



Request for Proposal 09-X-39586

For NJDEP LABORATORY ANALYSIS OF AIR SAMPLES TERM CONTRACT

Event	Date	Time
Bidder's Electronic Question Due Date (Refer to RFP Section 1.3.1 for more information.)	JUNE 30, 2008	5:00 PM
Bid Submission Due Date (Refer to RFP Section 1.3.2 for more information.)	JULY 31, 2008	2:00 PM

Dates are subject to change. All changes will be reflected in Addenda to the RFP posted on the Division of Purchase and Property website.

Small Business Set-Aside (Refer to RFP Section 4.4.2.2 for more information.)	Status ☒ Not Applicable ☐ Entire Contract ☐ Partial Contract ☐ Subcontracting Only	Category ☐ I ☐ II ☐ III
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RFP Issued By

NJ Department of Environmental Protection

State of New Jersey
Department of the Treasury
Division of Purchase and Property
Trenton, New Jersey 08625-0230

Date: June, 2008

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Attachment A – Signatory Page

Attachment B - Ownership Disclosure Form

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Attachment D - MacBride Principles Certification

Attachment E - Affirmative Action

Attachment F. Services Source Disclosure Form

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APPENDICES

Appendix 1 - NJDEP-SRWM Low Level USEPA Method T0-15 (NJDEP-LLTO-15-3/2007) FOR AMBIENT AIR NJDEP REGULATORY DATA REPORT FORMAT-MARCH 2007

Appendix 2- USEPA Method 3C FOR THE DETERMINATION OF CARBON DIOXIDE, METHANE, NITROGEN, AND OXYGEN FROM SOIL GAS AND LANDFILL VENTS NJDEP REGULATORY DATA REPORT FORMAT- JUNE 2008

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Appendix 4 - New Jersey Environmental Laboratory Certifications

Appendix 5 - Non-Payment Issues

Appendix 6 – Data Package Evaluation Checklist

Appendix 7 - SOP Certification Chart

Appendix 8 – Personnel Certification Chart

BIDDING PROCESS

The bidding process for this solicitation will be in two parts:

- ⇒ Stage 1 - Electronic Question Period
- ⇒ Stage 2 - Submission of Bid Proposal

In the first stage, prospective bidders will be allowed to ask any questions they may have about the job so as to be able to bid knowledgeably and responsibly. In the second stage, prospective bidders must submit their bid proposal, including a price proposal as to how much the work would cost, provide any information required by the State other information required at that time.

The bidding procedures are fully explained in Section 4 and 5 of this RFP.

BID SUBMISSION CHECKLIST

The RFP requires the bidder to submit information and documentation at each stage of the bidding process.

The following documents or their equivalents must, where applicable, be filled out, signed and submitted at the appropriate stage of the bidding process in order for a bidder to be eligible for contract award. Samples of some of these documents are provided as Attachments to the RFP. Others must be prepared by the bidder. Failure to fill out or sign the relevant portions of the applicable documents and to submit the documents within the time limits specified in this RFP will result in rejection of that proposal as non-responsive to the RFP. Where additional copies of the Attachments are required for the bidder or any subcontractors, please photocopy the document or request additional copies from the Purchase Bureau.

BID SUBMISSION CHECKLIST

The following checklist of submissions for each stage may be helpful as an aid in completing your bid. For additional details regarding these items, see Section 5 of this RFP.

Cover Sheet or a letter of transmittal signed by the person authorized by the Corporate Resolution

Attachment A – Signatory Page

Attachment B - Ownership Disclosure Form

Attachment C- Disclosure of Investigations/Actions Involving Bidder

Attachment D - MacBride Principles Certification

Attachment E - Affirmative Action

Attachment F - Services Source Disclosure Form

BUSINESS REGISTRATION

EXAMPLE DATA REPORTS & ELECTRONIC SUBMITTALS FOR EACH METHOD BID

- ☐ One Original and Two Copies Required- Method 3C

- ☐ One Original and Two Copies Required- Method 25C
- ☐ One Original and Two Copies Required- Method NJDEP- LLTO-15

One (1) clearly marked original and two (2) copies of the bid proposal (total of three (3)) submissions are required except for Sample Data Package).

SOFTWARE DOCUMENTATION REQUIREMENTS

- ☐ Data Systems for all methods-Proof of software ownership or license agreement from the manufacturer must be provided as part of the bid documents and included in the SOP.
- ☐ GC/MS- Mass Spectral Library- Proof of software ownership or license agreement for the NIST (2005 release or later), Wiley (2005 release or later) or equivalent mass spectral library that is required for the as the reference library.

1.0 PURPOSE AND INTENT

The purpose of this Invitation for Bid (RFP) is to solicit bids from laboratories that are qualified under the Regulations Governing Laboratory Certification and Environmental Measurements, N.J.A.C.7.18 to perform selected air analytical services from hazardous waste sites for the New Jersey Department of Environmental Protection. Attached, as Appendix 4, is a complete list of New Jersey Environmental Laboratory Certifications and NJDEP NELAP Accreditations.

Bidders must hold all the laboratory certifications/accreditations specified at the time of Bid Proposal submission in order to be eligible for contract award.

Laboratories submitting bids and not holding all the required certification/accreditations shall be deemed non-responsive to be RFP and not subject to any further review.

Corporations with multiple laboratories must submit one bid encompassing all the laboratories under corporate control that will perform work under the contract. See Section 5.0 and Section 8.0 of this RFP for more information on corporate laboratories.

Subcontracts and joint ventures are prohibited. Any other joint venture or partnership between or among two or more laboratories solely for the purpose of bidding is prohibited. Bids submitted that indicate that subcontracts, joint ventures, or partnerships formed for the purpose of bidding will be determined to be non-responsive to the bid submission requirements and not awarded contracts.

This is a three-year term contract which will commence approximately August 2008. The effective date of the contract will be the date signed by the Director of the Division of Purchase and Property and this date will be the start of contract year one pricing.

Web Site Location

<http://www.state.nj.us/treasury/purchase/bid/summary/bid.shtml>

The bid document and all related attachments are downloads and available at the website listed above. Please refer to the solicitation number listed on the front page of the documents. Please ensure that all attachments are also downloaded and completed as specified in the RFP. If there are any questions regarding any download please contact:

Frank.Kuzniacki@dep.state.nj.us

2.0 BACKGROUND

The New Jersey Department of Environmental Protection and other departments require analysis of indoor air and air emissions from hazardous waste sites throughout the state.

As part of the remediation process, NJDEP is investigating the impact of groundwater contamination on indoor air quality on both a routine and emergency basis. Discharges from hazardous waste sites have impacted the ground water in various areas of New Jersey. In addition contaminated ground water may impact the indoor ambient air quality of overlaying structures. The vaporized volatile ground water contaminants have the potential to move through the soils and diffuse into subsurface or at grade structures. Various chemicals stored or used in the structures may also have an adverse impact in the indoor air quality. Depending on the contaminant, there may be immediate or long-term air quality problems within the structure.

Furthermore, NJDEP must, on an as needed basis collect samples from vents at landfills, air strippers and other treatment systems that generate air emissions. The analytical results from these samples will be used to determine contaminants present at the site or to determine the efficiency of a treatment system.

One of the services covered under this RFP are a re-procurement of the Professional Laboratory Analytical Services of Air Samples Collected at Hazardous Waste Sites, 03-X-35135 contract. The incumbent contractor is STL-Burlington (Test America).

3.0 **DEFINITIONS**

Addenda - If the State decides to revise this RFP, the State will issue the revisions to all bidders in documents called "addenda".

Accuracy – The nearness of a result of the mean (x) or a set of results to the true value. NJDEP assesses accuracy by means of proficiency samples and percent recoveries.

All-Inclusive Unit Price per Parameter – A unit price per each analytical parameter or group of parameters which shall incorporate all associated costs as specified by Section 5.21.1. Those costs include, but are not limited to, canister preparation, analysis, quality control, data deliverables, submission of all the required work as specified in Section 3.0 of this contract and final disposal of sample remnants.

Bidder - A person, partnership, corporation or joint venture, submitting a bid proposal for the purpose of obtaining a contract.

Bid Proposal - The submittal required at the third stage of the bidding process including a technical proposal, organizational proposal and price proposal.

Canister- Leak-free stainless steel 1, 2.7, 3.2 or 6-liter pressure vessel Summa TM Canisters or equivalent canisters with laboratory preset pressure gauges, flow controllers, critical orifices, stainless steel frits (dust filter) over the orifices, and specially prepared interior surfaces. Some canisters must be equipped with sample inlets or sampling caps to prevent water droplets from accumulating at the edge of the tubing where they could be pulled into the sampling train. Hard seat metal valves must be used for the shutoff valves on the canisters. Soft-seated valves shall not be acceptable. Canisters are shipped to the Contract Users at subatmospheric pressure.

Chain of Custody Form, DEP-077 NJDEP Internal - This form is used by the laboratory to document the movement of a maximum of twenty (20) samples, (and all associated digestates and/or extracts) through the laboratory. The Internal Chain of Custody is initiated by the Sample Custody Officer (SCO) or the Assistant Sample Custody Officer (ASCO) upon breaking of the seal on the Sample Shipping Containers received from the Contract User. The Internal Chain of Custody is considered completed with the final transfer of the remaining sample volumes, digestates and extracts to the SCO or ASCO for sample storage.

Chain of Custody Form and Sample Analysis Request Form (with Shipping Container), DEP-095 NJDEP External - This form is used by the laboratory to initiate sample custody of a sample bottle during preparation of a Shipping Container by the Sample Custody Officer (SCO) or the Assistant Sample Custody Officer (ASCO). Each set of sample bottles (one set for each sampling point) has its own DEP-095 form or is on a multiple sample form. The Contract User is responsible for completing the sampling information and initiating the External Chain of Custody section upon receipt of the shipping container from the laboratory. The External Chain of Custody section is completed by the laboratory upon receipt at the laboratory and initiation of the Internal Chain of Custody Form DEP-077.

Chain of Custody Form and Sample Analysis Request Form (without Shipping Container), DEP-096 NJDEP External - This form is used when the Contract User initiates a sampling event without prior receipt of bottles or a shipping container from the laboratory. The Contract User supplies the sample bottles and shipping container. The Contract User is responsible for completing the top section of the form as well as the

sampling information. The Contract User is responsible for initiating the External Chain of Custody section for shipment to the laboratory. The External Chain of Custody section is completed by the laboratory upon receipt at the laboratory and initiation of the Internal Chain of Custody Form DEP-077.

Contract - The contract is the agreement between the State and the successful bidder that defines the performance of the work.

Contractor - A person, partnership or corporation that has a contractual agreement with the State of New Jersey.

Contract User - The operational unit or individual that has submitted a physical sample for analysis as per terms and conditions of this contract.

Data Validation – A systematic process for reviewing a body of data against a set of criteria to provide assurance that the data are adequate for the intended use. Data validation consists of data editing, screening, checking, auditing, verifying, certifying and reviewing.

Deliverables - Items defined in the Scope of Work, Section 8.0, as products or proof of services rendered under this contract.

Department - New Jersey Department of Environmental Protection (NJDEP).

Director - Director of the Division of Purchase and Property, Department of the Treasury, who by statutory authority is the contracting officer for the State of New Jersey.

Evaluation Committee - A committee established by the Director to review and evaluate bid proposals and to recommend a contract award. The committee for this RFP shall include representatives of the Departments of Environmental Protection and Treasury. There are three (3) voting members, two (2) representing the NJDEP and one (1) from the Department of Treasury.

Facsimile – An exact copy or reproduction of a document and/or form.

Invoice -State Payment Voucher form PV-393.

Invitation for Bid (RFP) - Procurement document issued by an agency for examination by the public which specifies all elements required for a laboratory to submit a bid to perform work as specified in that document.

Issuing Office - Purchase Bureau, Division of Purchase and Property, Department of the Treasury.

Method Blank – An unused, certified canister that has not left the laboratory that is pressurized with humidified, ultra- pure zero air (NJDEP LL-TO-15) or helium (Methods 3C and 25C) and carried through the analytical procedure as a field sample.

NJDEP - New Jersey Department of Environmental Protection.

NJDEP Environmental Laboratory Certification – A certification to be given by the NJDEP to environmental laboratories in accordance with N.J.A.C. 7:18-1.1 et. seq. entitled Regulations governing Laboratory Certification and Standards of Performance.

Network Laboratories - Laboratories that are considered part of Multiple Laboratory Contractor's facilities that legally exist under the control of single or parent corporate entity.

Precision – The measure of agreement of reproducibility of a set of replicate results among themselves without assumption of any prior information as to the true result.

Procurement Specialist - A Purchase Bureau representative responsible for obtaining goods and services for State agencies.

Project – All tasks and Contractor responsibilities delineated in the RFP.

Purchase Bureau - A unit within the NJ Department of Treasury, Division of Purchase and Property with the responsibility for issuing bid documents and recommending awardees for the procurement of goods and services for State agencies.

Qualified Data – Data that has passed the quality assurance review performed by the NJDEP or its designated Contractor with stipulations regarding the quantification or quality of the data. The data is considered acceptable with qualifications.

Raw Data – Data that includes, but is not limited to, any and all entries made in logs, logbooks and notebooks, and/or analytical data (chromatograms, printouts, etc.) produced prior to any calculation or evaluation by an analyst.

Rejected Data – Data that has failed the quality assurance review conducted by the NJDEP or its designated Contractor.

Sample – the material removed from a given location at given time.

Scope of Work (SOW) - A component of an RFP that describes the work the Contractor is to perform under the awarded contract.

Section- A part of the RFP written by the State of New Jersey.

Should - Denotes that which is recommended, not mandatory.

Signature Certification – A process where the individual signs his/her full name to his/her work. The work is then reviewed by another qualified individual or supervisor and signed in the same manner by that individual that attests to the authenticity of the work. This applies to all data, notebooks, run/injection logs and printouts not stored in an electronic format.

SRP – Site Remediation Program

State - Director, Division of Purchase and Property, Department of the Treasury or her designee, acting for the NJDEP under statutory authority as contracting officer for the State of New Jersey.

State Contract Manager – The NJDEP Staff representative that is responsible for all aspects of this contract and is the primary source of contact with the Contractor. Other State using agencies can appoint a State Contract Manager who works in conjunction with the NJDEP representative.

Total Bid Price - The sum of the bid prices provided by the bidder on the Price Schedules for a task.

Unit Price – A price per specified unit of measure for individual line items bid on the Price Schedules, which shall incorporate all associated costs.

USEPA – United States Environmental Protection Agency.

Using Agency - Instrumentality of government using the service furnished by the Contractor. In this instance, the primary using agency is the NJDEP. The individual agency, office or bureau, or state contractor that receives canisters from the Contractor is referred to as the Contract User.

4.0 BIDDING PROCEDURES

The Purchase Bureau, Division of Purchase and Property on behalf of the Department of Environmental Protection is issuing this RFP. The RFP is part of a competitive bidding process which is governed by statutory law, see N.J.S.A. 52:34-6 et seq., by regulations, see N.J.A.C. 17:12-1 et seq., and by decisions of the courts. The procedures and submissions required herein are necessary to comply with the bidding laws and other laws applicable to this purchase, and to ensure a full, fair and informed competition and contract award. Read the instructions in this RFP carefully. Failure to comply with the mandatory requirements of the RFP will result in bid proposal rejection.

4.1 BIDDING STAGES

There are two parts to the bidding process for this contract.

Stage 1 – Electronic Question Period

Stage 2 - Submission of Bid Proposal

4.1.1 ELECTRONIC QUESTION PERIOD

Questions should be directly tied to the RFP and asked in consecutive order, from beginning to end, following the organization of the RFP. Each question should begin by referencing the page number and section number to which it relates.

Bidders are not to contact the Using Agency directly, in person, by telephone or by email, concerning this RFP.

The cut-off date for electronic questions and inquiries relating to this RFP is indicated on the key date sheet and below. Addenda to this RFP, if any, will be posted on the Purchase Bureau website after the cut-off date.

All questions must be emailed to the Purchase Bureau procurement specialist by the time and date designated below:

Date: June 30, 2008

Time: Close of Business (4:00 PM)

Frank.Kuzniacki@dep.state.nj.us

Telefax number: (609) 292-4401

The Purchase Bureau will also accept questions and inquiries from all potential bidders electronically via web form. To submit a question, please go to Current Bid Opportunities webpage or to <http://ebid.nj.gov/QA.aspx>.

4.1.2 ADDENDA: REVISIONS TO THIS RFP

In the event that it becomes necessary to clarify or revise this RFP, such clarification or revision will be by addendum. Any addendum to this RFP will become part of this RFP and part of any contract awarded as a result of this RFP.

ALL RFP ADDENDA WILL BE ISSUED ON THE DIVISION OF PURCHASE AND PROPERTY WEB SITE. TO ACCESS ADDENDA, SELECT THE BID NUMBER ON THE BIDDING OPPORTUNITIES WEB PAGE AT THE FOLLOWING ADDRESS:

<http://www.state.nj.us/treasury/purchase/bid/summary/bid.shtml>.

There are no designated dates for release of addenda. Therefore interested bidders should check the Purchase Bureau "Bidding Opportunities" website on a daily basis from time of RFP issuance through bid opening.

It is the sole responsibility of the bidder to be knowledgeable of all addenda related to this procurement.

4.1.3 STAGE 2 - SUBMISSION OF BID PROPOSAL

As discussed in RFP Section 5.0 below, the bid proposal must include the bidder's proposed prices, and any information required by the State for this contract.

- A. In order to be considered for award, the bid proposal and all required attachments and information must be received by the Purchase Bureau of the Division of Purchase and Property at the appropriate location by the required time. **Any bid not received on time at the right place will be rejected.** The location, date and time are:

☛ Date:	July 31, 2008
☛ Time:	2:00 p.m.
☛ Location:	Bid Receiving Room - 9th Floor Purchase Bureau Division of Purchase and Property Department of Treasury 33 West State Street, P.O. Box 230 Trenton, New Jersey 08625-0230

- B. Bids will be publicly opened at this time. Thereafter, the bidders' submissions will be available for public inspection, and the bidders' qualifications and bids will be evaluated for award by the State.

Directions to the Purchase Bureau can be found at the following web address:
<http://www.state.nj.us/treasury/purchase/directions.htm>.

Note: Bidders using USPS Regular or Express mail services should allow additional time since USPS mail deliveries are not delivered directly to the Purchase Bureau.

4.2 RFP AND BID PROCEDURES

The following procedures apply to this RFP.

4.2.1 ISSUING OFFICE

This RFP is issued by the Purchase Bureau, Division of Purchase and Property. For purposes of this bidding process, the Purchase Bureau is the sole point of contact between the bidder and the State. Bidders should not contact the NJDEP directly with questions or concerns about this RFP or bidding process.

4.2.2 QUESTIONS, EXCEPTIONS AND ANSWERS

If bidders have any questions about or objections to the RFP, the Purchase Bureau, Division of Purchase and Property will respond to questions and exceptions posed in writing prior to the cutoff date of the electronic question period (see Section 4.1.1).

No questions or exceptions received after the electronic question period will be answered by the State unless it is deemed to be in the best interest of the solicitation. Any objection to the RFP must be raised prior to the bid opening or else be forever waived. Unless the Division expressly accepts an objection in a written addendum to the RFP, the objection shall be deemed rejected and the original provisions of the RFP shall be deemed controlling.

4.2.3 INVESTIGATION AND SUPPLEMENTAL INQUIRIES REGARDING BIDDER QUALIFICATIONS AND RESPONSIBILITY

A. In addition to the information supplied with a proposal, the Director of the Division of Purchase and Property may seek supplemental information or make supplemental inquiries to the qualifications and responsibility of a bidder and to the accuracy or adequacy of information supplied by a bidder. The bidder shall cooperate with these inquiries and shall supply any information and site access required by the Director. Such investigations may include but are not limited to:

1. Inquiries and analysis relevant to the bidder's personnel, licenses, financial status, insurance or past work.
2. Visits by State representatives to sites and clients presently or formerly served by the bidder.
3. Inspection of the bidder's facilities.
4. Inspection of laboratories and other outside facilities proposed for use by the Contractor.

B. In submitting a bid proposal, the bidder consents to investigation by the Director or, at the Director's request, the Attorney General to determine whether the bidder is sufficiently responsible to undertake the work hereunder. The bidder consents to the use and consideration by the Director for these purposes of any pertinent information which may be derived from the investigatory arm of any State or federal governmental agency including but not limited to, any information pertaining to the bidder's criminal history.

4.2.4 BID CLARIFICATION

Bid proposals will be reviewed by an Evaluation Committee appointed by the Director. Where the Evaluation Committee reviewing the bid proposals determines that any or all of the bid proposals require some clarification, the Evaluation Committee may require any or all of the bidders to clarify their bids through an oral presentation or through written responses to written questions. At such an oral presentation or in such written questions, the Committee may request the bidder to clarify or explain items in his bid proposal.

However, the oral or written presentation may not be used to supplement or to change the original bid proposal. The Purchase Bureau will schedule the time and place of any

such oral presentations. Oral presentations will be tape-recorded and the tapes will be available for inspection by all bidders. Written questions and responses will also be available to all bidders.

4.2.5 PUBLIC ACCESS TO BID SUBMISSIONS

Pursuant to law, each bid proposal timely received by the Purchase Bureau shall be publicly opened and shall become a public record as part of this bidding process. At that time, each response to the RFP and its complete contents including the submission of qualifications and the bid proposal is available for public inspection. Such inspection is regulated by the rules of the Purchase Bureau and may be scheduled through the procurement specialist responsible for this RFP. Further, the contents of any bid proposal, as accepted by the State, will become part of any public contract which may be awarded as a result of this RFP.

4.2.6 BID PREPARATION COSTS

Bidders are responsible for the preparation and submission of their bids. The State of New Jersey assumes no responsibility or liability for any costs incurred by any bidder in the preparation of the bid submissions.

4.3 MANDATORY REQUIREMENTS AND MINOR FORMALITIES

In order for a bid proposal to be considered responsive to this RFP, the bidder must comply with all of the mandatory procedures and requirements of the RFP and must agree to all of the material terms and conditions contained in the RFP. Failure to do so will result in bid proposal rejection. These mandatory requirements include, but are not limited to, the grounds for automatic bid rejection listed in the rules of the Division of Purchase and Property, N.J.A.C. 17:12-2.5, such as:

- Failure to sign the bid proposal.
- Failure to submit bid proposal on time.
- Submission of bid proposal in pencil.
- Failure to attend Mandatory Bidder's Conference.
- Failure to initial price alterations.
- Inclusion of Cash on Delivery term in bid proposal.

However, pursuant to N.J.A.C. 17:12-2.4 and depending on the circumstances, the Director may determine to waive any minor deviation from the RFP and/or any deviation from a minor formality which does not affect the integrity of the bidding process or materially affect the contract which the State seeks through this RFP.

4.4 BID DISCREPANCIES

In evaluating bids, discrepancies between words and figures will be resolved in favor of words. Discrepancies between unit prices and totals of unit prices will be resolved in favor of unit prices. Discrepancies in the multiplication of units of work and unit prices will be resolved in favor of the unit prices. Discrepancies between the indicated total of multiplied unit prices and units of work and the actual total will be resolved in favor of the actual total. Discrepancies between the indicated sum of any column of figures and the correct sum thereof will be resolved in favor of the correct sum of the column of figures.

5.0 **PREPARATION AND SUBMISSION OF PROPOSALS**

In order for a bid proposal to be considered responsive, a bidder must agree to perform the Scope of Work described in this RFP, agree to the terms and conditions provided in this RFP, complete the attachments provided with this RFP or their equivalent, and provide the information as required below. Bidders are advised to read the entire RFP and any addenda subsequently issued by the Issuing Office before preparing and submitting their bid proposals.

Corporations with multiple laboratory facilities are required to provide a single bid proposal to the State. The actual analytical services may be performed at various multiple facilities controlled by the parent company. The intent of this is to simplify not only the bidding process for these corporate laboratories, but to simplify the engagement process after award of contract.

5.1 **REQUIRED ENVIRONMENTAL LABORATORY CERTIFICATIONS/ ACCREDITATIONS**

At the time of the bid opening, the laboratory must have the NJDEP Environmental Laboratory Certifications or New Jersey Primary NELAP Accreditations or New Jersey Secondary NELAP Accreditations as specified in Appendix 4.

NJDEP issues Environmental Laboratory Certification under the authority of the Regulations Governing Laboratory Certification and Measurements, NJAC 7:18. NJDEP also issues NJDEP Primary NELAP Accreditation and NJDEP Secondary NELAP Accreditation for Environmental Laboratories and these accreditations may be substituted for NJDEP Environmental Laboratory Certifications. If a bidder has any question concerning NJDEP Environmental Laboratory Certification or NELAP Accreditation needed to perform analytical work, he should contact:

New Jersey Department of Environmental Protection
Office of Quality Assurance
9 Ewing Street
PO Box 424
Trenton, NJ 08625-0424
Telephone: (609) 292-3950

Bidders are advised that for NJDEP-LLTO-15 Method, the only acceptable certification is either NJDEP Environmental Laboratory Certification or NJDEP Primary NELAP Accreditation. NJDEP Secondary NELAP Accreditation is not accepted for this bid. Certifications issued from another State will not satisfy the environmental laboratory certifications/accreditations specified herein.

Bidders are advised that for USEPA Methods 3C and 25 C, laboratory certification or NELAP primary or secondary accreditation issued by another State will not satisfy the environmental laboratory certifications/accreditations specified herein. At the time of Stage 2 Bid Proposal, Bidders will satisfy the laboratory certification/accreditation requirements if its laboratory (or in the case of a Multiple Laboratory Bidder, laboratories) hold a mix of the following:

NJDEP Environmental Laboratory Certification
NJDEP Primary NELAP Accreditation
NJDEP Secondary NELAP Accreditation

5.2 **CONTENTS OF BID PROPOSAL**

5.2.1 FORMS THAT MUST BE SUBMITTED WITH BID PROPOSAL

A. Signatory Page

The bidder shall complete and submit the Signatory page provided on the Advertised Solicitation, Current Bid Opportunities webpage. This is a separate download and is titled "signatory page"

The Signatory page shall be signed by an authorized representative of the bidder. If the bidder is a limited partnership, the Signatory page must be signed by a general partner. If the bidder is a joint venture, the Signatory page must be signed by a principal of each party to the joint venture. Failure to comply will result in rejection of the bid proposal.

B. Ownership Disclosure Form

In the event the bidder is a corporation, partnership or sole proprietorship, the bidder must complete the attached Ownership Disclosure Form. A current completed Ownership Disclosure Form must be received prior to or accompany the bid proposal. Failure to do so will preclude the award of a contract.

The Ownership Disclosure Form is located on the Advertised Solicitation, Current Bid Opportunities webpage.

C. Disclosure of Investigations/Actions Involving Bidder

The bidder shall provide a detailed description of any investigation, litigation, including administrative complaints or other administrative proceedings, involving any public sector clients during the past five years including the nature and status of the investigation, and, for any litigation, the caption of the action, a brief description of the action, the date of inception, current status, and, if applicable, disposition. The bidder shall use the Disclosure of Investigations and Actions Involving Bidder form located on the Advertised Solicitation, Current Bid Opportunities webpage.

D. MacBride Principles Certification

The bidder is required to complete the attached MacBride Principles Certification evidencing compliance with the MacBride Principles. The requirement is a precondition to entering into a State contract. The MacBride Principles Certification Form is located on the Advertised Solicitation, Current Bid Opportunities webpage.

E. Affirmative Action

The bidder is required to submit a copy of Certificate of Employee Information or a copy of Federal Letter of Approval verifying that the bidder is operating under a federally approved or sanctioned Affirmative Action program. If the bidder has neither document of Affirmative Action evidence, then the bidder must complete the attached Affirmative Action Employee Information Report (AA-302). This requirement is a precondition to entering into a State contract. The Affirmative Action Employee Information Report (AA-302) is located on the Advertised Solicitation, Current Bid Opportunities webpage.

F. Services Source Disclosure Form

Pursuant to N.J.S.A. 52:34-13.2, the bidder is required to submit with its bid proposal a completed source disclosure form. The Services Source Disclosure Form is located on the Advertised Solicitation, Current Bid Opportunities webpage. Refer to section 7.0 of this RFP for addition Information.

G. Price Schedules

Attachment G of this RFP contains the price schedules.

The bidder must provide unit pricing for each of the three (3) contract years. Failure to provide all pricing will result in the bidder being determined non-responsive and ineligible for any contract award. The bidder should also review IFB Section 6.10 (Prices and Payments) before completing the price schedules.

H. Proofs Of Registration That Must Be Submitted With The Bid Proposal

Business Registration Certificate from the Division of Revenue

FAILURE TO SUBMIT A COPY OF THE BIDDER'S BUSINESS REGISTRATION CERTIFICATE (OR INTERIM REGISTRATION) FROM THE DIVISION OF REVENUE WITH THE BID PROPOSAL MAY BE CAUSE FOR REJECTION OF THE BID PROPOSAL.

The bidder may go to www.nj.gov/njbgs to register with the New Jersey Division of Revenue or to obtain a copy of an existing Business Registration Certificate.

Refer to Section 1.1. of the NJ Standard Terms and Conditions version 07/27/07 located on the Advertised Solicitation, Current Bid Opportunities webpage.

5.2.2 REQUIREMENTS FOR THE SAMPLE DATA REPORT

All bidders must submit a Single Sample Data Report and electronic deliverables (with each method as a separate section) that proves the bidder can perform the work required for all three methods. The Sample Data Report must be prepared as if it was a deliverable under this contract. Appendix 6 provides the Evaluation Committee's checklist that will be used to evaluate the sample data report and determine if the Sample Data Report is responsive to the bid submission requirements. Bidders should review Appendix 6 and compare it to the Sample Data Report being submitted.

The example data package from a Multiple Laboratory Bidder must be for the purpose of this bid from one laboratory. This example data package must be from the laboratory which is actually submitting the bid. This laboratory must be the designated corporate contact for the contract. If awarded a contract, other corporate laboratories can be added to the contract following the procedures set forth in section 6.7.5.

All analytical data packages submitted for the bid proposal must meet the following requirements:

1. The Sample Data Package proposal submitted must be in the full Regulatory Reporting Format for each of the methods and in compliance with all the requirements of this RFP, including External and Internal Chain of Custodies. This includes all electronic deliverables (data files and PDF files) as required by

each method. See the method specific appendices (Appendices 1-3) for the requirements.

2. For each of the methods an original (single sided) and two (2) double sided copies of the sample data package must be submitted. All documents must consist of the Extended Data Report and the Summary Data Package Report. Each report must be submitted as separate documents. All documents must be securely bound along the left margin. For each method, six documents must be submitted (three Extended Data Reports and three Summary Data Package Reports). Three compact disks containing identical copies of all the electronic files and the PDF files must be submitted.
3. Electronic Internal Chain of Custody is not acceptable for the Example Data Reports. The NJDEP Internal Chain of Custody Forms are required for all Example Data Reports Submissions.
4. Types of Samples required for Example Data Reports for Bid Proposal
 - a. This bid limits the type of samples that can be submitted as part of the bid proposal for evaluation. The samples submitted for the example data package must be real environmental samples. Sample collected from inside the laboratory, PT samples, audit samples or made from standards used in the laboratory are not acceptable for submission under this bid. The laboratory cannot collect the sample from its premises for this contract.
 - b. Real environmental samples from indoor air sample events or landfill vent sampling can be collected by the laboratory for the purpose of bidding. The External Chain of Custody and the Case Narrative must clearly state that this sample is collected for the purpose of submitting an example data package. The laboratory cannot collect the sample from its premises for this contract.
 - c. Analytical data generated from previous sampling events of an indoor air sampling event and/or landfill vent sampling are acceptable. If the data was not generated for NJDEP, only the client's name can be blacked or whited out. The actual laboratory and field identification number must not be eliminated. In this case, the original Chain of Custody (both External and Internal) must be submitted with the data. In addition, if during the generation of this data package the NJDEP Chain of Custody was not utilized, then the laboratory must fill in the NJDEP Chain of Custody Forms to show how it would have been completed as part of the example and submit it with the data package.
5. The types of samples that can be submitted by a Bidder who collects a sample for purpose of bidder are as follows:
 - a. The analytical data submitted for NJDEP-LLTO-15 method must be from an indoor air sampling event. Submittal of an ambient sample or a soil gas sample is not acceptable and will cause automatic rejection of the data package.
 - b. There are two choices for the environmental sample for the USEPA Method 3C and 25C example data package.

Option 1 - An environmental sample collected from a landfill gas vent.

Option 2 – The Bidder using the same canister that was collected for the indoor air sample and analyze the contents of the canister for the other two methods. The analyses for Method 3C and 25C must occur after the NJDEP-LLTO-15 analysis is completed.

6. The types of samples that can be submitted by a Bidder from previous sampling events of an indoor air sampling event and/or landfill vent sampling are as follows.
 - a. The analytical data submitted for NJDEP-LLTO-15 method must be from an indoor air sampling event. Submittal of an ambient sample or a soil gas sample is not acceptable and will cause automatic rejection of the data package.
 - b. There are two choices for the environmental sample for the USEPA Method 3C and 25C example data package.

Option 1 - An environmental sample collected from a landfill gas vent.

Option 2 – The Bidder has determined that a client from a previous indoor air sample requested all three analyses from one canister. This sample can be submitted as long as the analyses for Method 3C and 25C had occurred after the NJDEP-LLTO-15 analysis is completed.

NOTE: The sample data submitted from previous sampling events must be analyzed in accordance with all the requirements of this RFP.

5.2.3 CONTENTS OF PROPOSAL

The proposal must include all the information necessary to evaluate the bidders' capacity to undertake the entire project.

Firms responding to this RFP will be required to submit the following proposal components, which must each be clearly labeled and must be arranged and presented in the following order:

5.2.4 PRICE PROPOSAL

A. General

The bidder must fully complete and submit all price schedules. The bid will be deemed non-responsive where prices were not provided. The bidder should also review RFP Section 6.9 (Prices and Payments) before completing the price schedules.

B. Unit Price

1. Costs Included in a Line Item Unit Price

The following work items and cost items are included in every line item unit price.

- a. Canisters (see technical definition).

- b. Shipping containers.
- c. Uninsured shipment of canisters to NJDEP in compliance with NJDOT regulations.
- d. Normal shipping costs as defined by the third party carrier (Delivery from Contractor and Return Shipment to Contractor facility). See Part d of this Section for additional information.
- e. Two day shipping of canisters out to Contract User and overnight delivery back to the Contractor.
- f. Shipping costs if canisters are delivered/picked up by the Contractor's Representative under chain of custody.
- g. All Chain of Custody paperwork.
- h. Uninsured shipment of samples back to the Contractor in compliance with NJDOT regulations.
- i. QA/QC items associated with sample shipment.
- j. All internal operations, labor, equipment, materials, supplies, overhead, direct, indirect, other direct costs and profits associated with the performance of the work of this contract.
- k. All aspects of sample analysis, including the method detection limit determinations as required by this RFP.
- l. All internal QA/QC work associated with sample analysis required by the USEPA methods, NJDEP Method and the Scope of Work, including, but not limited to method blanks, instrument and laboratory control samples.
- m. Blank Analysis - Method blank samples and instrument blank samples are considered to be part of the normal QA/QC procedures of analyzing a sample and therefore analyzing method blanks and instrument blanks will be considered part of the cost of analyzing samples. The State Contract Manager will not authorize payment to the Contractor for the extra money to analyze method blanks and instrument blank samples. Method blank and instrument blank sample analysis must not appear on an invoice or payment voucher.
- n. Preparation and delivery of an original final data report and original data package summary and with one copy of the summary data package for each sample group to the State Contract Manager and the Contract User.
- o. Preparation and delivery of electronic deliverables.
- p. Sample remnant disposal.
- q. Paperwork associated with sample shipping including decals, placards, declaration statements, common carrier information and any other items a Contract User will need to ship samples back to the Contractor.

- r. Any other aspect of work stated directly or implied that the Contractor must do to perform the work of this contract.

2. Costs Excluded in a Line Item Unit Price

The following work items are specifically excluded from a line item unit price. The Contractor will be eligible for extra payment for these items. Any aspect of work under this contract not specifically excluded below is included in every line item unit price.

- a. If the Contract User requires a collection time period for the 6-liter canisters different from the standard 8-hour or 24-hour time frame, then this is a billable outside the terms and conditions of this contract. This procedure cannot be used for 1-liter, 2.7-liter or 3.2-liter canisters. The cost must be negotiated with the State Contract Manager and written preapproval is required. (See Section 8.14 for additional information.)
- b. The recalibration, recertification and two-way shipping costs of unused sample canisters as supported by invoices. See Section 6.9.7 for additional information.
- c. Shipping insurance ordered by a Contract User.
- d. Costs of sample canister recalibration, recertification and associated shipping costs if samples are received that cannot be analyzed for reasons such as incomplete sample collection, damage to canisters and the like. See Section 6.9.7 for additional information.
- e. One reanalysis of a sample due to the internal standard area responses being outside of control limits in the initial analysis. See Section 6.9.4 for additional information.
- f. One dilution analysis of a sample. See Section 6.9.6 for additional information.
- g. Overnight shipping of Canisters to the Contract User. The unit cost is based on a two-day shipping of the properly prepared canisters from the Contractor to the Contract User.
- h. The shipping costs beyond those for normal delivery and pickup charges that are included in the base shipping price from the Common Carrier. These costs must be defined on the Common Carrier's website or in the contract the Contractor has with the Common Carrier. See Sections 6.9.5 and 8.17 for additional information.
- i. Delivery of a second Sample Data Report set or partial set, if requested by the State Contract Manager.

D. Payment for Dilutions

If the Contractor is required to dilute and reanalyze a sample, the method and contract requires the submittal of two complete sets of analytical data, one for the first analysis and another for the analysis of the diluted sample. The Contractor is

eligible for payment for both analyses based on the contract price. To be eligible for payment for analysis of the diluted sample, the Contractor must demonstrate that the first analysis of the sample complied with the method and that the method required dilution and reanalysis of the sample.

Reanalysis of a sample is required when the initial analysis is outside the calibration range of the instrument. NJDEP will pay the Contractor extra money to dilute and reanalyze the sample. The amount paid to dilute and reanalyze will be the contract price for the analysis. To be eligible for this extra payment, the Contractor must demonstrate that the dilution and reanalysis was conducted in accordance with the method and Section 8.0 of this contract. NJDEP will authorize payment for one dilution and reanalysis. NJDEP will not pay for a more than one dilution and reanalysis on the same sample.

