to each offeror who received the original RFP. It is the responsibility of offerors, prior to the bid date, to enquire as to addenda issued and ensure their bid reflects any and all changes. WESTAR will maintain a register of holders of this RFP. Any party receiving this RFP other than from WESTAR should inform WESTAR of its interest in order to ensure receipt of any addenda.
- J. BIDDER INTERVIEWS: Offerors who are deemed most qualified after initial evaluation may be asked to interview with the selection committee.
- K. ACCEPTANCE OF RFP TERMS: A proposal submitted in response to this RFP shall constitute a binding offer. Acknowledgment of this condition shall be indicated by the signature of the offeror or an officer of the offeror legally authorized to execute contractual obligations. A submission in response to this RFP acknowledges acceptance by the offeror of all terms and conditions, including compensation, as set forth herein. Any offeror shall identify clearly and thoroughly any variations between its proposal and this RFP. Failure to do so shall be deemed a waiver of any rights to subsequently modify the terms of performance.
- L. PROTESTED SOLICITATIONS AND AWARDS: Any actual or prospective offeror or contractor who is aggrieved in connection with the solicitation or award of a contract may protest to the Executive Director of WESTAR. The protest shall be submitted in writing within seven working days after such aggrieved person knows or should have known.
- M. COST DATA/BUDGET: Proposals for \$10,000 or more must include Cost/Data/Budget providing factual information concerning the cost of labor, material, travel, overhead and other cost elements expected to be incurred.
- N. CONFIDENTIAL/PROPRIETARY INFORMATION: Any restrictions on the use or inspection of material contained within the proposal shall be clearly stated in the proposal itself. Written requests for confidentiality shall be submitted by the offeror with the proposal. The offeror must state specifically what elements of the proposal are to be considered confidential or proprietary. Confidential and proprietary information must be readily identified, marked and separated/packaged from the rest of the proposal. Co-mingling of confidential or proprietary information and other

information is not acceptable. WESTAR will make a written determination as to the apparent validity of any request for confidentiality and send it to the offeror. Neither a proposal in its entirety nor proposal price information will be considered confidential or proprietary. Any information that will be included in any resulting contract cannot be considered proprietary.

- O. RFP RESPONSE MATERIAL OWNERSHIP: All material submitted regarding this RFP becomes the property of the WESTAR. Proposals may be reviewed by any person after the Notice of Intent to Award letter has been issued. WESTAR reserves the right to use any and all information and material presented in reply to the RFP, subject to the limitations outlined in (N), Confidential/Proprietary Information. Disqualification of an offeror does not eliminate this right.
- P. PROPOSAL PRICES: Estimated proposal prices are not acceptable. Best and final offers cannot be considered in determining the apparent successful offeror. All work toward a deliverable task will be billed on a time and materials basis subject to a not to be exceeded budget for each deliverable task or contract. All work will be performed consistent with the schedule specified in the contract.
- Q. SELECTION OF PROPOSAL: All offerors will be notified in writing regarding the results of the RFP evaluation. Upon review and approval of the evaluation committee's recommendation for award, WESTAR will issue a Notice of Intent to Make Award letter to the apparent, successful offeror. A contract must be completed and signed by all parties concerned on or before the date indicated in the Schedule of Activities. If this date is not met through no fault of WESTAR, WESTAR may elect to cancel the Notice of Intent to Make Award letter and make the award to the next most responsive offeror.
- R. AWARD OF CONTRACT: The award will be made to that offeror whose proposal, conforming to the RFP, will be the most advantageous to WESTAR, price and other factors considered.
- S. ACCEPTANCE OF PROPOSAL CONTENT: The contents of the proposal of the successful offeror, including persons specified to implement the project, will become contractual obligations if acquisition action ensues. Failure of the successful offeror to accept these obligations in a contract may result in cancellation of the award, and such offeror may be removed from future solicitations.
- T. STANDARD CONTRACT: WESTAR reserves the right to incorporate standard WESTAR contract provisions into any contract resulting from this RFP.
- U. RFP CANCELLATION: WESTAR reserves the right to cancel this Request for Proposal at any time without penalty.
- V. WESTAR OWNERSHIP OF CONTRACT PRODUCTS/SERVICES: Proposals, upon established opening time, become the property of WESTAR. All products/services produced in response to the contract resulting from this RFP will become the sole property of WESTAR. The contents of the successful offeror's proposal will become contractual obligations.
- W. INCURRING COSTS: WESTAR is not responsible for any cost incurred by offerors prior to the issuance of a legally executed contract or procurement document. No proprietary interest of any nature shall occur until a contract is awarded and signed by all concerned parties.
- X. MINORITY PARTICIPATION: It is WESTAR's goal to achieve maximum participation of minorities in the procurement process. Accordingly, minority enterprises are to be utilized whenever possible. By the submission of a proposal, the offeror shall agree to utilize the maximum amount of

minority business firms that the offeror finds to be consistent with the efficient performance of any resulting contract.

