Iowa Department of Natural Resources
Environmental Protection Commission

ITEM **9** **DECISION**

TOPIC **Contract – 2010 UHL SERVICES IN SUPPORT OF THE DNR AIR QUALITY BUREAU**

Recommendation:
The department requests Commission approval for a one year-service contract in the amount of $2,212,811 with the University of Iowa Hygienic Laboratory (UHL) of Iowa City, Iowa. The contract begins on July 1, 2009 and ends on June 30, 2010.

Funding Sources:
Funding for this contract consists of federal 105 grant funds ($246,613), federal 103 grant funds ($379,084), air contaminant funds ($1,262,114), and State "Environment First" Infrastructure funds ($325,000).

Background:
Under Iowa Code section 455B.103, the department has responsibility for conducting ambient air monitoring in the State of Iowa. For over thirty years, the department has contracted with UHL to perform this essential service. UHL currently operates most of the ambient air monitoring sites in Iowa. It also provides analytical and technical support for ambient air monitoring activities throughout Iowa. It weighs and determines the ionic composition of particulate samples and performs analysis of air samples for many toxic compounds found in urban air. UHL also provides analysis of asbestos samples gathered by DNR inspectors. The UHL quality assurance group conducts annual audits of UHL ambient air monitoring activities as well as those of the Local Programs. This contract provides for a continuation of these services.

Purpose:
The parties propose to enter into this contract for the purpose of retaining UHL to perform ambient air monitoring and related services in support of the department's Air Quality Bureau.

Consulting Firm Selection Process:
Competitive bidding was not required for this contract in accordance with Iowa Code section 455B.103, which directs the department to contract with public agencies of Iowa to perform environmental services when it lacks the capacity to perform them on its own. Iowa Code section 263.7 establishes environmental investigations as an essential duty of UHL, and UHL has considerable experience and expertise in this area.

Scope of Work:
For an outline of the scope of work, see the attached**, 2010 UHL SERVICES IN SUPPORT OF THE DNR AIR QUALITY BUREAU, Contract # ESD7230SFitz090052.**

Sean Fitzsimmons
Environmental Specialist Senior
DNR - Air Quality Bureau
Environmental Services Division

Memo Date (5/20/2009)
Attachment(s): Special Conditions for Contract: ESD7230SFitzs090052

IOWA DEPARTMENT OF NATURAL RESOURCES
CONTRACT NUMBER: ESD7230Fitzs090052

Between

IOWA DEPARTMENT OF NATURAL RESOURCES
And
UNIVERSITY OF IOWA

2010 UHL SERVICES IN SUPPORT OF THE DNR AIR QUALITY BUREAU

This Contract was approved by the Environmental Protection Commission on June 16, 2009.

IN WITNESS THEREOF, the parties hereto have executed this Contract on the day and year last specified below.

DEPARTMENT OF NATURAL RESOURCES

By: _____ Date: _____
Patricia L. Boddy, Deputy Director

UNIVERSITY OF IOWA

By: _____ Date: _____
Twila Fisher Reighley, Director of Sponsored Programs

By: _____ Date: _____
Christopher Atchison, UHL Director

Fed Tax I.D. Number: 426004813

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SPECIAL CONDITIONS

This Contract is entered into between the Iowa Department of Natural Resources (DNR) and The University of Iowa (Contractor). The parties agree as follows:

Section 1 IDENTITY OF THE PARTIES

1.1 Parties. DNR is authorized to enter into this Contract. DNR's address is: Wallace State Office Building, 502 East 9th Street, Des Moines, Iowa 50319.

The University of Iowa (Contractor), a State of Iowa educational institution is organized under the laws of the State of Iowa and is authorized to do business in the State of Iowa. The Contractor's address is: 2 Gilmore Hall, Iowa City, Iowa, 52242.

1.2 Project Managers. Each party has designated a Project Manager, who shall be responsible for oversight and negotiation of any contract modifications, as follows:

DNR Technical Contact:
Sean Fitzsimmons, Environmental Specialist Senior
DNR - Air Quality Bureau
7900 Hickman Rd., Suite 1
Windsor Heights, Iowa 50324
Phone: (515) 281-8923
Email: sean.fitzsimmons@dnr.iowa.gov

DNR Administrative Contact:
Jennifer Nelson, Chief
Budget and Finance Bureau
Wallace State Office Building
502 East 9th Street
Des Moines, Iowa 50319-0034
Phone: (515) 281-5697
Email: jennifer.nelson@dnr.iowa.gov

University Principal Investigator:
Jeffrey A. Wasson, Air Monitoring Program Supervisor
University of Iowa Hygienic Laboratory
102 Oakdale Campus #H101-OH
Iowa City, Iowa 52242
Phone: (319) 335-4299
Email: jeffrey-wasson@uiowa.edu

University Administrative Contact:
Wendy Beaver, Sr. Associate Director
Sponsored Programs
University of Iowa
2 Gilmore Hall
Iowa City, Iowa 52242
Phone: (319) 335-2123
Email: wendy-beaver@uiowa.edu

Section 2 STATEMENT OF PURPOSE

2.1 Purpose. The parties have entered into this Contract for the purpose of operation of most of the ambient air monitoring sites in Iowa. The University of Iowa Hygienic Laboratory also provides analytical and technical support for ambient air monitoring activities throughout the State. It weighs and determines the ionic composition of particulate samples and performs analysis of air samples for many toxic compounds found in urban air. UHL also provides analysis of asbestos samples gathered by DNR inspectors. The UHL quality assurance group conducts annual audits of UHL ambient air monitoring activities as well as those of the Local Programs.

The air monitoring that will be performed under the provisions of this contract will provide for ongoing air quality surveillance in the State of Iowa and will allow the department to judge the efficacy of its air pollution control efforts. It will continue efforts to characterize areas in eastern Iowa where elevated fine particulate are close to federal health standards.

Section 3 DURATION OF CONTRACT

3.1 Term of Contract. The term of this Contract shall be July 1, 2009 through June 30, 2010, unless terminated earlier in accordance with the Termination section of this Contract.

3.2 Approval of Contract. If the amount of compensation to be paid by DNR according to the terms of this Contract is equal to or greater than $25,000.00 (twenty five thousand dollars), then performance shall not commence unless by July 1, 2009 this Contract has been approved by the Environmental Protection Commission.

3.3 Renewal. DNR shall have the sole option to renew and extend this Contract for subsequent periods, adding up to no more than 6 years total, by executing a signed contract prior to the expiration of this Contract.

Section 4 DEFINITIONS

"Deliverables" shall mean services to be provided by, or on behalf of, the Contractor pursuant to this Contract. Deliverables shall include the tasks set out in this Contract and everything produced by the Contractor that is related to the tasks, such as reports, meetings, documentation, designs, copy, artwork, data, information, graphics, images, processes, techniques, materials, plans, papers, forms, studies, modifications, content, concepts, and all other tangible and intangible works, materials and property of every kind and nature that are related to the deliverables.

Section 5 STATEMENT OF WORK

5.1 Statement of Work. Contractor shall perform the tasks indicated below on the schedule described in Appendices A and C.