For Example: An undiluted sample is analyzed for volatile organics and the concentration of tetrachloroethylene (PCE) exceeds the upper calibration range of the instrument. The Contractor dilutes the sample and reanalyzes the diluted sample in accordance with the analytical method. In this case, the laboratory dilutes the sample by a factor of 10, reanalyzes the diluted sample, and the concentration of PCE is now within the calibration range of the instrument. If the dilution and reanalysis of the sample is considered acceptable by NJDEP, the Contractor is eligible to receive two payments: 1) a payment for the original analysis and 2) a second payment for the dilution and reanalysis of the sample. Payment for the dilution and reanalysis will be the same as the original analysis.

E. Payment for Internal Standard Reanalysis

If the Contractor is required to reanalyze a sample due to internal standard area responses being outside of control limits, the method and contract requires the submittal of two complete sets of analytical data, one for the first analysis and another for the second analysis. The Contractor is eligible for payment for both analyses based on the contract price. To be eligible for payment for the second analysis, the Contractor must demonstrate that the first analysis of the sample complied with the method, that internal standard area responses were outside of the control limits, and that the method required reanalysis of the sample.

Reanalysis of a sample is required when the internal standard area responses in the initial analysis is outside the control limits established by the method. NJDEP will pay the Contractor extra money to reanalyze the sample when this occurs. The payment for reanalysis will be the same as the original analysis. To be eligible for the extra payment, the Contractor must demonstrate that the initial analysis and reanalysis was conducted in accordance with the method and Section 8.0 this contract. NJDEP will authorize the reanalysis but will not pay for more than one reanalysis of the same sample.

D. Shipping Costs beyond Normal Delivery that is included in Unit Price

The Contractor shall not be responsible for any shipping costs beyond those for normal delivery and pickup charges that are included in the base shipping price from the Common Carrier. These costs are defined must be defined on the Common Carrier's website. The State shall be responsible for the payment for all extra charges beyond the normal shipping charges to commercial or office locations that have routine pickup and delivery. The extra charges must be listed on the Common Carrier's website to be considered billable to the state. If the Contractor has a

contract with the Common Carrier, that specifies a rate for the extra charges, a current copy of these charges must be forwarded to the State Contract Manager. The State Contract Manager shall provide a current copy of the charges to the Contract Users.

If the Contract User wants delivery or pickup of shipment of samples that require additional costs beyond normal delivery, he/she shall be aware of the additional charges. The Contract User must inform the State Contract Manager at the time of notification of the engagement that they need shipping beyond the normal delivery. The extra cost must be factored into cost of the engagement.

The actual cost of the non-contract shipping shall be listed as a separate entry in the cost for the engagement. The Contractor shall bill the Contract User on the same invoice that is used for the sampling event. The required documentation for the payment of the extra shipping costs consist of copies of the Common Carrier's tracking forms listing the package tracking numbers and date of delivery. The actual costs shall be verified using the Common Carrier's website or the previously submitted documentation from the Contractor.

The following charges are the responsibility of the State not the Contractor if the Common Carrier routinely charges for these options. The charges must be clearly documented on the Common Carrier's website for review by the State or if the Contractor has a contract with the Common Carrier, that specifies a rate for the extra charges, a current copy of these charges must be forwarded to the State Contract Manager.

1. First AM Delivery (either to Contract User or Contractor)
2. Saturday Pickup (either from the Contract User or Contractor)
3. Saturday Delivery (either at the Contract User's location or the Contractor)
4. Carrier Pickup charges from a non Routine Delivery/Pickup location
5. Any other additional charges imposed by the Common Carrier due to delivery or pickup request by the Contract User.
6. Fuel Surcharges
7. Overnight Delivery to the Contract User
8. Any new charges imposed by the Common Carrier at a later date.

E. Price Clarifications

Any price exceptions or modifications submitted with the bid may result in the bid being considered non-responsive to the RFP, and may result in the bidder being ineligible for contract award.

F. Contract Unit Pricing

The term of this contract is three years. Bidders may supply different unit prices for each of the contract years on the price schedules. Contract year one will commence on the effective date of the contract and continue for twelve (12) months. Unit pricing for contract year two and three will commence in twelve month intervals after the expiration of year one. Any purchase order issued to the contractor during any contract year will be reimbursed at the rates effective for that contract year. See Attachment G for the Price Schedules.

Failure to provide a Unit Price for any line item shall result in a determination that the bid is non-responsive.

G. Multiple Laboratory Bidders - Price Schedule

Multiple Laboratory Bidders with more than one laboratory bidding on this contract shall submit ONLY ONE (1) SET of Price Schedules (Attachment G). The price bid will apply to all of the laboratories certified to perform analysis within a task utilized by the parent company for the analytical services covered by a task. Submittal of multiple sets of Price Schedules will result in the bid being considered non-responsive to the RFP.

H. Analytical Methods and Price Schedules

This contract cites specific parameters and corresponding analytical methods. The methods cited are the only acceptable methods. The laboratory may not substitute methods or alter the bid schedules in any manner. This includes adding or deleting analytes from the required lists.

5.2.5 SIGNATURE REQUIREMENTS FOR BID PROPOSAL

The following instructions apply to all bid proposals:

The transmittal letter for the bid must be signed by an authorized person and submitted with the Bid Proposal. The RFP's Signatory Sheet is provided for this purpose. The signature must be an original in ink. Typed, stamped or penciled signatures are not acceptable. If the firm is a partnership, the bid transmittal letter for the proposal must be signed by a partner with his title noted thereon.

If the firm is a corporation the transmittal letter must be signed by an officer of the corporation and be accompanied by a corporate resolution authorizing the individual signing the bid proposal to enter into contractual agreements on behalf of the corporation. The corporate resolution must specify the identification number of this RFP and the State of incorporation and must be affixed with the corporate seal.

Note that a signature on an Ownership Disclosure Form or other attachment is not sufficient. Unsigned bid proposals and bid proposals not properly signed will be rejected.

5.2.6 FORMAT OF BID PROPOSAL

The following format is a guideline for bid proposals under this RFP.

- A. **One (1) clearly marked original** of each bid proposal must be submitted to the Purchase Bureau. **Three (3) additional copies** shall also be submitted for a total of four (4) proposals. The requirements for the Example Data Reports are specified in Section 5.2.2.
- B. The bid proposal must be typed or written in ink. The bid proposal must not be prepared in pencil. Any modification or correction (including a white out) of a price already typed or written into the Bid Proposal must be initialed in ink by the person signing the bid proposal or that price will be disqualified. If the price is critical to the bid proposal, the bid proposal will be rejected.
- C. The bid proposal must be accompanied by completed copies of all the attachments and other forms and documents required by the RFP.

- D. All blanks and spaces in the bid proposal and in the attachments should be filled. "N/A" should be inserted where a provision is not applicable. Ditto marks should not be used where material is repeated.
- E. Any ostensibly minor deviations from the RFP which are contained in the bid proposal should be listed and explained on a separate page of the bid proposal entitled "EXCEPTIONS." Exceptions are not permitted for Analytical Methods.
- F. The cover and/or envelope for the bid proposal should be labeled with the RFP identification number ("X" number listed on the face of this RFP), the final bid proposal opening date and the name of the procurement specialist responsible for this RFP.

5.2.7 RFP REQUIREMENTS, REQUESTS AND RESPONSES

This RFP contains certain requirements, certain expectations and certain requests for goods, services and information. Unless the context clearly indicates otherwise, the RFP will be subject to the following interpretations and applications:

- A. The failure to comply with any provision which is preceded by "shall", "must" or "is required" may result in rejection of the bid as non-responsive if the provision is deemed a material deviation from the bidding specifications.
- B. Any provision preceded by "should" or "is expected" is directory. As such, failure to comply with the provision will be considered negatively when evaluating the quality of the bid and when combined with other minor deviations may result in rejection of the bid as non-responsive.
- C. Any provision which is preceded by "is requested" is precatory. As such, the provision indicates something that is desired by the State and for which a bidder will be given favorable consideration in the evaluation of bids. However, a bid will not be penalized for failing to provide an item which is merely requested.
- D. The Director may waive any bidding specification which does not affect the integrity of the bidding process or materially affect the contract which the State seeks through the RFP.

6.0 GENERAL TERMS AND CONDITIONS FOR BIDS AND CONTRACTS

6.1 AFFIRMATIONS

In signing and submitting a response to this RFP, the bidder hereby makes the following affirmations which apply to the bid submissions and to any contract issued hereunder.

6.1.1 RFP OBLIGATIONS

The bidder hereby warrants that he has received and read the RFP and all addenda thereto. The bidder warrants that he understands the requirements of the work required by the State. The bidder warrants that the information contained in his bid submission is truthful and accurate and that he is capable and willing to accept a contract arising from this RFP. The bidder warrants that he has the capabilities and credentials required by the RFP and stated in the qualifications submission. The bidder warrants that he will faithfully perform the work required by this RFP and will abide by the terms, conditions and other requirements of this RFP.

6.1.2 EPA REQUIREMENTS

The bidder understands that work under this contract may now or in the future be funded in whole or in part by the Federal Environmental Protection Agency (EPA) pursuant to an assistance agreement with the State. As such, the bidder agrees that his or her responsibilities hereunder shall be performed consistent with any EPA requirements for work funded by the EPA and that all applicable EPA standards of performance for work of this type are hereby incorporated by reference.

6.1.3 RESPONSIBILITIES OF THE CONTRACTOR

The contractor shall have sole responsibility for the complete effort specified in the contract. Payment will be made only to the contractor. The contractor shall have sole responsibility for all payments due any subcontractor.

The contractor is responsible for the professional quality, technical accuracy and timely completion and submission of all deliverables, services or commodities required to be provided under the contract. The contractor shall, without additional compensation, correct or revise any errors, omissions, or other deficiencies in its deliverables and other services. The approval of deliverables furnished under this contract shall not in any way relieve the contractor of responsibility for the technical adequacy of its work. The review, approval, acceptance or payment for any of the services shall not be construed as a waiver of any rights that the State may have arising out of the contractor's performance of this contract.

6.1.4 COVENANT OF NON-COLLUSION

Pursuant to N.J.S.A. 52:34-19 and consistent with Executive Order No. 189 (1988), the Contractor does hereby warrant and represent that this contract has not been solicited, secured, or prepared directly or indirectly, in manner contrary to the laws and regulations of the State of New Jersey and that said laws and regulations have not been violated and shall not be violated as they relate to the procurement or the performance of the contract by any conduct as described below, including the paying or giving of any fee, commission, compensation, gift, gratuity or consideration of any kind, directly or indirectly, to any State employee, officer or official.

6.1.5 COVENANT AGAINST CONTINGENT FEES

The bidder warrants that no person or selling agency has been employed or retained to solicit or secure this contract upon any agreement or understanding for a commission, percentage, brokerage or contingent fee excepting bonafide employees or bonafide established commercial or selling agencies maintained by the bidder for the purpose of securing business.

6.1.6 NON-DISCRIMINATION

N.J.S.A. 10:5-33 requires that:

"During the performance of this contract, the contractor agrees as follows:

- a) The contractor or subcontractor, where applicable, will not discriminate against any employee or applicant for employment because of age, race, creed, color, national origin, ancestry, marital status, affectional or sexual orientation, gender identity or expression, disability, nationality or sex. Except with respect to affectional or sexual orientation and gender identity or expression, the contractor will take affirmative action to ensure that such applicants are recruited and employed, and that employees are treated during employment, without regard to their age, race, creed, color, national origin, ancestry, marital status, affectional or sexual orientation, gender identity or expression, disability, nationality or sex. Such action shall include, but not be limited to the following: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided by the contracting officer setting forth the provisions of this nondiscrimination clause;
- b) The contractor or subcontractor, where applicable will, in all solicitations or advertisements for employees placed by or on behalf of the contractor, state that all qualified applicants will receive consideration for employment without regard to age, race, creed, color, national origin, ancestry, marital status, affectional or sexual orientation, gender identity or expression, disability, nationality or sex;
- c) The contractor or subcontractor where applicable, will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding, a notice, to be provided by the agency contracting officer, advising the labor union or workers' representative of the contractor's commitments under this act and shall post copies of the notice in conspicuous places available to employees and applicants for employment."

6.1.7 PREVAILING WAGE

- A. New Jersey Prevailing Wage Act P.L. 1963, Chapter 150 (NJSA 34:11056.2 et seq.) is made part of every contract entered into by the State where applicable. The Bidder's signature on the Bid is his/her guarantee that neither he/she nor any subcontractors he/she might employ to perform the work covered by this Bid are listed or are on record in the Office of the Commissioner of the Department of Labor as one who failed to pay prevailing wages in accordance with the provisions of this Act.

- B. The Contractor also agrees that if any conflict exists between the wage requirement of the New Jersey Prevailing Wage Act and Section 9604(g) (1) and the Federal requirements, the Contractor must comply with the higher of the two wage requirements.

6.1.8 CLEAN AIR AND WATER CERTIFICATION

The Contractor warrants that he is currently in compliance and shall continue in compliance for the term of this contract with all applicable standards, orders, or requirements issued under Section 306 of the Clean Air Act (42 U.S.C. 1857 (b)), Section 508 of the Clean Water Act (33 U.S.C. 1368), Executive Order 11738, the USEPA Regulations (40 CFR, Part 15) and the Resource Conservation and Recovery Act (RCRA) 42 U.S.C. 6901, Subtitle C of October 21, 1976, 40 CFR, Parts 260 through 267, 121 through 124 and Drinking Water 40 CFR 141 promulgated November 19, 1980.

6.1.9 LEGAL COMPLIANCE

The bidder warrants that in performing his responsibilities under this contract, he will comply with all local, State and Federal laws, rules and regulations applicable to this contract and to the work to be done hereunder. The bidder understands and agrees that failure to comply will constitute a material breach of this contract and be grounds for termination.

6.1.10 FIRM PRICES

The bidder agrees to hold the bid prices firm following the bid opening date to allow the State to evaluate his bid and make an award. If awarded a contract, the Contractor agrees not to raise the bid prices for the duration of the contract.

6.1.11 ONGOING OBLIGATION TO FURNISH REQUIRED INFORMATION

The bidder warrants that he will provide the information and items necessary, fulfill the preconditions for execution of a contract hereunder and will immediately inform the Director of any material changes in the information submitted in his bid response to this RFP. Failure to do so will be considered a material breach of contract.

6.1.12 CONFLICT OF INTEREST

The State may be submitting samples for analysis where the State will seek recovery of the costs of the cleanup of specific sites from any and all responsible parties and must anticipate the possibility of litigation with one or more of these parties. The State will make every effort to encode sample identification so as not to reveal the site name. For samples not encoded in this manner, the following procedure will apply.

For non-encoded samples, in order to avoid a conflict of interest or the appearance of a conflict, all work pursuant to this contract shall conform to the following procedure:

- A. Upon notification of conditions warranting the use of this contract and upon the determination of the Contractor to be engaged, the State will make its best effort, as time and conditions permit, to assemble a listing of responsible parties. The State may upon contacting the Contractor for the engagement, inform the Contractor of the responsible parties and request that the Contractor determine, as time and conditions permit, whether any contractual or other business relationship has

occurred during the preceding five (5) years between the Contractor and any of the listed responsible parties.

- B. Additionally, if upon being contacted for engagement, the Contractor knows of any contractual or other business relationship occurring during the preceding five (5) years between the Contractor and any person or entity who is or may be a responsible party, the Contractor will immediately convey this information to the State personnel when the Contractor is contacted for the engagement.

For purposes of this provision, a Contractor will be deemed to have had a business relationship with an alleged or known responsible party if he has had such a relationship with a parent, subsidiary, predecessor or successor of such a party, or if he has been engaged by independent legal representatives on behalf of any of such parties as so defined. The State in its sole discretion will determine whether, based upon the particular circumstances of any relationship disclosed by a Contractor, it will enter into or continue a specific engagement.

6.1.13 CONFLICT OF OBLIGATIONS

The bidder hereby affirms that he shall not, during the period described below, perform any other work on an engagement where a conflict of interest exists, or enter into or continue any contract, subcontract or business relationship of any kind, whether or not related to the subject matter of this contract, with persons or entities listed as Potentially Responsible Parties (PRP) nor with any of their parent corporations, subsidiaries, or successors, nor with any independent legal representative acting on behalf of said parties without the express written permission of the Commissioner of the New Jersey Department of Environmental Protection.

As to each of the potentially responsible parties identified by the State, the period covered by this restriction shall extend from the effective date of this contract until the later of: 1) five (5) years from the date of Final Completion of work under this contract including O&M services; or 2) final judgment, including all potential appeals, in a court of competent jurisdiction of any claims initiated by the State or the United States against said party provided that such claims are made in a Court of law within five (5) years from Final Completion including O&M services. This latter restriction shall apply only to claims which are related to the presence or previous presence of hazardous substances at or near the real property referred to on the site of this contract. This restriction shall be terminated only upon written notice from the State that any such claims have been finally adjudicated which notice may be requested by the Contractor.

6.2 CONTRACT INTERPRETATION AND ADMINISTRATION

In signing and submitting a bid proposal under this RFP, the bidder hereby agrees that the following provisions apply to the interpretation and administration of his bid and any contract hereunder.

6.2.1 LAW GOVERNING CONTRACT

It is agreed and understood that any contract awarded as a result of this RFP shall be governed and construed, and the rights and obligations of the parties hereto shall be determined, in accordance with the laws of the State of New Jersey including but not limited to the Contractual Liability Act, N.J.S.A. 59:13-1 et seq.

6.2.2 FEDERAL REGULATIONS

It is agreed and understood that, as work under this contract may be eligible for Federal EPA funding assistance, all Federal regulation applicable to this work, at the time of any engagement, including those found at 40 CFR 35.6610, shall apply to this contract and supersede any conflicting provisions of this RFP, the Contractor's bid proposal or any formal contract documents.

6.2.3 CONTRACT PARTIES

The parties to this contract are the Contractor and the State of New Jersey. Although this contract may be funded wholly or in part with funds from the Federal Environmental Protection Agency, neither the United States nor any of its departments, agencies or employees, is, or will be, considered a party to this contract.

6.2.4 REMEDIES

Nothing in the contract shall be construed to be a waiver by the State of any warranty, expressed or implied, of any remedy at law or equity, except as specifically and expressly stated in a writing executed by the Director.

In the event that the contractor fails to comply with any material contract requirements, the Director may take steps to terminate the contract in accordance with the State administrative code and/or authorize the delivery of contract items by any available means, with the difference between the price paid and the defaulting contractor's price either being deducted from any monies due the defaulting contractor or being an obligation owed the State by the defaulting contractor.

6.2.5 CONFLICT OF TERMS

In case of a conflict of terms, the order of priority in interpreting the Contract Documents shall be: (1) the formal Notice of Term Contract Award which memorializes the agreement between the State and the Contractor; (2) The RFP and all addenda thereto; (3) The Contractor's response to the RFP. Unless the Notice of Term Contract Award expressly accepts any deviation from, exceptions to or alterations of the RFP's provisions, any deviations, exceptions or alterations contained in the Contractor's response to the RFP shall not be considered part of the contract and the RFP's provisions shall be deemed controlling.

6.2.6 DISCLAIMER OF AGENCY RELATIONSHIP

The Contractor's status shall be that of any independent principal and not as an agent or employee of the State. Nothing contained in the contract shall be construed to create, either expressly or by implication, the relationship of agency between the State and the Contractor.

6.2.7 COMPUTATION OF TIME

When the RFP or contract refers to a period of time in terms of days, the day of the act or event from which the designated period begins to run is not to be included. The last day of the period so computed is to be included, unless it is a Saturday, Sunday or legal holiday, in which event the period runs until the end of the next day which is neither a Saturday, Sunday nor legal holiday. In computing a period of time of less than seven days, Saturday, Sunday and legal holidays shall be excluded.

6.2.8 AVAILABILITY OF FUNDS

The State's obligation hereunder is contingent upon the availability of appropriated funds from which payment for contract purposes can be made. No legal liability on the part of the State for the payment of any money shall arise unless until funds are made available each year by the Legislature.

6.3 LICENSES, PERMITS AND CERTIFICATES

6.3.1 MAINTENANCE OF LICENSES

In signing and submitting a bid proposal, the bidder warrants that he has and shall maintain, during the term of this contract, all licenses, certifications, authorizations, or any documents required by the Federal government, State government, County and Municipal governments, and international authorities, wherever necessary, to perform this contract.

6.3.2 ADVERSE NOTIFICATION

The Contractor shall promptly notify the State of any disciplinary action or change in the status with regard to any license, permit or other authorization required by law or this RFP.

6.3.3 NOTICE OF USEPA DISCIPLINARY ACTION

The Contractor shall promptly notify the State at any time prior to or after the award of this contract in the event the Contractor receives any communication from the Assistant Administrator for Enforcement, USEPA or its designee, indicating that any facility which he proposes to use for the performance of the contract is under consideration to be listed on the USEPA List of Violating Facilities or any similar New Jersey list of violating facilities or that such facility is the subject of an enforcement action by any law, regulation or condition of the facility's permit. As a result of such notification, the State may determine to reject that facility for use under this contract.

6.3.4 NON-COMPLIANCE WITH LABORATORY STANDARDS

Throughout the duration of the contract, the laboratory of any Contractor providing laboratory services pursuant to this contract must continuously be in compliance with the standards for laboratory services. If the State becomes aware, either through inspections or another source of information, that the laboratory of the Contractor is not in compliance with said standards, such non-compliance shall be sufficient grounds to permit the State to reject the bid, decline engagement of the Contractor after award, suspend work with the Contractor after engagement, and/or terminate this contract with the Contractor.

A. Laboratory Certification

It is important to note that in accordance with NJDEP regulations as published in the New Jersey Administrative Code 7:18 (N.J.A.C. 7:18), the laboratory that analyzes samples collected under this contract must be certified by the New Jersey Environmental Laboratory Certification Program. The list of required certifications that relate to each task is attached as Appendix 4.

The following is from N.J.A.C. 7:18-1.4(a and (b):

"N.J.A.C. 7:18-1.4 Certification Program Requirements

- (a) A laboratory that analyzes samples for the purpose of establishing compliance with any regulatory program shall obtain and maintain certification as a certified environmental laboratory in accordance with this chapter. An analysis performed by a laboratory that is not a certified environmental laboratory does not establish compliance with any regulatory program.
- (b) When analyzing regulatory samples, a certified environmental laboratory shall perform only those methods for which it has received certification or has received approval to use as Alternate Test Procedures (ATPs) pursuant to N.J.A.C. 7:18-2-20.

B. NELAP and Laboratory Certification

Bidders are advised that for NJDEP-LLTO-15 Method, the only acceptable certification is either NJDEP Environmental Laboratory Certification or NJDEP Primary NELAP Accreditation. NJDEP Secondary NELAP Accreditation is not accepted for this bid. Certifications issued from another State will not satisfy the environmental laboratory certifications/accreditations specified herein.

Bidders are advised that for USEPA Methods 3C and 25C, laboratory certification or NELAP primary or secondary accreditation issued by another State will not satisfy the environmental laboratory certifications/accreditations specified herein. At the time submittal of the Stage 2 Bid Proposal, Bidders will satisfy the laboratory certification/accreditation requirements if its laboratory (or in the case of a Multiple Laboratory Bidder, laboratories) hold a mix of the following:

NJDEP Environmental Laboratory Certification
NJDEP Primary NELAP Accreditation
NJDEP Secondary NELAP Accreditation

At no time will laboratory certification in another State alone satisfy the laboratory certification requirements of this contract. The NJDEP Office of Quality Assurance will answer questions regarding laboratory certification and accreditation. You may contact that office at:

NJDEP Office of Quality Assurance
PO Box 424
Trenton, NJ 08625-0424
609-292-3950

6.4 LIABILITY, INSURANCE AND SECURITY

In signing and submitting a bid proposal, the bidder warrants that he accepts the following liability and insurance provisions for this contract.

6.4.1 COPYRIGHT AND PATENT LIABILITY

The Contractor warrants that he will hold and save the State of New Jersey, its officers, agent, servants and employees, harmless from liability of any nature or kind, for or on account of the use of any copyrighted or uncopyrighted composition, secret process,

patented or unpatented invention, article or appliance furnished or used in the performance of this contract. This is in addition to and in no way limits any other indemnification provision in the contract.

6.4.2 INDEMNIFICATION BY THE CONTRACTOR

The Contractor shall defend, indemnify, protect, and save harmless the State, its agents, servants, and employees from and against any and all suits, claims, losses, demands, or damages of whatever kind or nature arising out of or alleged to arise out of any act, error, or omission in the performance of this contract resulting from the negligence, gross negligence, willful misconduct, intentional tort, fraud, bad faith, or criminal behavior of the Contractor, his agents, servants, employees and subcontractors. The Contractor shall, at his own expense, appear, defend and pay all charges for attorneys and all costs and other expenses arising from such suit or claim incurred in connection therewith. If any judgment shall be rendered against the State for which indemnification is provided under this paragraph, the Contractor shall, at his own expense, satisfy and discharge the same. The State shall, as soon as practicable after a claim has been made against it, give written notice thereof to the Contractor, along with full and complete particulars of the claim. If the suit is brought against the State or any of its agents, servants, and employees, the State shall expeditiously forward or have forwarded to the Contractor every demand, complaint, notice, summons, pleading or other process received by the State or its representatives.

It is expressly agreed and understood that any approval by the State of services performed and/or reports, plans or specifications provided by the Contractor shall not operate to limit the obligations of the Contractor assumed in this section or in the other provisions of this contract.

6.4.3 GENERAL INSURANCE PROVISIONS

This Invitation for Bid (RFP) requires certain insurance.

A. Contractor's Insurance

This RFP requires comprehensive general liability insurance (albeit with a pollution exclusion), automobile liability insurance, workers compensation and employers liability insurance. Proof of the required insurance in the form of insurance certificates and, where requested by the State, insurance policies must be provided as a condition of contract award. Failure to provide and maintain up-to-date proof of required insurance will result in automatic bid rejection and/or contract termination.

Where a bidder submits a certification that either insurance, a letter of credit or other liability guarantee will be procured when needed, the bidder must subsequently provide the promised Certificates of Insurance, letters of credit or other documentation as a condition of contract award.

B. Cost of insurance and Other Liability Guarantees

All insurance and other liability guarantees must be maintained at the expense of the Contractor. The costs of any insurance or other liability guarantees must be contained within the Contractor's bid price (as part of his unit prices, lump sum price or otherwise as appropriate) and may not be separately bid or billed.

6.4.4 INSURANCE SPECIFICATIONS

A. Comprehensive General Liability Coverage

The Contractor is required to procure and maintain at his own expense comprehensive general liability insurance (CGLI) for work under this contract at least one **(1) million dollars** per occurrence and in the aggregate. This coverage may include an exclusion for pollution claims. This requirement must be satisfied by CGLI with coverage as broad as the standard coverage form currently in use in the State of New Jersey which shall not be circumscribed by any endorsement limiting the breadth of coverage, other than an exclusion for pollution claims.

The policy shall include operations and premises liability, Contractor's protective liability, personal injury liability, an endorsement (broad form) for Contractual liability, and an endorsement for broad form property damage coverage. The State of New Jersey shall be named as an additional insured. Any insurance policy which operates on a "claims-made" basis shall be maintained for the term of this contract with an extended discovery period for two (2) years thereafter.

B. Comprehensive Automobile Liability Insurance

The Contractor is required to obtain Comprehensive Automobile Liability insurance covering owned, non-owned, and hired vehicles with minimum limits of **one (1) million dollars** per occurrence for bodily injury and property damage liability combined.

C. Workers Compensation and Employers Liability Insurance

The Contractor is required to obtain Workers Compensation Insurance applicable to the laws of the State of New Jersey and any other State where the Contractor will be active under this contract, and Employers Liability Insurance with a limit of not less than: **\$100,000** per occurrence for bodily injury liability; **\$100,000** occupational disease each employee; and **\$500,000** aggregate occupational disease.

6.4.5 CERTIFICATES OF INSURANCE

- A. As a condition of receiving a contract award and a precondition for executing a formal contract hereunder, the bidder must submit certificates for all insurance required for the Contractor.
- B. Insurance shall be procured from insurance companies admitted or approved to do business in the State of New Jersey. Insurance certificates shall be from licensed insurance brokers or agents.
- C. The certificate must specify the following:
- Whether the policies operate on a claims-made or occurrences basis;
 - Whether there are any exclusions attached to the policies which might relate to work hereunder contracted for by the State;
 - Whether any "pollution exclusion" is attached to the policies and whether such exclusion operates to bar any claims on a project involving hazardous wastes or merely to bar pollution-related claims on such a project;
 - Whether the policies' limits apply individually to each engagement or generally to all work everywhere performed by the Contractor; and
 - Whether the policies cover the cost of defense against claims.

D. The certificates shall provide for thirty (30) days notice, in writing, to the State prior to any cancellation, expiration, or non-renewal during the term the insurance is required to be maintained in accordance with this contract. The Contractor shall further be required to provide the State with valid certificates of renewal of the insurance upon the expiration of the policies. The Contractor shall also, upon request, make available for review at the State's offices copies of each policy required under the contract certified by the agent or underwriter to be true copies of the policies provided to the Contractor.

E. All certificates and copies of insurance policies shall be forwarded to:

Division of Purchase and Property
Hazardous Waste Procurement Unit
33 West State Street, P. O. Box 230, 9th Floor
Trenton, NJ 08625-0230
Attn: Frank Kuzniacki

6.5 PROJECT SCHEDULE, CHANGE ORDERS, TERMINATION AND EXTENSIONS

The Contractor shall perform all work required by the RFP according to the schedules contained in the RFP, his bid, and any subsequent schedules and agreements between the parties. The Contractor understands and agrees that the term and scope of the contract shall also be governed by the following provisions.

6.5.1 WORK SCHEDULES

The period of performance for this contract shall be three (3) years. All laboratory analysis performed in accordance with the SOW shall be completed within the schedule outlined in Section 8.38.1, unless a work stoppage order, a suspension of work, authorized work delay, or a change order resulting in an extension of the schedule is issued by the State.

6.5.2 DELAY BY CONTRACTOR

- A. The Contractor is responsible for completing the Scope of Work (Section 8.0) according to the approved project work schedules. Any unauthorized delay may subject the Contractor to contract termination.
- B. The State may authorize an extension of either the schedule for individual tasks within the project or the schedule for the whole project on a day-to-day basis for delays caused by events which could not reasonably be anticipated and which are beyond the control of the Contractor. Such causes include, but are not limited to, actions by employees or other Contractor's employed by the State, unanticipated work changes ordered by the State, strikes, lockouts, fire, delays caused by common carriers, unavoidable casualties, work stoppage orders and work suspension orders.
- C. The Contractor must request authorization for a schedule extension promptly when he learns of the potential cause for delay and in any case, written confirmation and justification of the delay must be submitted within 5 days of the event which caused the delay. The Contractor must submit any request for extension to the State Contract Manager.

- D. Any extension of a task schedule within the overall project schedule must be approved in writing by NJDEP. Any extension of the project schedule must be approved as a written change order by both NJDEP and the Director.

6.5.3 WORK STOPPAGE ORDER

- A. The NJDEP State Contract Manager and/or the Director may, at any time, direct the Contractor to stop work and not complete a specific analysis being performed under this contract. Such a Work Stoppage Order shall be made orally by the State and followed up with written notice.
 - 1. In cases where the State Contract Manager orally directs the Contractor to immediately stop all work or portions of work for cause, it shall be the Contractor's responsibility to note on the analysis sheets the name of the State employee who contacted the laboratory and issued the oral Work Stoppage Order with the date and time of such notification. The reason for the order must be stated orally by the State employee who contacted the Contractor and shall be confirmed in writing. The Contractor shall provide the State with all analytical data derived from the sample up to the time of the notification and a description of the costs incurred, to be used to derive an equitable adjustment.
 - 2. The primary reasons for issuance of a Work Stoppage Order include but are not limited to, the NJDEP's discovery of the use of improper sampling techniques, failure of the laboratory to maintain required certifications and permits, failure of the laboratory to pass a laboratory audit, and discovery that the sample holding times have been exceeded. The above examples shall not be used to limit the right of the State to issue a Work Stoppage Order for reasons other than what is listed above.
- B. The State may order the Contractor in writing to suspend, delay or interrupt all or any part of the work performed under this contract for such period of time as the State may determine to be appropriate for the convenience of the State.
- C. Where the Work Stoppage is not the result of the Contractor's fault, the Contractor may be eligible to file a request for additional compensation for delay caused by the State as described in Section 6.5.4.

6.5.4 CLAIMS

- A. The Contractor may file a claim for additional compensation and/or additional time as a result of a change order or changed condition, or as a delay in the work caused by the State if the performance of all or any part of the work is suspended, delayed or interrupted for an unreasonable period of time by an act of the State in its administration of the contract or by the State's failure to act within a time specified in this contract (or if no time is specified, within a reasonable time). The State shall make an equitable adjustment for any increase in the time and/or the cost of performance of this contract (excluding profit) necessarily caused by a change or changed condition or unreasonable suspension.
- B. No adjustment shall be made under this clause for any change or suspension to the extent:
 - 1. It is caused by the fault or negligence of the Contractor; or

2. The performance would have been so changed, suspended, delayed or interrupted by any other cause, including the negligence of the Contractor, or
3. An equitable adjustment is provided for or excluded under any other provision of the contract; or
4. The delay was such as could reasonably be expected by the Contractor as part of a project of this sort and therefore should have been anticipated in his bid proposal.

6.5.5 REDUCTION IN SCOPE OF WORK

- A. The State shall have the option in its sole discretion to reduce the work or analysis performed under this contract.
- B. Where the State intends to reduce the Scope of Work, the State shall attempt to develop a change order as follows:
 1. The NJDEP State Contract Manager shall notify the Contractor in writing as to which tasks will be reduced or eliminated.
 2. Upon receipt of the notice, the Contractor shall submit to NJDEP within five (5) working days an itemization of the work effort already completed for each task, and the work effort which will be required in each task to complete the new Scope of Work.
 3. If NJDEP approves the Contractor's proposed work effort, the State shall issue a written change order for the work to be deleted.
 4. The contract price shall be reduced and the Contractor shall be compensated in accordance with the applicable unit prices and payment (See Section 6.10.) provisions of the contract. The State shall have no further liability for any work eliminated from the Contractor's Scope of Work.

6.5.6 CHANGE ORDERS

- A. Any modifications of the price, Scope of Work or terms and conditions of the contract must be done by written change order approved by the Director.
- B. The Director may at any time, without notice to any surety, issue a written change order which changes the work within the general scope of this contract, including but not limited to changes:
 1. In the specifications (including changes in methodology, parameters, etc.);
 2. In the time, method or amount of performance of the work; and
 3. In the facilities, equipment, materials, or services which will be furnished by the State.
- C. The Director may recognize as a change order any other written order (including a direction, instruction, interpretation or determination) which has been authorized by the Director and which the Director determines has caused a change in the work, provided the Contractor has given the State timely written notice in the form of an

Initial Notice of Claim, Contractor Claim Form #1, within five (5) days of the State's written order stating the date, circumstances and source of the State's order and why the Contractor regards the order as a change in the work. The Contractor must justify the claim through submission of an Analysis and Documentation of Claim, Contractor's Claim Form #2 within thirty (30) days of the alleged change order.

- D. The Director may also authorize a change order where the Contractor encounters a delay caused or approved by the State or where the NJDEP has asked the Contractor to perform emergency services which could not await the execution of written authorization from the Director.
- E. If any change order under this clause causes an increase or decrease in the Contractor's cost or the time required to perform any part of the work under this contract, the Director shall make an equitable adjustment of the price and/or schedule for the contract.
- F. Except as provided in this clause, no order, statement or conduct of the State shall be treated as a change order or entitle the Contractor to an equitable adjustment.
- G. No request by the Contractor for any equitable adjustment shall be allowed if made after final payment for work under this contract.
- H. Except for emergency services specifically authorized as such by the NJDEP, no services beyond the contract's requirements for which the Contractor expects additional compensation should be furnished without the written authorization of the Director.
- I. No change order or claim by the Contractor will be processed until the State's Contract and Modification and Proposal Form (DWM-042) has been completed, signed and submitted by the Contractor.
- J. The Contractor expressly waives the rights to any claim for payment unless the Contractor has given timely written notice to the State within twenty days of the cause or event which gives rise to the claim. This notice must include the date, circumstances and source of the cause or event which gave rise to the claim and must contain an itemization and total of the additional time and/or compensation claimed.

K. Methodology Changes and Added Parameters

If during the course of the contract period NJDEP decides to change a required methodology or decides to add new parameters and methodologies, the Contractor shall be notified and shall be allowed to make an equitable adjustment to their price. The mechanism for enacting such changes to the Unit Prices shall be as follows:

1. All NJDEP Offices, Bureaus and Divisions shall communicate their need for changed methodologies or new parameters to the State Contract Manager.
2. The State Contract Manager will communicate the needed change to all NJDEP Contract Users and the Purchase Bureau in the Treasury Department. The State Contract Manager shall also notify all affected Contractors in writing of the needed change in methodology or added parameters. Contractors will be allowed at least two (2) weeks to provide pricing for the new methodologies and/or parameters.

3. Following receipt of responses from the Contractors, the State Contract Manager shall transmit a request to add the new pricing to the Department of Treasury, Purchase Bureau. Following Purchase Bureau approval, the State Contract Manager shall notify all users and the Contractors that the new unit prices are in effect for the duration of the contract.
4. This procedure shall be used only to change analytical methodologies or to add new parameters and analytical methodologies. This section shall not be used to change the basic Scope of Work or add new types of work to the Term Contract.
5. Once the new parameters of changed methodologies are added to the contract, they shall be considered in engagement procedures specified in Section 9.0.

6.5.7 SUSPENSION AND TERMINATION

A. This contract may be suspended or terminated:

1. In whole or in part by the State in the event of a material default or substantial failure of the Contractor to fulfill the contract;
2. In whole by the Contractor in the event of substantial failure by the State to fulfill its contract obligations;
3. In whole or in part by the State for its convenience.

B. Suspension or termination may be affected only after giving the other party:

1. No less than ten (10) days written notice by certified mail; and,
2. An opportunity for consultation.

C. Suspension

The State Contract Manager may suspend Contractors or individual laboratories of Multiple Laboratory Contractors from receiving engagements to provide services under this contract on a task basis. Suspensions can occur due to, but not limited to the following:

1. Failure to pass an announced or unannounced inspection of the laboratory performed in accordance with the Regulations Governing Laboratory Certification and Standards of Performance, N.J.A.C. 7.18.
2. Failure to acknowledge correspondence, or rectify deficiencies arising from announced or unannounced compliance inspections.
3. Failure to acknowledge correspondence or rectify deficiencies arising from deficiencies in the data deliverables. (See Section 8.38)
4. Failure to perform the Contractor Responsibilities specified in Sections 8.4.3 and 6.1.3.
5. Failure to maintain the required NJDEP Laboratory Certifications.