- Y. NON-DISCRIMINATION: The offeror shall comply with all applicable state and federal laws, rules, and regulations involving non-discrimination on the basis of race, color, religion, national origin, age, or sex.
- Z. REJECTION OF PROPOSALS: WESTAR reserves the right to reject any and all proposals and to waive informalities and minor irregularities in proposals received and to accept any portion of a proposal or all items proposed if deemed in the best interest of WESTAR.
- AA. PARENT COMPANY: If an offeror is owned or controlled by a parent company, the name, main office address, and parent company's tax identification number shall be provided in the proposal.
- BB. NEWS RELEASES: News releases pertaining to this RFP shall not be made prior to execution of the contract without prior written approval of WESTAR.
- CC. CONTRACT CANCELLATION: WESTAR reserves the right to cancel, for cause, any contract resulting from this RFP by timely written notice to the contractor.
- DD. CERTIFICATION OF INDEPENDENT PRICE DETERMINATION:
1. By submission of this proposal, each offeror certifies, and in the case of a joint proposal each party thereto certifies, as to its own organization, that in conjunction with this procurement:
    - a) The prices in this proposal have been arrived at independently, without consultation, communication, or agreement, for the purpose of restricting competition, as to any matter relating to such prices with any other offeror or with any competitor;
    - b) Unless otherwise required by law, the prices which have been quoted in this proposal have not been knowingly disclosed by the offeror prior to opening, directly or indirectly to any other offeror or to any competitor; and
    - c) No attempt has been made or will be made by the offeror to induce any other person or firm to submit or not submit a proposal for the purpose of restricting competition.
  2. Each person signing the Invitation for Bid form of this proposal certifies that:
    - a) He/she is the person in the offeror's organization responsible within that organization for the decision as to prices being offered herein and that he/she has not participated, and will not participate in any action contrary to (1)(a) through (1)(c) above; or
    - b) He/she is not the person in the offeror's organization responsible within that organization for the decision as to the prices being offered herein but that he/she has been authorized in writing to act as agent for the persons responsible for such decision in certifying that such persons have not participated, and will not participate in any action contrary to (1)(a) through (1)(c) above; and as their agent does hereby so certify; and he/she has not participated, and will not participate, in any action contrary to (1)(a) through (1)(c) above.

3. A proposal will not be considered for award where (1)(a), (1)(c), or (2) above has been deleted or modified. Where (1)(b) above has been deleted or modified, the proposal will not be considered for award unless the offeror furnishes with the proposal a signed statement which sets forth in detail the circumstances of the disclosure and the head of the agency, or his/her designees, determines that such disclosure was not made for the purpose of restricting competition.
- EE. ASSIGNMENT: Except for assignment of antitrust claims, neither party to any resulting contract may assign any portion of the agreement without the prior written consent of the other party.
- FF. AVAILABILITY OF FUNDS: Financial obligations of WESTAR payable after the current fiscal year are contingent upon funds for that purpose being appropriated, budgeted, and otherwise made available. In the event funds are not appropriated, any resulting contract will become null and void, without penalty to WESTAR.
- GG. INDEMNIFICATION: To the extent authorized by law, the contractor shall indemnify, save and hold harmless WESTAR, its employees, and agents, against any and all claims, damages, liability, and court awards including costs, expenses, and attorney fees incurred as a result of any act or omission by the contractor or its employees, agents, subcontractors, or assignees pursuant to the terms of the contract resulting from this RFP.
- HH. VENUE: The laws of the State of Colorado, U.S.A. shall govern in connection with the formation, performance and the legal enforcement of any resulting contract.

## **Drill Rig NO<sub>2</sub> Monitoring Project**

### **I. Project Purpose**

The purpose of this project is to collect ambient measurements adjacent to operating drilling rigs to evaluate actual 1-hour NO<sub>2</sub> impacts from drilling operations. In addition, sufficient data would be collected regarding drilling operations that could be used to verify NO<sub>2</sub> air quality models. The proposed study is designed to focus on short term episodes as opposed to a long term monitoring program. Long term monitoring is not practical because of the short duration that a drilling rig is at a single location (less than 30 days).