5.1.1 STAFFING

UHL shall provide trained ambient air monitoring staff throughout the contract period at the indicated full-time equivalent (FTE) levels:

Position	FTE's
Field Operations	10.00
Data Management	3.50
Teflon Filter Weighing Lab	2.50
Supervisor	1.00
Quality Assurance	1.00
Clerical/Administrative Support	1.00
Programming/Computer Support	0.50
Electronics Support	0.50
Upper Management	0.15
Total	**20.15**

Jeff Wasson, Leonard Marine, Bill Christensen, and Randy Hudachek are considered "key personnel" for the purposes of this contract. Key personnel are essential to the work and services to be performed. If for

any reason substitution for a specified individual becomes necessary, UHL shall provide immediate written notification of such to the Department. UHL shall provide the name and resume' of qualification for the replacement individual.

5.1.2 QUALITY ASSURANCE

5.1.2.1 Internal Quality Assurance Activities (Within UHL's Reporting Organization)

Quality System. UHL shall develop and implement a Quality System in accordance with EPA guidance in order to assure the quality of its air monitoring activities. The Quality System developed by UHL shall be completely autonomous from that of the DNR in the sense that the responsibility for developing procedures and oversight sufficient to demonstrate that the environmental data generated by UHL meets the requirements of EPA and/or the DNR rests solely with UHL. This will include development and implementation of a Quality Management Plan (QMP) according to EPA guidance document QA/R-2, development and implementation of Quality Assurance Project Plans (QAPP's) consistent with EPA guidance document QA/R-5, and development and implementation of Standard Operating Procedures (SOP's) for operation of air monitoring equipment, data handling, laboratory analyses, and other repetitive procedures. The QAPP/SOP shall be modified as necessary to remain current with EPA requirements outlined in 40 CFR Part 58, the current edition of EPA's Quality Assurance Handbook for Air Pollution Measurement Systems ("the Redbook"), and applicable EPA guidance. UHL shall designate members of its Air Monitoring Staff as QAPP/SOP reviewers. A complete set of QMP/QAPP's/SOP's for all air monitoring activities shall be submitted to the Department and EPA in hard copy and in PDF format as a component of the annual review of air monitoring activities.

Revision of Quality Assurance Documents. Substantive revisions of UHL's QMP/QAPP's/SOP's require approval of the Department and EPA. Electronic copies of all proposed revisions to quality assurance documents shall be provided to the Department at least fifteen (15) days prior to implementation, unless this review period is waived by the Department. QAPP/SOP revisions shall be submitted to EPA/DNR within forty (40) working days following (1) promulgation of new monitoring rules or procedures by EPA, (2) written notification of a deficiency in procedures by EPA/DNR, or, (3) receipt of new equipment for which no QAPP/SOP exists. UHL shall not deploy monitoring equipment without an associated QAPP/SOP.

EPA Audit programs. UHL shall participate in EPA's National Performance Audit Program (NPAP), the performance evaluation program (PEP) for PM2.5 monitoring, and EPA technical systems audits (TSA's) as requested by the department. UHL shall fund at least one annual NPAP audit for all monitors for which NPAP audit devices are available. UHL shall conduct additional audits including but not limited to performance audits, systems audits, and review of quality assurance documents (e.g. QMPs, QAPP's or SOP's) at the request of the DNR.

Annual Network/Quality Assurance Review. On an annual basis, UHL shall demonstrate that its quality system is sufficiently developed, and that its monitors are appropriately sited and adequate in number to meet EPA's minimum requirements. In addition, UHL shall review its AQS/PARS data and site/monitor parameters in the AQS database for errors during the previous calendar year, and then generate graphical and statistical summaries of the data. UHL shall evaluate the data relative to EPA acceptance criteria for data completeness, precision and accuracy. On the basis of this review, UHL shall submit its annual State and Local Air Monitoring Stations (SLAMS) certification letter. The Annual Network/Quality Assurance review shall contain the following components:

- a complete, current set of Quality assurance documentation (QMP/QAPP's/SOP's) submitted to the Department in electronic format (PDF),
- AQS/PARS raw data listings generated from the AQS system (AQS AMP 250 and AMP 350 reports) in electronic format for all monitors operated by UHL for the calendar year under review,

- graphs of concentration vs. time submitted in hard copy and electronic formats for all monitors operated by UHL for the calendar year under review,

- complete, current network review questionnaire contained in Volume II Part I, Appendix 15, Sections 1 and 2, of EPA's Quality Assurance Handbook for Air Pollution Measurement Systems (rev 12/10/08), in hard copy and electronic formats,

- an annual quality assurance report following the example contained in Volume II Part I, Appendix 16, of EPA's Quality Assurance Handbook for Air Pollution Measurement Systems (rev 12/10/08), in hard copy and electronic formats,

- written reports of findings and recommendations based on the annual review in hard copy and electronic formats,

- an annual SLAMS report (AQS AMP 450 and 450NC), a summary report of precision and accuracy data (AMP 255), along with a letter certifying the accuracy of the reports based on a review of all materials contained in the annual review in hard copy and electronic formats.

The Annual Network/Quality Assurance Review shall be submitted to the Department by March 15.

UHL will conduct an annual systems audit of the toxics and filter weighing laboratories using a protocol approved by the Department and consistent with EPA Guidance (EPA QA/G7). Reports summarizing the most recent toxics and filter weighing laboratory audits shall be submitted to the Department as a component of the Annual Network/Quality Assurance Review.

5.1.2.2 External Quality Assurance Activities (Outside UHL's Reporting Organization)

Polk and Linn County Quality Assurance Audits. UHL will perform quality assurance reviews of the Polk and Linn County Local Programs air quality laboratories and monitoring programs using the forms and procedures found in Volume II, Part I, Appendix 15, Section 2 of EPA's Quality Assurance Handbook for Air Pollution Measurement Systems (rev 12/10/08). The questionnaires shall be completed and submitted to the Department by UHL no later than March 15, and written reports of findings and recommendations will be provided, in duplicate, no later than April 1.

Prevention of Significant Deterioration (PSD) Ambient Monitoring Sites. Within 30 days of DNR's written request UHL will review and provide written comments on the standard operating procedures and quality assurance plan components of facility PSD ambient monitoring plans. UHL will continue to work with facilities to ensure that the data gathered during the monitoring period is of acceptable quality. UHL shall observe and evaluate (quarterly) site audits of facility-run PSD ambient monitoring sites at specified PSD facilities. These site audits are to be performed in accordance with Appendix A of 40 CFR Pt. 58. Within 2 weeks after the site audit, UHL will provide, in writing, the audit results and any recommendations for corrective actions to both DNR and the field staff operating the PSD site(s). To ensure format compatibility with EPA's AQS database, UHL will provide quality assurance reviews on ambient monitoring data generated by facility-run PSD monitoring sites, as specified by DNR. The number of PSD monitoring sites shall be limited to no more than four sites per year. UHL will be compensated for additional sites at the rate of $1000 per site, to be billed to its "Operation and Expenses" variable cost line item.

5.1.3 EXISTING NETWORK AND NETWORK MODIFICATIONS

Network Modifications. UHL shall operate the monitoring network indicated in Appendix B with modifications as indicated in Appendix C. In addition, UHL shall work with the DNR to site additional

monitors in response to public health concerns that develop during the contract period, as resources and time allow.

New Monitoring Sites. Potential monitoring sites will meet the specifications set forth in Appendices D and E of 40 CFR 58. UHL shall not set up a new monitor site, dismantle an existing monitor site, or relocate any existing monitors without written approval from DNR.