6. Suspension of a Single Laboratory Contractor

- a. Suspension of a Single Laboratory Contractor for a parameter will result in suspension of the Contractor for the specific task affected. The Contractor may still be eligible for work awarded in unrelated tasks.
- b. The suspension remains in effect until the suspended laboratory remedies the deficiencies.

7. Suspension of a Multiple Laboratory Contractor

- a. Suspension differs for this type of Contractor. Suspension of a specific laboratory for a parameter will result in the suspension of that specific laboratory for the specific task affected. However, other laboratories of the Multiple Laboratory Contractor may remain active and the suspended laboratory will remain eligible for work in awarded but unrelated tasks.
 - b. Suspension of the specific laboratory remains in effect until the Contractor remedies the laboratory's deficiencies.
8. If a Contractor is suspended or decertified under the NJDEP Laboratory Certification Program N.J.A.C. 7:18-1.1 et seq., the Single Laboratory Contractor or affected laboratory of a Multiple Laboratory Contractor shall not be engaged for the affected task until the suspension is withdrawn or until certification is regained.

D. Termination

1. Upon termination, the State shall determine an equitable adjustment of the contract price as follows:
 - a. If termination for default is effected by the State, an equitable adjustment in the price provided for in this Contract shall be made for work successfully completed prior to termination, but (a) no amount shall be allowed for anticipated costs or profit on unperformed services or other work, (b) no amount shall be allowed for termination settlement costs incurred by the Contractor relating to commitments which had become firm prior to the termination, and (c) any payment due to the Contractor at the time of termination may be reduced to cover any additional costs to the State because of the Contractor's default.
 - b. If termination for default is effected by the Contractor or if termination for convenience is effected by the State, an equitable adjustment for any termination shall provide payment to the Contractor for services rendered and expenses incurred prior to the termination, and for termination settlement costs reasonably incurred by the Contractor relating to commitments which had become firm prior to the termination. The equitable adjustment shall include a reasonable profit for services or other work performed.
2. Upon receipt of a termination notice, the Contractor shall:
 - a. Promptly discontinue all affected work (unless the notice directs otherwise), and

- b. Deliver or otherwise make available to the State all data, drawings, specifications, reports, estimates, summaries and such other information and materials as may have been accumulated by the Contractor in performing this contract, whether completed or in process.
3. Upon termination, the State may take over the work and award another contract to complete the work.
4. If after termination for failure of the Contractor to fulfill contractual obligations, it is determined that the Contractor had not failed to fulfill the contractual obligations, the termination shall be deemed to have been for the convenience of the State.
5. The State may terminate this contract in whole (entire contract) for material fault or substantial failure of the Contractor to meet the terms and conditions of this contract. Material faults and substantial deficiencies include but are not limited to the following:
 - a. Failing to rectify personnel and or Quality Assurance Plan deficiencies.
 - b. Refusing NJDEP Office of Quality Assurance personnel entry during announced or unannounced compliance inspections performed in accordance with the Regulations Governing Laboratory Certification and Standards of Performance N.J.A.C. 7:18.
 - c. Breaching Chain of Custody on a recurring basis [more than two (2) occasions].

6.5.8 EXTENSION OPTION AND TRANSITION PERIOD

A. Extension Option

If, in the opinion of the Director it is in the best interest of the State to extend any contract entered into as a result of this RFP, for a period of up to two years, the Contractor shall be so notified of the Director's intent at least thirty (30) days prior to the expiration date of the existing contract. The Contractor must respond within fifteen (15) days of the receipt of such notification indicating agreement with the extension. If the extension proposed by the Director is acceptable to the Contractor, notice of extension will be given to the Contractor by the Director in writing.

B. Transition Period

In the event that the contract resulting from this RFP expires at the end of its term without a replacement contract operational, it shall be incumbent upon the Contractor to continue to provide services until a new contract is awarded, or the services are no longer required by the NJDEP. At no time shall such services extend more than ninety (90) days beyond the expiration date of the existing contract. The Contractor shall be reimbursed for the services at the prior contract rate.

In the event that the Contractor is engaged for services and subsequently the contract expires and is not replaced with a new contract, it shall be incumbent upon the Contractor to complete the services under the terms and conditions of the prior contract.

6.6 AUDITS AND LEGAL ASSISTANCE

The Contractor understands and agrees that he shall cooperate in maintaining records and in presenting information required by the State as follows:

6.6.1 LEGAL ASSISTANCE

The Contractor shall provide assistance to the State in legal actions by the State against the parties deemed responsible for hazardous wastes at a project site to recover the costs of this contract and/or to prosecute violations of State and Federal environmental laws at the site. This assistance may include the preparation of reports, assisting State and/or Federal attorneys in the preparation of the government's case, testimony in court (expert and/or other types of testimony), testimony at deposition, the preparation and execution of interrogatory responses and affidavits, the preparation of the (official) record and other similar activities. Failure of the Contractor to meet these requirements shall be considered a material breach of contract. Where such assistance involves extra work by an employee, the State will reimburse the Contractor for such assistance at the prevailing hourly rates for the employee's primary classification at the time of request.

6.6.2 AUDITS AND RECORDS

A. The Department reserves the right to make announced or unannounced inspection(s) or examination(s) of a laboratory whenever the NJDEP in its discretion consider such an inspection necessary to determine the extent of compliance with the conditions of the contract or the Regulations Governing Laboratory Certification and Standards of Performance, N.J.A.C. 7:18-1.1 et seq. NJDEP audits may occur at anytime during the laboratory's operating hours.

B. The following record keeping procedures apply to this contract:

C. State Funded Work

The Contractor shall maintain books, records, documents and other evidence directly pertinent to the performance of the work in accordance with generally accepted accounting principles and practices consistently applied and shall make them available for inspection by the State no less than three years from the date of final payment.

D. USEPA Funded Work

1. In addition, for any work under this contract funded by the EPA, the Contractor shall maintain such books, records and evidence in accordance with 40 CFR 35.6700 in effect on the date of execution of this contract. The Contractor, shall also maintain the financial information and data used in the preparation or support of the cost submission required under 40 CFR 35.6585 for any negotiated contract or change order and a copy of the cost summary submitted to the State. Notwithstanding the relevant terms of these Federal regulations, all such materials will be maintained for a period of not less than ten (10) years from the date of final payment. The United States Environmental Protection Agency, the Comptroller General of the United States, the United States Department of Labor, the State, or any of their authorized representatives shall have access to all such books, records, documents and other evidence for the purpose of inspection, audit and copying during normal business hours. The Contractor will provide proper facilities for such access and inspection.

2. The Contractor agrees to make paragraphs 1 through 7 of this clause applicable to all change orders directly related to project performance.
3. Audits conducted under this provision shall be in accordance with generally accepted auditing standards and with established procedures and guidelines of the reviewing or audit agency (ies).
4. The Contractor agrees to disclose all information and reports resulting from access to records under Paragraphs 1 and 2 of this clause to any of the agencies referred to in Paragraph 1.
5. Records under Paragraphs 1 and 2 above shall be maintained by the Contractor during performance on EPA assisted work under this subagreement and for the time periods specified in 40 CFR 35.6705 or in accordance with paragraphs 1 above, whichever is longer. In addition, those records which relate to any controversy arising under an EPA assistance agreement, litigation, the settlement of claims arising out of such performance or to costs or items to which an audit exception has been taken shall be maintained by the Contractor for the time period specified in 40 CFR 35.6705.
6. Access to records is not limited to the required retention periods. The authorized representatives designated in paragraph 1 of this clause shall have access to records at any reasonable time for as long as the records are maintained.
7. This right of access clause applies to financial records pertaining to all contract change orders regardless of the type of contract, and all contract amendments regardless of the type of contract. In addition, this right of access applies to all records pertaining to all contract, contract change orders and contract amendments:
 - a. To the extent, the records pertain directly to contract performance;
 - b. If there is any indication that fraud, gross abuse or corrupt practices may be involved; or,
 - c. If the contract is terminated for default or for convenience.

6.7 SUBCONTRACTS, SUBSTITUTIONS AND ASSIGNMENTS

6.7.1 SUBCONTRACTING PROHIBITED

Subcontracting is **prohibited** under this RFP and contract. All analytical work bid upon must be performed solely by the Contractor at the facility identified in the Contractor's proposal. Joint Ventures formed for the sole purpose of conducting work under this contract are prohibited.

Under this contract Multiple Laboratory Contractors are considered to be under the control of a single corporate or parent entity and as such are not a subcontracting arrangement.

6.7.2 SUBSTITUTIONS OF PERSONNEL

If, during the course of the contract, the Contractor finds that he cannot provide Contractor personnel proposed in the bid proposal, the Contractor may provide

substitute personnel with approval from the State. Such request for this approval must be made in writing and must include the following:

- A. Explain the reasons why the original person(s) cannot be provided;
- B. Demonstrate that the qualifications of the substitution are equal to or better than the originally proposed person(s);
- C. Warrant that the substitution will be provided at no additional cost to the State; and
- D. Include a resume and any other information which was required by this RFP for the original person(s).

Prior approval of any substitution must be received from the State Contract Manager.

6.7.3 ASSIGNMENT OF CONTRACT

The contract may not be assigned by the Contractor, in whole or in part, without the prior written consent of the Director. Such consent, if granted, shall not relieve the Contractor of any of his responsibilities under the contract.

6.7.4 MERGERS AND ACQUISITIONS

- A. Subsequent to the award of any contract resulting from this RFP, if the Contractor acquires another firm, merges with, or is acquired by another firm, the following documents must be submitted to:

NJ Department of the Treasury
Division of Purchase and Property
Purchase Bureau, 9th Floor
P.O. Box 230
Trenton, NJ 08625-0230
Attn: Frank Kuzniacki

- 1. Corporate resolutions prepared by the awarded Contractor and new entity ratifying acceptance of the original contract, terms and conditions, and prices bid.
 - 2. A letter from the awarded Contractor to the State requesting reassignment of the contract to the new firm.
 - 3. A complete State of New Jersey Bidders Application package updating all information including details of ownership.
 - 4. New Corporate and Laboratory personnel organization charts, including Supplement A of this RFP.
 - 5. The new Vendor Federal Identification Number, which will be necessary for accounting purposes.
- B. Failure to comply with the above will result in suspension or termination in accordance with Section 6.5.7 of this RFP.

- C. All documents must be submitted within thirty (30) days of completion of the merger, or acquisition. Failure to do so may result in termination of this contract pursuant to Section 6.5.7.
- D. If, subsequent to award of any contract resulting from this RFP, the Contractor's partnership or corporation dissolves, the Director, Division of Purchase and Property must be notified at the above address. All responsible parties of the dissolved partnership or corporation must submit to the Director in writing, the names of the parties proposed to perform the contract, and the names of the parties to whom payment should be made. No payments shall be made until all parties to the dissolved partnership or corporation, submit the required documents to the Director.

6.7.5 NEW LABORATORIES

After receipt of Notice of Contract Award, a Contractor may seek to qualify additional laboratories to perform analyses. The new laboratory must be part of the same corporate family as the Contractor. Subcontracting and joint ventures are not allowed for purposes of adding new laboratories.

The Contractor must identify the laboratory, the task(s) the laboratory will perform, the personnel within the laboratory that are needed to perform the tasks (see Appendix 4), along with a new Personnel Position ID Chart (Appendix 8) and any other information (Example Date Reported as per Appendices 1-3) required by the State Contract Manager. Approval of the new laboratory will be contingent on the laboratory holding all the certifications for the task(s) as well as submission of satisfactory information on the forms noted above. A Contractor may not submit an additional laboratory to perform analysis in tasks for which the Contractor was not awarded. No change in price is allowed when a laboratory is added.

The approval of any new laboratory after Notice of Term Contract Award will be at the discretion of the State Contract Manager and no time frame for this review cycle will be established.

6.8 OWNERSHIP AND DISSEMINATION OF INFORMATION AND MATERIAL

6.8.1 DISSEMINATION OF INFORMATION

Notwithstanding any other provision of this RFP, the Contractor shall not publish, permit to be published, or distribute, use, or disclose to anyone for public consumption, any information, oral or written, concerning the results or conclusions made pursuant to the performance of this contract, without the prior written consent of the State.

6.8.2 OWNERSHIP OF MATERIAL

Ownership of all data, samples, material, evidence and documentation gathered, originated or prepared for the State by the Contractor during the performance of his contractual responsibilities pursuant to this contract shall belong exclusively to the State. This requirement is subject to the rights of the USEPA under any cooperative agreement. Any such data, samples, material, evidence and documentation shall be delivered to the State in a timely manner upon request by the State at the location specified in that request.

6.8.3 STATE PATENT RIGHTS AND COPYRIGHTS

Subject to Federal regulations and/or to any special agreements with the State, any discovery, invention or other material developed by the Contractor in the course of his duties under this contract is subject to patent and copyright in the name of the State.

6.8.4 FEDERAL PATENT AND COPYRIGHT REGULATIONS

The State intends to apply for Federal reimbursement of the costs of this contract. Therefore, Federal requirements regarding inventions and discoveries are hereby made part of this Contract. The Contractor is hereby notified, pursuant to the provisions of 40 CFR 35.6595 (a) (3) that the USEPA has copyright provisions stated in 40 CFR 35.6450 and 40 CFR 31.34.

6.8.5 CONFIDENTIALITY

All financial, statistical, personnel and/or technical data supplied by the State to the contractor are confidential. The contractor is required to use reasonable care to protect the confidentiality of such data. Any use, sale or offering of this data in any form by the contractor, or any individual or entity in the contractor's charge or employ, will be considered a violation of this contract and may result in contract termination and the contractor's suspension or debarment from State contracting. In addition, such conduct may be reported to the State Attorney General for possible criminal prosecution.

6.9 PRICES AND PAYMENTS

6.9.1 PAYMENT

A. Payment Method

This contract requires Contractors to submit two New Jersey Payment Vouchers with Vendor Invoices (and supporting documentation) to the State. One is for 80% of the amount due and a second is for 20% of the amount due. The State Contract Manager will verify that the correct Purchase Order was used, sample and dilutions/reanalyses numbers are correct, and that all calculations based on analytical data that was submitted to the State in the data reports is correct. When verified, the entire package will be forwarded for processing and payment. If errors are detected, the Contractor will be directed to resolve the errors and may be required to submit revised invoices.

B. Reimbursement May Be Required

The State may determine that the data package is not compliant after the 80% Payment Voucher/Vendor Invoice has been paid. In this case, the State Contract Manager may withhold payment of the 20% retainage and may seek reimbursement from the Contractor for all or part of the 80% payment, depending on the extent of the noncompliance. Reimbursement may take the form of withholding of payment from future work or it may take the form of a letter from the State Contract Manager to the Contractor requesting a reimbursement from the Contractor. The Contractor should then reimburse the State Contract Manager by check made out to the Treasurer, State of New Jersey.

See below for specific payment details. Also see Appendix 5 and Section 6.9.10 for a complete discussion of reasons why NJDEP will not pay for delivered data reports.

C. Failure to Reimburse

If a Contractor receives a request for reimbursement of the 80% payment and fails to reimburse State within 60 days, the State Contract Manager will drop the Contractor to the Alternate Contractor position. That in turn will cause the Alternate Contractor to become the Prime Contractor. The State Contract Manager will notify the Contractors, other State Agencies using the Contract and Contract Users of this change. New engagements will then go to the new Prime Contractor.

At such time as the Contractor reimburses the State for the 80% payment or portion thereof, the State Contract Manager will return the Contractor to his prior position in the engagement order and so notify the Contractors, other State Agencies using the Contract and Contract Users.

Failure to reimburse State for more than 120 days may result in the State Contract Manager issuing a Stop Work Order (SWO) to the Contractor suspending the Contractor from all work under the contract (in accordance with Section 6.5.7 and issuing a formal complaint to the Department of the Treasury that may result in contract termination.

A suspended Contractor may not perform any work under this contract until the suspension is lifted.

6.9.2 PAYMENT VOUCHERS AND VENDOR INVOICES

A. Payment Vouchers Forms

Blank payment voucher forms may be received from the State Contact Manager's accounting offices that service the Contract Users.

B. Complete Payment Voucher and Vendor Invoice

1. The vendor invoices must be submitted with the project specific State of New Jersey Payment Vouchers (Form PV-393).
2. All payment vouchers and vendor invoices submitted must indicate the name of the contract and the name and address of the Contractor. The invoice should then identify the job number, the samples (including dilutions and reanalyzed samples)analyzed by sample numbers, the unit price for analysis, the required analysis, unused shipping canisters cost, extra shipping charges and the total amount.
3. The supporting documentation required from the Contractor is a copy of the Case Narrative, copies of any correspondence that directed the Contractor regarding sample analysis or cancellation of analysis and a NJDEP Form A-1A. The Form A-1A can be revised by the Contractor to list all the dilutions or reanalyses that were conducted. The affected fractions must also be noted on the form.
4. Payment for unused canisters, cancelled analysis, and shipping costs not included in the unit price are not subject to the 20% retainage. These costs must be billed on the 80% invoice at the 100% level. These costs will be approved and paid with the 80% invoice for payment. The following information must be provided on the 80% invoice or on supporting documentation attached to these Payment Vouchers

These costs are as follows.

- a. If a canister is returned unused and the 25 % charge is applied then it must be listed separately from the analyses conducted.
 - b. If the State Contract Manager directs the Contractor to stop work on a sample after the analysis has been initiated, then the Contractor is eligible for full payment. These samples must be listed separately from the completed analyses. A copy of the instructions from the State Contract Manager must be included in the supporting documentation.
 - c. If a non-routine sample collection time has been approved for the sampling event and additional costs had been approved by the State Contract Manager, then the canisters using this different flow rates must be listed separately. Also the negotiated costs for the non routine flow rates must be listed separately from the canisters. A copy of the instructions from the State Contract Manager must be included in the supporting documentation.
 - d. Any extra shipping costs incurred by the Contractor based on the shipping requests of the Contract User and/or Using agency must be listed as a separate entry. If supporting documentation is required to be submitted, it must be added to the 80% invoice. Shipping charges are not prorated for any invoice.
5. The following information must be provided on the 80% Payment Voucher and the 20% retainage Payment Voucher or on supporting documentation attached to these Payment Vouchers:
- a. Each sample must be listed individually by the Contract Users field sample number. The Contractor's internal sample number must follow the Contract Users sample identification number. A copy of the Form A-1A must be submitted with the documentation.
 - b. For each sample, the Payment Voucher must specify if the sample was a 48 hour, a seven (7) day or fourteen (14) day Turn Around Time (TAT), the line number and analysis name specified on the Price Schedule.
 - c. Next to each billable fraction analyzed should appear the contract price as specified on the price schedules.
 - d. The number of dilutions and reanalyses must be listed separately on the invoice from the actual samples. Dilutions must be listed separately from reanalyses.
 - e. The Contractor shall add the following sample suffixes to the Contract User's sample numbers to differentiate related sample analysis.

XXXXX The five Xs represent a DEP Sample Number

XXXXXDL The DL suffix indicates that the analytical results are a result of dilution to DEP sample XXXXX.

XXXXXRE The RE suffix indicates that the analytical results are a result of reanalysis due to internal standard response deficiency in the initial analysis to DEP sample XXXXX.

6. In order for an invoice to be complete it must be delivered with all appropriate and required attachments. An invoice is complete if it is submitted on a State of New Jersey Payment Voucher Form, is filled out correctly, and has all required information and attachments.

C. Partial Payment Invoices

In some special instances noted in Section 6.9.7 the Contractor will be eligible for a partial payment for an analysis. When a sample analysis is cancelled in accordance with Section 6.9.7, the following information must be submitted with the Payment Voucher for which a partial payment is requested:

1. The Contract User's Sample Number followed by the Contractor's internal sample identification number.
2. If the sample analysis was cancelled prior to the initiation of analysis of the canister, then only the numbers of cancelled canisters analysis are to be listed.
3. The line number and analysis name specified on the Price Schedule must be specified for each fraction that the Contractor is requesting partial payment.
4. The contract price for the analysis noted in the Price Schedules must be shown multiplied by the percentage of partial payment authorized in this contract. The calculated total amount requested for partial payment must then be shown.
5. All partial payments are to be billed at 100% of the invoice price on the 80% invoice. Partial payments are not subject to retainage.
6. All correspondence from the State Contract Manager and any Contract User that provided instructions to the Contractor regarding cancellation of the sample analysis.

D. Other Partial Payment Invoices

There may be other circumstances where this contract allows partial payment (i.e. reimbursement of transportation insurance mistakenly ordered by a Contract User). The Contract User, the State Contract Manager and the Contractor must all agree that the Contractor is eligible for such payment and the State Contract Manager shall tell the Contractor what documentation is needed to support a payment voucher and vendor invoice.

E. Frequency of Payment Voucher (Invoice) Submission

Contractors may submit payment vouchers monthly to NJDEP or at the frequency specified by other Using Agencies.

F. Payment Vouchers for Change Orders

Some work under this contract may be performed under a change order in accordance with Section 6.5.6. All invoices (payment vouchers) for change order work must be submitted separately.

G. Where to Send Payment Vouchers and Where to Obtain Blank Payment Vouchers

1. For all NJDEP projects the payment vouchers shall be obtained from and sent to the State Contract Manager.
2. For all other State Agencies who have designated a State Contract Manager, the payment vouchers shall be obtained from the designated State Contract Manager.
3. The State Contract Manager will forward all completed payment vouchers/ vendor invoices packages to the appropriate financial units in the using agency.

H. Return of Payment Voucher/Vendor Invoice

Any payment voucher/vendor invoice submittal package (invoice) that does not comply with this section shall be returned to the Contractor for correction and resubmission.

I. Retainage – 20%

All analysis work performed under this contract will be subject to a 20% retainage. The retainage will be paid after the Contract User evaluates the data package, validates the data and performs all QA/QC reviews on the data package to assure that it complies with the contract or after one year, whichever comes first. Payment of the retainage may be withheld permanently for cause including, but not limited, to those specified in Section 6.9.10, or Appendix 5.

The Contractor must submit a separate payment voucher/vendor invoice package to receive payment for the retainage. Therefore, this contract requires the Contractor to submit two payment voucher/vendor invoice packages for each billing, one for 80% of the amount due and another for the 20% retainage.

The Contractor must submit a separate payment voucher/vendor invoice package to receive payment for the retainage. Therefore, this contract requires the Contractor to submit two payment voucher/vendor invoice packages for each billing, one for 80% of the amount due and another for the 20% retainage.

Exceptions to the 20% retainage are listed in Section 6.9.2.B. Payment of the retainage may be withheld permanently for causes including, but not limited to those specified in Section 6.9.10 or Appendix 5.

The 20 % Retainage will not be made for the following items:

1. If a canister is returned unused by the Contract User.
2. If the State Contract Manager directs the Contractor to stop work on a sample after the analysis has been initiated, then the Contractor is eligible for full payment. These samples must be listed separately from the completed analyses. A copy of the instructions from the State Contract Manager must be included in the supporting documentation.
3. If a Contract User collects samples, ships the canisters to the Contractor and then cancels the analysis through the State Contract Manager subsequent to the Contractor's receipt of the canisters but before the Contractor performs any analysis.

4. If the Contract User delivered samples that cannot be analyzed because of incomplete sample collection that leads to a residual vacuum being outside specifications (-10 in Hg) and approval not to analyze is given by the State Contract Manager after consultation with the site specific project team.
5. If chain of custody non-compliance by the Contract User is determined by the State and the State decides to terminate the analysis prior to the initiation of sample analysis.
6. For any other actions by the Contract User or transporter action that causes the sample, upon delivery, to be non-compliant.
7. If a non-routine sample collection time has been approved for the sampling event and additional costs had been approved by the State Contract Manager, then the canisters using this different flow rates must be listed separately. Also the negotiated costs for the non-routine flow rates must be listed separately from the canisters. A copy of the instructions from the State Contract Manager must be included in the supporting documentation.
8. Any extra shipping costs incurred by the Contractor based on the shipping requests of the Contract User and/or Using agency must be listed as a separate entry. If supporting documentation is required to be submitted, it must be added to both copies of the invoice. Shipping charges are not prorated for any invoice.

6.9.3 COMPENSATION FOR UNIT PRICE (UP) BID ITEMS

For each Unit Price (UP) Item on the Price Schedule, the Contractor will be paid for those units of work that are actually needed for the successful completion of a specific engagement. The contract prices are inclusive of overhead must be held firm for the duration of the contract. See Section 5.2.4 for a list of items included and excluded from unit prices.

6.9.4 PAYMENT FOR INTERNAL STANDARD REANALYSIS

If the Contractor is required to reanalyze a sample due to internal standard area responses being outside of control limits, the method and contract requires the submittal of two complete sets of analytical data, one for the first analysis and another for the second analysis. The Contractor is eligible for payment for both analyses based on the contract price. To be eligible for payment for the second analysis, the Contractor must demonstrate that the first analysis of the sample complied with the method, that internal standard area responses were outside of the control limits, and that the method required reanalysis of the sample.

Reanalysis of a sample is required when the internal standard area responses in the initial analysis is outside the control limits established by the method. NJDEP will pay the Contractor extra money to reanalyze the sample when this occurs. The payment for reanalysis will be the same as the original analysis. To be eligible for the extra payment, the Contractor must demonstrate that the initial analysis and reanalysis was conducted in accordance with the method and Section 8.0 this contract. NJDEP will authorize the reanalysis but will not pay for more than one reanalysis of the same sample.

6.9.5 PAYMENT FOR DILUTIONS

If the Contractor is required to dilute and reanalyze a sample, the method and contract requires the submittal of two complete sets of analytical data, one for the first analysis and another for the analysis of the diluted sample. The Contractor is eligible for payment for both analyses based on the contract price. To be eligible for payment for analysis of the diluted sample, the Contractor must demonstrate that the first analysis of the sample complied with the method and that the method required dilution and reanalysis of the sample.

Reanalysis of a sample is required when the initial analysis is outside the calibration range of the instrument. NJDEP will pay the Contractor extra money to dilute and reanalyze the sample. The amount paid to dilute and reanalyze will be the contract price for the analysis. To be eligible for this extra payment, the Contractor must demonstrate that the dilution and reanalysis was conducted in accordance with the method and Section 8.0 of this contract. NJDEP will authorize payment for one dilution and reanalysis. NJDEP will not pay for a more than one dilution and reanalysis on the same sample.

For Example: An undiluted sample is analyzed for volatile organics and the concentration of tetrachloroethylene (PCE) exceeds the upper calibration range of the instrument. The Contractor dilutes the sample and reanalyzes the diluted sample in accordance with the analytical method. In this case, the laboratory dilutes the sample by a factor of 10, reanalyzes the diluted sample, and the concentration of PCE is now within the calibration range of the instrument. If the dilution and reanalysis of the sample is considered acceptable by NJDEP, the Contractor is eligible to receive two payments: 1) a payment for the original analysis and 2) a second payment for the dilution and reanalysis of the sample. Payment for the dilution and reanalysis will be the same as the original analysis.

6.9.6 SHIPPING AND CANISTERS -25% PAYMENT

The State or State Using Agency will pay the Contractor 25% of the cost of laboratory analysis of the **14-day turnaround time** unit price for each canister to cover the cost of shipping and cleaning of the canisters and disposal if any. This 25 % payment is not subject to retainage as per Section 6.9.2. The request for payment must be approved by the State Contract Manager for the following circumstances:

- A. If a Contract User ships unused empty sample canisters back to the laboratory for sample analysis that was ordered but never collected.
- B. If a Contract User collects samples, ships the canisters to the Contractor and then cancels the analysis through the State Contract Manager subsequent to the Contractor's receipt of the canisters but before the Contractor performs any analysis.
- C. If the Contract User delivered samples that cannot be analyzed because of incomplete sample collection that leads to a residual vacuum being outside specifications (-10 in Hg).
- D. If chain of custody non-compliance by the Contract User is determined by the State and the State decides to terminate the analysis prior to the initiation of sample analysis
- E. For any other actions by the Contract User or transporter action that causes the sample, upon delivery, to be non-compliant.

6.9.7 PAYMENT IF A CONTRACT USER CANCELS ANALYSIS

If the State Contract Manager directs the laboratory to halt the analysis of a sample, the State Agency is obligated to pay for the sample fraction, provided the cause of such stoppage is the discretion of the State Agency, and not caused by negligence or errors on the part of the Contractor. The State Contract Manager will authorize payment to the Contractor 100% of the unit price for an analysis if the State cancels the performance of an analysis after the Contractor has received samples, and started the analysis. This is not subject to the 20% retainage and must be listed on the 80% invoice only.

6.9.8 SHIPPING COSTS BEYOND NORMAL DELIVERY THAT IS INCLUDED IN UNIT PRICE

The Contractor shall not be responsible for any shipping costs beyond those for normal delivery and pickup charges that are included in the base shipping price from the Common Carrier. These costs are defined must be defined on the Common Carrier's website. The State shall be responsible for the payment for all extra charges beyond the normal shipping charges to commercial or office locations that have routine pickup and delivery. The extra charges must be listed on the Common Carrier's website to be considered billable to the state. If the Contractor has a contract with the Common Carrier, that specifies a rate for the extra charges, a current copy of these charges must be forwarded to the State Contract Manager. The State Contract Manager shall provide a current copy of the charges to the Contract Users.

If the Contract User wants delivery or pickup of shipment of samples that require additional costs beyond normal delivery, he/she shall be aware of the additional charges. The Contract User must inform the State Contract Manager at the time of notification of the engagement that they need shipping beyond the normal delivery. The extra cost must be factored into cost of the engagement.

The actual cost of the non-contract shipping shall be listed as a separate entry in the cost for the engagement. The Contractor shall bill the Contract User on the same invoice that is used for the sampling event. The required documentation for the payment of the extra shipping costs consist of copies of the Common Carrier's tracking forms listing the package tracking numbers and date of delivery. The actual costs shall be verified using the Common Carrier's website or the previously submitted documentation from the Contractor.

The following charges are the responsibility of the State not the Contractor if the Common Carrier routinely charges for these options. The charges must be clearly documented on the Common Carrier's website for review by the State or if the Contractor has a contract with the Common Carrier, that specifies a rate for the extra charges, a current copy of these charges must be forwarded to the State Contract Manager.

1. First AM Delivery (either to Contract User or Contractor)
2. Saturday Pickup (either from the Contract User or Contractor)
3. Saturday Delivery (either at the Contract User's location or the Contractor)
4. Carrier Pickup charges from a non Routine Delivery/Pickup location
5. Any other additional charges imposed by the Common Carrier due to delivery or pickup request by the Contract User.
6. Fuel Surcharges
7. Overnight delivery to Contract User.
8. Any new charges imposed by the Common Carrier at a later date.

6.9.9 PROCEDURES FOR PAYMENT - INVOICES (NEW JERSEY PAYMENT VOUCHERS)

- A. Payment under this contract will be based on completion of specific engagements issued under this contract and approval by the State Contract Manager of any deliverable work products. No payments shall be made to the Contractor for expenses other than those shown on the price schedule or otherwise allowed under this contract unless a change order is issued. Any invoice for compensation pursuant to a change order, delay claim or other request for additional compensation beyond the contract amount must be accompanied by documentation sufficient and adequate for the State Contract Manager to recognize and accept the invoice. Payment will be conditioned on the following:
- B. Two (2) New Jersey Payment Vouchers/Vendor Invoices packages shall be submitted upon delivery of the related data reports and associated electronic deliverables. One (1) payment voucher/vendor invoice set shall be completed for eighty percent (80%) of the total amount due and the second payment voucher/vendor invoice set for retainage shall be completed for twenty percent (20%) of the amount due. The exception is for the extra costs specified in Section 6.9.2.B. that allow 100% of these costs to be billed on the 80% invoice. All such Payment Vouchers/Vendor Invoices rendered by the Contractor to the NJDEP or other State Using Agencies shall be paid as follows:
- C. Upon receipt of each final data report, the State Contract Manager shall assure that the data report was delivered and contains all the major components. Upon receipt of the correct Payment Voucher/Vendor Invoice associated with the data report, the State Contract Manager will verify that the sample and dilutions/reanalyses numbers are correct, and that all calculations in the Payment Voucher/Vendor Invoice and associated documentation are correct. When verified, the Payment Voucher/Vendor Invoice and associated documentation will be forwarded for processing and payment. If errors are detected, the Contractor will be directed to resolve the errors and may be required to submit revised invoices.

The State Contract Manager/Contract User shall authorize payment of the Voucher Payment Voucher/Vendor Invoice submitted for 80% of the total amount due (see Section 6.9.10 non-payment) and retain the 20% retainage invoice.

- D. The State shall evaluate the Contractor's final data report. If the data report is acceptable, the State Contract Manager/Contract user shall authorize payment of the 20% retainage Payment Voucher/Vendor Invoice.

6.9.10 NON-PAYMENT AND REQUESTS FOR REIMBURSEMENT

The State Contract Manager will not pay the Payment Voucher/Vendor Invoice or will request reimbursement from the Contractor when it is discovered that the work performed did not correspond to the analytical procedures set forth in the Scope of Work. Partial non-payment and requests for reimbursement shall occur in the following cases:

- A. Withholding of a portion of the 20% Retainage Invoice

The State Contract Manager shall withhold payment of all or a portion of the 20% retainage Payment Voucher/Vendor Invoice under the following conditions:

1. When the Contractor does not deliver a data report within the specified turn-around time as set forth in Section 8.0, the State Contract Manager shall subtract two percent (2%) per work day of the total invoice amount up to a maximum of the twenty percent (20%). In other words, if a data report is delivered 10 or more working days late, the Contractor will forfeit the entire retainage payment.

Data packages are considered to be delivered only when all required information is present and in compliance with Section 8.0 and all required Appendices. If any information is missing, the entire package will be considered as overdue until such time as the remaining information is submitted. The time clock on the data will stop when the package is received by the State Contract Manager or the validation staff. The clock will resume when the laboratory is notified by telephone of the missing information.

2. When the deliverables received are not in the proper Data Report format as specified in Section 8.0 and the associated Appendices of this contract, then payment of the entire 20% retainage invoice will be forfeited to the State.

B. Withholding of a Portion of the 80% Invoice

For all tasks the State Contract Manager shall automatically withhold an additional 25% of the 80% Payment Voucher/Vendor Invoice, above and beyond all other withholdings under the following circumstances:

1. For any data package not bearing the signature of both the approved Laboratory Director and approved Quality Assurance Officer.
2. For any data package bearing the signatures of unapproved personnel when required by N.J.A.C.7: 18-2.10 and 2.11 and Section 8.5 (Personnel Requirements) of this Contract.

This withholding shall be executed by nonpayment of the entire 20% retainage, plus the recoupment of 25% of the 80% invoice if the above deficiencies were present in the report. The total amount withheld is therefore 40% of the total amount due. The costs that are paid at 100% in the 80% invoice are not affected by this withholding.

C. The Contractor Will not be Paid

The Contractor will not be paid any money for the analysis of a sample if the Contractor performs an analysis that is inconsistent with the Scope of Work Section 8.0, or is inconsistent with the analytical methods. The costs that are paid at 100% in the 80% invoice are not affected by this withholding.

Appendix 5 provides a listing of the most common reasons that make a faulty analysis ineligible for payment, however, Appendix 5 is not intended to be an all encompassing list. Contractors that perform an analysis that is inconsistent with the Scope of Work Section 8.0, the analytical method or is deficient for any reason specified in Appendix 5, will forfeit 100% of payment due (including the 80% invoice and the 20% retainage). The costs that are paid at 100% in the 80% invoice are not affected by this withholding. If a Contractor received the 80% payment before the Contract User discovers that the analysis was performed in a manner inconsistent with the Scope of Work or the analytical method, the Contractor will be notified and will be required to reimburse the Contract User in accordance with Section 6.10.1 B and C.

For the Method 3C and NJDEP LL-TO15, the State shall withhold payment for the entire fraction or a per compound. The per compound cost will be determined based on the total cost of the fraction divided by the number of required target compounds per fraction. This amount per compound per matrix per fraction will be calculated by the State Contract Manager at the time of award of the contract and reissued yearly. This determination will be provided to both the Contractor and Contract Users.

6.9.11 PROMPT PAYMENT

- A. The New Jersey Prompt Payment Act (P. L. 1987, C. 184) mandates that State agencies pay invoices within sixty (60) days of either receipt of a properly executed State Voucher or receipt and acceptance of the goods/services, whichever is later. Failure of the State to process payment within this time frame may entitle the vendor to daily interest payments upon the unpaid obligation at a rate established by the State Treasurer.
- B. The Prompt Payment Act covers any person who is engaged in a trade or business, including private, nonprofit entities operating as Contractors, and who has a State contract requiring either single or multiple payments. The Act does not cover public utilities, government instrumentalities or third party Contractor's.
- C. Any interest payments calculated on delinquent accounts as defined in the Prompt Payment Act will be paid by the appropriate State agencies on a separate State Invoice Form and shall be paid within thirty (30) days of payment of the original invoice. Interest will not be paid until it exceeds \$5.00 per properly executed invoice. Vendor signatures are not required on State invoices processed for interest payments.
- D. It is the intention of NJDEP to expeditiously process for payment all properly executed invoices. State agencies will notify Contractors in writing within thirty (30) days of any defect or impropriety in any State invoice submitted for goods or services provided which would prevent the running of the time period specified (sixty days). The cooperation of vendors is required not only to assure that properly executed invoices are submitted, but to ensure that any other associated documentation (e.g. change order) is also executed in a timely fashion.

6.10.12 PURCHASE ORDERS

Purchase Orders will be issued in accordance with the engagement process (See Section 9.0). State Contract Managers are responsible for arranging for the issuance of Purchase Orders to Contractors. .

6.10.13 NJDEP ITEMIZATION OF AMOUNT DUE

The Contractor must submit two New Jersey Payment Vouchers (invoices) for payment. If 60 days after NJDEP or other state using agency has received a data package and performed a QA/QC review the Contractor has not submitted Payment Vouchers (invoices) for payment, the State Contract Manager may itemize all costs due and payable and send this itemization with a copy of the original Purchase Order and blank Payment Vouchers to the Contractor by certified letter. If the Contractor does not contest the State Contract Manager's cost itemization within 10 days, then this shall be deemed the final amount owed for the analysis subject to submission of Payment

Vouchers by the Contractor. In such a circumstance the State Contract Manager may reduce the outstanding Purchase Order amount to this final amount owed.