The proposed project is comprised of the following five tasks.

These experiments will likely be conducted in the Denver-Julesburg Basin of Colorado, in the Great Plains Basin of north-central Montana, and may also include sites in Oklahoma, New Mexico, North Dakota, and southwest Wyoming.

WESTAR is seeking the budgetary costs associated with the proposed program, and plans to award contract(s) from this bid invitation. Further, WESTAR is seeking creative alternative cost effective approaches to achieve the study goal in a more efficient manner.

#### **Task 1. Field Study Design Phase**

The purpose of this task is to design the actual field experiments (ambient measurements and source measurements) as well as to develop the budget to conduct the experiments.

The initial design concept would make NO<sub>2</sub> measurements at multiple locations upwind and downwind of a drilling rig.

WESTAR is seeking contractors to evaluate the costs for timely implementation of two possible study designs.

The first would be the installation of three portable monitoring stations adjacent to an active drilling rig (one prevailing upwind and two prevailing downwind). Monitor site locations would be selected based on identifying areas of maximum impacts from NO<sub>x</sub> and NO<sub>2</sub> modeling (base program).

With the alternative second approach, NO<sub>x</sub> and NO<sub>2</sub> measurements would be conducted at two downwind arrays from the drilling rig. The arrays would be located in the area of maximum impact as predicted by air quality models. Each array would consist of multiple NO<sub>2</sub> sensors so that the plume centerline and the plume half width can be identified. It would be very desirable to make limited vertical concentration measurements.

Additionally, crosswind monitors will also be used to satisfy a secondary goal of the experiments which is to examine the NO<sub>2</sub>/NO<sub>x</sub> crosswind ratio at each of the downwind arrays. The identification of the crosswind NO<sub>2</sub>/NO<sub>x</sub> ratio is a critical component of this field program because it can identify what role entrainment of fresh ozone into the plume has on NO<sub>2</sub> formation. This second approach is the preferred sampling program.

Contractors are encouraged in their proposal to develop innovative approaches for this sampling. It is possible that a hybrid sampling approach could be used with fixed longer term continuous monitoring and supplemented with portable monitoring.

During the design phase, air quality modeling will be conducted for total NO<sub>x</sub> and NO<sub>2</sub> in order to define downwind distances at which the concentrations will be measured. The downwind distances should be evaluated for a range of meteorological conditions. Modeling results will also define the width of the sampling array as well as the resolution of the samplers within an array for a given downwind distance.

It is envisioned that AERMOD will be used to assist in the design of the monitoring arrays.

WESTAR is seeking proposals that present and discuss approaches for conducting this phase of the project. Contractors are encouraged to present alternative methodologies or strategies for the execution of the monitoring.

## **Task 2. Data Collection Phase**

This task will consist of measuring emissions, ambient air quality and meteorological measurements adjacent to an operating drill rig.

There are a number of technical issues that need to be addressed in order to execute the conceptual experiments both from an emissions and ambient measurements standpoint. It is assumed that the company providing the drill rig will assist in the engineering and safety analysis.

### **Emissions Measurements**

Instrumentation needs to be installed on the drill rig engines so that hourly emissions can be determined, the measurements must not interfere with drilling operations and the measurements must meet safety requirements for installation on a drilling rig.

Continuous monitoring of fuel usage for each drill rig engine and boiler will be conducted and these data must be recorded continuously. Logging of each engine usage and load must be recorded during each experiment. Continuous emissions from the drill rig engines must be determined. There are potentially two approaches that could be used:

- a) Install an emission monitor in the stack of each engine as well as the boiler (if it exists) and continuously record NO and NO<sub>2</sub> emissions. This would be the most accurate method to determine hourly emissions; however, it is the most expensive approach since it would require multiple emission monitors.

This approach also introduces more potential for interfering with the operation of the drilling rig.

- b) The alternate approach is to conduct stack tests on each engine and the boiler at multiple loads before conducting the experiments and hourly emissions can be determined based on fuel usage, load and the stack tests.

In either case it is unlikely that the stack exit velocity can be measured continuously and alternate methods of determining this critical parameter are required.

**Proposals should suggest methods for determining emissions as well as the benefits and costs for recommendations. Contractors should identify equipment needed to make measurements and how the equipment can be temporarily obtained for the monitoring. Proposals should also state what support is needed from the operators of the drilling rig.**

### **Air Quality Measurements**

With the option of fixed monitors, it is assumed that the monitors will be placed in some sort of shelter and will remain fixed for the duration of the sampling.