Change in Sampling Frequency. UHL shall change sampling frequency at a monitor site within 30 days of written notice by the DNR.

5.1.4 NETWORK PLANNING

Training and Safety Plan. UHL shall implement training and safety plans developed for all air monitoring staff. UHL shall ensure that its staff are adequately trained and work in a safe environment. UHL shall present its training schedule at each quarterly management meeting.

Quarterly coordination meetings. Quarterly meetings will be arranged for technical staff involved in the air quality program. The meeting will focus on data collection, transmission and quality assurance issues and trends.

Inventory. UHL shall maintain a complete and current list of all equipment which is part of the air monitoring system in the state of Iowa, including the location, description of equipment type, model number, serial number, ownership agency, and both DNR and UHL inventory tag number. UHL shall record in the equipment inventory the installation date for any equipment newly installed in the air monitoring system.

For the purposes of this agreement, equipment is any item that has an acquisition value of $5,000 or more and an anticipated useful life of one year or more. See Chapter 110-110.2(1) of the Iowa Administrative Code.

This agreement shall supersede any and all agreements by and between the Department and UHL with respect to equipment. Equipment purchased under previous Department/UHL agreements or purchased through amendment to this agreement is to be listed on the joint Department/UHL equipment inventory. UHL shall ensure through the University of Iowa equipment inventory process that all equipment listed on the joint Department/UHL inventory has been marked with University of Iowa property tags.

Equipment listed in the Department/UHL Equipment Inventory was obtained in part from federal grant funds. In accordance with Title 40 Code of Federal Regulations, Part 30, the Department as the grantee agency retains title to all equipment listed on the Department/UHL Inventory and may require its return upon 30 days written notice.

UHL shall account for all equipment on the Department/UHL equipment inventory in the event of damage, loss or theft incurred through normal usage.

UHL shall use the equipment in a careful and proper manner and provide routine repairs, service and supplies required for the normal operation of the equipment.

The Department and UHL shall agree in writing prior to subleasing or transferring rights to the equipment to any third party.

The Department shall have the right to enter the premises where the equipment is located for the purpose of inspecting the equipment at any reasonable time.

UHL shall submit to the Department an annual inventory of joint Department/UHL equipment. The following shall be included as part of such inventory.

- UI property tag number.
- Equipment description.
- UI purchase order number.
- UI purchase order date.
- Equipment cost as shown on invoice.
- A list of additions to the previous year's inventory including the cost for each item and the total cost.
- A list of deletions from the previous year's inventory including the cost of each item, total cost and reason for deletion.
- An inventory balance sheet including totals as follows:
  - Previous years inventory total;
  - Current years deletions total;
  - Current years additions total;
  - Current years inventory total.

- Signed certification that the inventory as presented is true and correct.

Equipment costs shall not change once listed on the Department/UHL joint property inventory. Equipment parts that are added to or removed from existing equipment shall be handled in the following manner:

- Parts that do not fit the definition of equipment used in this agreement shall not be accounted for on the joint property inventory.

- Parts that do fit the definition of equipment used in this agreement shall be tagged and listed individually on the joint inventory.

These provisions do not apply to integral component parts utilized in the repair of equipment and necessary to continued operation of the equipment.

Network Planning Report. UHL shall submit a proposal for additional equipment or staff desired for the next contract by February 15.

Annual Review of Computer Security. UHL shall submit an annual review of its computer security plan to the Department by August 1. This plan shall indicate the strategy by which UHL shall insure the security of all data gathered under the terms of this contract. This review shall include a review of remote computers and data acquisition systems. The plan will be reviewed and signed by UHL's computer services supervisor.

Existing Vehicles. Twelve vehicles will be maintained and utilized by UHL for exclusive use by air quality personnel solely for the operation of the ambient air monitoring network. The current inventory includes: Van #1, license number 8472, Van #2, license number 10382, Van #3, U of I tag number 547703, Van #4, license number 10284, Van #5, license number 10125, Van #6, U of I tag number 594657, Truck #7, U of I tag 582230, Vehicle #8, U of I tag number 594592, Truck #9, U of I tag number 585248, Truck #10, U of I tag number 585579, Truck #11, License Number 8470, and Truck #12 License Number 8479. The Department will not be responsible for mileage costs for a replacement vehicle(s) except for periods of time when the vehicle being replaced is undergoing repairs or maintenance, or when additional vehicles are needed.

New Vehicles. UHL will purchase two new cargo vans (or two other service vehicles, as needs require) for exclusive use by air quality personnel solely for operating the ambient air network, with funds to be provided by the DNR for this purpose. The vans shall be purchased no later than February 1, and, once purchased, shall be included in the equipment inventory.

Vehicles to be Retired. Vehicles taken out of service by UHL shall be disposed of through a state vehicle auction. Proceeds from the sale of auctioned vehicles shall be returned to the contract funds through a credit on the monthly billing report.

5.1.5 DATA MANAGEMENT

Data Validation. Data obtained from ambient monitors shall be validated as specified in the approved QAPP and in this scope of work.

Data Validation for Continuous Monitors. UHL shall store short term (5 minute) monitoring data for the purpose of validation of all hourly continuous monitoring data. This data may be captured either by daily polling of all monitors, or by on site storage of short term data using ESC's "Digitrend Site" software.

Real-time monitoring. UHL shall display real-time monitoring data in hourly and AQI formats on its web site, and post data to EPA's ozone and particulate mapping server within 25 minutes after the end of each hour. UHL shall establish procedures and assign personnel to ensure that continuous data is being transmitted successfully to the EPA AirNOW website and the UHL real-time website. UHL shall ensure that real-time data are processed and posted to the UHL and AirNOW websites on a timely basis. Communications, download, and upload problems greater than four hours in duration shall be documented and submitted to the DNR in the monthly report, including any corrective actions taken to resolve such problems. Procedures and frequencies for polling and posting data shall be as indicated in UHL's real-time monitoring QAPP/SOP. UHL will upload all non-continuous data to the UHL real-time website on the same schedule that the data is submitted to the AQS database. UHL shall provide charts of FRM versus real time (continuous-derived) concentrations for all continuous PM monitoring sites on its web-site.

Site Setup and Closure in AQS. UHL shall be responsible for opening and closing sites and monitors in the AQS database for its reporting organization, and for its monthly data uploads. UHL shall contact the DNR in order to confirm new site or monitor setup parameters are accurate before uploading the new parameters to the database. UHL will not close sites or monitors in the AQS database without approval from the DNR. UHL will inform the Department via e-mail whenever modifications to the AQS database are made. This notification shall contain a note of explanation of the modifications made and the rationale for the modifications.

AQS/PARS Data Submission. Validated monitoring data (AQS data) and precision and accuracy data (PARS data) for all continuous monitors shall be uploaded by UHL staff to the AQS system by the 15th of the month following the month in which it is collected. Validated monitoring data and precision and accuracy (PARS) data for all non-continuous monitors shall be uploaded to AQS within 30 days of the end of the month in which it is collected. UHL will inform the Department via e-mail after completing its monthly data uploads. This report shall include a copy of the final version of the screening file, and copies of the edit and scan checks. In the event that the monthly data upload is not complete, this report shall indicate the reason for the backlog and the anticipated date when the backlogged data will be uploaded.

Data Screening. UHL shall archive an AQS AMP 120 to document the data uploaded immediately after each data file is loaded into the system.