6.9.14 HAZARDOUS SHIPPING PAYMENT

If an engagement requires the contractor to ship samples in a hazard packing group in accordance with USDOT hazardous shipping regulations, the contractor shall provide NJDEP with a surcharge amount as part of the engagement process (see sections 9.8 and 9.9). The Contract User will add the surcharge to the normal 25% reanalysis contingency amount when preparing a purchase order. Payment for the shipping surcharge will be made through the contingency line on the Payment Voucher.

7.0 PROPOSAL EVALUATION AND CONTRACT AWARD

7.1 GENERAL CRITERIA

Bid Proposals will be evaluated by an Evaluation Committee convened by the Director, Division of Purchase and Property made up of representatives from the Department of Environmental Protection and the Department of the Treasury.

Following the bid opening, proposals will be evaluated in accordance with the following procedure:

- A. First, proposals will be checked against the criteria listed under RFP Section 4.3 (Mandatory Requirements and Minor Formalities). Those bids that are automatically rejected will not be reviewed further.
- B. Second, the Evaluation Committee will review bids for responsiveness and responsibility as follows:

1. RESPONSIVENESS

In order for a bid proposal to be considered fully responsive, a bidder must hold all the NJDEP laboratory certifications specified for the task bid on the date of the bid opening. A bidder that does not hold all the laboratory certifications will be judged non-responsive. The bidder must agree to perform the Scope of Work related to the bid as described in the RFP. In addition, the bidder must agree to the terms and conditions provided in the RFP, complete the attachments provided with this RFP or their equivalents, and provide the information as required in Sections 4.0 and 5.0 of this RFP.

The bidder must submit analyze the samples as required by Section 8.0 and submit the required example data reports and electronic deliverables in the required format (Appendices 1-3).

2. RESPONSIBILITY

In order to be considered responsible, a bidder must have a public record, which indicates that he or she is able and willing to perform the required work and has satisfactorily performed such work in the past. The State has adopted as its test of responsibility the Federal rules at 40 CFR 31. A responsible bidder must have:

- a. Financial resources, insurance and other liability guarantees, technical qualifications, experience, organization and facilities adequate to carry out the project, or a demonstrated ability to obtain these.
- b. Satisfactory performance record for completion of contracts.

Bidders who fail to meet the minimum thresholds for these key components will be considered non-responsive to the bid submission requirements and will not be awarded a contract.

7.2 BID PROPOSAL EVALUATION CRITERIA

The Bid Proposals will be subjected to further evaluation based on the following:

Laboratory Certification/Accreditation Reviewed – Bidders will be reviewed for their compliance with the NJDEP laboratory certification and accreditation requirements. Bidders that hold all the NJDEP laboratory certifications and NELAP accreditation will be determined to be responsive to the laboratory certification/accreditation requirements. Bidders that do not hold all NJDEP laboratory certifications/accreditations will be determined to be non-responsive. No further review will be performed on bids for which the bidder does not hold all the required NJDEP laboratory certifications or accreditations and the bidder will be ineligible for contract award.

Price Proposal Evaluated – Bid prices will be evaluated and adjusted in accordance with Section 6.9. An adjusted total bid price will be calculated. The bid evaluation shall be based on the estimated quantities noted on the price schedules for each line item. The price evaluation will include every item on the price schedules. A price proposal that fails to provide a price for any unit price item will be determined to be non-responsive.

Sample Data Package Evaluated - The Sample Data Package will be evaluated utilizing the Data Package Evaluation Checklist specified in Appendix 6. The Sample Data Package will be evaluated as if it was a deliverable under the contract. If data is rejected such that the data would not be eligible for payment, then the sample data package submitted with the bid proposal will be determined to be non-responsive to the bid submission requirements and the bidder will not be eligible for contract award.

All Other Submissions Evaluated – All other submissions will be evaluated for responsiveness and responsibility.

Responsive and Responsible Bidders Organized By Price – All the responsive and responsible bidders will be listed by price from lowest to highest.

Award Recommendation – Consistent with N.J.S.A. 52:34-12, when evaluating bids deemed to meet the threshold criteria as responsible and responsive, the State intends to award this contract to the three lowest priced bidders. Of the bidders determined to be responsive and responsible, the bidder ranked lowest in price will be recommended to be the Prime Contractor. Of the bidders determined to be responsive and responsible, the bidder ranked second lowest in price will be recommended to be the First Alternate Contractor. Of the bidders determined to be responsive and responsible, the bidder ranked third lowest in price will be recommended to be the Second Alternate Contractor.

7.3 DIRECTOR'S RIGHT OF FINAL BID ACCEPTANCE

The Director reserves the right to reject any and all bids, or to award in whole or in part as deemed to be in the best interest of the State. He shall have authority to award a contract to the bidder best meeting specifications and bid conditions, and who is determined to have offered the most advantageous bid to the State, price and other factors considered.

7.4 NOTICE OF INTENT TO AWARD

The Purchase Bureau will notify all bidders in writing of the Director's intent to award a contract. Bidders not receiving an award will have ten working days to protest the award decision pursuant to the rules of the Division of Purchase and Property, N.J.A.C. 17:12-3.3 et seq.

7.5 PRECONDITIONS FOR EXECUTION OF CONTRACT

Subsequent to the issuance of a Notice of Intent to Award a contract, the Director will execute a Notice of Term Contract Award. As a precondition for final execution of a Notice of Term Contract Award, the Awardee must submit the documents listed below to the Purchase Bureau. Unless the time frame is shortened by the Director for good cause or is extended by the Director at his discretion, these documents must be submitted within 10 days of receipt of the Notice of Intent. If the State determines that any of the required documents are deficient or missing, the State shall notify the Awardee of these and the Awardee shall submit the required documents within 5 days of receipt of the notice. Failure to timely submit the documents may be deemed a material breach of contract and may result in rescission of the Notice of Intent and rejection of the proposed Contractor as non-responsive to the RFP. The proposed Contractor will also be liable for damage to the State for any delay in the proposed work for the differential between his bid price and the bid price of the next highest qualified bidder and/or the costs of rebidding the contract and for any other damages under law.

- A. Insurance Certificate(s) covering insurance required in Section 6.4.
- B. Any other documentation of the bidder's proposal which is required by the Evaluation Committee report or otherwise required by the State and which is still outstanding including requirements of N.J.S.A. 19:44 A-20.13-25 and N.J.S.A. 52:34-13.2.

7.6 DOCUMENTS REQUIRED BEFORE CONTRACT AWARD

7.6.1 REQUIREMENTS OF N.J.S.A. 19:44A-20.13-25 (FORMERLY EXECUTIVE ORDER 134)

In order to safeguard the integrity of State government procurement by imposing restrictions to insulate the negotiation and award of State contracts from political contributions that pose the risk of improper influence, purchase of access, or the appearance thereof, the Legislature enacted N.J.S.A. 19:44A-20.13 – 25 on March 22, 2005 the “Legislation”), retroactive to October 15, 2004, superseding the terms of Executive Order 134. Pursuant to the requirements of the Legislation, the terms and conditions set forth in this section are material terms of any contract resulting from this RFP:

7.6.2 DEFINITIONS

For the purpose of this section, the following shall be defined as follows:

- A. Contribution – means a contribution reportable as a recipient under “The New Jersey Campaign Contributions and Expenditures Reporting Act.” P.L. 1973, c. 83 (C.19:44A-1 et seq.), and implementing regulations set forth at N.J.A.C. 19:25-7 and N.J.A.C. 19:25-10.1 et seq. Through December 31, 2004, contributions in excess of \$400 during a reporting period were deemed "reportable" under these laws. As of January 1, 2005, that threshold was reduced to contributions in excess of \$300.
- B. Business Entity – means any natural or legal person, business corporation, professional services corporation, Limited Liability Company, partnership, limited partnership, business trust, association or any other legal commercial entity organized under the laws of New Jersey or any other state or foreign jurisdiction. The definition of a business entity includes (i) all principals who own or control more than 10 percent of the profits or assets of a business entity or 10 percent of the stock in the case of a business entity that is a corporation for profit, as appropriate; (ii) any

subsidiaries directly or indirectly controlled by the business entity; (iii) any political organization organized under section 527 of the Internal Revenue Code that is directly or indirectly controlled by the business entity, other than a candidate committee, election fund, or political party committee; and (iv) if a business entity is a natural person, that person's spouse or child, residing in the same household.

7.6.3 BREACH OF TERMS OF THE LEGISLATION

It shall be a breach of the terms of the contract for the Business Entity to (i) make or solicit a contribution in violation of the Legislation, (ii) knowingly conceal or misrepresent a contribution given or received; (iii) make or solicit contributions through intermediaries for the purpose of concealing or misrepresenting the source of the contribution; (iv) make or solicit any contribution on the condition or with the agreement that it will be contributed to a campaign committee or any candidate or holder of the public office of Governor, or to any State or county party committee; (v) engage or employ a lobbyist or consultant with the intent or understanding that such lobbyist or consultant would make or solicit any contribution, which if made or solicited by the business entity itself, would subject that entity to the restrictions of the Legislation; (vi) fund contributions made by third parties, including consultants, attorneys, family members, and employees; (vii) engage in any exchange of contributions to circumvent the intent of the Legislation; or (viii) directly or indirectly through or by any other person or means, do any act which would subject that entity to the restrictions of the Legislation.

7.6.4 CERTIFICATION AND DISCLOSURE REQUIREMENTS

- A. The State shall not enter into a contract to procure from any Business Entity services or any material, supplies or equipment, or to acquire, sell or lease any land or building, where the value of the transaction exceeds \$17,500, if that Business Entity has solicited or made any contribution of money, or pledge of contribution, including in-kind contributions to a candidate committee and/or election fund of any candidate for or holder of the public office of Governor, or to any State or county political party committee during certain specified time periods
- B. Prior to awarding any contract or agreement to any Business Entity, the Business Entity proposed as the intended awardee of the contract shall submit the Certification and Disclosure form, certifying that no contributions prohibited by the Legislation have been made by the Business Entity and reporting all contributions the Business Entity made during the preceding four years to any political organization organized under 26 U.S.C. 527 of the Internal Revenue Code that also meets the definition of a "continuing political committee" within the mean of N.J.S.A. 19:44A-3(n) and N.J.A.C. 19:25-1.7. The required form and instructions, available for review on the Purchase Bureau website shall be provided to the intended awardee for completion and submission to the Purchase Bureau with the Notice of Intent to Award. Upon receipt of a Notice of Intent to Award a Contract, the intended awardee shall submit to the Division, in care of the Purchase Bureau Buyer, the Certification and Disclosure(s) within five (5) business days of the State's request. Failure to submit the required forms will preclude award of a contract under this RFP, as well as future contract opportunities.
- C. Further, the Contractor is required, on a continuing basis, to report any contributions it makes during the term of the contract, and any extension(s) thereof, at the time any such contribution is made. The required form and instructions, available for review on the Purchase Bureau website shall be provided to the intended awardee with the Notice of Intent to Award.

7.6.5 STATE TREASURER REVIEW

The State Treasurer or his designee shall review the Disclosures submitted pursuant to this section, as well as any other pertinent information concerning the contributions or reports thereof by the intended awardee, prior to award, or during the term of the contract, by the contractor. If the State Treasurer determines that any contribution or action by the contractor constitutes a breach of contract that poses a conflict of interest in the awarding of the contract under this solicitation, the State Treasurer shall disqualify the Business Entity from award of such contract.

7.6.6 ADDITIONAL DISCLOSURE REQUIREMENT OF P.L. 2005, C. 271

The Contractor is advised of its responsibility to file an annual disclosure statement on political contributions with the New Jersey Election Law Enforcement Commission (ELEC), pursuant to P.L. 2005, c. 271, section 3 if the contractor receives contracts in excess of \$50,000 from a public entity in a calendar year. It is the contractor's responsibility to determine if filing is necessary. Failure to so file can result in the imposition of financial penalties by ELEC. Additional information about this requirement is available from ELEC at 888-313-3532 or at www.elec.state.nj.us.

7.6.7 SOURCE DISCLOSURE REQUIREMENTS

A. Requirements of N.J.S.A 52:34-13.2

Under the referenced statute, effective August 3, 2005, all contracts primarily for services awarded by the Director shall be performed within the United States, except when the Director certifies in writing a finding that a required service cannot be provided by a contractor or subcontractor within the United States and the certification is approved by the State Treasurer.

B. Source Disclosure Requirements

Pursuant to the statutory requirements, the intended awardee of a contract primarily for services with the State of New Jersey must disclose the location by country where services under the contract, including subcontracted services, will be performed. The Source Disclosure Certification form is located on the Advertised Solicitation, Current Bid Opportunities webpage.

C. Failure to submit Sourcing Information when Requested by the State Shall Preclude Award of the Contract to the Bidder

If any of the services cannot be performed within the United States, the bidder shall state with specificity the reasons why the services cannot be so performed. The Director shall determine whether sufficient justification has been provided by the bidder to form the basis of his certification that the services cannot be performed in the United States and whether to seek the approval of the Treasurer.

D. Breach of Contract of Executive Order 129

A SHIFT TO PROVISION OF SERVICES OUTSIDE THE UNITED STATES DURING THE TERM OF THE CONTRACT SHALL BE DEEMED A BREACH OF CONTRACT.

If, during the term of the contract, the contractor or subcontractor, who had on contract award declared that services would be performed in the United States, proceeds to shift the performance of any of the services outside the United States, the contractor shall be deemed to be in breach of its contract, which contract shall be subject to termination for cause pursuant to Section 3.5b.1 of the Standard Terms and Conditions version 07/27/07 of the RFP, unless previously approved by the Director and the Treasurer.

7.7 POST AWARD SUBMITTALS

7.7.1 STANDARD OPERATING PROCEDURES CERTIFICATION CHART AND METHOD SOPS (APPENDIX 7)

- A. For this submission, Awardees must complete and submit the Standard Operating Procedures Certification Chart provided as Appendix 7.
- B. In addition, Awardees must submit two copies of the Contractors SOPs and two copies of the Method SOPs. Method SOPs will be used to verify the procedures used by the laboratory in the validation of the analytical data generated by the laboratory. All SOPs must be submitted on CD in the PDF format from Adobe Acrobat (latest version). The CD must have the laboratory logo and name of the laboratory as a hologram on the disk. The cover slip must be sealed shut for delivery to the state.
- C. Multiple Laboratory Contractors may submit separate Contractors and Method SOPs for each laboratory under corporate control. Therefore, a Multiple Laboratory Contractor that proposes to use three different laboratories under corporate control may each submit Contractors and Method SOP manuals.

7.7.2 PERSONNEL POSITION IDENTIFICATION CERTIFICATION CHART (APPENDIX 8)

- A. For this submission, Awardees must complete and submit the Personnel Position Certification Chart provided as Appendix 8.
- B. The chart has two parts. In the first part, the Awardee must certify that the NJDEP Laboratory Certification Program administered by the NJDEP Office of Quality Assurance has reviewed and approved these personnel. In the second part, the Awardee must certify that all other required personnel meet the requirements of Section 8.5 of the Scope of Work. See Appendix 8 for a list of personnel that must be identified. The chart must be submitted in Microsoft Word format.

7.7.3 SHIPPING PLAN

The Contract Awardee must submit a Shipping Plan that describes in detail all aspects of shipping. The Shipping Plan must be submitted both in hardcopy format and electronically in Microsoft™ Word format. The Shipping Plan must include the following:

- A. A Statement of the Awardee's intent to ship by surface carrier, air carrier or both. The Shipping Plan shall identify the Awardee's intended common carrier.
- B. Examples of any paperwork, labels and placards that must be attached to the outside of the shipping container when the Contract User ships the samples back to the Awardee.

- C. The Shipping Plan will include all the details needed by Contract Users, including shipping account numbers that Contract Users will need to ship samples back to the Contractor.
- D. Directions to Contract Users on packing canisters into a shipping container and completing required paperwork.

7.7.4 ENGAGEMENT TIME FRAME DOCUMENT

The Contractor shall establishment notification time frame for the ordering and cancellation of canisters by State Contract Manager for any sampling event. The time frame notification document shall be sent to the State Contract Manager within fifteen (15) days for approval after award of the contract. The State Contract Manager shall provide a copy of this information to the Contract Users. See Section 8.11 for the requirements of the document.

The Engagement Time Frame Document must be submitted in both hardcopy format and electronically in Microsoft™ Word format.

7.7.5 SHIPMENT AND PICKUP CHARGES BEYOND NORMAL DELIVERY DOCUMENTATION SUBMITTAL REQUIREMENTS

If the Contractor has a contract with the Third Party Common Carrier for shipping costs to and from their facility(ies) a current copy of these charges must be forwarded to the State Contract Manager within fifteen (15) days for approval after award of the contract. The State Contract Manager shall provide a copy of this information to the Contract Users. This information must be submitted in hardcopy format and electronic format. See Section 8.17 for additional information.

7.7.6 SAMPLE CONTAINER REQUEST FORM

The Contractor must develop and utilize a Sample Container Request Form for this contract. This form sent to the Contract User and the State Contract Manager when the final order for canisters is verified by the State prior to canister shipment. A copy of the form must be included in the canister shipment. The format of the form will be approved by the State Contract Manager upon award of the contract. This Sample Container Request Form document shall be sent to the State Contract Manager within fifteen (15) days for approval after award of the contract. This information must be submitted in hardcopy format and electronic format. See Section 8.12.1 for the requirements.

- 7.7.7 Any other documentation of the bidder's proposal which is requested by this RFP or otherwise required by the State and which is still outstanding.

8.0 **SCOPE OF WORK**

The purpose of this contract is to perform Laboratory Analysis of Ambient Air for volatile organics in accordance with USEPA Method 3C and 25C with all the modifications specified by this contract and the NJDEP-SRWM Low Level USEPA Method TO-15 (NJDEP- LLTO-15).

8.1 **CERTIFICATION REQUIREMENTS**

All environment laboratories performing work under this contract must meet the following certifications:

“NJDEP-SRWM Low Level USEPA Method TO-15 (NJDEP- LLTO-15)” (effective March 2007). Laboratories can only satisfy NJDEP Environmental Laboratory Certification for NJDEP-LLTO-15 by holding NJDEP Environmental Laboratory Certification (NJ ELCP) or NJDEP Primary National Environmental Laboratory Accreditation Program (NELAP) Accreditation or NJDEP Secondary NELAP Accreditation.

USEPA Method 3C – “Determination of Carbon Dioxide, Methane, Nitrogen and Oxygen from Stationary Sources” Laboratories may satisfy the certification requirements for USEPA Method 3C by holding either NJDEP NJ ELCP, NJDEP Primary NELAP Accreditation or NJDEP Secondary NELAP Accreditation. For NELAP Accreditation, a mixture of primary and secondary accreditations can be used.

USEPA Method 25C – “Determination of Non Methane Organic Compound (NMOC) in Landfill Gases” Laboratories may satisfy the certification requirements for USEPA Method 25C by holding NJDEP NJ ELCP, NJDEP Primary NELAP Accreditation or NJDEP Secondary NELAP Accreditation. For NELAP Accreditation, a mixture of primary and secondary accreditations can be used.

The required NJDEP Environmental Laboratory Certifications (NJ ELCP & NJDEP NELAP) are specified in Appendix 4.

Information regarding certification can be obtained by contacting the Office of Quality Assurance, PO Box 424, Trenton, New Jersey, 03625-0424, Phone (609) 292-3950. (See Section 6.3.4 for additional information). The Office of Quality Assurance website is <http://www.nj.gov/dep/oqa/>.

8.2 **GENERAL GUIDANCE AND CONSIDERATIONS**

8.2.1 Contractors must perform all the analysis specified in this RFP and on the Price Schedules (Attachment G).

8.2.2 The NJDEP-LLTO-15, USEPA Method 25C and USEPA Method 3C are the only acceptable analytical methods under this Contract. The Contractor must not substitute or alter analytical methods.

8.2.3 The Contractor must perform analysis in accordance with the requirements specified in this RFP and in accordance with the New Jersey Laboratory Certification regulations N.J.A.C. 7:18-5.4.

8.2.4 Contractors awarded contracts must perform all analytical services within their own facilities. This contract prohibits joint ventures and subcontracting.

- 8.2.5 Contractors are required to deliver Analytical Data Packages within the 48 hour time period, seven (7) or fourteen (14) calendar days from sample receipt. The time frame for data package delivery will be specified by the State Contract Manager at the time of engagement.

8.3 ANALYTICAL PROTOCOLS

The analytical methods cited in the RFP and on the Price Schedules (Attachment 9) comprise the only acceptable analytical methods. The Contractor may not substitute or alter the analytical method. Employing similar methods is not acceptable. NJDEP will not pay when the Contractor fails to use the analytical method specified in the RFP or when the Contractor adds or deletes analytes without the approval of the NJDEP State Contract Manager.

- 8.3.1 A complete copy of the NJDEP-LLTO-15 method and the required deliverables can be downloaded from the NJDEP Vapor Intrusion (VI) web site at <http://www.nj.gov/dep/srp/guidance/vaporintrusion/>.
- 8.3.2 This RFP references pertinent sections of the USEPA Method 3C. The entire method is downloadable from the USEPA website at <http://www.epa.gov/ttn/emc/promgate.html>. This contract modifies various sections of the methods to meets program needs within the State.
- 8.3.3 This RFP references pertinent sections of the USEPA Method 25C. The entire method is downloadable from the USEPA website at <http://www.epa.gov/ttn/emc/promgate.html>. This contract modifies section of the methods to meets program needs within the State.
- 8.3.4 Samples for NJDEP-LLTO-15 Method will be collected primarily from indoor ambient air locations or subslab locations. However, samples may also be collected from landfills vents, air strippers, or other treatment systems that generate air emissions from hazardous waste sites. Samples will not be collected from major industrial sites for monitoring permitted air emissions.
- 8.3.5 Samples for USEPA Method 3C will be collected primarily from landfill vents. However, samples may be collected from air strippers, or other treatment systems that generate air emissions from hazardous waste sites. Samples will not be collected from major industrial sites for monitoring permitted air emissions.
- 8.3.6 Samples for USEPA Method 25C will be collected primarily from landfill vents. However, samples may be collected from air strippers, or other treatment systems that generate air emissions from hazardous waste sites. Samples will not be collected from major industrial sites for monitoring permitted air emissions.
- 8.3.7 Contractors must meet and maintain the analytical protocol requirements required in the New Jersey Regulations Governing the Certification of Laboratories and Environmental Measurements (N.J.A.C. 7:18).

8.4 CONTRACT ADMINISTRATION AND MANAGEMENT

- 8.4.1 There are three components in the administration of this contract: 1) the NJDEP State Contract Manager; 2) the Contract Users; and 3) the Contractor. The State Contract Manager provides central contract administration and coordination among the various Contract Users and the Contractor. The Contract Users consist of the various State agencies, bureaus and offices that will engage the Contractor. The Contractor performs all work under the contract, including, and not limited to, preparation and shipment of

sample bottles to the Contract User, shipment of samples to the laboratory, analysis, and delivery of data reports.

8.4.2 RESPONSIBILITIES OF STATE CONTRACT MANAGER

- A. The State Contract Manager is responsible for the overall administration and coordination of the contract including communication, maintenance of documentation and coordination of individual engagements.
- B. The State Contract Manager is responsible for monitoring the certification status of the Contractor to ensure conformance with certification requirements.
- C. The State Contract Manager will issue Stop Work Orders (SWO) and suspensions when the State Contract Manager determines that the Contractor is not complying with the terms of the contract.
- D. The State Contract Manager will process New Jersey State Using Agency Formal Complaints (PB-36s) to the New Jersey Department of the Treasury when contract non-compliance issues arise that cannot be resolved directly between the State Contract Manager and the Laboratory. The State Contract Manager may initiate other actions against Laboratories including initiation of termination upon completion of investigations.
- E. The State Contract Manager will recommend and disseminate any modifications to technical and non-technical terms and conditions of the contract to Contractor and Contract Users. Any modification to the contract will be by formal change order in accordance with Section 6.5.6.
- F. Contractor and Contract Users must direct all questions and issues regarding the contract to the State Contract Manager.
- G. The State Contract Manager will process all non payment issues to the contract.

NJDEP STATE CONTRACT MANAGER		
MS. KATHLEEN M. GRIMES NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION SITE REMEDIATION PROGRAM OFFICE OF DATA QUALITY PO BOX 0413 TRENTON NJ 08625-0413		
PHONE: 609-633-2355	TELEFAX: 609-292-0848	INTERNET: Kathleen.Grimes@dep.state.nj.us

8.4.3 RESPONSIBILITIES OF THE CONTRACTOR

- A. The Contractor communicates with both the State Project Manager and Contract User.
- B. The Contractor coordinates all engagements with the State Contract Manager and/or the Contract User. The Contractor shall inform the State Contract Manager of their weekly sample capacity.
- C. The Contractor shall provide the State Contract Manager with written notification of any engagement refusal by telefax and letter. Notification must detail the reasons for

engagement refusal. Refusal of more than two (2) consecutive engagements may result in temporary suspension until the Contractor can demonstrate the ability to perform under the contract.

- D. The Contractor shall resolve minor problems and disputes through the State Contract Manager and/or the Contract Users.
- E. The Contractor shall respond to all questions and requests for information from the State Contract Manager and/or Contract User.
- F. The Contractor shall provide written notification to the State Contract Manager within 48 hours of receipt of any adverse action taken against the Contractor by any Federal, State, or Municipal entities affecting or with the potential for affecting the Contractor and its ability to perform services under this contract.
- G. The Contractor shall provide written notification to the State Contract Manager and the New Jersey Environmental Laboratory Certification Program within five (5) calendar days of initiating steps to merge with, or be acquired by another laboratory. The Contractor shall provide written notification of the completion of any merger, or acquisition within five (5) calendar days. See Section 6.7.4, which specifies information that must be submitted to the New Jersey Department of the Treasury. Failure to provide such notification will result in a contract suspension until such times as written information is provided. N.J.A.C. 7:18 2.13 also sets forth requirements for notification to the NJDEP.
- H. The Contractor shall submit a Standard Operating Procedure (SOP) certification chart and copies of all Method SOPs in accordance with Sections 7.7.1 & 8.6 of this contract. The Contractor shall perform all subsequent work in accordance with the approved Method SOPs.
- I. The Contractor shall submit a Sample Engagement Shipment Notification Time Frame Schedule to the State Contract Manager in accordance with Section 8.11 of this Contract.
- J. The Contractor shall submit the Personnel Position Identification Certification Chart (Section 7.7.2) to the State Contract Manager within fifteen (15) days of award. The Contractor must submit a new chart for the addition of any secondary corporate network laboratory.
- K. The Contractor shall submit all personnel changes to the State Contract Manager within fifteen (15) days of personnel assignment. The notification must include all required contract documentation supporting the change and a revised Personnel Position Identification Certification Chart.

8.4.4 RESPONSIBILITIES OF CONTRACT USERS

- A. Contract Users may contact the Contractor regarding the initiation of any engagement. All communication with the Contractor must be documented by Email to the State Contract Manager.
- B. Contract Users shall submit sample engagement information to the State Contract Manager.

- C. Contract Users will engage the Contractor and provide the Contractor with sufficient information about the sampling event to ensure correct number of samples bottles by the Contractor.
- D. Contract Users will work with the State Contract Manager to resolve all minor problems and disputes with the Contractor.
- E. Contract Users shall coordinate sample distribution among multiple Contractors if necessary.
- F. Contract Users shall process any New Jersey State Using Agency Formal Complaints (PB-36s) through the State Contract Manager.
- G. Contract Users shall contact the State Contract Manager regarding any non-payment issue.

8.4.5 LINES OF COMMUNICATION

Communication between State Contract Manager, Contract Users and the Contractor depends on whether the Contractor operates a single Contractor or operates multiple laboratories.

A. Single Contractor Communications

A Contractor performing work under this contract may have only one laboratory. This Contractor is referred to as a Single Laboratory.

This contract restricts all communication to between the NJDEP State Contract Manager, Contract User and a Single Laboratory as set forth in the table below. Communications outside these channels may jeopardize payment to the Contractor.

SINGLE CONTRACTOR COMMUNICATIONS CHANNELS		
STATE OF NEW JERSEY	LABORATORY	PURPOSE
NJDEP State Contract Manager	Laboratory Director QA Officer Project Manager	Routine communications Non-routine communications Sample engagement refusal Monthly sample status reports Major dispute resolution Non payment notification Reimbursement requests Suspension or termination Other NJDEP adverse actions Change Orders Engagement and payment Analysis status Minor dispute resolution Data rejection issues
Contract Users	QA Officer Project Manager	Engagement Shipping status Data Validation Questions Payment Minor dispute resolution

Purchase Bureau, Treasury	Laboratory Director Project Manager	Termination issues Major changes in terms and conditions of the contract PB-36 -- NJ State Using Agency formal complaint report resolution
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NOTE: No direct communications are authorized between Contract Users and any Contractor personnel cited in Section 8.5.

B. Multiple Laboratory Contractor Communications

A Contractor performing work under this contract may have two or more laboratories qualified to perform work under this contract. This arrangement is permitted only if the laboratories are owned by or are subsidiaries to a single corporate owner. Subcontracting and joint ventures are not allowed under this contract. A Contractor with two or more laboratories is referred to as a Multiple Laboratory Contractor.

This contract restricts all communications to between the NJDEP State Contract Manager, Contract Users and the Multiple Laboratory Contractor as set forth in the table below. Communications outside these channels may jeopardize payment to the Multiple Laboratory Contractor.

For communication purposes, this contract requires a Multiple Laboratory Contractor to establish a central point of communication or headquarters that will be the focus of all contact between NJDEP State Contract Manager, Contract Users and the various laboratories operated by the Multiple Laboratory Contractor. Therefore, this contract requires a Multiple Laboratory Contractor to establish and identify specific personnel who will be the focus of communications for the Multiple Laboratory Contractor and through whom engagements and conflict resolution will flow. NJDEP State Contract Manager or Contract Users will only contact the individual laboratory personnel of a Multiple Laboratory Contractor only with the concurrence contact with the headquarters laboratory.

The NJDEP State Contract Manager and Contract Users will direct all engagements and payment issues to the Laboratory's central headquarters staff. Questions regarding any analytical work will be coordinated with the central headquarters staff and the secondary laboratory designated staff. It will be the Multiple Laboratory Contractor's central headquarters or corporate staff's responsibility to coordinate communications among the Multiple Laboratory Contractor's various laboratories and the NJDEP State Contract Manager and Contract Users.

MULTIPLE LABORATORY COMMUNICATIONS CHANNELS		
STATE OF NEW JERSEY	LABORATORY	PURPOSE
NJDEP State Contract Manager	Corporate Laboratory Director (HQ Lab) Corporate QA Officer (HQ Lab) Corporate Project Manager (HQ Lab)	Routine communications Non-routine communications Sample engagement refusal Monthly sample status reports Major dispute resolution Nonpayment notification & Reimbursement requests Terminations Other NJDEP adverse actions Change Orders Engagement and payment Analysis status Minor dispute resolution Data rejection issues
Contract Users	QA Officer Project Manager	Engagement Shipping status Data Validation Questions Payment Minor dispute resolution
Purchase Bureau, Treasury	Corporate Laboratory Director (HQ Lab) Corporate Project Manager (HQ Lab)	Termination issues Major changes in terms and conditions of the contract PB-36 – NJ State Using Agency formal complaint report resolution

NOTE: No direct communications are authorized between Contract Users and any Contractor personnel cited in Section 8.5 or outside the designated corporate headquarters staff.

8.5 PERSONNEL REQUIREMENTS

8.5.1 PERSONNEL AND LABORATORY OPERATIONS

Single and Multiple Laboratory Contractors shall have sufficient properly qualified personnel commensurate with the workload and types of analyses needed to comply with Regulations Governing Laboratory Certification and Environmental Measurements, N.J.A.C. 7:18-2.10 and the requirements of this contract.

8.5.2 SUPERVISORY LABORATORY PERSONNEL REQUIREMENTS

The Contractor must have personnel that can fill the requirements of the Supervisory Personnel identified in this Section. The term "Corporate" applies to Multiple Contractor Laboratories.

SUPERVISORY PERSONNEL CONVERSION CHART		
POSITION	MULTIPLE LABORATORY CONTRACTOR	SINGLE LABORATORY CONTRACTOR
A.	Laboratory Director (Manager)	Laboratory Director (Manager)
B.	Assistant Laboratory Director (Assistant Laboratory Manager)	Assistant Laboratory Director (Assistant Laboratory Manager)
C.	Corporate Project Manager	Project Manager
D.	Corporate Quality Assurance Officer	Quality Assurance Officer
E.	Alternate Corporate Quality Assurance Officer	Alternate Quality Assurance Officer
F.	Corporate Document Control Officer	Document Control Officer

A. Laboratory Director (Manager) or Designee

1. This individual must have sufficient experience to supervise the day-to-day operations of the entire laboratory. This individual is responsible for performing the duties described in N.J.A.C. 7:18-2.11(a) 1. The Laboratory Manager of the headquarters laboratory shall sign DEP Form A-1A, (See Appendices 1 - 3 for the DEP form A-1A) with the Corporate Quality Assurance Officer (QAO), releasing all data packages.
2. If an approved secondary network corporate laboratory is used by the Contractor for a sampling event, the Laboratory Manager at the secondary laboratory shall sign DEP Form A-1A for all work conducted by that laboratory.

B. Assistant Laboratory Director (Manager)

1. This individual must have sufficient experience to supervise the day-to-day operations of the entire laboratory. This individual is responsible for performing the duties described in N.J.A.C. 7:18-2.11(a) 1 on an interim basis.
2. The Assistant Laboratory Director (ALD), located at the headquarters laboratory shall sign DEP Form A-1A with the Corporate QAO, releasing all data packages during short term absences of the Laboratory Director. The ALD must notify the State Contract Manager in writing, providing the reason for assumption of duties, and the anticipated duration.
3. If an approved secondary network corporate laboratory is used by the Contractor for a sampling event, the ALD at the secondary shall sign DEP Form A-1A for all work conducted by that laboratory.

C. Contract Project Manager/Assistant Corporate Project Manager

1. This individual serves as one of the coordination points of contact with the using agency for any contract issue involving both quality assurance and non-quality assurance issues. Responsibilities include, engagements, purchase orders, and other non-quality assurance related correspondence. Multiple Contractor Laboratories must locate the project manager and assistant project manager at the headquarters laboratory.

2. If an approved secondary network corporate laboratory is used by the Contractor for a sampling event, a Project Manager can be designated at the secondary laboratory. The secondary laboratory Project Manager shall coordinate all activities under this contract with the Project Managers at the headquarters laboratory.

D. Corporate Quality Assurance Officer/Quality Assurance Officer or Designee

1. The Contractor shall have a Corporate Quality Assurance Officer (CQAO) or a Quality Assurance Officer (QAO) reporting directly to corporate management. The CQAO/QAO has responsibility for ensuring that all Assistant Quality Assurance Officers (AQAO, See Section 8.5.3), execute corporate quality control and quality assurance protocols in exactly the same manner. This individual is responsible for the duties described in N.J.A.C. 7:18-2.11(a) 3. For Multiple Contractor Laboratories, the CQAO/QAO must be located at the headquarters laboratory.
2. The CQAO/QAO or Assistant QAO shall signs DEP Form A-1A for all work conducted at the headquarters laboratory
3. The Assistant QAO is authorized to approve (sign off) internal QA documentation when releasing information to the CQAO.
4. The CQAO can simultaneously serve as the QA Officer of the corporate headquarters laboratory.
5. The CQAO/QAO serves as one of the coordination points of contact with the NJDEP State Contract Manager for all quality assurance issues.
6. If an approved secondary network corporate laboratory is used by the Contractor for a sampling event, the Quality Assurance Officer at the secondary laboratory shall sign DEP Form A-1A for all work conducted by that laboratory.

E. Alternate Corporate Quality Assurance Officer

1. The Contractor shall designate an Alternate Corporate Quality Assurance Officer (ACQAO) or an Alternate Quality Assurance Officer (AQAO).
2. The ACQAO/AQAO may serve in any other QA position. If the ACQAO/AQAO serves as a laboratory supervisor or analyst, he/she shall not review his/her own work.
3. If an approved secondary network corporate laboratory is used by the Contractor for a sampling event, the Alternate Quality Assurance Officer at the secondary laboratory shall sign DEP Form A-1A for all work conducted by that laboratory.

F. Corporate Document Control Officer/Document Control Officer

1. The Contractor shall designate a Corporate Document Control Officer (CDCO)/Document Control Officer (DCO) reporting to corporate management. The CDCO/DCO has the responsibility for all aspects of the organization, assembly, consistency and shipping of the Ambient Air Regulatory Format Data Package.

2. The CDCO/DCO has responsibility for supervising the activities of all Assistant Document Control Officers.
3. The CDCO/DCO can serve in any other position in the laboratory.
4. If an approved secondary network corporate laboratory is used by the Contractor for a sampling event, a Project Manager can be designated at the secondary laboratory. The secondary laboratory Project Manager shall coordinate all activities under this contract with the Project Managers at the headquarters laboratory.

G. Sample Custody Officer

1. The Contractor shall designate a Sample Custody Officer (SCO) reporting to corporate management. The SCO has responsibility for all aspects of sample receipt, log-in, internal security (chain of custody), and distribution of the sample or extracts, as well as, documentation of the fate of the sample (consumption, destruction, or disposal).
2. The SCO has responsibility for supervising the activities of all Assistant Sample Custodians.
3. The SCO shall have a minimum of six (6) months experience in the sample receiving, log-in, chain of custody documentation and internal sample transfer.

H. Data Base Manager (DBM)

The Contractor shall designate a Data Base Manager (DBM) reporting to corporate management. The DBM has the responsibility for maintaining archives of electronic data. The DBM has the responsibility of system operation and maintenance, data base integrity, and data and system security.

I. GC/MS Supervisor

The GC/MS Supervisor shall meet the requirements of N.J.A.C. 7:18-2.10(a), N.J.A.C. 7:18-2.10(b) 9 and N.J.A.C. 7:18 2.10(b) 4 & 7.

J. GC Supervisor

The GC Supervisor's duties shall include the requirements of N.J.A.C. 7:18-2.10(a), N.J.A.C. 7:18-2.10(b) 9 and N.J.A.C. 7:18-2.11(a) 2.

K. Substitution of Supervisory Personnel

Contractors shall have sufficient personnel to substitute for absent supervisors.

8.5.3 NONSUPERVISORY PERSONNEL REQUIREMENTS

The Contractor shall have sufficient personnel, having the necessary education, training, technical knowledge and experience for their assigned functions.