It is unlikely that AC power will be available to operate the instruments. This means that power must be obtained from the generators on the rig or by using a small generator (micro turbine that is operated by propane) that can be located away from the downwind NO<sub>2</sub> analyzers. Proposals should discuss ways of obtaining power.

For the portable sampling approach the instrument locations likely will require movement of the instruments to adjust for changes in meteorological conditions. This means the NO/NO<sub>2</sub>/NO<sub>x</sub> analyzers need to be portable so they can be easily moved to alternate locations. In addition, the instruments must be protected from the elements.

It is envisioned that two downwind sampling arrays will be used that will have approximately 5-7 NO<sub>2</sub> analyzers perpendicular to the wind direction at each of the two downwind distances (10 to 14 analyzers downwind of the rig). One NO<sub>2</sub> analyzer and an ozone analyzer will be located upwind of the rig to define background concentrations.

The primary goal of these arrays is to define the centerline and half-width of the plume. It is a requirement of this program that EPA reference method NO<sub>2</sub> monitors be used. It is assumed that the NO<sub>2</sub> analyzers can be rented on a short term basis.

Because the experiments are focusing on measuring impacts from meteorological events, the NO<sub>2</sub> monitors need to be portable so that the sampling array can be shifted to address changes in wind direction and to ensure that the sampling array is always downwind of the drilling rig. Placing the analyzer on a wagon may be an approach that can be used.

**Proposals should suggest methods for conducting the ambient air quality monitoring to meet the study objectives. Contractors should identify equipment needed to make measurements and how the equipment can be temporarily obtained for the monitoring and associated costs. Contractors are encouraged to develop alternative methods for making the ambient air quality measurements.**

#### **Meteorological Measurements**

In the vicinity of the drilling rig a 10-meter meteorological tower will be installed and equipped with:

- 1) Wind speed and direction at 10 meters
- 2) Sigma theta will be calculated
- 3) Solar radiation
- 4) Differential temperature between 2 and 10 meters
- 5) Sonic anemometer to measure horizontal and vertical turbulence.

In addition, 2-meter wind speed and direction will be measured within the sampling array.

**Proposals should suggest methods for conducting the meteorological monitoring to meet the study objectives. Contractors should identify equipment needed to make measurements and how the equipment can be temporarily obtained for the monitoring and costs. Contractors are encouraged to develop alternative method for making the ambient air quality measurements.**

#### **Data Acquisition**

All air quality data and emission related data will be recorded on data acquisition systems. The system should be capable of storing all raw data as well as 1-minute, 5-minute and hourly average data.

**Proposals should provide the cost for data acquisition.**

#### **Optional Data**

Two optional types of data should be explored. The first is to use a thermal imaging camera to attempt to estimate plume rise and downwash interaction from structures. The second is to perform temperature soundings with a balloon during periods of stable meteorological conditions and estimate the inversion height.

**Proposals should provide the cost for the optional program.**

### **Task 3. Experimental Operation**

**Proposals should discuss how the monitoring program will be conducted to meet the study objectives along with associated costs.**

### **Task 4. Field Sampling and QA/QC Plan**

**Proposals should discuss operational protocols for field sampling and calibration procedures for the emissions and air quality and meteorological measurements, in the form of a proposed field sampling plan. Proposals should also address QA/QC procedures that would be used on the project as well as data validation techniques.**

### **Task 5. Data Analysis**

Validation and limited analysis of the collected data will be performed by the contractor. The contractor will be responsible for developing a modeling data base (constructed in EXCEL). The modeling analysis will be a separate contract with WESTAR.

**Proposals should discuss costs associated with data analysis.**

## **II. Project Organization**

A project steering committee will be established to direct the project and will be comprised of WESTAR staff, industry, the company whose drilling rig is being used, BLM, and EPA as well as contractors conducting the actual monitoring. It is anticipated that after a contractor is selected, routine conference calls will be conducted to monitor project progress.

## **III. Proposal Content**

WESTAR is seeking proposals on the scope of work outlined above. Proposals should present technical approaches for each task, staff time and calendar time required for each task. Potential contractors are encouraged to develop alternate innovative technical approaches that can achieve study goals in a more efficient manner.

Based on a review of the proposals, WESTAR, BLM, and industry will collaboratively select a contractor and a final scope of work that will be used for a project budget for project contracting and execution.

## **IV. Pre-proposal Conference Call**

WESTAR will host a pre-proposal conference call to discuss the elements of this bid invitation and answer questions. The call will be held on Thursday June 26<sup>th</sup> at 830 AM Pacific Daylight Time. The conference call number is 1-888-394-8197 and the access code is 262475.