Monthly AQS Record keeping Requirements. On a monthly basis, UHL shall:

- run and review the AQS AMP 250 and AQS AMP 350 monitor reports to determine the completeness and accuracy of the AQS and PARS data uploaded by UHL to the AQS system.

Quarterly AQS Record keeping Requirements. On a quarterly basis, UHL shall:

- run and review the AQS AMP 255 and AQS AMP 246 and 247 reports to evaluate the PARS data uploaded by UHL;

- run and review the AQS AMP 430 report in order to evaluate the quarterly data completeness of the monitors operated by UHL;

- run and review the AQS AMP 380 report in order to evaluate the accuracy and completeness of the site setup parameters of the monitors operated by UHL.

5.1.6 REPORTS

Immediate Reports. UHL will notify the Department immediately upon identification of any exceedance of an ambient air quality standard, emergency episode or potential emergency episode (as defined in 567 IAC 26.2), or exceedance of any other pollutant threshold provided in writing by the Department.

Weekly Network Status Report. UHL will transmit a written report of the status of air monitoring systems to the DNR Project Manager on the first working day of every week. This report will note any sites or monitors that have been added or removed from the network during the previous week. For each site that is modified or for which data are missed, the report will also include:

- date of last valid data;

- date inoperative condition detected;

- cause of inoperative condition;

- step(s) taken to correct condition;

- expected date data reporting will resume.

Monthly Monitoring Reports. UHL will submit to the DNR Project Manager, a monthly report within forty-five (45) days of the end of each month. This report will include a list of fixed station air monitoring sites in operation during the report period, and for each station:

- the number of samples collected or received;

- the number and type of analyses performed;

- the number of exceedances of ambient air quality standards, the number of emergency episodes or potential emergency episodes, and the number of exceedances of pollutant thresholds;

- a listing of all sampling that was omitted by reason of equipment failure, calibration, zero and span checks, sample handling accident, laboratory accident or failure of the operator to collect samples; the type and number of equipment failures; corrective actions taken to mitigate sampling failures;

- the dates of PARS precision and accuracy checks; an explanation and corrective actions taken for precision checks that occur with a separation greater than 2 weeks;

- the percentage of total possible samples which were translated into valid air quality data;

- a listing of all backlogged AQS or PARS data, the reason for the backlog, and the date when the backlogged data will be uploaded to AQS.

- an assessment of the Nafion dryer efficiency for all FDMS TEOM analyzers operated by UHL.

- A performance evaluation of the “Smart Heaters” on the BAM 1020 PM2.5 monitor(s).

- a summary of the availability of real-time air monitoring data, including a description of any issues with communication, download or upload of data that causes a delay in reporting data to the UHL or AirNOW websites of greater than four hours, along with a corrective action plan to address these issues.

Quarterly Monitoring Report. UHL will submit to the DNR Project Manager, a quarterly report within forty-five (45) days of the end of each calendar quarter. This report will include a list of fixed station air monitoring sites in operation during the report period, and for each station:

- the data completeness associated with each monitor; and, in the event the percentages do not meet EPA completeness criteria, an explanation of the reasons for the insufficient data and corrective action plan for the monitor;

- the precision and accuracy of the monitors audited during the quarter, calculated as specified in 40 CFR Pt. 58 App. A;

- a listing of all backlogged AQS or PARS data, the reason for the backlog, and the date when the backlogged data will be uploaded to AQS.

Inventory Reporting. UHL will supply to the Department a copy of the complete up to date equipment inventory within seven days of a request by the Department during the agreement period.

5.1.7 PM10, PM2.5, PM2.5 SPECIATION, AND TOXICS ACTIVITIES

Third Party Contractors for lead, PM10, PM2.5 Federal Reference Method, and Visibility Sampler Operations. Where 3rd party filter collectors are used to gather lead, PM10, PM2.5, or visibility filters within the UHL reporting organization, UHL shall perform all operations except for impactor replacement, filter collection, and transmission of sampler performance data to UHL and the national visibility laboratory. UHL's duties include, but are not limited to, the performance of all calibrations, audits, and routine maintenance for all lead, PM10, PM2.5, and visibility monitors within their reporting organization. For new sites where 3rd party operators are to be employed, UHL shall locate qualified 3rd party operators and train them to operate samplers in accordance with the UHL's standard operating procedures developed for 3rd party operators. UHL shall manage 3rd party operators to insure that the data generated meets Department goals for completeness and data quality.

PM2.5 Speciation Activities. UHL shall perform the following activities in support of the PM2.5 speciation network:

- Field Activities. UHL shall perform all field activities at speciation sites specified in this agreement including canister replacement and filter collection and transmission of sampler performance data to EPA's National Speciation Laboratory. In addition, UHL shall be responsible for the performance of all calibrations, audits, and routine maintenance for all PM2.5 speciation monitors.

- Data validation and AQS maintenance. UHL shall be responsible for setting up or shutting down speciation sites in AQS and shall validate speciated PM2.5 data in cooperation with EPA's National Speciation Laboratory.

Toxics Analysis Laboratory. UHL shall manage and operate the State's air toxics analysis laboratory in support of the State toxics monitoring network. The laboratory shall provide support and analysis for toxic samplers operated by contractors, the Local Programs, or by UHL, as directed by the DNR. The UHL toxics laboratory shall:

- operate all laboratory equipment in accordance with EPA/DNR approved QAPP, SOP's, and manufacturer's operation manuals;

- analyze canister and cartridge samples as well as other appropriate samples as determined by the DNR;

- clean and evacuate sampling canisters and maintain an inventory of clean, evacuated canisters sufficient for Iowa toxics monitoring sites;

- provide shipping containers, coolers, thermometers, and ice substitute packs as needed to insure sample handling is conducted in accordance with the QAPP and SOP's;

- maintain an inventory of supplies and consumables sufficient to support toxic monitoring efforts in the State;

- report toxic data analysis results to the Department within 30 days of toxic sample analysis. Immediately report toxic sample analysis results if sample dilution is necessary to lower the sample concentration to within the calibration range of the instrument.

Toxics Monitoring Activities. UHL shall perform the following toxic monitoring activities in support of the State toxics monitoring network.

- Field Activities. UHL shall perform all field activities at toxic monitoring sites in the UHL network. These duties include sample collection, calibrations, audits, and routine maintenance for all toxics monitors. These duties shall be performed in accordance with EPA/DNR approved QAPP and SOP's.

- Data validation and AQS maintenance. UHL shall be responsible for setting up or shutting down toxics sites in AQS and shall validate toxics data in accordance with EPA/DNR approved QAPP and SOP's. UHL shall upload toxics data to AQS unless otherwise directed by the Department.

Ion Analysis Activities. UHL shall coat and extract denuders, and perform ion analysis for particulate filters as requested by the DNR during the contract year. Ion sampling and analysis shall be conducted following QAPP's and SOP's approved by the Department. UHL shall provide the results of the ion analysis to the Local Programs in a format that can be directly uploaded to AQS. For ion samples collected by UHL, the associated data shall be loaded to AQS within 45 days from the end of the month in which the samples were collected. For samples collected by the Local Programs, the data shall be sent by e-mail to the Local Programs and to the DNR within 45 days from the end of the month in which the samples were collected.