All personnel shall be responsible for complying with all quality assurance/ quality control requirements that pertain to their organizational/ technical function. Each Contractor staff

member must have a combination of experience and/or education to demonstrate adequate knowledge of their particular function and a general knowledge of laboratory operations, analytical methods, quality assurance/quality control procedures and resource management.

A. Quality Assurance Officer (QAO)

The Quality Assurance Officer (QAO) shall report directly to the Corporate QAO for execution of corporate quality control and quality assurance protocols. This individual will serve as the quality assurance officer for subordinate laboratories for Multiple Laboratory Contractors. This individual is responsible for the duties described in N.J.A.C. 7:18-2.11(a) 3.

B. Assistant Sample Custody Officer

1. The Assistant Sample Custody Officer (ASCO) shall report directly to the Sample Custody Officer (SCO) for the execution of corporate sample custody procedures. The ASCO serves as an additional SCO within the laboratory, or for subordinate laboratories for Multiple Contractor Laboratories. The ASCO is responsible for assisting the SCO.
2. The ASCO shall have a minimum of three (3) months experience in sample receiving, sample log-in, chain of custody documentation and internal sample transfer.

C. Assistant Document Control Officer

The Assistant Document Control (ADCO) shall report directly to the Document Control Officer (DCO) for the execution of corporate document control procedures. The ADCO is responsible for assisting the DCO.

D. GC/MS Operator

The GC/MS Operator shall meet the requirements of N.J.A.C. 7:18-2.10(b)8 & 9.

E. GC Operator

The GC Operator shall have a minimum of a Bachelor's degree in chemistry or any other science, formal training in gas chromatography, one (1) year experience in the operation and maintenance of gas chromatogram instruments. The analyst can substitute an additional three (3) years experience in the operation, maintenance, and interpretation of GC data for the BS degree.

8.6 STANDARD OPERATING PROCEDURES MANUAL (SOP)

Before a final contract is awarded, recommended Contract Awardees will be required to submit a Standard Operating Procedures Manual Certification chart (Appendix 7). On this form, the Awardees must certify that their SOP manual, as it applies to this contract is in compliance with the New Jersey Regulations Governing the Certification of Laboratories and Environmental Measurements N.J.A.C. 7:18. In addition, Awardees must certify that other sections of their SOP manual that are not required by the New Jersey regulations have been modified to conform to the requirements of this contract as specified in this RFP. If the NJDEP State Contract Manager discovers that those certifications are false, it shall form a basis to suspend or terminate contract award,

suspend the Contractor from performing work, and may form a basis to issue a formal complaint concerning the Contractor and potentially terminate the contract.

If the Contractor adds a secondary laboratory to the contract at a later date, SOPs must also be submitted as part of the approval documentation.

8.6.1 SOP DOCUMENT

The Contractor shall maintain one (1) corporate SOP manual reflecting all activities specified in this contract. The SOP Manual shall include analytical protocols as specified by the analytical method and shall include any additional restrictions or requirements specified by New Jersey Regulation N.J.A.C. 7:18-5.5 (a) & (b). Individual Laboratory Directors (Managers) and the Corporate Quality Assurance Officers are responsible for ensuring that all corporate facilities employ the same SOP document. The SOP Manual shall include all the information submitted in accordance with Section 7.9.F of this contract.

8.6.2 SOP MANUAL AVAILABILITY

The SOP Manual **MUST** be available to the Department during on-site contract compliance inspections or submitted to the Department upon written request. If during an onsite audit inspection and after a review by the NJDEP State Contract Manager, the Contractor's SOP is found to be non-compliant with either the requirements of N.J.A.C. 7:18 or this contract, the Contractor shall be suspended for all contract work until the deficiencies have been rectified and corrected or approved by the NJDEP State Contract Manager.

Data generated under this contract must conform to the SOP Manual procedures and outputs and the terms of this contract. If not, the Contractor shall be suspended for all contract work until deficiencies have been rectified and approved by the State Contract Manager.

8.6.3 PERSONNEL FAMILIARITY

Contractor personnel shall be familiar with the portions of the SOP manual that apply to their function and shall be able to demonstrate the application of the SOP to the NJDEP State Contract Manager and the NJDEP Office of Quality Assurance during an announced or unannounced inspection of the facility. Personnel having oversight responsibility for the various laboratory operations must be identified by title within the SOPs for their areas of responsibility.

8.6.4 SOP STRUCTURE AND FORMAT

The SOP manual must present a section specifying and defining any Contractor specific acronyms and terms. Each section and procedure provided in the SOP manual must be complete and include all elements and components of the procedure. SOP manual procedures may not cross reference to other procedures. The SOP manual must address the following requirements in detail:

The SOP must be submitted on a Compact Disc (CD) must have the laboratory logo and name of the laboratory as a hologram on the disc label. The SOP can be presented in one of the following manners:

- In Microsoft Word with a defined Table of Contents that is searchable by Section

title.

- In Adobe Acrobat format with bookmarks for all the required sections.

Any time the Contractor revises a section of the SOP, a complete copy of the SOP must be submitted on a compact disc.

8.6.5 CHAIN OF CUSTODY PROCEDURES

- A. SOP manual must detail all aspects of external and internal chain of custody. The SOP manual must include exhibits properly completed NJDEP Chain of Custody Forms (DEP Forms 077 and 095C). NJDEP has developed a customized "Air Methods External Chain of Custody/Field Test Data Sheet" (DEP Form 095D) that addresses methods in the RFP. This External Chain of Custody combines the required information from NJDEP-LLTO-15 Field Test Data Sheet (FTDS) and creates one form.
- B. The option does exist for the Contractor to use the NJDEP Chain of Custody Forms 095C in combination with the NJDEP-LLTO-15 Field Test Data Sheet (FTDS) in lieu of the NJDEP Chain of Custody 095D Form. If this option is chosen, the Contractor initiates the Field Test Data Sheet upon shipping of the canisters to the Contract User. The Contract User completes their section of the Sheet and then returns it with the canisters to the Contractor. The Contractor will send the original form back to the Contract User and include copies of the form in the data report submittals.
- C. The NJDEP Chain of Custody 095D Form does not replace the combined NJDEP Field Test Data Sheet for Methods 3C/25C that is required when samples are collected for these analyses. The Contractor initiates the Field Test Data Sheet upon shipping of the canisters to the Contract User. The Contract User completes their section of the Field Test Data Sheet and then returns it with the canisters to the Contractor. The Contractor will send the original form back to the Contract User and include copies of the form in the data report submittals.
- D. Laboratories may use bar codes on internal chain of custody documents provided preprinted identification numbers appear on the bar code form. Access to the personnel-specific bar coding must be password protected. Personnel must sign custody documents. All signatures must be full names (first and last names) and be legible. Stamped signatures are not acceptable. See Section 8.22.6 of this RFP. The use of computer generated internal chain of custody forms post award will be allowed. Date and times must also be provided and must be legible.

8.6.6 CLEAN CANISTER CERTIFICATION REQUIREMENTS - ALL METHODS

The SOP manual must present procedures for method specific and contract required clean canister certification. The method specific clean canister certification procedures are detailed in the requirements for each method in this RFP.

8.6.7 CANISTER PREPARATION AND SHIPMENT PROCEDURES

The SOP manual must present procedures for the preparation of canisters for each method. This SOP must address canister type, packaging, labeling, custody seals, as well as shipment from the Contractor's facility. Canister serial numbers must be use for all canister tracking procedures.

The SOP must address how the sample canisters and flow controllers are linked together and how they are tracked.

8.6.8 CLEAN CANISTER CERTIFICATION PROCEDURES

- A. The SOP manual must clearly specify how canisters are certified clean for each method. The clean canister certification procedures are detailed for each method in sections below.
- B. The procedures for choosing which canister is to be used for clean canister certification must be identified. The tracking procedures for linking a canister used for certification to a particular batch of canisters must be discussed. The tracking procedures must be clearly defined linking the laboratory sample ID numbers, data file numbers and canister serial number. The use of field ID numbers for the tracking of canister is prohibited in any data submitted for clean canister certification. The summary submitted by the Contractor must clearly define the links between canister numbers, laboratory file IDs and data files submitted in support of clean canister certification.
- C. The canister chosen for the clean canister certification in each batch must be certified clean prior the shipping of the canisters to the Contract Users. Failure to certify the canister used for batch certification as clean prior to shipping of the canisters to the field will result in automatic rejection of the entire set of canisters associated with the improperly certified canister.

8.6.9 SAMPLE RECEIPT AND LOG-IN PROCEDURES

- A. The SOP manual must detail receipt, examination and log in of samples received from the Contract Users. The SOP manual must contain a checklist, insuring that all incoming samples are examined in the same manner and indicate how receipt and login procedures differ from login procedures used for other clients. The required components of the checklist are in Section 8.22.2.
- B. The SOP manual must establish procedures for after hours receipt and insure that access to the samples is restricted to the Sample Custodians. The SOP manual must bar analysts from access to sample storage facilities. The SOP manual must indicate that the Sample Custodian is responsible for initiation of internal chain of custody. The SOP manual must include instructions for completion of all associated forms and documents, as well as, exhibits of properly completed forms. If the Contractor operates more than one shift, the SOP manual must specify that appropriate sample custody personnel will be present during that shift.
- C. The SOP must address how the sample canisters and flow controllers are linked together and how they are tracked. The SOP must address how the canister serial numbers, laboratory sample ID numbers and field ID numbers are linked and tracked.

8.6.10 SAMPLE IDENTIFICATION AND STORAGE PROCEDURES

- A. The SOP manual must include procedures for the assignment of sample identification numbers, assignment of storage locations and methods of tracking the sample within the Contractor's facility. The SOP manual may allow the use of stick-on labels with sample identification bar codes applied to NJDEP Chain of Custody forms to identify and transfer samples provided the stick-on bar code labels have

preprinted sample numbers. Signatures must appear on all NJDEP Chain of Custody forms documenting storage and transfers. All signatures must be full names (first and last names) and be legible. Dates and time requirements must also be documented and be legible.

- B. The SOP must address how the sample canisters and flow controllers are linked together and how they are tracked. The SOP must address how the canister serial numbers, laboratory sample ID numbers and field ID numbers are linked and tracked.
- C. The SOP must address that flow controllers must have serial numbers and how they are linked with the canisters and how they are tracked.

8.6.11 SAMPLE AND LABORATORY CONTAMINATION AVOIDANCE PROCEDURES

The SOP manual must include procedures to prevent potential cross contamination of samples in the Contractor due to leaks, spills or accidents within the laboratory. The SOP manual must present procedures for notifying management of laboratory and/or sample contamination.

8.6.12 REAGENT & STANDARD PURITY, PREPARATION, & STORAGE PROCEDURES

- A. The SOP manual must meet the requirements of N.J.A.C. 7:18 5.4(a) for reagent and standards purity, preparation and storage.
- B. Gas standards are required for all target analytes in the contract. The use of the required gas standards from the commercial suppliers must be addressed in the SOP. See Sections 8.34.7, 8.35.7 & 8.36.4 of the RFP for further information.
- C. Original Certificate of Analysis (C of A) from the supplier for each lot must be maintained in the air portion of the Contractor's facility until the lot is exhausted. Then the certificates must be sent to the Contractor's QA Office for storage. Copies of specific lot certificates used in the analysis of the samples for a particular Sample Delivery Group must be included in the analytical data package. See Method Specific Data Reporting Format (Appendices 1-3) for the section requirements.

8.6.13 ANALYTICAL PROCEDURES FOR ANALYSES PERFORMED UNDER THE CONTRACT

The SOP manual must include a copy of each analytical method, which encompasses all aspects of the method and all requirements of this contract. The requirements of each method cannot be combined together. Each method must consist of a separate stand-alone document.

8.6.14 METHOD DETECTION LIMIT, MINIMUM DETECTABLE CONCENTRATION, PRECISION & ACCURACY, DETERMINATION PROCEDURES

- A. The SOP manual must have procedures that comply with N.J.A.C. 7:18-5.5 entitled Quality Control/Quality Assurance Requirements and N.J.A.C. 7:18.5.5 (c)10. The Contractor must determine MDLs in accordance with procedures set forth in 40 CFR 136, Appendix B, entitled Definition and Procedures for the Determination of the Method Detection Limit, Revision 1.11. The Contractor must maintain and make available to the Department's Office of Quality Assurance and the State Contract

Manager any data generated and used for establishing MDLs, precision and accuracy.

- B. This contract requires the MDL determination to be conducted yearly for all methods and current studies must be reported in the analytical data packages. The year period for the study begins with the date the Contractor's Quality Assurance Officer signs off on the MDL Study. The MDL study must be completed and approved prior to analysis of samples and can only be associated with samples analyzed after the date of sign off. Each method under this contract has specific reporting requirements for the MDL study. See the requirements for each method as provided below in method specific sections in the contract.
- C. All information except for signatures must be computer generated or typed. All data shall be reported in the correct units for the method.

The units for Method 3C are % v/v.

The unit for Method 25C is ppmC.

The units for Method NJDEP-LLTO-15 are ppbv.

- D. The MDL study for each method must be presented individually. The information required for each method is the same except for the units being reported.
- E. The MDL study that was submitted to NJDEP Office of Quality Assurance must be submitted as part of this contract.
- F. The information must be provided in a Tabular format and all the required data must be for each analyte must be on one page. The information provided for each compound must include the following:

The required format of the Summary is as follows:

Top of Page Information

- Laboratory Name
- Laboratory Location
- Matrix Type
- Effective Date/Expiration data of MDL Study
- Instrument ID and Column ID

Required Columns

- Compound name
- Data for seven replicates
- Mean value
- True Value
- Percent recovery
- Standard deviation
- Method Detection Limits
- Reporting Limits
- True Value/MDL Ratio
- RL/MDL Ratio

Top or Bottom of Page Information

- Analyst name and date analyzed
- Reviewed by name and date
- Report preparer's name and date prepared
- QA Officer name and date signed

8.6.15 METHOD DETECTION LIMIT VERIFICATION SUMMARY (MDLV)

- A. The Verified Method Detection Limit Verification Summary (MDLV Summary) must be submitted with the Method Detection Limit Study for each method. Current studies must be reported in the analytical data packages. The year period for the study begins with the date the Contractor's Quality Assurance Officer signs off on the MDL Study. The MDLV study must be completed and approved prior to analysis of samples and can only be associated with samples analyzed after the date of sign off.
- B. The MDLV study for each method must be presented individually. The information required for each method is the same except for the units being reported. See the method specific sections in the contract.

The units for Method 3C are % v/v.

The unit for Method 25C is ppmC.

The units for Method NJDEP- LLTO-15 are ppbv.

- C. All information except for signatures must be computer generated or typed. All data shall be reported in the correct units for the method.
- D. The MDL study that was submitted to NJDEP Office of Quality Assurance must be submitted as part of this contract.
- E. The information must be provided in a Tabular format and all the required data must be for each analyte must be on one page. The information provided for each compound must include the following:

The required format of the Summary is as follows:

Top of Page Information

- Date of verification study
- Analysis method
- Cleanup method (if applicable)
- Study Identification file name
- Matrix
- Analysis level
- Analyst name
- Approval by QA Officer (name and date)

Required Columns

- Analyte name
- CAS number
- MDLV source
- Source study

- Source instrument
- Source analysis date
- MDLV
- Reporting Limit
- QL/MDLV ratio

8.6.16 REPORTING LIMITS – ALL METHODS

The Contractor is referred to the Reporting Limit Section of each method located in the RFP for the requirements.

8.6.17 WATER MANAGEMENT

The Contractor must provide the water management procedures that they will be employing in the analysis of the samples. The Contractor must implement water management procedures for the analysis of all NJDEP-LLTO-15 samples. Prior to the analysis of any samples or standards, the Contractor must ensure that the proper procedures are in place. Submittal of samples that exhibit evident of poor water management in the GC/MS system cannot be submitted to the state for any purpose.

8.6.18 TECHNICAL AND MANAGERIAL REVIEW (DATA VALIDATION) PROCEDURES

The SOP manual shall have sufficient technical and management data validation procedures to comply with the analytical methods. The data validation procedures must provide specific detail as to how data will be validated and must specify the responsibilities for all individuals involved in the process.

8.6.19 CONTRACT COMPLIANCE SCREENING PROCEDURES

The SOP manual must include procedures to ensure compliance with the contractual provisions of this contract, including, but not limited to, procedures on the preparation and delivery of data packages. The SOP manual must specify that data reports will be prepared and delivered in accordance with the Regulatory Data Report Format cited in Appendices 1-3 of this contract. The SOP manual shall include a checklist based on Appendices 1-3 for use by the Document Control Officer and report production personnel. The procedures and checklist must have provisions for tracking any portion of the package returned to analytical personnel for correction and ensure that the report delivery time specified in this contract are met. It is permissible to use the USEPA CCS Checklist (DC-2) as a model for the Contractor's checklist.

8.7 **EQUIPMENT REQUIREMENTS**

8.7.1 ELECTRONIC DATA STORAGE DEVICES

A. Data storage devices must be suitable for long-term, off-line storage of data.

The Contractor shall store all raw data and processed electronic analytical data in the appropriate instrument manufacturer's format, uncompressed and with no security codes. The electronically stored data shall include all data needed to completely reconstruct a hard copy and electronic deliverable. The electronic data files shall include, but are not limited to: blanks, spikes, tunes, calibrations, quality control samples, proficiency testing samples, and check samples. The electronic data files shall also include all Contractor generated spectral libraries and quantitation reports as well as the associated raw data files if those files contain data

or instrument parameters related to analytical results. The electronic data files must be sent to the NJDEP State Contract Manager within seven (7) days following a request for it.

- B. The Contractor must retain all raw and processed electronic data files in a format retrievable on-line to the data system for ten (10) years. The Contractor shall store the data storage medium under secure and appropriate environmental conditions to preclude the lost of data. The Contractor shall comply with N.J.A.C. 7:18-5-6(a).

8.7.2 LABORATORY NOTEBOOKS

- A. The Contractor is responsible for storing the raw data recorded in bound laboratory notebooks during the analysis of all samples.
- B. The Contractor must maintain bound notebooks to record all raw data. The analyst must sign all entries in this laboratory notebook. The analyst's supervisor MUST also sign entries in this notebook. This information includes but is not limited to instrument run logs, canister certification batch assignments, canister preparation and receipt information, and addition of air to bring up to volume documentation. The Contractor shall maintain a bound paginated laboratory notebook with the analyst's and supervisor's signature for archival storage of all data, except computerized data. The analyst must sign any computerized printout or chromatogram.

8.7.3 GENERAL INSTRUMENTATION REQUIREMENTS

- A. The Contractor shall meet and maintain the minimum standards for laboratory instrumentation set forth in the "Regulations Governing the Certification Laboratories and Environmental Measurements". General instrument requirements are specified within these regulations at N.J.A.C. 7:18-3.2 through 7:18-3.3 and N.J.A.C. 7:18-5.2(a)1 through 7:18-5.2(a)18. In addition, the equipment requirements specified in the analytical method shall be met and maintained for the duration of the contract. Specific requirements for each method are listed below.
- B. For archival storage of all data, except computerized data, the Contractor shall maintain a bound paginated laboratory notebook with the analyst's and supervisor's signature. Sign any computerized printout or chromatogram not maintained in a notebook on the first and last page.
- C. The gas standards must be purchased from a commercial supplier in pressurized cylinders certified traceable to a NIST Standard Reference Materials (SRM) or NIST/EPA approved Certified Reference Material (CRM). The Contractor must certify in the case narrative of each data package that gas standards have been used. The Contractor must specify their suppliers in the Standard Operating Procedure submitted to the Office of Quality Assurance for certification. Specific requirements are listed in each method.

8.7.4 METHOD 3C REQUIREMENTS

A. Instrumentation

1. The required instrumentation is a gas chromatograph (GC) with thermal conductivity detector (TCD). The GC must adequately regulate temperature in order to give a producible temperature program and have a flow controller that maintains a constant column flow rate throughout temperature program

operations. The system must have all required accessories including syringes, analytical columns, and gases.

2. The Contractor must specify the column used, and it must be approved by the NJDEP Office of Quality Assurance and the State Contract Manager.

B. Data System

1. A data system must be interfaced to the GC/TCD. The data system must allow the continuous acquisition of data throughout the duration of the chromatographic program and must permit, at a minimum, the output of time vs. intensity (peak height or peak area) data. Also, the data system must be able to rescale chromatographic data in order to report chromatograms meeting the requirements listed within this contract.
2. Proof of software ownership or license agreement from the manufacturer must be provided as part of the bid documents and included in the SOP.

8.7.5 METHOD 25C REQUIREMENTS

A. Instrumentation

1. A gas chromatogram (GC) equipped with a dual Flame Ionization Detector (FID) must be the required instrumentation. An oxidation catalyst and reduction catalyst must be used.
2. The Contractor can either use the columns specified in the method or use equivalent columns. The Contractor must demonstrate that the columns are equivalent. Use of different columns must be approved by the NJDEP Office of Quality Assurance and the State Contract Manager.

B. Measurements of Catalyst Efficiency

Technological changes in analytical instrumentation have lead to changes in how laboratories measure catalyst efficiency. Configurations of instrumentation may preset the movement of methane and carbon dioxide through the oxidation catalyst. The Contractor must measure the reduction catalyst efficiency independent of the oxidation catalyst. The Contractor must detail procedures in the SOP and the modifications must be approved by NJDEP Office of Quality Assurance and the State Contract Manager.

C. Data System

1. The data system must be interfaced to the GC/FID. The data system must allow the continuous acquisition of data throughout the duration of the chromatographic program and must permit, at a minimum, the output of time vs. intensity (response) data. In addition, the data system must be able to rescale chromatographic data in order to report chromatograms meeting the requirements listed within this contract.
2. Proof of software ownership or license agreement from the manufacturer must be provided as part of the bid documents and included in the SOP.

8.7.6 METHOD NJDEP-LLTO-15 REQUIREMENTS

A. Gas Chromatography/Mass Spectrometry Instrument Performance Check

The Contractor shall comply with all the GC/MS Instrument Performance Check requirements set forth in the instrument operator's manual and NJDEP-LLTO-15 method and the Contractor's approved Standard Operating Procedure. Post acquisition manipulation of the ion abundances using computer software to achieve tuning criteria is unacceptable. Any sample analyzed in conjunction with a failed tune performance check requires a re-analysis and shall be performed at the Contractor's expense. The Contractor shall comply with the requirements of N.J.A.C. 7:18-5.2(a)8 and N.J.A.C. 7:18-5.2(a) 13.

B. Requirements for GC/MS Analysis

The Contractor must maintain a gas chromatograph/mass spectrometer equipped with a computerized MS library search system capable of providing reverse searching for targeted analytes and forward searching for non-targeted analytes. The system shall also be capable of removing background signals from the suspect chemical pollutant spectrum (background subtraction capability). The Contractor must also comply with N.J.A.C. 7:18-5.2(a)9 and N.J.A.C. 7:18-5.2(a)13(iii).

C. Gas Chromatography/Time of Flight Mass Spectrometry

The GC/MS Technology known as GC/Time of Flight Mass Spectrometry is acceptable for this method provided that all the requirements of this Method and the NJDEP performance requirements specified herein are met. However, only with prior approval of the technique by the NJDEP Office of Quality Assurance and the State Contract Manager and with the following additional specifications can the technique be proposed by the Contractor. This procedure cannot be used as for the bid submittal.

1. Fast Chromatography shall not be under this contract.
2. A separate method detection limit study must be conducted for each instrument using this technique.
3. If this technique is used for certifying the canisters as clean, the same technique must be used for the analysis of the canisters. This is required so that the experimental conditions such as scan rate, ramp rate etc. are the same for both analysis.
4. The data must be delivered in the same reporting format as quadropole GC/MS and all labeling requirements of the data package must be met.
5. A separate Standard Operating Procedure must be provided for this technique.

D. Mass Spectrometer (MS)

1. The MS must be capable of scanning from 35-300 amu every 1 second or less, utilizing 70 volts (nominal) electron energy in the electron impact ionization mode and producing a mass spectrum which meets all the 4-Bromofluorobenzene (BFB) GC/MS performance check technical acceptance criteria in Table 1 of the TO-15 method.

2. To ensure sufficient precision of mass spectral data, the MS scan rate must allow acquisition of at least five spectra while a sample compound elutes from the GC. The purge-and-trap GC/MS system must be in a room whose atmosphere is demonstrated to be free of all potential contaminants that will interfere with the analysis. The instrument must be vented to outside the facility or to a trapping system, which prevents the release of contaminants into the instrument room.
3. The Contractor shall operate the GC/MS in the full SCAN mode only. Selective Ion Monitoring (SIM) Mode is not acceptable under this contract.
4. Proof of software ownership or license agreement from the manufacturer must be provided as part of the bid documents and included in the SOP.

E. Data System

1. A computer system must be interfaced to the MS that allows the continuous acquisition and storage on machine-readable media of all mass spectra obtained throughout the duration of the chromatographic program.
2. The computer must have software that allows searching of any GC/MS data file for ions of a specified mass and plotting such ion abundances versus time or scan number. This type of plot is defined as an Extracted Ion Current Profile (EICP). Software must also be available that allows integrating the abundance in any EICP between specified time and scan number limits.
3. The NIST (2005 release or later), Wiley (2005 release or later) or equivalent mass spectral library shall be used as the reference library. The data system must be capable of flagging all data files that have been edited manually by laboratory personnel.
4. Proof of software ownership or license agreement from the manufacturer must be provided as part of the bid documents and included in the SOP.

8.7.7 CANISTER REQUIREMENTS

A. Limitations on the Number of Days Canisters can be out of the Contractor's Facility

All canisters after evacuation to –30 Inches of Mercury have a finite period before the level of the pressure due to loss that occurs naturally will inhibit the use of the canister in sample collection. Due to the loss of pressure that occurs naturally during the storage of canisters, NJDEP has established a fifteen (15) day time limit that canisters can be out of the Contractor's facility. The fifteen-day time limit begins with the shipment of the canisters to the Contract User. The canisters must be returned to the Contractor after fifteen days whether they were used for sample collection or not.

B. Canister Types

All samples are to be collected in passivated, leak free, stainless steel canisters are required. These canisters must be equipped with a Contractor-preset pressure gauge, flow controller, critical orifice with a diameter of 0.0060 inches, and stainless steel frit dust filter over the orifice, and specially prepared interior surfaces for the removal of active sites. The canisters must be equipped with sample inlets or

sampling caps to prevent water droplets from accumulating at the edge of the tubing where they could be pulled into the sampling train. Hard seat metal valves must be used for the shutoff valves on the canisters. Soft-seated valves shall not be acceptable.

- C. Canisters cannot be shipped separately to the Contract User since the preparation of the canisters and flow controllers must occur simultaneously.
- D. Canisters used for building indoor air sampling and the accompanying ambient sample must also be equipped with laboratory preset flow controllers and pressure gauges. For all indoor air sampling the routine sample collection time for indoor air samples is either eight (8) hours or twenty-four (24) hours. The minimum collection time is 8 hours, however, longer times can be specified. Upon engagement of the Contractor, the sample collection time will be specified.
- E. Canisters used for landfill vent sampling must be equipped with pressure gauges, flow controllers (if required to maintain required flow rate) and critical orifices (if required by the permit) to control sampling rates. This will permit the Contract User to check the pressure of each canister prior to sampling and after sampling and record the pressure reading on the NJDEP Method 3C/25C Field Test Data Sheets. Dust filters are optional and are the discretion of the Contract User and the Contractor. However dust filters, if they are required, must be supplied at no additional cost.
- F. For sampling that does not involve landfill vent sampling, soil gas or building interior sampling, the State Contract Manager/Contract User must instruct the Contractor to provide critical orifices, flow controllers, dust filters and gauges. The items are the same requirements as needed for the building indoor air sampling. They must be provided at no additional cost to the State.
- G. Canisters are shipped to the Contract User at subatmospheric pressure approximating negative 30 inches of mercury.
- H. Tedlar bags cannot be used for the collection of samples under this contract.
- I. Samples being collected for Method 3C and/or 25C analysis must be collected in 6-liter canisters. The use of 1-liter canisters, 2.7-liter and 3.2 -liter canisters shall not be acceptable for these methods.
- J. The 6-liter stainless steel canisters shall be the only canisters that are acceptable for the collection of building interior samples.
- K. The 1-liter, 2.7-liter and 3.2 -liter stainless steel canisters are only acceptable for the collection of soil gas. Soil gas samples can also be collected in 6-liter canisters.
- L. If soil gas samples are being collected for both the NJDEP-LLTO-15 and method 3C, 6-liter canisters must be used.
- M. If soil gas samples are being collected for both the NJDEP-LLTO-15 and method 25C, 6-liter canisters must be used.
- N. If soil gas samples are being collected for all three methods, 6-liter canisters must be used.

8.7.8 FLOW CONTROLLER/PRESSURE GAUGES REQUIREMENTS

- A. Pressure gauges must be provided on all types of canisters.
- B. It is the Contractor's responsibility to follow the predetermined contract sampling requirements or the Contract User's instructions to preset the flow controllers for the sample collection periods specified and to clearly identify each canister's flow controller preset sample collection time. The Contractor must record the current and actual temperature and barometric (atmospheric) pressure of the room at the time the canisters (with the controllers) are prepared for shipment.
- C. Flow controllers cannot be sent separately to the Contract User from the Canisters. Flow controllers and canisters must be sent together to the Contract User for each sampling event.
- D. The flow controllers must be flexible enough to collect samples over a variety of time frames. The flow controllers must be removed for shipment to and from the Contractor.
- E. Preparation of the canisters, providing flow controllers, gauges and setting the flow controller's sample collection time at either 8 hours or 24 hours is included in the unit price of sample analysis. The State will not pay extra for providing flow controllers setting of flow controllers or preparing canisters.
- F. Building interior sampling and the accompany background sample usually occurs over an 8-hour or a 24-hour period. The Contractor must set the flow rate to correspond with the required sampling time period.
- G. For 6-liter canisters used for soil gas sampling for NJDEP-LLTO-15 method, Method 3C sampling and Method 25C sampling, the required flow rate in this contract is 200 ml/min. The critical orifice at a diameter of 0.0060 inches presets the flow rate at 200 ml/min. This flow sets the minimum fill time of the canister at one-half hour (1/2 hour). The actual flow rate into the canister will depend on the flow from the sampling point.
- H. For 2.7-liter and 3.2 -liter canisters used for NJDEP-LLTO-15 soil gas sampling, the required flow rate in this contract is 200 ml/min. The critical orifice at a diameter of 0.0060 inches presets the flow rate at 200 ml/min. This flow sets the minimum fill time of the canister at 15 minutes (1/4 hour). The actual flow rate into the canister will depend on the flow from the sampling point.
- I. For 1-liter canisters used for NJDEP-LLTO-15 soil gas sampling, the required flow rate in this contract is 200 ml/min. The critical orifice at a diameter of 0.0060 inches presets the flow rate at 200 ml/min. This flow sets the minimum fill time of the canister at 5 minutes. The actual flow rate into the canister will depend on the flow from the sampling point vent.
- J. The preparation of the 6-liter canisters for the sampling of landfill vents and the required flow rate will be determined by the permit. This information will be provided at the time of engagement by the State Contract Manager/Contract User. The majority of the air permits for landfill vent sampling requires a 200 mL/min flow rate with a critical orifice on the canister.
- K. For sampling that does not involve landfill vent sampling, soil gas or building interior

sampling, the State Contract Manager/Contract User will provide the requirements to the Contractor at the time of engagement.

- L. If a different flow rate is required for the 6-liter canister being used for indoor sampling, See Section 8.14 for additional information. This scenario requires additional time for setting up the flow rate and additional cost to the State.

M. Failure to Set or Identify the Flow Controller Presets

Failure to set a flow controller to the proper sample collection time or failure to clearly identify the sample collection presets for each canister or flow controller shall be a basis for the State Contract Manager not to pay the Contractor for any costs related to such an unusable or improperly identified canister. The Contractor shall absorb all costs related to such an event including the return shipment of a used or unused canister where the Contract User because of an improper setting of the flow controller voids the sample analysis.

8.8 METHANE LIMITATIONS ON AIR SHIPPING

- 8.8.1 If during the sampling event, it is determined that the levels of methane in the soil gas or the vent sample exceeds 50%, the canister **cannot be** returned to the Contractor by Air Shipping unless helium had been added to the canisters prior to shipping to the field. Otherwise ***all return shipping to the Contractor must be by Ground Shipping.***

- 8.8.2 If prior to the sampling event, the level of methane is known to exceed 50%, there are two options available.

Option 1: The State Contract Manager/Contract User informs the Contractor that the methane levels in the sample are expected to meet or exceed 50%; the Contractor can add helium to the canister prior to shipping to the field. This will automatically result in a minimum of 2-fold dilution of the final results. The canister then can be returned via air shipping to the Contractor since it meets now meets USDOT Air Shipping Regulations.

Option 2: The State Contract Manager/Contract User informs the Contractor that the methane levels in the sample are expected to meet or exceed 50%; the Contract User will ship all canisters by ***Ground Shipping.***

8.9 STANDARD REQUIREMENTS

See the requirements of each method.

8.10 CHANGES IN ANALYTICAL METHODS

The NJDEP State Contract Manager shall notify Contract Users and Contractor(s) in accordance with the procedures cited in Section 8.4.2 if, and when, it becomes necessary to make changes to the parameters during the term of the Contract.

8.11 ENGAGEMENT TIME FRAME

- 8.11.1 Due to the requirements of the clean canister certification, flow controller setting, documentation requirements and the coordination needed to prepare canisters for shipment to the Contract User, the State is aware that a procedure must be established that details the time frame for the ordering/cancellation of canisters. The Contractor shall

establishment notification time frame for the ordering and cancellation of canisters by State Contract Manager for any sampling event. The time frame notification document shall be sent to the State Contract Manager within fifteen (15) days for approval after award of the contract. The State Contract Manager shall provide a copy of this information to the Contract Users.

8.11.2 The State Contract Manager shall provide a copy of this information to the Contract Users. See Section 7.7.4 for submittal requirements.

8.11.3 If the Contractor has to revise the document during the term of the contract, the revised document must be submitted to the State Contract Manager for review and approval. Justification for the revision of the document must be provided at the time of submittal. Written approval must be obtained from the State Contract Manager prior to implementation of the revision.

8.11.4 The Contractor can without penalty turn down an engagement that does not follow the established notification time frame without penalty and without providing justification. However, written notification must be made to the State Contract Manager that the engagement was not accepted.

8.11.5 The Contractor shall establish three engagement time frames for this contract.

A. The first is the ordering/cancellation of canisters for 7-day and 14-day turn around time. The cutoff time frame for the 7-day/14-day sampling events must specify the number of days prior to the proposed sampling event for an order can be placed or canceled.

B. The second is the ordering/cancellation of canisters for a 48-hour turn around time that involves canisters being ordered for an event that will be initiated within 48 hours or the first work day following a holiday or weekend. The cutoff time frame for this 48-hour sampling event must specify a time of day for the ordering/cancellation of canisters.

C. The third is the ordering/cancellation of canisters for a 48-hour turn around time which involves canisters being ordered for a event that will be initiated beyond the 48-hour time frame or the first work day following a holiday or weekend. The cutoff time frame for this 48-hour sampling event must specify the number of days for ordering/cancellation of canisters.

8.12 **ENGAGEMENT**

The State Contract Manager/Contract User shall contact the Contractor for an engagement in accordance with the engagement procedures specified in Section 9.0 and provide all the information necessary for the Contractor to prepare and ship canisters and begin work.

8.12.1 SAMPLE CONTAINER REQUEST FORM

The Contractor must develop and utilize a Sample Container Request Form for this contract. This form sent to the Contract User and the State Contract Manager when the final order for canisters is verified by the State prior to canister shipment. A copy of the form must be included in the canister shipment. The format of the form will be approved by the State Contract Manager upon award of the contract. The Contractor can add other fields if they wish.

The required information is as follows:

State's Client Code
Contract Number
Laboratory Project ID
Site Identification (8 digit code only)
Date Needed by State
Date Requested
Laboratory's Project Manager Name
Ship to Location
Name of Recipient
NJDEP Custody seals (yes/no)
Chain of Custody Documentation

Extra Packing Material provided (yes/no)
Shipping Carrier information
Special instructions
Quantity of canisters requested
Type of canister requested
Flow rate or sampling time requested for each type of canister
Flow controllers required (yes/no)

8.13 CANISTER PREPARATION INCLUDED IN SAMPLE COLLECTION COST

- 8.13.1 Preparation of the canisters and all accessory parts for the canister as required by this contract, providing flow controllers, and setting the flow controller's sample collection time for 6 liter canisters at either 8 hour or 24 hour are included in the unit price of sample analysis.
- 8.13.2 Preparation of the canisters and all accessory parts as required by this contract, providing flow controllers, and setting the flow controller's sample collection time for 1-liter, 2.7-liter and 3.2-liter canisters for the collection of the soil gas samples at 200 mL/min. are included in the unit price of sample analysis.
- 8.13.3 Preparation of the canisters and all accessory parts as required by this contract, providing flow controllers, and setting the flow controller's sample collection time for 6-liter canisters at landfill vent sampling are included in the unit price of sample analysis.
- 8.13.4 Preparation of the canisters and all accessory parts as required by this contract, providing flow controllers, and setting the flow controller's sample collection time for 6-liter canisters at all other types of sampling are included in the unit price of sample analysis.

8.14 SAMPLING TIMES OUTSIDE THE ESTABLISHED 8 HOURS OR 24 HOURS FOR 6-LITER CANISTERS - (INDOOR AIR ONLY)

- 8.14.1 If the Contract Users requires a collection different from the standard 8-hour or 24-hour time frame for indoor air sampling only, this is a billable item outside the terms and conditions of this contract. This procedure cannot be used for 1-liter, 2.7-liter, or 3.2-liter canisters. The following procedures are required.
- 8.14.2 A written request must be made to the State Contract Manager for a varied sampling time. The time must be specified in the request, as is the number of required 6-liter

canisters. The request must be a minimum of seven (7) working days (not including weekends and holidays) prior to when the sample containers are expected from the Contractor.

8.14.3 The State Contract Manager will contact the Contractor to determine if the Contractor can prepare flow controllers and canisters at the requested flow rate and sampling time frame. The Contractor will be required to submit a cost for this procedure. The Contractor can decline to do this procedure and suffer no penalty under the contract.

8.14.4 The cost of this calibration shall be provided in writing by the Contractor to the State Contract Manager and the Contract User. If approved by the Contract User, a written approval must be transmitted back to the State Contract Manager. The cost of this recalibration is outside the contract and must be paid separately by the Contract User.

8.14.5 The Contractor shall be given a minimum of three (3) days (not including weekends and holidays) to properly calibrate and set the flow controllers for the specified time frame.