Teflon Filter Weighing Laboratory. UHL shall manage and operate the State's Teflon filter weighing laboratory. This laboratory shall provide support for Teflon filter monitors run by contractors, the Local Programs or by UHL, as directed by the DNR. UHL shall:

- operate in accordance with DNR/EPA approved QAPP's and associated SOP's for all Teflon filter weighing laboratory operations;

- order filters and manage the Teflon filter inventory so that sufficient filters are available in order to meet the sampling needs of its customers;

- pre-weigh the filters, load them into clean filter holders, and load the filter holders into clean filter magazines within the laboratory;

- provide shipping containers to mail the filter magazines to the field operators;

- provide coolant and thermometers to ensure that the loaded filters are adequately cooled in transport from the field back to the weighing laboratory;

- o equilibrate and weigh the loaded filters, and provide the results of the gravimetric analysis along with all other laboratory data required for upload to the AQS system to its customers in a format that can be directly uploaded to AQS. The data shall be sent by e-mail to all customers and DNR Local Program contacts within 30 days of the end of the month in which the data were collected;

- o archive all FRM filters, as well as filters from portable samplers where directed by the DNR, in refrigerated storage in accordance with EPA guidance;

- o arrange for UHL staff to pick up filters from the Polk County Local Program.

Lead Analysis Laboratory. UHL shall manage and operate the State's air lead analysis laboratory in support of the State lead monitoring network. The laboratory shall provide support and analysis for lead samplers operated by contractors, the Local Programs, or by UHL, as directed by the DNR. The UHL lead laboratory shall:

- o operate all laboratory equipment in accordance with EPA/DNR approved QAPP, SOP's, and manufacturer's operation manuals;

- o analyze filter samples as determined by the DNR;

- o provide shipping containers, coolers, thermometers, and ice substitute packs as needed to insure sample handling is conducted in accordance with the QAPP and SOP's;

- o maintain an inventory of supplies and consumables sufficient to support lead monitoring efforts in the State;

- o report lead data analysis results to the Department and upload to the AQS database within 30 days of lead sample analysis

5.1.8 TECHNICAL ASSISTANCE

Technical Assistance to the Local Programs. UHL shall provide technical assistance to the Local Programs in cooperation with the department in matters related to the operation of the local monitoring networks.

5.1.9 SPECIAL PROJECTS

UHL shall complete the following special projects:

New Monitoring Sites. UHL shall install new monitoring sites as indicated below and in Appendix C.

Ozone Auto-Calibration Systems. UHL shall operate an additional model 49i ozone analyzer at Pisgah (2 sites), Clinton, and Scott Co. Park. These analyzers shall be used to conduct automated daily zero, precision, and span checks on the collocated analyzers. UHL shall have all daily check systems operational by April 1.

Toxics Program Detection Limit, Method Analysis, and Report. UHL shall conduct a laboratory and systems audit of the canister sampling and analysis laboratory including a report on method detection limits with a comparison to detection limits obtained by other laboratories. A final report shall be prepared for DNR including estimates of what changes in equipment or procedures could be initiated to obtain lower detection limits for volatile organic compounds collected in the Iowa network. The report shall also include estimates of costs for new equipment recommended in the report. The report shall be submitted to DNR by January 1.

Lead Monitoring Sites. UHL shall install high volume Total Suspended Particulate (TSP) monitors for lead sites in Council Bluffs and Muscatine during the contract period. The monitors shall be operational by November 1.

Hayes School Site. UHL shall install a trailer monitoring platform for PM2.5 sampling at Hayes Elementary in Davenport. PM2.5 FRM and collocated 1405-F TEOM continuous sampling shall begin on January 1.

Discontinue Clarion Site. UHL shall discontinue monitoring at the Clarion site on January 1. Equipment shall be removed from the site in cooperation with the landowner, but no later than April 1.

Lead Laboratory QAPP and SOP's. UHL shall obtain EPA approval of QAPP's and SOP's for quantifying lead on TSP sampler filters via prior to the beginning of lead sampling on October 1. UHL shall perform lead analysis on filters from lead monitoring sites in Iowa.

NOy Monitoring at Jefferson School. UHL shall install and operate a NOy monitor according to the NCore procedures for placement and operation of NOy monitors. Final SOP and QAPP changes as necessary shall be submitted to DNR by May 1. The NOy monitor shall be operational by June 1.

Ammonia Denuder Sampling. UHL shall collect ammonia samples using one channel of the speciation sampler at its 10th and Vine monitoring site in Davenport by October 1.

Davenport MET Site. UHL shall install a new MET monitoring site in Davenport according to the new meteorological guidance and equivalent to NCore MET requirements. The site shall be operational by May 1.

Replacement of Continuous FDMS Monitors with BAM Monitors. UHL shall replace existing FDMS monitors with Met One BAM monitors at the Viking Lake and Emmetsburg monitoring sites. BAM monitors shall be collocated at each site and shall be installed and operational by February 1.

Replacement of Continuous FDMS Revision C Monitors with 1405-F Monitors. UHL shall replace existing FDMS Revision C monitors with 1405-F monitors at Blackhawk Foundry and Rainbow Park. The 1405-F monitors shall be installed and operational by October 1.

Upgrade of Thermo Analyzers. UHL shall replace Thermo "C-series" SO2 analyzers and with "i-series analyzers. i-series instruments shall be deployed by September 1.

New PM2.5 FRM Monitoring Site on the Meskwaki Reservation. Contingent upon a final agreement between the department and the Meskwaki Tribe, UHL will work with the department to establish a PM2.5 special purpose monitoring location on the Meskwaki Reservation. The site is anticipated to be operated through 2011. UHL shall provide support for this site that is identical to that for existing PM2.5 sites where 3rd party operators are utilized. This site shall be operational on December 1.

New Ozone Site Location near Lake Macbride. UHL shall begin operation of the Lake Macbride ozone site on April 1.

TSP Metals in Keokuk. UHL shall install a new TSP metals monitoring site in Keokuk near Griffin Wheel. This site shall be operational by May 1.

DR DAS Data Acquisition System. UHL shall deploy a DR DAS system at the Davenport, 10th and Vine monitoring site by June 1.

Security and Backup of Computers used for Ambient Monitoring. By August 1, UHL IT staff shall perform an audit to ensure that all computers (including DR DAS data acquisition computers) used in the ambient monitoring network are secure and adequately "backed up".

Upgrade of PM2.5 FRM Filter Samplers. UHL shall replace 10 R&P branded PM2.5 FRM monitors with new monitors manufactured by Thermo by August 1. UHL shall conduct testing to verify that the replacement monitors are functioning properly prior to deployment of the monitors.

Sampling Shelter Upgrade. UHL shall install a shelter or trailer to be used to consolidate the existing monitoring trailers at the Davenport 10th and Vine site into a single monitoring shelter by June 1. This site shall utilize the latest i-series samplers and trace-level protocols and shall be operated as an NCore monitoring site.

PM2.5 FDMS Dryer Refurbishment. Each FDMS dryer operated by UHL shall utilize a revision C dryer or shall be a 1405 series monitor. All FDMS dryers shall be sent back to the manufacturer annually for dryer and tubing replacement, and performance testing.

Zero Air Testing for Continuous PM2.5 Monitors. Prior to or upon initial deployment and semi-annually thereafter and after any substantial maintenance, UHL shall perform zero air testing on each continuous PM2.5 FDMS TEOM or BAM monitor. The test must be performed for a minimum of seventy-two hours, and no data shall be reported from the instrument until a successful zero air test has been performed. Successful tests shall meet the criteria defined in the continuous instrument's SOP. Zero air tests for TEOM units will be voided if the TEOM filter becomes unseated during testing.

PM2.5 Audit Sampling. UHL shall operate a PM2.5 audit sampler at locations selected by the Department during the contract period.

Trace-Level Gas Sampling. Within 40 days of receipt of equipment, UHL shall supply the Department with finalized QAPP's and SOP's and install trace-level gaseous monitors at designated monitoring sites.

Survey Sampling/ Public Outreach. Within 30 days of a request by the Department, UHL will perform monitoring using portable samplers or passive samplers at sites designated by the Department. Within 30 days of sampling or passive sampler analysis, UHL will issue a report summarizing the results and methodology used in the survey. Before initiating survey or passive sampling, UHL will develop QAPP's and SOP's for siting survey or passive samplers, calibration and operation of sampling equipment, analytical methods used to develop samples, and data reduction and analysis techniques. In addition, within 30 days of a request of the Department, UHL shall distribute portable or passive samplers to members of the public and train them in the operation of these samplers. The UHL or other DNR approved laboratory shall be responsible for analyzing the results of these sampler runs, and submitting a report to the sample operator and to the DNR within 30 days of a sample run.

Backup Continuous Monitors. Within 30 days of a request by the DNR, UHL shall install and operate backup continuous samplers in the UHL network. Precision checks, audits, and calibrations shall be performed on the backup monitors in the same manner as for the primary monitor. Data from the backup sampler shall be used to validate the monitoring data and to substitute for primary monitor data should the primary monitor fail.

Broadband or Cellular Internet Access to Monitoring Sites. UHL shall configure continuous monitoring sites with broadband or cellular internet access at monitoring locations where it is practical and feasible. UHL shall install a broadband connection to the Davenport, 10th and Vine monitoring site, and utilize the broadband connection as the primary communications link to the site by June 1.

Digital Data Capture. UHL shall configure continuous monitors for digital data capture at monitoring locations where it is practical and feasible.

Contract Development. UHL shall work with the Department to migrate the Special Conditions section into a format with measurable task activities, including corresponding task milestone dates, to be used for any future contracts.

5.1.10 SUPPLEMENTAL ANALYTICAL SERVICES

- Toxics analysis. Toxics analysis costs for the contract period shall be $499 per TO-15 analysis and $152 per TO-11A analysis.
- Ion analysis. Ion analysis costs for the contract period shall be $25 per sample for sulfate analysis, $40 per sample for both sulfate and nitrate analysis.
- Asbestos analysis. Asbestos analysis costs for the contract period shall be $36 per sample.
- Lead analysis. Lead analysis costs for the contract period shall be $33 per sample.
- Multi-metal analysis. Multi-metals analysis costs for the contract period shall be $33 per sample.

5.1.11 ASBESTOS NESHAP PROGRAM

Asbestos Samples Submitted by the Department. UHL will analyze all samples submitted by departmental staff as described in the second paragraph of this section. Sample containers for sample transport will be provided by UHL. The results of the tests will be forwarded to the Air Quality Section within fifteen (15) calendar days of receipt. Extra time for analysis is allowed in cases when the analytical work warrants. A notification to the submitter, stating that analytical results from a sample will be delayed and the reason for the delay, will be made within fifteen (15) calendar days of receipt of the sample if extra time is required for analysis.

Asbestos Sample Analysis. UHL shall analyze samples for asbestos submitted by Department staff. Unless otherwise directed, the analysis will use the published polarized light microscopy method from 40 CFR Part 763 Appendix A to Subpart F. These samples will be collected during NESHAP compliance evaluation inspections of asbestos abatement contractor work. Samples collected for this activity will be coded as AQ-AB.

5.2 Final Notice of Acceptance.

If all the Tasks required by the Statement of Work have been timely completed consistent with the timeframes identified therein and all deliverables and services required by this Contract have been completed and delivered, and implementation of the Statement of Work is completed and successfully deployed, then DNR shall issue a written Final Notice of Acceptance within 30 days.

5.3 Non-Exclusive Rights.

This Contract is not exclusive. DNR reserves the right to select other Contractors to provide services similar or identical to the Scope of Services described in this Contract during the term of this Contract.

5.4 Stop Services.

In addition to its other remedies described herein, DNR shall have the right at any time during the Contract term to direct the services of Contractor fully or partially suspended or stopped, if the deliverables or services fail to conform to applicable specifications and requirements in this Contract. DNR shall give Contractor written notice of a stop work directive. DNR shall provide to Contractor the reasons for the stop work directive and pay the Contractor for any and all work performed prior to the issuance of the stop work directive.

5.5 Industry Standards.

Services rendered pursuant to this Contract shall be performed in a professional and workmanlike manner in accordance with the terms of this Contract and the standards of performance considered generally acceptable in the environmental laboratory industry for similar tasks and projects. In the absence of a detailed specification for the performance of any portion of this Contract, the parties agree that the applicable specification shall be the generally accepted industry standard.

5.6 Amendments to Statement of Work – Change Order Procedure.
Modifications, deletions and additions may be made to a Statement of Work at any time during the term of this Contract by mutual written consent of the parties. Any amendment to a Statement of Work shall be called a Change Order, and the following procedures shall be followed:

5.6.1 WRITTEN REQUEST.
DNR shall specify in writing the desired modifications to the same degree of specificity as in the original Scope of Services.

5.6.2 THE CONTRACTOR'S RESPONSE.
The Contractor shall submit to DNR a time estimate and an estimated budget for the requested Change Order within five (5) business days of receiving the Change Order Request, if Contractor decides, in its sole discretion, to provide the services in the requested Change Order.

5.6.3 ACCEPTANCE OF THE CONTRACTOR ESTIMATE.
If DNR accepts the time estimate and estimated budget presented by the Contractor within five (5) business days of receiving the Contractor's response, the Contractor shall perform the modified services subject to time estimate and estimated budget included in the Contractor response. The Contractor's performance and the modified services shall be governed by the terms and conditions of this Contract, with a begin date agreed to by the parties.

5.6.4 ADJUSTMENT TO COMPENSATION.
The parties acknowledge that a Change Order for this Contract may or may not entitle the Contractor to an equitable adjustment in the Contractor's compensation or the performance deadlines under this Contract and that such Change Order may require approval of the Natural Resources or Environmental Protection Commission.

Section 6 MONITORING AND REVIEW

6.1 Task Milestone Dates. Contractor shall use its best efforts to complete its obligations under this Contract as indicated in Appendices A and C.

Contractor shall notify DNR within 5 working days upon discovery of any delay in any of the above-designated portions of its obligations. Contractor and DNR shall discuss updated Task Milestone Dates. If the parties are unable to mutually agree to updated Task Milestone Dates within 30 days of DNR's receipt of notice of a delay, DNR may terminate this Contract for cause.

6.2 Review Meetings. Commencing with beginning performance of this Contract, the Project Managers shall meet quarterly to discuss progress made by the Contractor during the performance of this Contract. The meetings shall occur, either in person or by telephone conference call, on a quarterly basis and meeting times shall be agreed upon by the parties. Meetings may be postponed only on a case-by-case basis by mutual agreement of the parties.