8.15 **SHIPPING**

8.15.1 SHIPPING CHAIN OF CUSTODY

A. The Contractor must comply with the Section 8.6.5 Chain of Custody and any chain of custody requirements in Appendices 1-3 regarding documentation and the additional Chain of Custody requirements cited below.

B. Chain of Custody commences with the Contractor release of canisters for shipment to the Contract User.

C. When releasing canisters to a Contract User, the Contractor has two options when any samples involving Method NJDEP-LL-TO-15 are being collected.

Option 1 - Use the NJDEP Chain of Custody Forms DEP-095D only.

Option 2 - Use the NJDEP Chain of Custody Forms DEP-095C in combination with the NJDEP Field Test Data Sheet for Method NJDEP-LL-TO-15.

D. When releasing canisters to a Contract User, the Contractor has two options when any samples involving Methods 3C and 25C are being collected.

Option 1 - Use the NJDEP Chain of Custody Forms DEP-095D in combination with the NJDEP Methods 3C/25C Field Test Data Sheet.

Option 2 - Use the NJDEP Chain of Custody Forms DEP-095C in combination with the NJDEP Methods 3C/25C Field Test Data Sheet.

E. The Contractor shall seal all shipping containers to ensure the integrity of the chain of custody of the canisters. The Contractor shall seal the shipping containers with an appropriately numbered custody-sealing device and record the sealing device number on the Chain of Custody Form. The Contractor shall inspect all shipping containers prior to shipping, ensuring that the appropriate containers are present for each analysis requested.

8.15.2 SHIPPING CONTAINERS

- A. The Contractor shall provide canisters in an appropriate shipping container. The shipping container shall securely hold the canisters and meet the shipping requirements for the USDOT, the overnight common carrier and the NJDEP Chain of Custody requirements.
- B. The Contractor must use custody seals on the shipping containers that contain empty Summa™ Canisters that are being sent to the Contract User.
- C. If Methane concentrations are suspected to be above the 50%, the requirements of Section 8.8 of this Contract must be followed.
- D. The Contract User returns samples in the Contractor provided shipping container.
- E. This Contract PROHIBITS Contract Users and the Contractor from purchasing insurance to insure return sample shipments to the Contractor. If the Contract User inadvertently or otherwise insures the samples with the common carrier, the Contractor shall request reimbursement from the Contract User for the cost of the insurance.
- F. When engaged by any State Contract Manager/Contract User, the Contractor shall include appropriate chain of custody documentation in the shipment canisters. Chain of Custody commences when the Contractor ships the canisters to the Contract User.
- G. The Contractor shall seal all shipping containers with an appropriately numbered sealing device. The Contractor must record the seal number on the appropriate chain of custody forms. The Contractor shall inspect all shipping containers prior to shipping, ensuring that the appropriate containers are present for each analysis requested.
- H. The Contractor shall analyze samples only at an approved laboratory. The Contractor shall analyze samples at the laboratory that shipped the canisters.

8.16 SHIPMENT BY COMMON CARRIER

- 8.16.1 Normal shipping is two days from the Contractor's facility and overnight shipment back to the Contractor. The only exception to this requirement is if methane concentrations above 50% are expected. Then the requirements of Section 8.8 must be followed.
- 8.16.2 The Contractor must provide a mechanism to ship empty canisters and shipment cases to the Contract User or State Contractor via two day shipment by Common Carrier. Additionally, the Contractor must provide a mechanism to pick up canisters and shipment cases from the Contract User or State Contractors by an overnight Common Carrier. The cost for this base rate normal delivery service is to be included in the price of the analysis. (See Section 8.17 for information on non-routine pickup and delivery).
- 8.16.3 The Contractor shall ship empty canisters and shipping cases only to official State offices, State warehouses or to State Contractor's offices that have routine pickup and delivery by the Common Carrier. The Contractor can also ship to the Common Carrier's Service Center for pickup by the Contract User as long as there is no additional cost. The Contract User or State Contractor must specify this delivery option at the time of engagement with the State Contract Manager. This does not include the cost of shipping to a work site, since it may involve additional charges imposed by the Common Carrier.

8.16.4 After collection of samples, the Contract User or State Contractor shall contact the Contractor's Common Carrier and ship samples, in the Contractor's canisters and shipment cases back to the Contractor. The Contract User or State Contractor must ship canisters from official State offices, State warehouses or State Contractor's offices that have routine pickup and delivery by the Common Carrier. The Contract User or State Contractor can ship from a Common Carrier's Service Center for delivery to the Contractor as long as there is no additional cost. This does not include the cost of picking up at a work site, since it may involve additional charges imposed by the Common Carrier.

8.16.5 If Methane concentrations are suspected to be above the 50%, the requirements of Section 8.8 of this Contract must be followed.

8.16.6 **SURFACE TRANSPORTATION**

Contractors shipping canisters via common carriers via surface transportation shall ship those canisters in an appropriate shipping container. Shipping containers shall securely hold the canisters.

8.16.7 **AIR TRANSPORTATION**

Contractors shipping canisters via air carrier shall ship those canisters in an appropriate shipping container. Shipping containers shall securely hold the canisters.

8.16.8 **MARKINGS AND LABELS**

For both surface and air transportation of samples, the Contractor must provide adequate quantities of appropriate marking and labeling materials, for the return shipment in accordance with the requirements of the aforementioned regulations cited above.

8.16.9 **COMPLIANCE WITH THE SHIPPING PLAN**

Contract Awardees are required to submit a Shipping Plan in accordance with Section 7.7.3 of this contract. The Shipping Plan will identify the Contractor's common carrier, examples of all paperwork, labels and placards associated with shipping. The Shipping Plan will be approved by NJDEP before a contract award is finalized. All shipping under this contract must be performed in accordance with the approved Shipping Plan. Failure to provide shipping containers or to provide shipping services that comply with the Shipping Plan may form a basis to suspend the Contractor from performing services under this contract for one month. A second infraction of the Shipping Plan may form a basis to suspend the Contractor from performing services under this contract for three months. A third infraction will form a basis for contract termination. Such actions shall be performed at the discretion of the NJDEP State Contract Manager.

8.17 **SHIPMENT AND PICKUP CHARGES BEYOND NORMAL DELIVERY**

8.17.1 The Contractor shall not be responsible for any shipping costs beyond those for normal delivery and pickup charges that are included in the base shipping price from the Common Carrier. These costs are defined must be defined on the Common Carrier's website. The State shall be responsible for the payment for all extra charges beyond the normal shipping charges to commercial or office locations that have routine pickup and delivery. The extra charges must be listed on the Common Carrier's website to be

considered billable to the State. If the Contractor has a contract with the Common Carrier, that specifies a rate for the extra charges, a current copy of these charges must be forwarded to the State Contract Manager. The State Contract Manager shall provide a current copy of the charges to the Contract Users.

8.17.2 If the Contract User wants delivery or pickup of shipment of samples that require additional costs beyond normal delivery, he/she shall be aware of the additional charges. The Contract User must inform the State Contract Manager at the time of notification of the engagement that they need shipping beyond the normal delivery. The extra cost must be factored into cost of the engagement.

8.17.3 The actual cost of the non-contract shipping shall be listed as a separate entry in the cost for the engagement. The Contractor shall bill the State on the same invoice that is used for the sampling event. The required documentation for the payment of the extra shipping costs consist of copies of the Common Carrier's tracking forms listing the package tracking numbers and date of delivery. The actual costs shall be verified using the Common Carrier's website or the previously submitted documentation from the Contractor.

8.17.4 Normal shipping is two days from the Contractor's facility and overnight shipment back to the Contractor. The only exception to this requirement is if methane concentrations above 50% are expected. Then the requirements of Section 8.8 must be followed.

8.17.5 The following charges are the responsibility of the State not the Contractor if the Common Carrier routinely charges for these options. The charges must be clearly documented on the Common Carrier's website for review by the State or if the Contractor has a contract with the Common Carrier, that specifies a rate for the extra charges, a current copy of these charges must be forwarded to the State Contract Manager.

- a) First AM Delivery (either to Contract User or Contractor)
- b) Saturday Pickup (either from the Contract User or Contractor)
- c) Saturday Delivery (either at the Contract User's location or the Contractor)
- d) Carrier Pickup charges from a non Routine Delivery/Pickup location
- e) Any other additional charges imposed by the Common Carrier due to delivery or pickup request by the Contract User
- f) Fuel Surcharge
- g) Overnight shipping from the Contractor
- h) Any new changes imposed by the Common Carrier at a later date.

8.18 SHIPMENT OF EMPTY CANISTERS TO THE CONTRACT USER

8.18.1 The Contractor shall ship uncontaminated "certified clean" canisters in an appropriate shipping container to the Contract User upon request.

8.18.2 The Contractor shall ship empty canisters and shipment cases only to official State offices, State warehouses or to State Contractor's offices that have routine pickup and delivery by the Common Carrier. The Contractor can also ship to the Common Carrier's Service Center for pickup by the Contract User as long as there is no additional cost. The Contract User or State Contractor must specify this delivery option at the time of engagement with the State Contract Manager. This does not include the cost of shipping to a work site, since it may be involve additional charges imposed by the Common Carrier.

8.18.3 The Contractor will ship the canisters with the inline dust filter/flow controller unit detached from the canisters. The Contract User will attach the dust filter/flow controller to the canister prior to sampling.

8.18.4 The Contractor must allow Contract Users/State Contractors to pick up canisters directly from the Contractor at no extra charge to the State.

8.19 CONTRACT USER RECEIVES CANISTERS AND COLLECTS SAMPLES

The Contract User/State Contractor shall inspect the shipping container to ensure that the Contractor provided all the canisters. The Contract User will reject improperly prepared canisters. The Contract User shall return rejected canisters to the Contractor. The Contractor must absorb the cost of sample container shipment as an overhead cost. The Contract User must inform the State Contract Manager why the canisters are being rejected. The State Contract Manager will inform the Contractor as to why the canisters are being rejected and take any appropriate action. The State will not pay for the shipment of canisters that are rejected. Canisters may be rejected for the following reasons:

8.19.1 Canisters received without the required NJDEP External Chain of Custody Forms and/or the required Field Test Data Sheets, without properly completed chain of custody forms or in any manner that would compromise the chain of custody will be rejected.

8.19.2 Failure to provide all the canisters requested, failure to provide the type of canisters requested, or any other problem with the canisters that will jeopardize the sampling event will form a basis to reject the canisters.

8.20 SAMPLE COLLECTION

The Contract User shall be responsible for sample collection and completing the appropriate chain of custody forms, NJDEP LL-TO-15 Field Test Data Sheet, the Method 3C/ 25C Combined Field Test Data Sheet and any other field documentation that is required.

8.21 CONTRACT USER SHIPS SAMPLES TO THE CONTRACTOR

8.21.1 After collection of samples, the Contract User/State Contractor shall contact the Contractor's Common Carrier and ship samples, in the Contractor's canisters and shipment cases back to the Contractor. The Contract User/ State Contractor must ship canisters from official State offices, State warehouses or State Contractor's offices that have routine pickup and delivery by the Common Carrier. The Contract User/State Contractor can ship from a Common Carrier's Service Center for delivery to the Contractor as long as there is no additional cost. This does not include the cost of picking up at a work site, since it may be involve additional charges imposed by the Common Carrier.

8.21.2 The Contract User shall detach the dust filter/flow controller from the canister and return the canister and the dust filter/flow controller to the Contractor.

8.21.3 Canisters that are known or suspected to contain 50% methane or more by volume cannot be shipped by air transportation unless the Contractor had added helium to the canisters prior to shipment to the Contract User. Ground shipping is required for all canisters that did not have helium added to the canisters prior to shipment to the Contract User.

- 8.21.4 There shall be no change in the price of analysis if the NJDEP Contract User delivers samples directly to the Contractor without using the Contractor's Common Carrier. The Contractor must permit Contract Users to deliver samples directly to the Contractor using Contract User provided transportation.
- 8.21.5 The Contract User shall include the properly completed NJDEP External Chain of Custody Forms with the samples and associated Field Test Data Sheets. If Methods 3C/25C were also collected at the same time, the Contract User must complete the Field Test Data Sheet for Methods 3C/25C.
- 8.21.6 The Contract User shall pack the canisters using Contractor supplied packing materials and must include the NJDEP External Chain of Custody Forms and associated Field Test Data Sheets. If Methods 3C/25C were also collected at the same time, the Contract User must include the Field Test Data Sheet for Methods 3C/25C.
- 8.21.7 It is the Contract User's responsibility to return samples in compliance with the Contractor's approved shipping plan.
- 8.21.8 The State shall pay the Contractor if the State or State Contractor makes mistakes in shipping. See Section 6.9 of the IFB for a complete description of payment rules.
- 8.21.9 The Contractor shall not be responsible for any shipping costs beyond those for normal pickup and delivery as specified in Section 8.17 above. The State shall be responsible for the payment for all extra charges either directly to the Common Carrier or if it is billed directly to the Contractor by the Common Carrier.

8.22 CONTRACTOR RECEIPT OF SAMPLES/ INTERNAL CHAIN OF CUSTODY

The Contractor shall receive the samples and check the contents for the NJDEP External Chain of Custody Forms and if submitted the NJDEP LL-TO-15 Field Test Data Sheet and the Methods 3C/25C Field Test Data Sheet. The following apply:

- 8.22.1 Upon completion of the logging in of the samples by the Sample Custodian, the Contractor's Project Manager shall forward to the State Contract Manager Administrator an electronic copy of the preliminary Form A-1A and the Contractor's Sample Receipt and Log in Checklist. The requirements of the Contractor's Sample Receipt and Log in Checklist are in Section 8.22.2. These documents must be sent electronically in an Adobe Acrobat format via internet email to the State Contract Manager within 5 days of receipt at the Contractor's facility.
- 8.22.2 SAMPLE RECEIPT AND LOG-IN CHECKLIST FOR ALL AIR SAMPLES

This form is used to document the receipt and inspection of sample containers and samples. One original checklist is required for each sampling event of twenty samples or less (only the hardcopy form is required). The form must contain the following information. The Contractor can add additional fields at their discretion. If more than 20 samples are received at one time, multiple Sample Delivery Groups can be listed on the form and copies included in each data report.

Required top of page information:

- Laboratory name
- Form name

- Client's name
- Sample delivery group number
- Project name or number
- Date and time received
- Received by (name of person receiving samples)
- Log in date
- Name and signature of staff member who logged in samples
- Signature of project manager
- Date signed by project manager
- Number of shipping containers received
- Samples delivered by (company or person who delivered)
- Listing of air bill numbers

The following information must be included in the body of the form. The information must include a yes, no or non-applicable and a comment field for each requirement. The sections are:

Shipping Container Information:

- There is no evidence to indicate tampering
- Custody seals are present and intact
- Custody seals numbers are present
- List custody seal numbers

Sample Condition:

- Sample containers were received intact

Chain of Custody (COC) is present and includes the following information for each container:

- Sample ID/Sample Description
- Date of sample collection
- Time of sample collection
- Identification of sampler
- Requested test method(s)
- Necessary signatures
- Internal Chain of Custody (ICOC) required (answer is always yes)

Sample Integrity Usability:

- The sample container matches the COC
- Samples were received within holding time

Anomalies or Non Conformance Summary (comment section)

8.22.3 The Contractor shall be responsible for storage and internal distribution of the sample. Each time responsibility for the sample changes from one individual to another, the Contractor shall record the changes on the NJDEP provided internal Chain of Custody form and sign, date and time the entry.

8.22.4 The Contractor shall record the movement of the canisters and every aliquot, through the laboratory on an internal chain of custody document.

8.22.5 On completion of sample analysis, the Contractor must attach all Chain of Custody documents to the data report and forward to the State as part of the analytical data report.

8.22.6 INTERNAL CHAIN OF CUSTODY REQUIREMENTS

- A. The Contractor shall be responsible for storage and internal distribution of the sample. Each time responsibility for the sample changes from one individual to another, the Contractor shall record the changes on the NJDEP provided internal Chain of Custody form and sign, date and time the entry.
- B. The Contractor must document the internal chain of custody using DEP Form-077 for all State agencies. Full name and signatures are required. All signatures must be legible. The printed name must be the full name of the Contractor's employee and it must be legible. Illegible chain of custody documentation will result in data rejection.
- C. Each sample submitted consists of one or more sample aliquots (e.g., portions of a sample collected in separate containers). Distinct sample aliquots are used in the analysis of a specific analytical fraction (e.g., sample aliquots stored in 40 mL vials with Teflon lined septum screw caps are analyzed for volatiles). Document internal chain of custody for each sample, or aliquot representing a specific analytical fraction (e.g., volatiles or metals). Internal chain of custody documentation for all sample aliquots for a given analytical fraction may be listed on one (1) form for any given case (group) of samples submitted.
- D. Indicate on the chain of custody document all movements of the sample, or aliquots through the laboratory. Show the date and time of relinquishing and accepting of the sample and aliquots by each individual who handled the sample materials. Use DEP Forms 077. Terminate chain of custody only when the sample, its aliquots, digestates, distillates, or extracts are returned to permanent storage after analysis, or are depleted. Illegible chain of custody documentation will result in data rejection.
- E. On completion of sample analysis, the Contractor must attach all Chain of Custody documents to the data report and forward to the State as part of the analytical data report.
- F. Electronic Internal Chain of Custody System
 - 1. The Contractor will be allowed to use an Electronic Internal Chain of Custody after award for this Contract. The Contractor must submit documentation on their Electronic Internal Chain of Custody System to the State Contract Manager for review and approval. Upon approval by the State Contract Manager, the Contractor will be allowed to implement the System. This Electronic Internal Chain of Custody System shall not be used for the Example Data Package that is a Bid Proposal Submission requirement.
 - 2. If during the term of the contract, it is determined that the Contractor is not following the requirements of this Section, the approval shall be suspended. The Contractor will be notified of the suspension in writing by the State Contractor Manager. The Contractor shall be required to use hard copy Internal Chain of Custody forms for a minimum period of six (6) months following the notification. The Contractor shall submit a Corrective Action Plan documenting their internal procedures to correct the problem and how they intend to prevent future

violations. If the Corrective Action Plan is found acceptable, the Contractor will be allowed to restart the Electronic Internal Chain of Custody System at the end of the six month period.

3. If the Contractor has a second violation of Internal Chain of Custody requirements, the use of the Electronic Chain of Custody System shall be suspended for the remainder of the Contract. The Contractor shall be required to use the hard copy Internal Chain of Custody Forms for the remainder of the Contract.
4. The Electronic Internal Chain of Custody System must meet the following requirements:
 - a. The system must be password protected.
 - b. The Electronic Internal Chain of Custody System must at a minimum contain all of the information and fields as the Hard Copy Internal Chain of Custody Form.
 - c. The Contractor may add additional fields to meet the needs of their laboratory operations.
 - d. The Electronic Internal Chain of Custody System must comply with all the Internal Chain of Custody requirements of this Section and Appendices 1-3 in documenting and providing electronic signoff for the movement of samples through the laboratory.
 - e. Full names not initials must be use on the Electronic Chain of Custody System.
 - f. A print out from the system documenting the internal chain of custody must be provided with each Data Report.

8.23 SAMPLE RETENTION/DISPOSAL

The Contractor shall not be required to store or retain unused sample remnants. The Contractor will dispose of the sample remnants after the data is submitted to the State.

8.24 SAMPLE DELIVERY GROUP

8.24.1 This contract defines a Sample Delivery Group (SDG) as a unit of no greater than twenty (20) canisters collected at a particular site. The SDG assignment is made upon receipt of the samples at the Contractor's facility. If less than twenty (20) samples are submitted for a particular site, it is considered a single Sample Delivery Group. If more than twenty samples are submitted from a particular site, then the Contractor is required to split those samples into separate Sample Delivery Groups of 20 or less and analyze each sample delivery with the appropriate number of QC samples for each group. Samples cannot be combined with other client's samples to create a SDG that consists of a mix of private client samples and State samples.

8.24.2 A SDG is a group of 20 or fewer samples received over a period of up to seven (7) calendar days. Data from all samples in a SDG are due concurrently. All samples within an SDG received within 7 calendar days, excluding Sundays and Government holidays.

8.24.3 Samples from the sampling event shall be assigned to Sample Delivery Groups at the discretion of the Contractor.

8.24.4 Laboratory control samples, method blanks and instrument blanks are considered QC samples and are not included in the sample count for a Sample Delivery Group.

8.24.5 The SDG assignment made by the Contractor is not related to the analytical sequence. The sample delivery group assignment is strictly used to track the movement of the samples in the Contractor and the production of the analytical data package.

8.25 REQUIRED SAMPLE HOLDING TIMES- ALL METHODS

8.25.1 Limitations on the Number of Days Canisters can be out of the Laboratory

All canisters after evacuation to negative thirty (–30) inches of mercury have a finite period before the level of the vacuum pressure loss that occurs naturally will inhibit the use of the canister in sample collection. Due to the loss of vacuum that occurs naturally during the storage of canisters, NJDEP has established a fifteen (15) day time limit that canisters can be out of the laboratory. The fifteen-day time limit begins with the shipment of the canisters to the Contract User. The canisters must be returned to the Contractor after 15 days whether they were used for sample collection or not.

8.25.2 This contract specifies a sample holding time of 30 days. Analysis of samples after the holding time shall not be permitted. NJDEP shall not pay the Contractor for samples analyzed after the holding time has expired.

8.25.3 This contract requires reporting of analytical data based on the required turn around time for submittal of analytical data to the State. All the three turnaround times are less than the required holding time of 30 days. The Contractor is required to follow the turnaround time specified in this contract.

8.26 TEMPERATURE REQUIREMENTS FOR SAMPLE SHIPMENT – ALL METHODS

None of the methods in this Contract have temperature requirements for shipment as stainless steel canisters are used for sample collection.

8.27 PRESSURE AND TEMPERATURE SPECIFICATIONS–CANISTER PREPARATION

In preparing the canisters for sample collection, the Contractor sets the flow rate of the flow controllers based on the barometric (atmospheric) pressure and temperature inside the laboratory in order to meet the client's needs. The Contractor must record the actual temperature and barometric (atmospheric) pressure of the room at the time the canisters (with the flow controllers) are prepared for shipment and returned from the field. Canister pressure for shipment from the Contractor must be set at negative 30 inches of mercury for all contract methods.

8.28 PRESSURE OF CANISTERS

8.28.1 RECORD NEGATIVE PRESSURE

The Contractor must check and record the negative or sub-atmospheric pressure of all canisters prior to shipping and upon return receipt. This negative pressure information must be recorded in a laboratory notebook and reported in the data report. The use of “<” or “>” from the standard pressure of 30 inches is not acceptable; the actual numeric

reading shall be required. The inches of mercury reported must be to 3 significant figures (eg -2.22 inches of mercury).

8.28.2 PRESSURIZATION CRITERIA

- A. For Method NJDEP- LLTO-15, only humidified ultra pure zero air shall be used as the source of air that is added to a canister for pressure adjustment. It must be from the same source as the method blank air. The humidified ultra pure zero air that is added to a canister for pressure adjustment is considered a dilution. This information must be recorded as required by method specific deliverable requirements. The NJDEP Reporting Limits must be adjusted for the dilution. For NJDEP LL-TO-15 Method, the Reporting Limits requirements for this method cannot be met if makeup air is added to the canister.
- B. For Method 25C, the canisters must be pressurized to approximately 10 inches of Mercury with Ultra High Purity Helium Gas prior to analysis. This information must be recorded as required by method specific deliverable requirements. Every attempt must be made to keep the diluted non-detect results less than the Reporting limits established by the Contract. If the canister has been analyzed for NJDEP-LLTO-15 prior to be analyzed for Method 25C, and if zero air was added to the canister prior to that analysis, the dilution must be taken into account in the calculation of the dilution factor. The NJDEP Reporting Limits must be adjusted for the dilution.
- C. For Method 3C, the canisters must be pressurized to approximately 10 inches of Mercury with Ultra High Purity Helium Gas prior to analysis. This information must be recorded as required by method specific deliverable requirements. Every attempt must be made to keep the diluted non-detect results less than the Reporting limits established by the Contract. If the canister has been analyzed for NJDEP- LLTO-15 prior to be analyzed for Method 3C, if zero air was added to the canister prior to that analysis, then the dilution must be taken into account in the calculation of the dilution factor. Also if helium was added to the canister prior to shipment to the field, then the dilution must be factored into the final concentration. The NJDEP Reporting Limits must be adjusted for the dilution.
- D. The amount of air added to any canister prior to NJDEP- LLTO-15 analysis cannot cause the total amount of air in the canister to exceed 6.5 liters. Ideally, the total amount of air in a canister should not exceed 6 liters. Additionally, if the canister is received at the Contractor's facility at a pressure that does not require air to be added, the addition of makeup air is prohibited. The Contractor SOP must clearly describe how the pressure of the canister is determined and exactly how the amount of makeup air to be added to canisters is determined.
- E. Methods 25C and 3C require pressurization of canisters to a method specific level prior to analysis. If the canister is not being analyzed for NJDEP-LLTO-15, then the pressurization can occur upon receipt. If NJDEP-LLTO-15 is also being conducted from the same canisters, then the canisters cannot be pressurized until after the NJDEP-LLTO-15 analysis is completed.
- F. The Contractor shall make every attempt to analyze the canisters without the addition of make up air for NJDEP-LLTO-15. The Contractor must be aware that automatically adding makeup air to canisters does cause a dilution that **must** be taken into account in the determination of the Reporting Limit used by the laboratory.

- G. Adjustment of the total sample volume injected on the column to adjust for the addition of makeup air is not acceptable. The volume injected on the column shall not be varied from the initial calibration. The addition of makeup air to canisters may raise the reporting limit used for that individual sample above the acceptable NJDEP Reporting Limits. All non-detected results must be at the NJDEP established Reporting Limit for a sample unless there is a concentration for a particular compound above 40 ppbv that causes a dilution. There are exceptions for the m & p-xylene isomer mixture, isopropanol and ethanol. See Table 2 for the NJDEP Reporting Limits. The Contractor is referred to the Sample Dilution Section for additional information on the specific requirements.
- H. The Contractor SOP must clearly describe how the pressure of the canister is determined and how the amount of makeup air to be added to canisters is determined.

8.28.3 NEGATIVE PRESSURE OF SAMPLE LESS THAN -10 INCHES OF MERCURY

If a sample canister is received and the negative pressure in the canister is less than -10 inches of Mercury (that being between 0 and -10 inches of Mercury), the Contractor may proceed with the analysis and any required dilution (if necessary) of the sample as specified in method NJDEP-LLTO-15 with the following requirements.

- A. After screening of the sample, the screening data indicates that a dilution is not required; the Contractor is required to pull a complete sample volume to place on the column for analysis,
- B. The Contractor is required to report the any data that is analyzed with air added as a diluted sample.
- C. If upon review of the data, it is determined that the dilution was not justified, the sample will be rejected and payment withheld.
- D. It is understood that a sample should never be received at zero negative pressure or a pressure equal to atmospheric pressure. The Contractor must contact the State Contract Manager should this occur prior to analysis.
- E. The humidified ultra pure zero air that is added to the canisters to bring the sample up to the method specified pressure must be from the same source as the method blank air.
- F. The procedures to correct the negative pressure of the canister must be documented in the Case Narrative of the Data Report Package. Additionally, when the canister pressure is adjusted, a table entitled Canister Dilution Calculations must be provided in the Data Report Package. See Appendix 1 for the table requirements.

8.28.4 NEGATIVE PRESSURE OF SAMPLE GREATER THAN -10 INCHES OF MERCURY

- A. If the negative pressure in a sample canister is greater than -10 inches of Mercury upon receipt, then the Contractor must contact the State Contract Manager immediately for permission to analyze the sample. Permission will not be automatic. If permission is not granted to analyze the sample, the Contractor will be eligible for a partial payment in accordance with Section 6.9.7 if this contract.

- B. If a Contractor performs a dilution and analysis on this sample without permission from the State Contract Manager, the State Contract Manager may not authorize a payment for the analysis, but instead may authorize a partial payment in accordance with Section 6.9.7.
- C. Recent advances in the concentrator units (for example, the Entech 7100A Concentrator) allow laboratories to remove samples from canisters with a negative pressure of higher than –10 inches of Mercury without having to add makeup air. It is acceptable to use these advanced concentrator units.

8.29 ORDER OF ANALYSIS

When Volatile Organics is to be analyzed in addition either Method 3C and 25C, NJDEP-LLTO-15 must be the first analysis conducted as the canisters must be repressurized for the remaining analyses to be conducted.

8.30 SAMPLING EQUIPMENT

The Contract User/State Contractor shall supply all the tubing and equipment necessary to connect the canister to the sampling train.

8.31 METHOD DETECTION LIMITS REQUIREMENTS

- 8.31.1 The method specific requirements for each MDL determination are provided in the RFP section specific to the method. However, there are common elements for each of the MDL determinations that are listed below.
- 8.31.2 All information except for signatures must be computer generated or typed. All data shall be reported in the correct units for the method.
- 8.31.3 The Contractor shall calculate all MDLs in accordance Appendix B of 40 CFR 136. There are specific criteria that the Contractor must meet regarding the MDL. The MDL is a statistical determination based on the requirements of the Method. The Contractor then determines a level above the Statistical MDL at which they determine with a certain degree of confidence, the reproducibility and reliability of the data. In such instances, the Contractor states this value as the Reporting Limit. See the appropriate contract sections for each method.
- 8.31.4 This contract requires the MDL determination to be conducted yearly for all methods and all instruments used in sample analysis including clean canister certification. The year period for the study begins with the date the Contractor's Quality Assurance Officer signs off on the MDL Study. Each method specific section lists the reporting requirements for the MDL study.
- 8.31.5 Copies of the MDL studies must be submitted to the State Contract Manager and are due within one month of the yearly study being signed off by the Contractor's Quality Assurance Officer. The MDL study must be completed and approved prior to analysis of samples and can only be associated with samples analyzed after the date of sign off. Copies of the MDL Study must be submitted to the NJDEP Office of Quality Assurance upon request.
- 8.31.6 Copies of the MDL studies for all the instruments used in the sample analysis and clean canister certification must be submitted in each analytical data package.

8.31.7 The MDL study for each method must be presented individually. The information required for each method is the same except for the units being reported.

The units for Method 3C are % v/v.

The unit for Method 25C is ppmC.

The units for NJDEP-LLTO-15 are ppbv.

8.31.8 The information must be provided in a tabular format and all the required data must be for each analyte must be on one page. The information provided for each compound must include the following:

The required format of the Summary is as follows:

Top of Page Information

- Laboratory Name
- Laboratory Location
- Matrix Type
- Effective Date/Expiration data of MDL Study
- Instrument ID and Column ID
- Indication if Instrument is used for Clean Canister Certification

Required Columns

- Compound name
- Data for seven replicates
- Mean value
- True Value
- Percent recovery
- Standard deviation
- Method Detection Limits
- Reporting Limits
- True Value/MDL Ratio
- RL/MDL Ratio

Top or Bottom of Page Information

- Analyst name and date analyzed
- Reviewed by name and date
- Report preparer's name and date prepared
- QA Officer name and date signed.

8.32 METHOD DETECTION LIMIT VERIFICATION SUMMARY (MDLV)

8.32.1 The Method Detection Limit Verification Summary (MDLV Summary) must be submitted with the Method Detection Limit Study for each compound in each method.

8.32.2 The Method Detection Limit Verification Study (MDLV) must be completed after the Method Detection Limit Study is completed.

8.32.3 All information except for signatures must be computer generated or typed. All data shall be reported in the correct units for the method.

- 8.32.4 This contract requires the MDLV determination to be conducted yearly for all methods and all instruments used in sample analysis including clean canister certification. The year period for the study begins with the date the Contractor's Quality Assurance Officer signs off on the MDLV Study. The MDLV study must be completed and approved prior to analysis of samples and can only be associated with samples analyzed after the date of sign off. Each method specific section lists the reporting requirements for the MDLV study.
- 8.32.5 The method specific requirements for each MDLV determination are provided in the RFP section specific to the method. However, there are common elements for each of the MDLV determinations that are listed below.
- 8.32.6 Copies of the MDLV Summaries must be submitted to the State Contract Manager and are due within one month of the yearly study being signed off by the Contractor's Quality Assurance Officer. Copies of the MDLV Study must be submitted to the NJDEP Office of Quality Assurance upon request.
- 8.32.7 Copies of the MDLV Summaries for all the instruments used in the sample analysis and clean canister certification must be submitted in each analytical data package.
- 8.32.8 The MDLV summaries for each method must be presented individually. The information required for each method is the same except for the units being reported.

The units for Method 3C are % v/v.

The unit for Method 25C is ppmC.

The units for NJDEP-LLTO-15 method are ppbv.

- 8.32.9 The information must be provided in a tabular format and all the required data must be for each analyte must be on one page. The information provided for each compound must include the following:

The required format of the Summary is as follows:

Top of Page Information

- Date of verification study
- Analysis method
- Cleanup method (if applicable)
- Study Identification file name:
- Matrix
- Analysis level
- Analyst name
- Approval by QA Officer (name and date)

Required Columns

- Analyte name
- CAS number
- MDLV source
- Source study
- Source instrument
- Source analysis date
- MDLV

- Reporting Limit

8.33 CLEAN CANISTER CERTIFICATION GENERAL REQUIREMENTS

- 8.33.1 The clean canister certification requirements for each method are provided in the section pertaining to each method.
- 8.33.2 Canisters that are used for method blanks and instrument blanks cannot be use for clean canister certification.
- 8.33.3 The Contractor must document and track which canisters are associated with each batch certification. A separate logbook page must be generated documenting the canisters associated with each batch certification. The logbook page must include the start and stop date/time of cleaning, heating unit type, number of cycles, analyst's name and signature and canister serial numbers. In addition, the laboratory file number from the GC/MS analysis or GC analysis associated with the canister being cleaned must be listed.
- 8.33.4 The Contractor must specify the canister cleaning procedures that are used in their SOP. For each type of canister cleaning procedure (bands, ovens or heating jacket) a separate canister must be used to demonstrate that the cleaning procedure meets the requirement of the method.
- 8.33.5 NJDEP has not established a batch maximum for canisters cleaned by a particular cleaning technique. All the canisters in a batch must be cleaned under the same conditions (temperature, time, cycles etc.). The Contractor in their SOP must specify the maximum number of canisters in a cleaning batch.
- 8.33.6 The Contractor must utilize the same Reporting Limits for the clean canister certification as for the sample data. The reporting limit criteria are provided in the method specific sections of the Contract.

8.34 USEPA METHOD 3C REQUIREMENTS (FIXED GASES)

8.34.1 ADDITION OF HELIUM FOR AIR SHIPPING REQUIREMENTS

If the State requires helium to be is added to the canisters prior to shipping for sample collection due to the level of methane at the site, the Contractor must document the amount of helium added to canisters and document the final pressure prior to shipping to the state. The Contractor must document in writing to the Contract User the final pressure prior to shipping to the field so that an adequate sample volume can be collected in the canister. This also establishes the dilution factor that will exist in the canister prior to sample collection and affect the concentration reported in the final results.

8.34.2 METHOD DETECTION LIMIT REQUIREMENTS

A. Required Spiking Levels

The spiking levels for the Method Detection Limit Determination for the compounds required by Method 3C are listed below.

<u>Compound</u>	<u>Spiking Level v/v %</u>
Carbon Dioxide	0.025

Methane	0.020
Oxygen	0.025
Carbon Monoxide	0.025
Nitrogen	0.25

- B. All information except for signatures must be computer generated or typed. All data shall be reported in v/v%. The Contractor must specify if peak area or height is used in the MDL determination for each gas standard.
- C. This contract is establishing maximum Method Detection Limits (MDLs) for the five compounds reported by USEPA Method 3C. The Contractor can use lower MDLS for these five compounds. The required units are percentage v/v (% v/v).

<u>Compound</u>	<u>Method Detection Limit</u>
Carbon Dioxide	0.0050 %v/v
Methane	0.0050 % v/v
Carbon Monoxide	0.0050 % v/v
Oxygen	0.0200 % v/v
Nitrogen	0.25 % v/v

8.34.3 METHOD DETECTION LIMIT VERIFICATION (MDLV) REQUIREMENTS

- A. The MDLV must be conducted for each analyte in the MDL Study.
- B. All information except for signatures must be computer generated or typed. All data shall be reported in v/v%. The Contractor must specify if peak area or height is used in the MDL determination for each gas standard.
- C. The MDLV for each compound must be calculated using either peak area or peak height option that was used for the MDL determination for that compound.

8.34.4 REPORTING LIMIT REQUIREMENTS

- A. The reporting limit cannot be less than the lowest initial calibration standard used by the Contractor. The sample result must be reported in % v/v.
- B. The reporting limit for each compound must be calculated using either peak area or peak height option that was used for the MDL determination for that compound.
- C. The maximum Reporting Limits for USEPA Method 3C are as follows. The required units are percentage v/v (% v/v).

<u>Compound</u>	<u>Reporting Limit</u>
Carbon Dioxide	0.05 % v/v
Methane	0.04 % v/v
Carbon Monoxide	0.05 % v/v
Oxygen	0.05 % v/v
Nitrogen	0.5 %v/v

8.34.5 INJECTIONS OR ACQUISITIONS REQUIREMENTS

- A. All injections including samples, standards, QC samples and blanks must be done in duplicate and calculated using the average sample peak area or peak height. The

injections must occur in sequence. The results are acceptable when the peak areas or peak height for two consecutive injections agree within 5% of their average.

- B. The Contractor must use the same procedure (either peak height or peak area) for each compound used for the determination of the MDL, MDLV and Reporting Limit for the reporting of the samples, standards, QC samples and blanks data. If it is determined that the data for the samples, standards, QC samples and blanks are reported differently than the MDL, MDLV and Reporting Limit, the data will be rejected and the Contractor will have to recalculate the data and resubmit. The resubmitted data must comply with all the requirements of the contract.
- C. If they do not agree, the Contractor shall be required to run additional sample (in duplicate and in sequence) until consistent area data is obtained. For each sample, standard, QC sample and blanks, the results for both acquisitions must be presented in the data package.

8.34.6 ANALYTICAL SEQUENCE

- A. All injections including samples, standards, QC samples and blanks shall be done in duplicate and calculated using the average sample peak area or peak height. The injections must occur in sequence. The results are acceptable when the peak area or peak height for two consecutive injections agree with 5 percent (%) of their average.
- B. The Contractor shall be required to follow the sequence below in the analysis of the samples.

Initial Calibration Sequence (Maximum 24 hours)

Initial Calibration (minimum of five points for each gas)
Initial Calibration Verification Sample Standard
Method Blank
Laboratory Control Sample (optional location)
Samples
Instrument blanks and other blanks (if applicable) (optional location)
Closing Continuing Calibration Verification Standard (within 24 hours of the first acquisition of the Initial Calibration Standard)

Daily Calibration Sequence (maximum 24 hours)

Opening Continuing Calibration Verification Standard
Method Blank
Laboratory Control Sample (optional location)
Samples
Instrument blanks and other blanks (if applicable) (optional location)
Closing Continuing Calibration Verification Standard (within 24 hours of the first acquisition of the Continuing Calibration Verification Standard)

8.34.7 GENERAL ANALYTICAL STANDARD REQUIREMENTS

- A. The gas standards required for this method do meet the requirements of 40 CFR Part 60 that requires all gaseous pollutant concentration standards used for calibration and audit of continuous emission monitors (CEM) and ambient air quality analyzers be analyzed according to "EPA Traceability Protocol for Assay and Certification of Gaseous Calibration Standards (EPA600/R-97/121)" revised September 1997.

- B. The gas standards shall be in pressurized cylinders certified traceable to a NIST Standard Reference Materials (SRM) or NIST/EPA approved Certified Reference Material (CRM). The Contractor must certify in the case narrative of each data package that gas standards have been used. The Contractor must specify their suppliers in the Standard Operating Procedure submitted to the Office of Quality Assurance for certification.
- C. Ultra-High Purity helium must be used for the carrier gas.
- D. Original Certificates of Analyses (C of A) from the supplier for each lot must be maintained by Contractor. The Contractor must certify in the case narrative of each data package that gas standards have been used. Copies of specific lot Certificates of Analyses used in the analysis of the samples for a particular Sample Delivery Group must be included in the analytical data package.

8.34.8 SECOND SOURCE FOR STANDARDS

The calibration standards and the Laboratory Control Sample standard can be from the same lot.

8.34.9 CALIBRATION STANDARD REQUIREMENTS

A. GC Initial Calibration Requirements

The Contractor shall conduct the initial calibration using a minimum of five (5) points for each compound. The lowest calibration standard for each compound must be the same as the reporting limit for the compound. Each gas standard is not required to be in each initial calibration standard mixture.

B. Initial Calibration Verification Sample Standard

The initial Check Verification Sample Standard can be either from a different commercial supplier or from an independent lot from the same commercial supplier (different from the lot used for the Calibration Standards and the Laboratory Control Sample). The standard must contain all the compounds of interest. The concentration of the Initial Calibration Verification Sample Standard shall be the midpoint of the calibration range for each compound.

C. Continuing Calibration Standard (Opening and Closing)

The Continuing Calibration Standard for each of the gases must be midpoint between the lowest and highest calibration standard. All the gases must be in one calibration standard.

8.34.10 LABORATORY CONTROL SAMPLE

The Laboratory Control Sample (LCS) must consist of helium gas spiked with a known concentration of gas compounds. Methane is spiked at 4 % v/v and the other compounds (carbon dioxide, oxygen and nitrogen) are spiked at 5% v/v. All gas standards must be in the same LCS standard mixture.

8.34.11 SAMPLE ANALYSIS REQUIREMENTS

A. Initial Calibration Requirements

1. The Contractor shall use a minimum five (5) standards for each compound in the initial calibration. All standard acquisitions being used for the initial calibration must be collected at the beginning of the 24-hour sequence prior to the collection of any samples, blanks or LCS. Acquisitions from other 24-hour sequences cannot be used for the initial calibration.
2. The calibration range can be established by the Contractor. The only requirement is that the lowest calibration standard must be the same as the reporting limit for the compound.
3. Linearity Determination
 - a. Linear regression shall not be acceptable to determine linearity. Linearity must be determined by response factors.
 - b. The linearity of the instrument must be determined by calculating the Percent Relative Standard Deviation (%RSD) of the response factors (from a five-point or more calibration curve) for each of compounds. All points must be used in the calculation. Either peak area or peak height can be used to calculate the response factors used in the %RSD equation.

For example:

It is permitted to calculate linearity for methane compound based on peak area and to calculate linearity for oxygen based on peak height.

It is not permitted within a %RSD calculation for an analyte to use the response factor calculated from both peak area and peak height.

It is not permitted to calculate the response factor for the lowest standard for methane using peak height and calculate the highest standard response factor for methane using peak area.

4. Response Factors of uncorrected component concentration (wet basis) must be used for instrumental integration. The maximum response factor for each compound is RSD of 20 %.
5. Any samples or required blanks analyzed when initial calibration verification technical acceptance criteria have not been met shall require reanalysis at no additional cost to the State.
6. The initial calibration verification does not have to be repeated every 24 hours as long as the opening and closing Continuing Calibration Verification Standard % Difference does not exceed ± 20 % for any of the compounds.

B. Initial Calibration Verification Sample Requirements

1. The initial calibration verification standard must be analyzed immediately after the final initial calibration standard is analyzed and prior to the analysis of the associated method blank if samples are analyzed with the initial calibration.
2. The % Recovery of the Initial Calibration Verification Standard from the required

concentration of each compound in the standard (see the required concentration in item 8.34.9.B of this section) must be between +/- 20 percent (%) for the Initial Calibration Verification Standard to be acceptable. If the % Recovery of any compound is outside of control limits, the Contractor shall reinject the Initial Calibration Verification Standard. The reinjection must be the next injection after the failed standard and the one of the following actions shall occur:

- a. If the second injection of the Initial Calibration Verification Standard meets the +/- 20% criteria, the Contractor will use the second injection as the compliance standard. The failed first injection must be noted on all run logs and discussed in the case narrative.
- b. If the second injection of the Initial Calibration Verification Standard fails to meet the +/- 20% criteria, the Contractor shall halt the analytical sequence and take the required appropriate corrective action that may include re-preparation of standards. Upon completion of the corrective action, the Contractor shall be required to restart the calibration analytical sequence with an initial calibration sequence.
- c. If the Contractor fails to analyze the second Initial Calibration Verification Standard as required due to a failed initial injection of the standard and then continues the analytical sequence (either initial or an associated daily sequence), all associated data shall be unacceptable. The Contractor is required to reanalyze all the associated samples and blanks in another analytical sequence that begins with an acceptable calibration sequence and Initial Calibration Verification Standard.

C. Continuing Calibration Verification Standards (Opening and Closing)

1. This Contract allows the Contractor to use a continuing calibration verification standard (CCV standard) to open a 24-hour time period for analysis as long as certain criteria are met. The required analytical sequence is detailed in Section 8.34.6. This is known as the Opening Continuing Calibration Verification Standard.
2. The analytical sequence must end with the injection of a closing CCV standard prior to expiration of the 24 hour time period. If the injection of the acceptable CCV standard occurs after the expiration of the 24-hour time period, the injection is not acceptable and all samples, blanks and LCS analyzed must be rerun at no cost to the State with a compliant calibration.
3. Opening Continuing Calibration Verification
 - a. CCV Standards can be used to initiate the 24-hour time period if the % Difference for all the compounds do not exceed $\pm 20\%$. If the % Difference exceed $\pm 20\%$ for any of the compounds, the opening CCV standard is not acceptable. The Contractor can inject the opening CCV standard one more time (duplicate injections in sequence) to obtain a compliant calibration. If a compliant calibration cannot be obtained with the second set of acquisitions, a new initial calibration must be conducted.
 - b. If the second set of acquisitions meet the contract established requirements, this is considered the compliant calibration and must be reported and used for reporting of the data.

- c. All standard acquisitions being used for the opening CCV must be collected at the beginning of the 24-hour sequence prior to the collection of any samples, blanks or LCS. Acquisitions from other 24-hour sequences cannot be used for the continuing calibration.
 - d. Any samples or required blanks analyzed when opening CCV technical acceptance criteria have not been met shall require reanalysis at no additional cost to the State.
4. Closing Continuing Calibration Verification
- a. Closing Continuing Calibration Verification Standards must be run prior to the end of the 24-hour period associated with the Initial Calibration or a compliant Opening Continuing Calibration Verification Standard. The compliant CCV standard (duplicate injections in sequence) must be injected prior to the completion of the 24-hour period. Any closing CCV that is conducted after the expiration of the 24-hour period shall require all samples, QC samples and blanks analyzed within that 24-hour period to be reanalyzed at no additional cost to the State.
 - b. If the % Difference exceeds ± 20 % for any of the gases, the closing CCV standard shall not be acceptable.
 - c. If the closing CCV technical acceptance criteria are not met and there is time remaining in the 24 hour sequence, the Contractor can immediately reinject the CCV standard one time (duplicate injections in sequence) to determine if the ± 20 % Difference criteria can be met. If the second set of injections meets the criteria, the second set of data is to be used for the Closing Calibration Verification.
 - d. If the second set of CCV standards fails, all samples, QC samples and blanks analyzed within that 24-hour time period must be reanalyzed at no additional cost to the State. It may be necessary to change the column, undertake detection maintenance or take other corrective actions to achieve the CCV technical acceptance criteria.

D. Laboratory Control Sample

1. One Laboratory Control Sample (LCS) is required for every 24-hour period. This is the same frequency as the method blank. The Laboratory Control Sample must be analyzed after the method blank in the sequence and prior to the closing CCV. This requirement must be met whether the LCS is associated with an initial calibration standards or an opening continuing calibration standard.
2. The duplicate injections (in sequence) of the LCS must be averaged together to generate the result to compare to the concentration of the LCS standard.
3. The acceptable % recovery for the LCS for each compound is 60-140%. If the first set of LCS acquisitions fail, the Contractor has the choice of two options.

Option 1 - If there is sufficient sample volume left in the sample canister, the Contractor must reanalyze the sample with a LCS that is within control limits. This may require the Contractor to cease acquisition of all

data, determine the source of the problem and undertake corrective action. Upon completion of the corrective action, start the initial calibration from the first injection.

Option 2 - If there is not sufficient sample volume left in the sample canister, the Contractor must immediately in sequence after the non compliant LCS acquire a second set of LCS data (duplicate injections in sequence). If the recoveries are acceptable in the second set of LCS data, the second set of data is to be used for the compliant LCS.

If the LCS is still outside control limits, the LCS is not acceptable. The Contractor must document the fact on the instrument run log and in the case narrative that insufficient volume remained in the sample canister preventing reanalysis of the sample. The Contractor must include in the case narrative that all the results are qualified "J" or "UJ" due to recovery being outside of the control limits.

E. Carbon Dioxide Peak

A carbon dioxide peak must not be present in any of standards, samples or QC sample acquisitions reported to the State. The presence of a carbon dioxide peak in any standard, samples or QC sample acquisition will require reanalysis of the in accordance with the requirements of this contract. The Contractor shall reanalyze the affected standards, samples and QC samples at no additional cost to the State.

F. Chromatographic Scaling Requirements

1. Chromatograms must display all target compound peaks normalized to full scale for all samples, standards and QC samples. The chromatogram shall be normalized to full scale based on the highest target.
2. When no compounds are identified in a sample, the chromatograms from the analyses of the sample must use the same scaling factor as was used for the low-point standard of the initial calibration associated with those analyses.
3. If a chromatogram is replotted electronically to meet these requirements, the scaling factor used must be displayed on the chromatogram.
4. All target compounds in the chromatograms shall be labeled with the names of compounds or retention times on the peak or on an accompanying printout with retention times and compound names.
5. Reconstructed ion chromatograms shall be normalized to the largest target or and shall be labeled with following header information:
 - a. Sample identification number
 - b. Date and time of analysis
 - c. GC/MS instrument identification -- exact instrument employed.
 - d. Lab file Identifier
 - e. Analyst ID

G. Method Blank

1. The method blank consists of UHP helium air. The method blank can be created directly from the helium gas lines or from a clean canister. There is no acceptable level of any contaminant in the method blank. If contamination is detected in the method blank, the Contractor must reanalyze all associated samples, QC samples and any instrument blanks at no cost to the state.
2. The duplicate injections (in sequence) of the method blank must be averaged together to generate the concentration in the method blank. Both acquisitions of the method blank must be non-detect for the method blank to be considered acceptable.
3. If the method blank is not clean of contamination, all data acquisitions must cease and the source of contamination must be determined, corrective action taken and a new method blank canister prepared. The method blank must be reanalyzed and be free of contaminants for the analysis.
4. If the method blank is created directly from the helium gas lines, it must be noted on the instrument log.
5. If the Contractor uses the canister option to create the method blank, the canister is required to be a dedicated canister that has never left the Contractor's facility. The serial number of the method blank canister must be noted on all the clean canister logs and instrument run logs. A canister that has been used for sample collection out in the field cannot be used as method blank canister.
6. One method blank must be analyzed every 24-hour period. The method blank must be analyzed immediately after the initial calibration verification sample standard if the method blank is associated with an initial calibration. The method blank associated with an opening CCV must be analyzed immediately after the Opening CCV and prior to the associated LCS. In both instances, the method blank must be analyzed prior to the analysis of any samples.
7. The method blank must be analyzed prior to any closing CCV standard.
8. If the first set of method blank acquisitions fails, the Contractor has the choice of two options.
 - Option 1 - Cease acquisition of all data, determine the source of the problem and undertake corrective action. Upon completion of the corrective action, start the initial calibration from the first injection.
 - Option 2 - The Contractor immediately in sequence after the non-compliant method blank acquires a second set of data (duplicate injections in sequence). If no contamination is detected in the second set of method blank data, the second set of data is to be used for the compliant method blank. If contamination is detected in the second set of method blank data, the method blank is not acceptable and Option 1 must be initiated.

H. Instrument Blanks

1. If the Contractor determines during the analytical sequence that an instrument blank needs to be analyzed for any reason within an analytical sequence, the instrument blank is created from the same source as the method blank. The

sample must be labeled as an instrument blank and the reason for analyzing the blank documented in the case narrative and the instrument run log.

2. There is no acceptable level of any contaminant. If contamination is detected in the instrument blank, the Contractor must reanalyze all associated samples, QC samples and any method blanks within the 24-hour sequence at no cost to the State.
3. If the instrument blank is created directly from the helium gas lines, it must be noted on the instrument log.
4. If the Contractor uses the canister option to create the instrument blank, the instrument blank must be created from the same canister as the method blank. The canister is required to be a dedicated canister that has never left the Contractor's facility. The serial number of the instrument blank canister must be noted on all the clean canister logs and instrument run logs. A canister that has been used for sample collection out in the field cannot be used as instrument blank canister.
5. The instrument blank must be processed simultaneously with and under the same conditions as samples through all steps of the analytical procedure.
6. If the first set of instrument blank acquisitions fails, the Contractor has the choice of two options.

Option 1 - Cease acquisition of all data, determine the source of the problem and undertake corrective action. Upon completion of the corrective action, start the initial calibration from the first injection.

Option 2 - The Contractor immediately in sequence after the non-compliant instrument blank acquires a second set of data (duplicate injections in sequence). If no contamination is detected in the second set of instrument blank data, the second set of data is to be used for the compliant instrument blank. If contamination is detected in the second set of instrument blank data, the instrument blank is not acceptable and Option 1 must be initiated.

8.34.12 CLEAN CANISTER CERTIFICATION REQUIREMENTS

- A. The canister used for batch certification must be certified clean prior to the shipment of any canisters to the field for sample collection.
- B. Clean canister certification is required for all canisters being analyzed under this method.
- C. Canisters that are used for method blanks and instrument blanks cannot be used for clean canister certification.
- D. The Contractor shall certify clean one canister from each batch of canisters cleaned according to the procedures in NJDEP-LLTO-15 which requires the canisters certified down to ≤ 0.2 ppbv for all compounds.

- E. The canister that is used for batch certification must be either the canister that is certified clean by the procedures in NJDEP-LLTO-15 from the batch or is another canister from the same batch.
- F. The evacuated canister is be filled with UHP helium gas for analysis. The canister is then analyzed in accordance with the requirements of Method 3C. The canister can be analyzed either in a separate calibration sequence or can be analyzed with other environmental samples. If none of the fixed gases are detected in the canister, the entire batch of canisters are considered to be certified clean.
- G. If any of the fixed gases (methane, oxygen, carbon dioxide or nitrogen) are detected in the canister, the canister has failed the clean canister certification test. This canister and all the associated canisters from the batch must be recleaned according to the procedures in the NJDEP-LLTO-15 Method and a new canister certification is required.

8.34.13 REPORTING AND ANALYTICAL DATA

The Contractor shall report the data as analyzed. Any correction of the sample data for temperature, barometric pressure, water content and nitrogen content will be done by the data user.

8.34.14 VOLUME OF SAMPLE USED FOR ANALYSIS

- A. The undiluted volume of sample drawn from the canister for analysis must be standardized by the Contractor at the time of submittal of their Standard Operating Procedures. The Contractor be aware of the following requirements in the dilution of State samples and must address the following requirements in the standard operating procedures.
 - 1. Automatic dilution of samples beyond what is required to repressurize the canister prior to analysis as required by the method shall not be permitted, if upon analysis none of the target compounds concentrations in the sample exceed the highest calibration standard. The sample must be analyzed without the addition of any makeup air (beyond the initial pressurization). The data shall be reported with only the initial pressurization dilution factor applied.
 - 2. If dilutions are required due to concentrations in the samples that exceed the highest calibration standard, the volume drawn from the canister must be reduced and UHP helium must be used as the makeup gas. All sample data must be reported with the dilutions factored in and the all the Reporting Limits must be adjusted for the required dilutions.
 - 3. Both the undiluted and diluted sample data must be reported on separate data summary reporting forms with all the accompanying documentation.
- B. If dilutions are required due to concentrations in the samples that exceed the upper calibration of the instrument, the volume drawn from the canister must be reduced and UHP helium gas must be used as the makeup air.
- C. The Contractor shall not automatically add UHP helium to the undiluted sample either on the column, in a canister, Tedlar bag, or other options to meet their systems requirements without the sample being reported as diluted.

- D. The Contractor must establish screening procedures for all samples analyzed by this method.
- E. The Contractor can propose other options for dilution of samples after contract award. The submittal of other options for dilution of samples does not indicate automatic approval to use such procedures. The proposed procedures cannot be used until approved by the State Contract Manager. The specific procedures shall then be included in a revision to the standard operating procedures and be submitted to the State Contract Manager for final approval.

8.34.15 SAMPLE DILUTIONS

As part of the routine analysis, canisters will be received by the Contractor that will require dilutions to be conducted so that samples results shall be within the calibration range of the instrument. As part of the process, the Contractor shall incorporate the following procedures into their screening procedures of the canisters. The Contractor must also describe the dilution procedures that they intend to use for this method.

- A. If the Contractor must add UHP helium gas as the makeup air to the sample for the dilution, the source must be the same as the source that is used for the preparation of the method blanks.
- B. All dilutions must be made immediately prior to GC analysis of the sample.
- C. The dilution procedures must be documented in the Case Narrative of the analytical data package.
- D. Contractor procedural dilution of samples beyond the initial pressurization of the canisters shall not be permitted. If the sample is reported with all target analyte results at or below the required Reporting Limits, then the sample must be analyzed without the addition of any makeup air (beyond the initial pressurization) and without any additional corrections for sample dilutions.
- E. If all the target analyte results in a sample are less than the highest calibration standard in the initial calibration, the sample must be analyzed without the addition of any makeup UHP helium gas(beyond the initial pressurization) and the data reported without any dilution factor adjustment applied. (See item J. in this section below for additional information.)
- F. If dilutions are required due to concentrations of any target compound in a sample exceeds the upper calibration standard of the initial calibration, the volume drawn from the canister must be reduced and UHP helium gas must be used as the makeup air. All sample data must be reported with the dilutions factored in and the all the Reporting Limits must be adjusted for the required dilutions.
- G. The Contractor must choose a sample specific dilution factor that shall keep the concentration of the largest peak for a target compound in the upper half of the initial calibration range.
- H. The screening data must be provided in the analytical data packages as required by the current deliverable requirements established by the NJDEP.

- I. If the screening results indicate that the peak response for any target compound in any sample does not exceed the peak response in the highest standard in the initial calibration, the sample must be analyzed without being diluted.
- J. If the screening results indicates that the peak response for any target compound in any sample does exceed the peak response in the highest standard in the initial calibration, the Contractor shall chose of one two options.
 - 1. The Contractor must analyze the sample as undiluted and then analyze the sample at the correct dilution level. The Contractor can use the results of the original analysis to determine the approximate dilution factor to get the largest analyte peak within calibration range.
 - 2. The Contractor must chose the dilution level that shall allow the sample can be analyzed at the most concentrated dilution and meet the requirements of the method. The Contractor must demonstrate that it has chosen the appropriate level by analyzing the sample at one further dilution.

For both options, the Contractor shall not submit more than two sets of data. The Contractor must submit both sets of data separately. Both sets of data must meet the requirements of the method.

- K. Both the undiluted and diluted sample data (or the two dilutions as required by section J. above) must be reported on separate data summary reporting forms with all the accompanying documentation.
- L. There are various options available for the dilution of the samples depending on the analytical systems used by the Contractor. The Contractor can propose other options for dilution of samples after contract award. The submittal of other options for dilution of samples does not indicate automatic approval to use such procedures. The proposed procedures cannot be used until approved by the State Contract Manager. The specific procedures shall then be included in a revision to the standard operating procedures and be submitted to the State Contract Manager for final approval. The options can include the following:
 - 1. Injection of a volume of sample into another certified clean canister and induction of Ultra-High Purity helium gas.
 - 2. Dilutions conducted directly on the instrument.
 - 3. Tedlar bags can be used. When tedlar bags are used, absorption and contribution issues must be determined prior to their use. Tedlar bag blanks must be analyzed as part of the analytical sequence. These blanks are in addition to the required method blanks must be clearly identified in the sequence. The blanks must be analyzed after the method blank and prior to the sample.

8.35 USEPA METHOD 25C REQUIREMENTS (NON METHANE ORGANIC CARBON)

8.35.1 REPORTING OF DATA RESULTS

All data shall be reported as Non Methane Organic Carbon (NMOC) and reported in units of ppmC (parts per million carbon).

8.35.2 METHOD DETECTION LIMIT REQUIREMENTS

A. Required Spiking Levels

The spiking level for the Method Detection Limit Determination for the NMOC by Method 25C shall be 3.0 ppmC.

- B. All information except for signatures must be computer generated or typed. All data shall be reported in v/v%. The Contractor must specify if peak area or peak height is used in the MDL determination for each gas standard.
- C. This contract is establishing maximum Method Detection Limit (MDL) for Method 25C at 3.0 ppmC.

8.35.3 METHOD DETECTION LIMIT VERIFICATION REQUIREMENTS

A. The MDLV must be conducted with the MDL Study.

- B. All information except for signatures must be computer generated or typed. All data shall be reported in ppmC. The Contractor must specify if peak area or peak height is used in the MDLV determination for NMOC.
- C. The MDLV for each compound must be calculated using either peak area or peak height option that was used for the MDL determination for that compound.

8.35.4 REPORTING LIMIT REQUIREMENTS

- A. The required Reporting Limit is 6 ppmC. The reporting limit cannot be less than the lowest initial calibration standard used by the Contractor.
- B. The Contractor must specify if peak area or peak height is used in the Reporting Limit determination for NMOC.
- C. The Reporting Limit must be calculated using the either peak area or peak height that was used for the MDL determination for NMOC.

8.35.5 INJECTIONS OR ACQUISITIONS REQUIREMENTS

- A. All injections including samples, standards, QC samples and blanks are to be done in triplicate and calculated using the average sample area or height. The injections must occur in sequence. The results are acceptable when the peak areas or peak heights for three consecutive injections agree within 5% of their average.
- B. The Contractor must use the same procedure (either peak height or peak area) used for the determination of the MDL, MDLV, and Reporting Limit for the reporting of the samples, standards, QC samples and blanks data. If it determined that the data for the samples, standards, QC samples and blanks are reported differently than the MDL, MDLV and Reporting Limit, the data will be rejected and the Contractor will have to recalculate the data and resubmit. The resubmitted data must comply with all the requirements of the contract.
- C. The three acquisitions for each calibration level (initial and continuing) are to be averaged together to report the response factor for that level. The average response factor for each level is used to determine the averaged response across the curve, %

RSD. For the continuing calibration standards, the response factor and the % D are calculated.

8.35.6 ANALYTICAL SEQUENCE

- A. All injections including samples, standards, QC samples and blanks are to be done in triplicate and calculated using the response of the instrument in the sample concentration calculation. Each injection must be reported. All injections including samples, standards, QC samples and blanks are to be done in triplicate and calculated using the average sample area or height. The injection must occur in sequence. The results are acceptable when the peak areas or peak heights for three consecutive injections agree within 5% of their average.
- B. The contractor is required to follow the sequence below in the analysis of the samples.

Initial Calibration Sequence (24 hours maximum)

Calibration Standard 1 – lowest standard

Calibration Standard 2 – mid-range standard

Calibration Standard 3 – highest standard

Note: the Contractor can analyze other standards between the required standards.

Initial Calibration Verification Sample Standard/LCS (or analyze both individually)

Method Blank

Samples

Instrument Blanks and other Blanks – location optional

Closing Calibration Verification Standard (within 24 hours of the injection of the lowest initial calibration standard)

Daily Calibration Sequence (24 hours maximum)

Opening Continuing Calibration Verification Standard

Laboratory Control Sample (optional location)

Method Blank

Samples

Instrument blanks and other blanks (if applicable) (optional location)

Closing Continuing Calibration Verification Standard (within 24 hours of the first acquisition of the Continuing Calibration Verification Standard)

8.35.7 GENERAL ANALYTICAL STANDARD REQUIREMENTS

- A. The gas standards required for this method do meet the requirements of 40 CFR Part 60 that requires all gaseous pollutant concentration standards used for calibration and audit of continuous emission monitors (CEM) and ambient air quality analyzers be analyzed according to "EPA Traceability Protocol for Assay and Certification of Gaseous Calibration Standards (EPA600/R-97/121)" revised September 1997.
- B. The gas standards are to be in pressurized cylinders certified traceable to a NIST Standard Reference Materials (SRM) or NIST/EPA approved Certified Reference Material (CRM). The Contractor must certify in the case narrative of each data package that gas standards have been used. The Contractor must specify their suppliers in the Standard Operating Procedure submitted to the Office of Quality Assurance for certification.

- C. All standards including calibration standards and laboratory control standards must be prepared in summa canisters.
- D. Original Certificates of Analyses (C of A) from the supplier for each lot must be maintained by the Contractor. The Contractor must certify in the case narrative of each data package that gas standards have been used. Copies of specific lot Certificates of Analyses used in the analysis of the samples for a particular Sample Delivery Group must be included in the analytical data package.
- E. Ultra high purity (UHP) gas cylinders are required for helium and hydrogen gases.

8.35.8 SECOND SOURCE FOR STANDARDS

The LCS and ICV standards are the same gas mixture as the calibration mixture but must be a different lot number.

8.35.9 INITIAL CALIBRATION STANDARDS

- A. The calibration standards are to be prepared from the same stock propane gas standard. The lot number must be included on the instrument run log.
- B. A minimum of three calibration standards shall be required. The Contractor can use more than three standards; however, this contract establishes the lowest standard, mid range standard and highest standard. The three required calibration standards are listed below.

Level	NMOC (ppmC)
Low	6
Mid range	750
Highest	3000

8.35.10 INITIAL CALIBRATION VERIFICATION SAMPLE STANDARD (ICV STANDARD)

The Initial Calibration Verification Sample Standard must be from a second source. The ICV Standard must be the same concentration as the mid range standard (750 ppmC used in the initial calibration). It can be made from the same gas mixture as the calibration standards but must be from a different lot number. The lot number must be included on the instrument run log. The ICV standard can be from the same lot as the Laboratory Control Sample.

8.35.11 CONTINUING CALIBRATION VERIFICATION STANDARD (OPENING AND CLOSING)

The continuing calibration verification standard must be at a concentration equivalent to the middle calibration standard 750 ppmC. The UHP nitrogen is used in the standard. The lot number must be included on the instrument run log. The separate continuing calibration verification standard or the mid range initial calibration standard can be used.

8.35.12 LABORATORY CONTROL SAMPLE (LCS)

The Laboratory Control Sample (LCS) must be from a second source. The second source can be from the same calibration mixture as the standards, but must be from a different lot number. The LCS can be from the same lot as the ICV Standard. The lot

number must be included on the instrument run log. The LCS must be spiked at the 750 ppmC, which is the same concentration as the required mid range calibration standard.

8.35.13 SAMPLE ANALYSIS REQUIREMENTS

A. Initial Calibration Requirements

1. The Contractor is required to use a minimum of three standards for the initial calibration. All standards must be analyzed in triplicate and in sequence. All standard acquisitions used in the initial calibration must be collected at the beginning of the 24-hour sequence prior to the collection of any samples, blanks or QC samples. Acquisitions from other 24-hour sequences shall not be used for the initial calibration.
2. The calibration range for method shall be from 6 ppmC to 3000 ppmC, with the mid range is established at 750 ppmC. The Contractor can analyze additional calibration standards. The all standards (required and extra standards) must be used in the calculation of the % RSD.
3. Linear regression shall not used to determine linearity. Linearity must be determined by response factors.
4. Any samples or required blanks analyzed when the initial calibration technical acceptance criteria has not been met shall require reanalysis at no additional cost to the State.
5. The three acquisitions (triplicate injections in sequence) for each calibration level shall be averaged together and the % difference shall not to exceed +/-15% of the overall mean response of all the calibration points.
6. The % RSD level specified in this contract is higher than the level specified in the method. The higher levels are more practical for environmental laboratories for the initial calibration. The % RSD must be within 15% of the initial calibration to be acceptable. If the % RSD exceeds 15%, all acquisitions must be stopped, the problem corrected and the initial calibration repeated.
7. The initial calibration does not have to be repeated every 24 hours as long as the opening and closing continuing calibration verification standard % difference does not exceed +/-15%.
8. In the initial calibration, since the ICV Standard and the LCS are conducted at the same concentration, the one set of triplicate injections can be conducted by the Contractor and that injection series will be sufficient to satisfy the requirements of a ICV Standard and the LCS that are required for the initial calibration. The result obtained must be evaluated individually as the ICV Standard and LCS and meet the requirements of both QC samples. The Contractor at his discretion can inject each standard individually in the required order as specified in Section 8.35.6.B.

B. Initial Calibration Verification Sample Standard Requirements

1. The triplicate injections (in sequence) of the Initial Calibration Verification Standard shall be averaged together to generate the result to compare to the Initial Calibration average. The Initial Calibration Verification Standard must be

analyzed immediately after the final initial calibration standard and prior to the associated method blank if samples are analyzed with the initial calibration.

2. The % Recovery of the Initial Calibration Verification Standard (ICV Standard) from the required concentration of each compound in the standard (see the required concentration in Section 8.35.10.) must be between +/- 30 percent (%) for the Initial Calibration Verification Standard to be acceptable. If the % Recovery is outside of control limits, the Contractor shall reinject the Initial Calibration Verification Standard. The reinjection must be the next injection after the failed standard and the one of the following actions shall occur:
 - a. If the second injection of the Initial Calibration Verification Standard meets the +/- 30% criteria, the Contractor will use the second injection as the compliance standard. The failed first injection must be noted on all run logs and discussed in the case narrative.
 - b. If the second injection of the Initial Calibration Verification Standard fails to meet the +/- 30% criteria, the Contractor shall halt the analytical sequence and take the required appropriate corrective action that may include reparation of the standard. Upon completion of the corrective action, the Contractor shall be required to restart the calibration analytical sequence with an initial calibration sequence.
 - c. If the Contractor fails to analyze the second Initial Calibration Verification Standard as required due to a failed initial injection of the standard and then continues the analytical sequence (either initial or an associated daily sequence), all associated data shall be unacceptable. The Contractor is required to reanalyze all the associated samples and blanks in another analytical sequence that begins with an acceptable initial calibration sequence and Initial Calibration Verification Standard.
3. The LCS and the ICV Standard associated with an initial calibration can be the same set of acquisitions. However, the contractual requirements must be met for both QC samples for the standard to be considered valid for both standards. If the requirements of the ICV Standard are not met, then the set of acquisitions cannot be used for the reporting of the ICV Standard, the Contractor must analyze a separate ICV Standard.

C. Continuing Calibration Verification Standards

1. This Contract allows the Contractor to use a continuing calibration verification standard (CCV standard) to open a 24-hour period for analysis as long as certain criteria are met. The required analytical sequence is detailed in Section 8.35.6. This is known as the Opening Continuing Calibration Verification Standard.
2. The analytical sequence must end with the injection of a closing CCV standard prior to expiration of the 24-hour period. If the injection of the acceptable CCV standard occurs after the expiration of the 24-hour period, the injection is not acceptable and all samples, blanks and LCS analyzed must be rerun at no cost to the State with a compliant calibration.
3. The % Difference level specified in this contract is higher than the level specified in the method. The higher levels are more practical for environmental laboratories for the initial calibration.

4. The triplicate injections (in sequence) of the Continuing Calibration Verification Standard must be averaged together to generate the result to compare to the Initial Calibration average.
5. Opening Continuing Calibration Verification
 - a. Standards can be used to initiate the 24-hour time period if the % Difference for all the compounds do not exceed +/-20%. If the % Difference exceed +/- 20 % for any of the compounds, the opening CCV standard is not acceptable. The Contractor can inject the opening CCV standard one more time (triplicate injections in sequence) to obtain a compliant calibration. If a compliant calibration cannot be obtained with the second set of acquisitions, a new initial calibration must be conducted.
 - b. The second set of acquisitions meet the contract established requirements, this is considered the compliant calibration and must be reported and used for reporting of the data.
 - c. All standard acquisitions being used for the opening CCV must be collected at the beginning of the 24-hour sequence prior to the collection of any samples, blanks or LCS. Acquisitions from other 24-hour sequences cannot be used for the continuing calibration.
 - d. Any samples or required blanks analyzed when opening CCV technical acceptance criteria have not been met shall require reanalysis at no additional cost to the State.
6. Closing Continuing Calibration Verification
 - a. Closing Continuing Calibration Verification Standards must be run prior to the end of the 24-hour period associated with the Initial Calibration or a compliant Opening Continuing Calibration Verification Standard. The compliant CCV standard (triplicate injections in sequence) must be injected prior to the completion of the 24-hour period. Any closing CCV that is conducted after the expiration of the 24-hour period shall require all samples, QC samples and blanks analyzed within that 24-hour period to be reanalyzed at no additional cost to the State.
 - b. If the % Difference exceeds 15 %, the closing CCV standard shall not be acceptable.
 - c. If the closing CCV technical acceptance criteria are not met and there is time remaining in the 24 hour sequence, the Contractor can immediately reinject the CCV standard one time triplicate injections in sequence) to determine if the 15 % Difference criteria can be met. If the second set of injections meets the criteria, the second set of data is to be used for the Closing Calibration Verification.
 - d. If the second set of CCV standards fail, all samples, QC samples and blanks analyzed within that 24-hour time period must be reanalyzed at no additional cost to the State. It may be necessary to change the column, undertake detection maintenance or take other corrective actions to achieve the CCV technical acceptance criteria.

D. Laboratory Control Sample

1. One Laboratory Control Sample (LCS) (triplicate injections in sequence) is required every 24-hour period. The Laboratory Control Sample must be analyzed after the method blank and prior to the closing calibration verification standard. This requirement must be met whether the LCS is associated with an initial calibration standards or an opening continuing calibration standard.
2. The triplicate injections (in sequence) of the LCS must be averaged together to generate the result to compare to the concentration of the LCS standard.
3. The acceptable % recovery for the LCS is 60-140%. If the first set of LCS acquisitions (triplicate injections) fail, the Contractor has the choice of two options.

Option 1 - If there is sufficient sample volume left in the sample canister, the Contractor must reanalyze the sample with an LCS that is within control limits. This may require the Contractor to cease acquisition of all data, determine the source of the problem and undertake corrective action. Upon completion of the corrective action, start the initial calibration from the first injection.

Option 2 - If there is not sufficient sample volume left in the sample canister, the Contractor must immediately in sequence after the non-compliant LCS, acquire a second set of LCS data (triplicate injections in sequence). If the recoveries are acceptable in the second set of LCS data, the second set of data is to be used for the compliant LCS.

If the LCS is still outside control limits, the LCS is not acceptable. The Contractor must document the fact on the instrument run log and in the case narrative that insufficient volume remained in the sample canister preventing reanalysis of the sample. The Contractor must include in the case narrative that all the results are qualified "J" or "UJ" due to recovery being outside of the control limits.

4. The LCS and the ICV Standard associated with an initial calibration can be the same set of acquisitions. However, the contractual requirements must be met for both QC samples for the standard to be considered valid for both standards. If the requirements of the LCS are not met, the set of acquisitions cannot be used for the reporting of the LCS Standard, the Contractor must analyze a separate LCS Standard.

E. Chromatographic Scaling Requirements

1. Chromatograms must display all target compound peaks normalized to full scale for all samples, standards and QC samples. The chromatogram shall be normalized to full scale based on the highest target.
2. When no compounds are identified in a sample, the chromatograms from the analyses of the sample must use the same scaling factor as was used for the low-point standard of the initial calibration associated with those analyses.

3. If a chromatogram is replotted electronically to meet these requirements, the scaling factor used must be displayed on the chromatogram.
4. All target compounds in the chromatograms shall be labeled with the names of compounds or retention times on the peak or on an accompanying printout with retention times and compound names.
5. Reconstructed ion chromatograms shall be normalized to the largest target or and shall be labeled with following header information:

Sample identification number
Date and time of analysis
GC/MS instrument identification -- exact instrument employed.
Lab file Identifier
Analyst ID

F. Method Blank

1. The method blank consists of UHP helium air. The method blank can be created directly from the helium gas lines or from a clean canister. There is no acceptable level of any contaminant in the method blank. If contamination is detected in the method blank, the Contractor must reanalyze all associated samples, QC samples and any instrument blanks at no cost to the state.
2. The triplicate injections (in sequence) of the method blank must be are averaged together to generate the concentration in the method blank. All three acquisitions of the method blank must be non-detect for the method blank to be considered acceptable.
3. If the method blank is created directly from the helium gas lines, it must be noted on the instrument log.
4. If the Contractor uses the canister option to create the method blank, the canister is required to be a dedicated canister that has never left the Contractor's facility. The serial number of the method blank canister must be noted on all the clean canister logs and instrument run logs. A canister that has been used for sample collection out in the field cannot be used as method blank canister.
5. One method blank must be analyzed every 24-hour period. The method blank must be analyzed immediately after the initial calibration verification sample standard if the method blank is associated with an initial calibration. The method blank associated with an opening CCV must be analyzed immediately after the Opening CCV and prior to the associated LCS. In both instances, the method blank must be analyzed prior to the analysis of any samples.
6. The triplicate injections (in sequence) of the method blank must be are averaged together to generate the concentration in the method blank.
7. If the method blank is not clean of contamination, all data acquisitions must cease and the source of contamination must be determined, corrective action taken and a new method blank canister prepared. The method blank must be reanalyzed and be free of contaminants for the analysis.
8. The method blank must be processes simultaneously with and under the same

conditions as samples through all steps of the analytical procedure.