6.3 Status Reports. Prior to each review meeting, each Technical Contact shall provide a status report listing:

- Accomplishments during the previous period,
- Activities planned for the upcoming period,
- Tasks completed or deliverables produced during the previous period,
- An updated schedule of upcoming deliverables, and
- Any problems or concerns encountered since the last meeting.

At the next scheduled meeting after which any party has identified in writing a problem, the party responsible for resolving the problem shall provide a report setting forth activities undertaken, or to be

undertaken, to resolve the problem, together with the anticipated completion dates of such activities. Any party may recommend alternative courses of action or changes that shall facilitate problem resolution.

6.4 DNR Right to Review and Observe. DNR shall have the right to review and observe, at any time, completed work or work in progress. Contractor shall allow the State of Iowa or DNR, within normal business hours and upon prior written notification to Contractor, to inspect its facilities and books and records relating to invoicing for the purpose of monitoring and evaluating performance of this Contract.

Section 7 COMPENSATION

7.1 Source of Funding. Funding for this contract is provided through fees from the air contaminant fund, federal 103 and 105 grants, and state appropriations.

7.2 Not-to-Exceed Total Amount of Contract. Payment for the work performed by Contractor according to the terms of this Contract shall not exceed $2,212,811. Payment shall be for satisfactory completion of the Statement of Work outlined in this Contract, provided that Contractor has complied with the terms of this Contract.

7.2.1 OVERHEAD. Overhead will be charged at the rate of 8% for all items in this contract, with the exception of Supplemental Analytical Services and capital equipment exceeding $5,000.

7.2.2 UNIT COSTS FOR SUPPLEMENTAL ANALYTICAL SERVICES. Costs for supplemental analytical services shall be billed as cost per unit as specified in Section 5.1.10.

7.3 Budget. The budget for this Contract shall be as follows:

TASK DESCRIPTION	VARIABLE PAYMENT AGREEMENT ESTIMATE	
Staff*	$	1,274,825
Operation and Expenses-Supplies*	$	250,000
Operation and Expenses-Equipment*	$	150,000
ICP-MS Lead Laboratory*	$	162,000
Computers/Software*	$	25,000
Training*	$	25,000
Cargo Vans*	$	60,000
Ion Filter Analysis*	$	30,000
Air Toxics Analysis*	$	90,000
Lead/Multi-Metal Analysis*	$	15,000
Asbestos Analysis*	$	5,000
Overhead**	**$**	**125,986**
TOTAL (not to be exceeded)	**$**	**2,212,811**

*Itemized expenses for these line items are to be billed to the Department monthly. Line item totals are estimates of the final values, and may change during the contract period, provided the contract total is not exceeded.

**Overhead is charged on contract items as indicated in Section 7.2.1.

7.4 Submission of Invoices. Invoices shall be submitted to DNR according to the following schedule:

7.4.1 By the 30th day after the end of a calendar month, UHL will submit an itemized billing to DNR for:

- UHL Staff Costs. The DNR shall be billed only for the percentage of each employee's total monthly salary that corresponds to work performed under this contract.

- Monitoring Network Expenses. Including all costs incurred during the month that are associated with the maintenance and operation of the monitoring network, including but not limited to, monitor parts, van repairs, calibration gases, filters, etc. together with the monitor type, if applicable, to which it applies. At sites where brush or trees must be trimmed in order for the site to meet siting criteria, UHL will include costs for these services in its monthly bill.

- Monitor Installation Costs. Monitor installation costs incurred by UHL during the month, together with the monitor site number to which it applies.

- Sampler Operator Costs. The payments due to local sampling personnel for samples collected during the month. This report will include the date each sample was taken, and the identification number of the monitor from which each sample was taken.

7.4.2 Partial payment shall be processed only when Section 7.2.2 specifies a per unit fee. In all other cases, the provisions of this section shall apply.

Each invoice shall comply with all applicable rules concerning payment of such claims. Each invoice shall be itemized as per the line item budget categories in the budget contained in this Contract. DNR shall have the right to dispute any invoice item submitted for payment and to withhold payment of any disputed amount if DNR reasonably believes the invoice is inaccurate or incorrect in any way. Invoices should be sent to:

Iowa Department of Natural Resources – Air Quality Bureau
Attention: Sean Fitzsimmons,
Environmental Specialist Senior
DNR - Air Quality Bureau
7900 Hickman Rd., Suite 1
Windsor Heights, Iowa 50324
Phone: (515) 281-8923
Fax: (515) 242-5098
Email: Sean.Fitzsimmons@dnr.iowa.gov

7.5 Payment of Invoices. DNR shall pay approved invoices in arrears and in conformance with Iowa Code section 8A.514. Unless otherwise agreed to in writing by the parties, the Contractor shall not be entitled to receive any other payment or compensation from the State of Iowa for any services provided by or on behalf of the Contractor under this Contract.

DNR will pay Contractor within sixty (60) days following receipt of invoices. Payment will be issued to:

University of Iowa Hygienic Laboratory – Accounts Receivable
102 Oakdale Campus, H101 OH
Iowa City, IA 55242

7.6 No advance payment. No advance payments shall be made for any Deliverables provided by Contractor pursuant to this Contract.

7.7 Delay of Payment Due to Contractor's Failure. If DNR determines that the Contractor has failed to perform or deliver any service or product required by this Contract, then the Contractor shall not be entitled to any compensation for that service or product, or any further compensation if compensation has already occurred, under this Contract until such service or product is performed or delivered. DNR

shall withhold that portion of the invoice amount which represents payment for the task or deliverable that was not completed, delivered and successfully deployed.

7.8 Erroneous Payments and Credits. Contractor shall promptly re-pay or refund to DNR the full amount of any overpayment or erroneous payment within ten (10) business days after either discovery by Contractor or notification by DNR of the overpayment or erroneous payment.

7.9 Final Payment. Unless otherwise provided in this Contract, by state law or otherwise expressly agreed to by the parties to the Contract, final payment under a settlement upon termination of this Contract shall not constitute a waiver of either party's claims against the other party under this contract or applicable performance and payment bonds.

Appendix A: Reports and Products

Obligation	Task Milestone Date
Monitoring Network Expenses	30th day after the end of the calendar month
Sampler Operator Expenses	30th day after the end of the calendar month
Installation Costs	30th day after the end of the calendar month
QAPP/SOP's for New Equipment	40 days following receipt; before deployment
QAPP/SOP Revision	40 days following notification by EPA, DNR
QAPP/SOP Revision	40 days following promulgation of new rules or procedures by EPA
Copy of all Proposed QAPP/SOP Revisions to Department	at least 15 days before proposed implementation date
Submission of Annual Network/Quality Assurance Review	March 15
Polk/Linn County QA Audit Complete Questionnaire	March 15
Polk/Linn County QA Audit Written Report	April 1
PSD Monitoring Sites QAPP review	within 30 days following DNR's written request
PSD Monitoring Sites Site Audits	on the quarterly monitoring schedule
PSD Monitoring Sites Site Audit Report	two weeks after site audit
PSD Monitoring Sites Data Review	within 30 days following DNR's written request
Sampling Frequency Change	within 30 days following DNR's written request
Management Meetings	Quarterly
Technical Staff Meetings	Quarterly
Network Planning Report	February 15
Purchase of New Vans (2)	February 1
E-mail Notice of AQS Site/Monitor Changes	whenever database modifications are made
AQS/PARS Data Upload (Continuous Monitors)	15th of the month following the month of data collection
AQS/PARS Data Upload (non-Continuous Monitors)	within 30 days of the end of the month of data collection
E-mail Notice of Monthly AQS Upload w/ Screening File and Error Reports	after monthly data has been uploaded
Backlog Report	after monthly data has been uploaded
Report of NAAQS Exceedance, Episode, or Threshold Exceedance	immediately, with immediate written follow-up
Weekly Network Status Report	1st day of each week
Monthly Monitoring Report	within 45 days of the end of each month

Quarterly Monitoring Report	within 45 days of the end of each quarter
Inventory Report	within 7 days of request
PM2.5 Gravimetric Results To Local Programs	within 30 days of the end of the month of data collection
Trace-level Gas Monitoring QAPP/SOP (final)	within 40 days of receipt of equipment
Trace-level Gas Sampling Begins	within 40 days of receipt of equipment
Survey or Passive Sampling Performed	within 30 days of request
Survey Sampling Report to Department	within 30 days of sampling
UHL shall work with the Department to migrate the Special Conditions section into a format with measurable task activities, including corresponding task milestone dates, to be used for future contracts.	ongoing
Computer Security (including DR DAS Software)	August 1
Replace 10-PM2.5 R&P FRMs with Thermo Samplers	August 1
Replace Thermo C-series with i-series (SO2 sites)	September 1
Ammonia Denuder Sampling, 10th and Vine	October 1
Approval of QAPP's and SOP's for lead analysis on TSP Filters	October 1
Replace FDMS Rev. C with 1405-F, Blackhawk and Rainbow Park	October 1
Lead Monitoring Sites, Council Bluffs and Muscatine	November 1
Install Meskwaki PM2.5 FRM sampler	December 1
Discontinue Clarion Site	January 1
PM2.5 FRM and Collocated Continuous Monitoring, Davenport, Hayes Elementary	January 1
Toxics Monitoring Audit and MDL Analysis	January 1
Replace FDMS with BAMs, Emmetsburg and Viking Lake	February 1
Additional Model 49i ozone analyzers at Pisgah (2), Clinton, and Scott Co. Park	April 1
New Ozone Site Near Lake Macbride	April 1
TSP Metals Site (Keokuk)	May 1
New MET Monitoring Site in Davenport	May 1
NOy Monitoring Davenport, Jefferson School	June 1
Installation of Sampling Shelter w/i-series analyzers, 10th and Vine	June 1
DR DAS data acquisition system at 10th and Vine	June 1
Broadband as Primary Communication Davenport, 10th and Vine	June 1

Appendix B: Existing Ambient Air Monitoring Network (6/09)

AQS Site ID			Site Description	Parameter(s)
19	013	0008	Waterloo – Grout Museum	PM10, PM2.5,
19	013	0009	Waterloo—Water Tower Site	PM2.5 FRM, BAM (co-located)
19	017	0011	Waverly Airport	Ozone (co-located)
19	033	0018	Mason City – 17th & Washington	PM10 (2025, co-located), PM10 TEOM (co-located), , MET**
19	033	0020	Mason City-Washington School	PM10 (2025)
19	045	0019	Clinton-Chancy Park Tennis Court	PM2.5 (2025), SO2, MET, PM2.5 FDMS
19	045	0021	Clinton-Rainbow Park	PM2.5 (2025), PM2.5 FDMS, PM2.5 BAM, Ozone (co-located), MET**
19	055	0001	Dundee-Backbone State Park	PM10 (2025)
19	085	1101	Harrison County-Pisgah	Ozone (co-located), MET
19	085	0007	Pisgah	Ozone (co-located), MET
19	103	2001	Iowa City-Hoover School	PM2.5 (2025), BAM, (co-located), Met
19	111	0008	Keokuk Fire Station	PM2.5 (2025)
19	137	0002	Viking Lake State Park	PM10 (2025), PM2.5 (2025), PMc, PM2.5 FDMS (co-located), Ozone , (co-located), MET**, IMPROVE
19	139	0015	Muscatine-Garfield School	PM 10 (2025), PM2.5 (2025, co-located), PMc, PM2.5 BAM (co-located)
19	139	0020	Muscatine-Musser Park	SO2, MET
19	139	0016	Muscatine, Greenwood Cemetery	PM2.5 FRM
19	139	0018	Muscatine, Franklin School	PM2.5 FRM
19	147	1002	Emmetsburg-Iowa Lakes Community College	PM2.5(2025), PM10 (2025), PMc, PM2.5 FDMS (co-located), Ozone , (co-located), MET**
19	155	0009	Council Bluffs-Franklin School	PM2.5 (2025, co-located), PM10 (2025), PMc
19	163	0014	Scott County Park	Ozone (co-located), MET
19	163	0015	Davenport-10th and Vine	PM2.5 (2025, co-located), PM10 (2025, co-located), PMc, PM2.5 FDMS (co-located), Speciation, Ozone(co-located), , NO2, SO2-T, CO-T, Continuous Particulate NO3 and SO4, Toxics, MET**
19	163	0017	Buffalo-Linwood Mining	PM10 (2025), PM10 TEOM ((co-located),), MET**
19	163	0018	Davenport-Adams Elementary	PM2.5 (2025), PM10 (2025), PMc

19	163	0019	Davenport-Black Hawk Foundry	PM2.5 (2025), PM10 (2025), PMc, PM2.5 FDMS (co-located),, MET**
19	177	0006	Lake Sugema	SO2-T, PM2.5 (2025), PM 2.5 FDMS (co-located), PM10 (2025), PMc, Ozone(co-located), IMPROVE, Nephelometer, MET**
19	193	0019	Sioux City- Bryant School	PM2.5 (2025), PM10 (2025, co-located), PMc
19	197	0004	Wright Co.- Clarion	PM2.5 (2025)

MET indicates wind speed and direction, as well as ambient temperature, pressure, and relative humidity, MET indicates wind speed and direction only**

Appendix C: Ambient Monitoring Network Modifications

New Monitoring Sites

New lead monitoring sites in Muscatine and Council Bluffs, November 1

New PM2.5 FRM Site on Meskwaki Reservation, December 1

New PM2.5 Site with an FRM and collocated 1405-F TEOM's, Davenport, Hayes School, January 1

New Ozone Site, Lake Macbride, April 1

New TSP Metals monitoring site, Keokuk, May 1

New MET site, Davenport, May 1

New Monitors at Existing Sites:

Replace 10 R&P PM2.5 FRM Monitors with Thermo monitors, August 1

Replace C-Series SO2 analyzers with i-Series, September 1

Ammonia Denuder Sampling, Davenport, Jefferson School, October 1

Replace FDMS Rev. C monitors with 1405-F monitors at Blackhawk and Rainbow Park, October 1

Replace FDMS samplers with BAM samplers at Emmetsburg and Viking Lake sites, February 1

Operate additional Model 49i ozone monitor to be used for daily checks at Pisgah (2 sites), Clinton, and Scott County Park, April 1

New Sampling Shelter with i-Series analyzers and NOy Sampling (NCore Protocol), Davenport, Jefferson School, June 1

Deploy DR DAS with Broadband as Primary Communication at Davenport, Jefferson School, June 1

Sites to Discontinue:

Clarion PM2.5 Site, January 1