9. If there are samples associated with a failed method blank, all samples must be reprepared and reanalyzed with a compliant method blank at no cost to the State.
10. If the first set of method blank acquisitions fail, the Contractor has the choice of two options.
 - Option 1 - Cease acquisition of all data, determine the source of the problem and undertake corrective action. Upon completion of the corrective action, start the initial calibration from the first injection.
 - Option 2 - The Contractor immediately in sequence after the non-compliant method blank acquire a second set of data (triplicate injections in sequence). If no contamination is detected in the second set of method blank data, the second set of data is to be used for the compliant method blank. If contamination is detected in the second set of method blank data, the method blank is not acceptable and Option 1 must be initiated.

G. Instrument Blanks

1. If the Contractor determines during the analytical sequence that an instrument blank needs to be analyzed for any reason within an analytical sequence, the instrument blank is to be created from the same source as the method blank. The sample must be labeled as an instrument blank and the reason for analyzing the blank documented in the case narrative and the instrument run log.
2. There is no acceptable level of any contaminant. If contamination is detected in the instrument blank, the Contractor must reanalyze all associated samples, QC samples and any method blanks within the 24-hour sequence at no cost to the State. All three acquisitions of the instrument blank must be non-detect for the instrument blank to be considered acceptable.
3. If the instrument blank is created directly from the helium gas lines, it must be noted on the instrument log.
4. If the Contractor uses the canister option to create the instrument blank, the instrument blank must be created from the same canister as the method blank. The canister is required to be a dedicated canister that has never left the Contractor's facility. The serial number of the instrument blank canister must be noted on all the clean canister logs and instrument run logs. A canister that has been used for sample collection out in the field cannot be used as instrument blank canister.
5. The triplicate injections (in sequence) of the instrument blank must be averaged together to generate the concentration in the instrument blank.
6. The instrument blank must be processed simultaneously with and under the same conditions as samples through all steps of the analytical procedure.
7. If the first set of instrument blank acquisitions fail, the Contractor has the choice of two options.

Option 1 - Cease acquisition of all data, determine the source of the problem and undertake corrective action. Upon completion of the corrective action, start the initial calibration from the first injection.

Option 2 - The Contractor immediately in sequence after the non-compliant instrument blank acquire a second set of data (triplicate injections in sequence). If no contamination is detected in the second set of instrument blank data, the second set of data is to be used for the compliant instrument blank. If contamination is detected in the second set of instrument blank data, the instrument blank is not acceptable and Option 1 must be initiated.

H. Clean Canister Certification Requirements

There are two procedures that are acceptable for certify canisters clean for this method. One procedure is the actual analysis of a canister certified as batch cleaned under NJDEP-LLTO-15 method and analyzed using Method 25C. The second method is a calculation procedure to determine the amount of NMOC in ppmC.

1. The canister used for batch certification must be certified clean prior to the shipment of any canisters to the field for sample collection.
2. Clean canister certification is required for all canisters being analyzed under this method.
3. Canisters that are used for method blanks and instrument blanks cannot be used for clean canister certification.
4. The Contractor shall certify clean, one canister from each batch of canisters cleaned according to the procedures in NJDEP-LLTO-15 which requires the canisters certified down to ≤ 0.2 ppbv for all compounds if the analytical method is used.
5. The Contractor shall use canister from the NJDEP-LLTO-15 batch certification that requires the canisters certified down to ≤ 0.2 ppbv for all compounds if the calculation method is used.
6. Calculation Procedure

To determine the NMOC in ppmC in the canister cleaned in accordance with NJDEP- LLTO-15, the following procedure must be followed for the calculation procedure:

- a. For each compound detected, determine the number of carbons in the compound.
- b. Multiply the number of carbons in the compound by the concentration of the compound detected.
- c. This will provide the parts per billion of Carbon (ppbC) value for the compound.

- d. Once the ppbC value is determined for each compound detected, add all the values together and divide by 1000 to convert the number to ppmC.
- e. The final step is to compare the calculated ppmC value in the certified canister to the reporting limit for 25C.
- f. If the calculated ppmC value is less than the reporting limit, the canister and batch is certified clean for Method 25C.
- g. If the calculated ppmC value is greater than the reporting limit, the canister fails and the entire batch must be recleaned/recertified in accordance with NJDEP LL-TO-15 and the calculated amount determined prior any canisters from that batch being sent out in the field for sampling for Method 25C analysis. If the canister now meets the requirements of the method, the canister and batch is certified cleaned for Method 25C.

7. Analytical Procedure

To determine the NMOC in ppmC in the clean canister, the following procedure must be followed for the analytical procedure.

- a. The canister is to be pressurized with humidified zero air and the canister analyzed following the same procedures as a routine sample.
- b. The concentration of NMOC in ppmC detected in the canister cannot exceed the reporting limit of the contract.
- c. If the calculated ppmC value is less than the reporting limit, the canister and batch is certified clean for Method 25C.
- d. If the ppmC value is greater than the reporting limit, the canister fails and the entire batch must be recleaned/recertified in accordance with NJDEP-LLTO-15 and being retested by Method 25C procedures specified in this contract prior any canisters from that batch being sent to the field. If the canister now meets the requirements of the method, the canister and batch is certified cleaned for Method 25C.

I. Reporting and Analytical Data

The Contractor shall report the data as analyzed. Any correction of the sample data for temperature, barometric pressure, water content and nitrogen content will be done by the Contract User.

J. Volume of Sample Used for Analysis

The undiluted volume of sample drawn from the canister for analysis must be standardized by the Contractor at the time of submittal of their Standard Operating Procedures. The Contractor be aware of the following requirements in the dilution of State samples and must address the following requirements in the standard operating procedures.

1. Automatic dilution of samples beyond what is required to repressurize the canister prior to analysis as required by the method shall not be permitted, if upon analysis the concentration of NMOC in the sample does not exceed the

highest initial calibration standard. The sample must be analyzed without the addition of any makeup air (beyond the initial pressurization). The data shall be reported with only the initial pressurization dilution factor applied.

2. If dilutions are required due to NMOC concentration in the sample that exceed the highest initial calibration standard, the volume drawn from the canister must be reduced and UHP helium must be used as the makeup gas. All sample data must be reported with the dilutions factored in and the all the Reporting Limits must be adjusted for the required dilutions.
3. Both the undiluted and diluted sample data must be reported on separate data summary reporting forms with all the accompanying documentation.
4. If dilutions are required due to concentration of NMOC in the sample that exceed the highest initial calibration standard, the volume drawn from the canister must be reduced and UHP helium gas must be used as the makeup air.
5. The Contractor shall not automatically add air to the undiluted sample either on the column, in a canister or other options to meet their systems requirements without the sample being reported as diluted.
6. The Contractor must establish screening procedures for all samples analyzed by this method.
7. The Contractor can propose other options for dilution of samples after contract award. The submittal of other options for dilution of samples does not indicate automatic approval to use such procedures. The proposed procedures cannot be used until approved by the State Contract Manager. The specific procedures shall then be included in a revision to the standard operating procedures and be submitted to the State Contract Manager for final approval.

K. Sample Dilutions

As part of the routine analysis, canisters will be received by the Contractor that will require dilutions to be conducted so that samples results shall be within the calibration range of the instrument. As part of the process, the Contractor shall incorporate the following procedures into their screening procedures of the canisters. The Contractor must also describe the dilution procedures that they intend to use for this method.

1. If the Contractor must add air to the sample for the dilution, the air source must be the same as the air source that is used for the preparation of the method blanks, that being UHP helium gas.
2. All dilutions must be made immediately prior to GC analysis of the sample.
3. The dilution procedures must be documented in the Case Narrative of the analytical data package.
4. Contractor procedural dilution of samples (beyond the initial pressurization) shall not be permitted. If the sample is reported with that NMOC concentration at or below the required Reporting Limits, then the sample must be analyzed without the addition of any makeup air (beyond the initial pressurization) and without any additional corrections for sample dilutions.

5. If the NMOC concentration in a sample is less than the highest initial calibration standard in the sample, the sample must be analyzed without the addition of any makeup UHP helium gas (beyond the initial pressurization) and the data reported without any dilution factor adjustment applied. (See item 10. in this section below for additional information.)
6. If dilutions are required due to NMOC concentration in a sample that exceed the highest initial calibration standard, the volume drawn from the canister must be reduced and Ultra-High Purity helium gas must be used as the makeup air. All sample data must be reported with the dilutions factored in and the all the Reporting Limits must be adjusted for the required dilutions.
7. The Contractor must choose a sample specific dilution factor that shall keep the concentration of the largest peak for a target compound in the upper half of the initial calibration range.
8. The screening data must be provided in the analytical data packages as required by the current deliverable requirements established by the NJDEP.
9. If the screening results indicate that the peak response for any target compound in any sample does not exceed the peak response in the highest standard in the initial calibration, the sample must be analyzed without being diluted.
10. If the screening results indicates that the peak response for any target compound in any sample does exceed the peak response in the highest standard in the initial calibration, the Contractor shall chose of one two options.
 - a. The Contractor must analyze the sample as undiluted and then analyze the sample at the correct dilution level. The Contractor can use the results of the original analysis to determine the approximate dilution factor to get the largest analyte peak within calibration range.
 - b. The Contractor must chose the dilution level that shall allow the sample can be analyzed at the most concentrated dilution and meet the requirements of the method. The Contractor must demonstrate that it has chosen the appropriate level by analyzing the sample at one further dilution.
 - c. For both options, the Contractor shall not submit more than two sets of data. The Contractor must submit both sets of data separately. Both sets of data must meet the requirements of the method.
11. Both the undiluted and diluted sample data (or the two dilutions as required by section 10) above) must be reported on separate data summary reporting forms with all the accompanying documentation.
12. There are various options available for the dilution of the samples depending on the analytical systems used by the Contractor. The Contractor can propose other options for dilution of samples after contract award. The submittal of other options for dilution of samples does not indicate automatic approval to use such procedures. The proposed procedures cannot be used until approved by the State Contract Manager. The specific procedures shall then be included in a revision to the standard operating procedures and be submitted to the State Contract Manager for final approval. The options can include the following:

- a. Injection of a volume of sample into another certified clean canister and induction of UHP helium gas.
- b. Dilutions conducted directly on the instrument.
- c. Tedlar bags can be used. When tedlar bags are used, absorption and contribution issues must be determined prior to their use. Tedlar bag blanks must be analyzed as part of the analytical sequence. These blanks are in addition to the required method blanks must be clearly identified in the sequence. The blanks must be analyzed after the method blank and prior to the sample.

8.36 NJDEP-LLTO-15 METHOD REQUIREMENTS (VOLATILE Organics)

8.36.1 METHOD DETECTION LIMIT FOR ALL CANISTER TYPES

A. Required Spiking Levels

For the majority of the compounds, the MDL determination must be conducted using a spiking solution at 0.20 ppbv concentration. For the other compounds listed below, the MDL determination can be conducted at a higher concentration and they are listed below. The Contractor has the option of using a lower concentration of spiking solution for these compounds. However, it shall not be less than 0.20 ppbv. All data shall be reported in ppbv.

<i>Compound</i>	<i>Spiking Level for the MDL Determination</i>
Acetone	0.50 ppbv
Carbon Disulfide	0.50 ppbv
Methylene Chloride	0.50 ppbv
Xylenes (m& p)	0.40 ppbv (equal amount of each isomer)

B. Derived MDL Requirements

The derived MDL must be less than the Clean Canister Certification Level of 0.20 ppbv as specified by the method for all compounds except for acetone (2-propanone) and *tert*-butyl alcohol (see below). The maximum MDL for acetone (2-propanone) and *tert*-butyl alcohol have been elevated to address various concerns within the laboratory community. Laboratories may use lower MDLs for these compounds.

<i>Compound</i>	<i>Maximum MDL Exceptions</i>
Acetone	1.0 ppbv
<i>tert</i> -Butyl Alcohol	3.0 ppbv

8.36.2 METHOD DETECTION LIMIT VERIFICATION REQUIREMENTS FOR ALL CANISTER TYPES

- A. The MDLV must be conducted for each analyte in the MDL Study.
- B. The MDLV study must be conducted annually for each instrument used in the clean canister certification and/or analysis of the samples. Separate MDLV reports must be submitted for each instrument.

- C. All information except for signatures must be computer generated or typed. All data shall be reported in ppbv.

8.36.3 ANALYTICAL SEQUENCE REQUIREMENTS

The Contractor is required to follow the sequence below in the analysis of the samples.

Initial Calibration Sequence

GC/ MS Tuning and Instrument Performance Check
Initial Calibration (minimum of five points)
Initial Calibration Verification Sample Standard (*Second Source*)
Method Blank
Reporting Limit Laboratory Control Sample [RLLCS] (*optional location*)
Samples
Instrument blanks and other blanks (if applicable location optional)
Closing Continuing Calibration Verification Standard (*within 24 hours of the injection of the GC/MS Tuning and Instrument Performance Check*)

Daily Calibration Sequence

GC/ MS Tuning and Instrument Performance Check
Daily Calibration Verification Standard
Method Blank
Reporting Limit Laboratory Control Sample [RLLCS](*optional location*)
Samples
Instrument blanks and other blanks (if applicable location optional)
Closing Continuing Calibration Verification Standard (*within 24 hours of the injection of the GC/MS Tuning and Instrument Performance Check*)

8.36.4 GENERAL ANALYTICAL STANDARDS REQUIREMENTS

- A. The Contractor must use gas standards (not liquid standards) for any analysis conducted using NJDEP-LLTO-15. Preparation of standard gases from neat liquid standards by the Contractor personnel is not acceptable. The Contractor must purchase commercially prepared gas standards from one of the standard suppliers.
- B. The Contractor must use standard mixtures of target gases in high-pressure cylinders certified traceable to a NIST Standard Reference Materials (SRM) or NIST/EPA approved Certified Reference Material (CRM). The Contractor must certify in the case narrative of each data package that gas phase standards have been used. The Contractor must specify their suppliers in the Standard Operating Procedure submitted to the Office of Quality Assurance for certification. The Contractor must document in their Standard Operating Procedures how they handle the second source for standards and document it in the standards logbooks.
- C. Original Certificates of Analysis (C of A) from the supplier for each lot must be maintained by the Contractor. Copies of specific lot C of A used in the analysis of the samples for a particular Sample Delivery Group must be included in the analytical data package.
- D. The calibration standards and the Reporting Limit Laboratory Control Sample (RLLCS) standard can be from the same lot.
- E. The tracer gas standards that are analyzable by this method (isopropanol and n-butane) must meet the same technical criteria compounds as other standards in this

method. The tracer gas standards must be in the same cylinders as the target gases.

- F. Humidified ultra- pure zero air is the required source for all makeup air, method blanks and instrument blanks.

8.36.5 INITIAL CHECK VERIFICATION SAMPLE STANDARD

The Initial Check Verification Sample Standard shall be either from a different commercial supplier or from an independent lot from the same commercial supplier (different from the lot used for the Calibration Standards and the Reporting Limit Laboratory Control Sample). The standard must contain all the compounds of interest. Tracer gas standards must be included in this standard.

8.36.6 INSTRUMENT PERFORMANCE CHECK GAS STANDARD

- A. Bromofluorobenzene (BFB) is the required Instrument Performance Check Gas Standard.
- B. A 50 ng standard is the required concentration.
- C. BFB shall not be combined with any calibration standard to create a single mixture injection consisting of a calibration standard and the Instrument Performance Check Gas Standard.

8.36.7 INTERNAL STANDARDS

- A. The required internal standards are bromochloromethane, chlorobenzene-d5 and 1,4-difluorobenzene.
- B. The same internal standards must be added to all calibration standards, blanks, RLLCSs and samples.
- C. The same concentration of internal standards must be used for all calibration standards, blanks, LCS and samples.
- D. The required concentration of each of the internal standards is 10 ppbv.

8.36.8 CALIBRATION STANDARD REQUIREMENTS

- A. GC/MS Initial Calibration Requirements
 - 1. The Contractor is required to conduct the initial calibration using a minimum of five (5) points for each calibration standard. The Contractor can use more than five calibration standards for any compound. For the majority of the compounds the calibration range must be from 0.20 ppbv to 40 ppbv.
 - 2. The allowable exceptions to the 0.2 ppbv to 40 ppbv requirements are acetone, chloroethane, chloromethane, tertiary butyl alcohol, tetrahydrofuran and 1,4-dioxane. These compounds may not be amenable at the lower calibration levels, and the lowest calibration standard can be raised to a higher concentration. The upper calibration standard for these compounds remains the same and shall not exceed 40 ppbv.

3. Isopropanol and ethanol can be analyzed at the various concentrations chosen by the Contractor. The only requirement is that the lowest calibration standard can not be less than 0.20 ppbv and the highest standard be less than or equal to 40 ppbv.
4. For the xylene isomers (m& p), the contribution of both isomers is considered equal in the calibration gas standard. To meet the required concentration of each isomer the calibration range for the mixture calibration range must be from 0.40 ppb to 80 ppbv.
5. Tracer gas standards must be included in the initial calibration standard and must be at the same concentration as the other standards unless that tracer gas compounds is isopropanol then item 3 in this section must be followed. If n-butane is used the Contractor must define the calibration range and have it approved by the New Jersey Environmental Laboratory Certification Program.
6. Each initial calibration standard mixture must be spiked with the same internal standards as the samples and at the same concentration as the samples.
7. The required analyte concentration of each compound's lowest and highest initial calibration standards are specified in Table 1 "Required Concentrations of the Low and High Calibration Standards and Laboratory Control Sample Concentrations".

B. Initial Calibration Verification Sample Standard

1. All the compounds in the initial calibration verification sample standard shall be spiked at 10 ppbv. The only exception is that the xylene (m& p) isomer mixture requires spiking at 20 ppbv.
2. Tracer gas standards must be included in the initial calibration verification standard and must be spiked at 10 ppbv.
3. The initial calibration verification sample standard mixture must be spiked with the same internal standards as the samples and at the same concentration as the samples.

C. GC/MS Daily Calibration Verification Standard

1. All the compounds in the daily calibration verification standard shall be spiked at 10 ppbv. The only exception is that the xylene (m& p) isomer mixture requires spiking at 20 ppbv.
2. Tracer gas standards must be included in the daily calibration verification standard and must be spiked at 10 ppbv.
3. The daily calibration verification standard mixture must be spiked with the same internal standards as the samples and at the same concentration as the samples.

D. Closing Calibration Verification Standard

1. All the compounds in the closing calibration verification standard shall be spiked at 10 ppbv. The only exception is that the xylene (m& p) isomer mixture requires spiking at 20 ppbv.

2. Tracer gas standards must be included in the closing calibration verification standard and must be spiked at 10 ppbv.
3. Each closing calibration verification standard mixture must be spiked with the same internal standards as the samples and at the same concentration as the samples.

8.36.9 REPORTING LIMIT LABORATORY CONTROL SAMPLE (RLLCS)

- A. The Reporting Limit Laboratory Control Sample (RLLCS) must contain all of the target analytes as required in the method.
- B. The required compound concentrations of the RLLCS are specified in Table 1.
- C. Tracer gas standards must be included in the RLLCS and must be spiked at same concentration as the lowest initial calibration standard.
- D. The RLLCS must be prepared with humidified ultra pure zero air and in the same manner as the method blank (Method TO-15 Section 10.7). The difference is that the canister is spiked with all compounds to obtain the concentrations as specified in Table 1.
- E. Each RLLCS must be spiked with the same internal standards as the samples and at the same concentration as the samples.

8.36.10 SAMPLE ANALYSIS REQUIREMENTS

A. Instrument Performance Check Requirements

1. Instrument Performance Check Requirements of this method must meet the requirements of USEPA Method TO-15 Table 3 "Required BFB Key Ions and Ion Abundance Criteria" and Method Sections 10.4.3 and 10.4.4 for the Instrument Performance Check to be considered acceptable. The use of any other criteria must be approved by the Office of Quality Assurance prior to submittal of any data using the procedure.
2. BFB shall not be combined with any calibration standard to create a single mixture injection consisting of a calibration standard and the Instrument Performance Check Gas Standard.
3. The Instrument Performance Check Standard must be the first analysis in any 24-hour sequence.
4. Post acquisition manipulation of the ion abundances using computer software to achieve tuning criteria is unacceptable. Any sample, blank or quality control sample analyzed in conjunction with a failed tune performance check requires a reanalysis. The Contractor shall comply with the requirements of N.J.A.C. 7:18-5.2(a)8, 5.2(a) 13.

B. GC/MS Initial Calibration Requirements

1. The Contractor is required to conduct the initial calibration using a minimum of five (5) points for each of the calibration standards.

2. The initial calibration standards must be analyzed immediately after the compliant Instrument Performance Check analysis and prior to the analysis of the associated method blank if samples are analyzed immediately after the initial calibration. Calibration standards associated with different Instrument Performance Check analysis shall not be merged together to create a compliant initial calibration.
3. The calculated % RSD for the RRF for each compound in the calibration table must be less than 30% with at most two exceptions up to a limit of 40%.

C. Initial Calibration Verification Sample Requirements

1. The initial calibration verification standard must be analyzed immediately after the final initial calibration standard is analyzed and prior to the analysis of the field samples if samples are analyzed after the initial calibration. The standard can be analyzed prior to or after the method blank.
2. All the compounds in the initial calibration verification sample standard shall be spiked at 10 ppbv. For xylene (m& p) isomer mixture, the spiking is at 20 ppbv.
3. Tracer gas standards must be included in the initial calibration verification standard and must be spiked at 10 ppbv.
4. The % Recovery of the Initial Calibration Verification Standard from the required concentration of each compound in the standard (see the required concentration in item b. of this section) must be between +/- 30 percent (%) for the Initial Calibration Verification Standard to be acceptable. If the % Recovery of any compound is outside of control limits, the Laboratory shall reinject the Initial Calibration Verification Standard. The reinjection must be the next injection after the failed standard and the one of the following actions shall occur:
 - a. If the second injection of the Initial Calibration Verification Standard meets the +/- 30% criteria, the laboratory will use the second injection as the compliance standard. The failed first injection must be noted on all run logs and discussed in the case narrative.
 - b. If the second injection of the Initial Calibration Verification Standard fails to meet the +/- 30% criteria, the laboratory shall halt the analytical sequence and take the required appropriate corrective action that may include reparation of standards. Upon completion of the corrective action, the laboratory shall be required to restart the calibration analytical sequence with an initial calibration sequence.
 - c. If the Laboratory fails to analyze the second Initial Calibration Verification Standard as required due to a failed initial injection of the standard and then continues the analytical sequence (either initial or an associated daily sequence), all associated data shall be unacceptable. The laboratory is required to reanalyze all the associated samples and blanks in another analytical sequence that begins with an acceptable initial tune, calibration sequence and Initial Calibration Verification Standard.

D. GC/MS Daily Calibration Verification Standard

1. The daily calibration standard must be analyzed in accordance with Method TO-15 Section 10.6.
2. All the compounds in the daily calibration verification standard shall be spiked at 10 ppbv. For xylene (m& p) isomer mixture, the spiking is at 20 ppbv.
3. Tracer gas standards must be included in the daily calibration verification standard and must be spiked at 10 ppbv.
4. The daily calibration standard must be analyzed immediately after the compliant GC/ MS Tuning and Instrument Performance Check analysis and prior to the analysis of the associated method blank.
5. Calibration standards obtained with different GC/MS Tuning and Instrument Performance Check Analysis shall not be merged together to create a compliant daily calibration.
6. The samples associated with the daily calibration standard must be run after the associated method blank and prior to the closing continuing calibration verification standard.
7. The % Difference for each Relative Response Factor (RRF) of target compound in the daily calibration verification standard must be within +/- 30 percent (%) of the mean Relative Response Factor (mean RRF) in the associated initial calibration in order to proceed with the analysis of samples, blanks and quality control samples.
8. If the injection of the daily Continuing Calibration Verification Standard fails to meet the technical acceptance requirements, laboratory shall halt the analytical sequence (See section (i) below for additional requirements). The laboratory is required to restart the analytical sequence beginning with an initial tune and calibration sequence
9. The intent of Section 8) above is to specify that field samples can only be analyzed after a daily (continuing) calibration verification standard (CCVS) has been analyzed successfully. If the laboratory fails its first CCVS, it does have the option of performing a second CCVS analysis. If the second CCVS analysis passes, then field samples may then be run. If the second CCVS fails, the laboratory must perform any necessary instrument maintenance followed by a full initial calibration that meets method requirements before field samples may be analyzed.

E. Closing Continuing Calibration Verification Requirements

1. In addition to the Daily Calibration standard that is analyzed in accordance with Method TO-15 Section 10.6 of the method, the Contractor shall be required to analyze a Closing Calibration Verification Standard after all samples, blanks and Reporting Limit Laboratory Control Samples have been analyzed and before the end of the 24-hour time period.
2. The concentration of the Closing Calibration Verification Standard must be the same as the Daily Calibration Verification Standard.

3. Calibration standards obtained with different GC/MS Tuning and Instrument Performance Check Analysis shall not be merged together to create a compliant daily calibration.
4. The Closing Calibration Verification Standard must meet the same technical requirements as the Daily Calibration Verification Standard with the following exception.

If the Closing Calibration Verification Standard fails to meet the % Difference of +/- 30 % for all the compounds, the Contractor shall be required to the following:

- a. Immediately reinject the Closing Calibration Verification Standard. The reinjection must be the next injection after the failed standard.
 - b. The reinjection of the Closing Calibration Verification Standard must occur prior to the expiration of the 24-hour daily period for the analytical sequence. It is acceptable for the completion of the run to occur after the expiration of the 24-hours. Reinjection that occurs after the expiration of the 24 hours shall not be acceptable.
5. The Contractor shall submit both sets of the Closing Calibration Verification Standard and documentation data in the analytical data package. The submittal of both Closing Calibration Verification Standards requires the following action by the Contractor:
 - a. If the reinjection of the Closing Calibration Verification Standard meets all the technical acceptances criteria, the Contractor shall use the reinjection as the compliant closing calibration standard.
 - b. If both the initial and reinjection of the Closing Calibration Verification Standard fail to meet all the technical acceptances criteria, the Contractor must fully discuss the failure of the meeting the daily calibration criteria and all corrective action measures taken in the case narrative. The following information must be included in the case narrative of the analytical data package for each failed Closing Calibration Verification Standard.
 - The list of the compounds and the % Differences that failed
 - The affected samples

F. Reporting Limit Laboratory Control Samples (RLLCS)

1. The Reporting Limit Laboratory Control Sample (RLLCS) must contain all the target analytes required in the method. All results for the RLLCS that are less than the required reporting limits must be reported in addition to the results that are above the required reporting limits. The required compounds and their associated concentrations for the RLLCS are specified in Table 1. Tracer gas standards (if used in the soil gas collection) must be included in the RLLCS and must be spiked at same concentration as the lowest initial calibration standard.
2. The RLLCS must meet the same technical requirements for area response and retention time for the internal standards as for the method blank as provided for in Method TO-15 Section 10.7.5.

3. The Contractor shall be required to analyze one RLLCS within the 24-hour Instrument Performance Check and calibration sequence window established by the method. This is the same frequency as the method blank. The RLLCS must be analyzed after the method blank in the analytical sequence and prior to the Closing Calibration Verification Standard.
4. The RLLCS must be analyzed within the 24 hour window that begins with the injection of the Instrument Performance Check Gas Standard.
5. If a separate Instrument Performance Check and calibration sequence is used for the clean canister certification, a RLLCS shall be analyzed in the calibration sequence that is used to certify a canister as clean as per the method.
6. The RLLCS recovery for each of the compounds must be within 60-140 % of the spiked value for 90 % of the compounds for the RLLCS to be considered acceptable. If less than 90% of the RLLCS recoveries are within the control limits, all the compounds (detected and non detected compounds) in the associated sample, a statement must be added to the case narrative qualifying all the data in the affected samples. If greater than 90% of the RLLCS recoveries are within control limits, only the affected compounds and the affected samples shall be listed in the case narrative of the required analytical data package.

G. Chromatographic Scaling Requirements

1. Chromatograms must display all target compound peaks and internal standard peaks normalized to full scale for all samples, standards and QC samples. The chromatogram shall be normalized to full scale based on the highest target or internal standard.
2. If a water peak or carbon dioxide peak are present in the sample chromatogram, these peaks shall not be taken into account for scaling. These peaks must be identified by the analyst on the chromatogram.
3. When no compounds are identified in a sample, the chromatograms from the analyses of the sample must use the same scaling factor as was used for the low-point standard of the initial calibration associated with those analyses.
4. If a chromatogram is replotted electronically to meet these requirements, the scaling factor used must be displayed on the chromatogram.
5. Only the internal standards in the chromatograms shall be labeled with the names of compounds or retention times on the peak.
6. Reconstructed ion chromatograms shall be normalized to the largest target or internal standard and shall be labeled with following header information:
 - a. Sample identification number
 - b. Date and time of analysis
 - c. GC/MS instrument identification -- exact instrument employed.
 - d. Lab file Identifier
 - e. Analyst ID

H. Water Management

The Contractor as stated in their SOP must implement water management procedures for the analysis of all NJDEP-LLTO-15 samples. Prior to the analysis of any samples or standards, the Contractor must ensure that the proper procedures are in place. Submittal of samples that exhibit evident of poor water management in the GC/MS system shall not be submitted to the state for any purpose.

I. Spectra Acceptability

1. For comparison of standard and sample component mass spectra, mass spectra obtained on the Contractor's GC/Mass Spectrometer (MS) shall be required. Once obtained, these standard spectra shall be used for identification purposes, only if the Contractor's GC/MS meets the daily instrument performance requirements for 4-bromofluorobenzene (BFB). These standard spectra may be obtained from the run used to obtain reference RRTs.
2. The guidelines for qualitative verification by comparison of mass spectra are as follows:
 - a. All ions present in the standard mass spectra at a relative intensity greater than 10% (most abundant ion in the spectrum equals 100%) must be present in the sample spectrum.
 - b. The relative intensities of ions specified in the above paragraph must agree within +/-20 % between the standard and sample spectra (e.g., for an ion with an abundance of 50% in the standard spectra, the corresponding sample abundance must be between 30 and 70%).
 - c. Ions greater than 10% in the sample spectrum but not present in the standard spectrum must be considered and accounted for by the analyst making the comparison. The verification process must favor false positives. All compounds meeting the identification criteria must be reported with their spectra.
 - d. If a compound cannot be verified by all of the spectral identification criteria listed above, but in the technical judgment of the mass spectral interpretation specialist, the identification is correct, then the Contractor shall report that identification and proceed with quantitation.

J. Secondary ion Quantitation

Quantitation based on secondary ion shall not be routinely allowed in this Contract. Exceptions are allowed only when there are sample matrix interferences with the primary ion. If secondary ion quantitation is performed, the reasons must be documented in the SDG Narrative. A secondary ion shall not be used unless the Relative Response Factor is calculated using the secondary ion.

K. Manual Integration

1. It is expected that situations will arise where the automated integration procedures in the GC/MS software provide inappropriate quantitations. This normally occurs when there is compound coelution, baseline noise, or matrix interferences. In these circumstances, the Contractor must perform a manual integration. Manual integrations are performed by integrating the area of the quantitation ion of the compound. This integration shall only include the area

attributable to the specific target compound or internal standard compound. The area integrated shall not include baseline background noise. The area integrated shall also not extend past the point where the sides of the peak intersect with the baseline noise. Manual integration shall not be used solely to meet Quality Control (QC) criteria, nor shall it be used as a substitute for corrective action on the chromatographic system. Any instances of manual integration must be documented in the SDG Narrative.

2. In all instances where the data system report has been edited, or where manual integration or quantitation has been performed, the GC/MS Operator must identify such edits or manual procedures by initialing and dating the changes made to the report, and shall include the integration scan range. The GC/MS Operator shall also mark each integrated area with the letter "M" on the quantitation report. In addition, a hardcopy printout of the EICP of the quantitation ion displaying the peak prior to the manual integration and after the manual integration shall be included in the raw data on separate EICP area printouts. The manual integration lines must be clearly distinguishable from the baseline. This applies to all compounds and internal standards compounds.

L. Quantitation Report Presentation

The quantitation report must contain all the compounds required in the analysis. The Contractor shall not delete compounds for the report if they were not detected or if the mass spectral identification was not confirmed. The data system printouts must comply with all any current deliverable requirements specified by the state.

M. Humidified Ultra Pure Zero Air Makeup Air Requirements

Only humidified ultra pure zero air shall be used as the source of air that is added to a canister for pressure adjustment. It must be from the same source as the method blank air. Nitrogen gas shall not used for makeup air.

M. Volume of Sample Used for Analysis

1. The undiluted volume of sample drawn from the canister for analysis must be standardized by the Contractor at the time of submittal of their Standard Operating Procedures. The Contractor be aware of the following requirements in the dilution of State samples and must address the following requirements in the standard operating procedures.
2. Automatic dilution of samples shall not be permitted. If none of the target compounds in the sample exceed the required concentration of the highest calibration standard, the sample must be analyzed without the addition of any makeup air and the data reported without any dilution factor adjustment applied.
3. If dilutions are required due to concentrations in the samples that exceed the highest calibration standard, the volume drawn from the canister must be reduced and ultra pure humidified zero air must be used as the makeup air. All sample data must be reported with the dilutions factored in and the all the Reporting Limits must be adjusted for the required dilutions.
4. Both the undiluted and diluted sample data must be reported on separate data summary reporting forms with all the accompanying documentation.

5. The Contractor shall not automatically add air to the undiluted sample either on the column, in a canister, Tedlar bag, or other options to meet their systems requirements without the sample being reported as diluted.
6. The Contractor must establish screening procedures for all samples analyzed by this method.
7. The Contractor can propose other options for dilution of samples after contract award. The submittal of other options for dilution of samples does not indicate automatic approval to use such procedures. The proposed procedures cannot be used until approved by the State Contract Manager. The specific procedures shall then be included in a revision to the standard operating procedures and be submitted to the State Contract Manager for final approval.

N. Sample Dilutions

As part of the routine analysis, canisters will be received by the Contractor that will require dilutions to be conducted so that samples results shall be within the calibration range of the instrument. As part of the process, the Contractor shall incorporate the following procedures into their screening procedures of the canisters. The Contractor must also describe the dilution procedures that they intend to use for this method.

1. If the Contractor must add air to the sample for the dilution, the air source must be the same as the air source that is used for the preparation of the method blanks, that being humidified, ultra-pure zero air.
2. All dilutions must be made immediately prior to GC/MS analysis of the sample.
3. The dilution procedures must be documented in the Case Narrative of the analytical data package.
4. Contractor procedural dilution of samples is not permitted. If the sample is reported with all target analyte results at or below the required reporting limits, then the sample must be analyzed without the addition of any makeup air and without any corrections for sample dilutions. This section does not apply soil gas samples collected in 6-Liter canisters that use the reporting limits for the soil gas samples.
5. If any target analyte results are less than 40 ppbv in the sample, the sample must be analyzed without the addition of any makeup air and the data reported without any dilution factor adjustment applied. (See item 10. in this section below for additional information.)
6. If dilutions are required due to concentrations in the samples that exceed the upper calibration of the instrument, the volume drawn from the canister must be reduced and ultra pure humidified zero air must be used as the makeup air. All sample data must be reported with the dilutions factored in and the all the Reporting Limits must be adjusted for the required dilutions.
7. The Contractor must choose a sample specific dilution factor that shall keep the concentration of the largest peak for a target compound in the upper half of the initial calibration range.

8. The screening data must be provided in the analytical data packages as required by the current deliverable requirements established by the NJDEP.
9. If the screening results indicate that the peak response for any target compound in any sample does not exceed the peak response in the highest standard in the initial calibration, the sample must be analyzed without being diluted.
10. If the screening results indicates that the peak response for any target compound in any sample does exceed the peak response in the highest standard in the initial calibration, the Contractor shall chose of one two options.
 - a. The Contractor must analyze the sample as undiluted and then analyze the sample at the correct dilution level. The Contractor can use the results of the original analysis to determine the approximate dilution factor to get the largest analyte peak within calibration range.
 - b. The Contractor must chose the dilution level that shall allow the sample can be analyzed at the most concentrated dilution and meet the requirements of the method. The Contractor must demonstrate that it has chosen the appropriate level by analyzing the sample at one further dilution.
 - c. For both options, the Contractor shall not submit more than two sets of data. The Contractor must submit both sets of data separately. Both sets of data must meet the requirements of the method.
11. Both the undiluted and diluted sample data (or the two dilutions as required by section 10) above) must be reported on separate data summary reporting forms with all the accompanying documentation.
12. There are various options available for the dilution of the samples depending on the analytical systems used by the Contractor. The Contractor can propose other options for dilution of samples after contract award. The submittal of other options for dilution of samples does not indicate automatic approval to use such procedures. The proposed procedures cannot be used until approved by the State Contract Manager. The specific procedures shall then be included in a revision to the standard operating procedures and be submitted to the State Contract Manager for final approval. The options can include the following:
 - a. Injection of a volume of sample into another certified clean canister and induction of ultra pure humidified zero air.
 - b. Dilutions conducted directly on the instrument.
 - c. Tedlar bags can be used. When tedlar bags are used, absorption and contribution issues must be determined prior to their use. Tedlar bag blanks must be analyzed as part of the analytical sequence. These blanks are in addition to the required method blanks must be clearly identified in the sequence. The blanks must be analyzed after the method blank and prior to the sample.

O. Method Blanks

1. The Contractor shall follow the requirements of Method TO-15 Section 10.7 regarding method blanks and the requirements of this Contract. Any method blank

that deviates from the preparation and technical acceptance requirements specified in the method is not acceptable and shall be rejected. Any analysis that is related to a failed method blank shall also be rejected.

2. Humidified ultra- pure zero air is the required air source for the method blanks and instrument blanks.
3. The method blank canister must be a dedicated canister that has never left the Contractor's facility. The serial number of the method blank canister must be noted on all the clean canister logs and instrument run logs.
4. A canister that has been used for sample collection out in the field shall not be used as method blank canister.
5. A canister that has been designated as a canister that is being certified clean as part of the batch certification process shall not be designated as a method blank.

P. Instrument Blanks

1. If the Contractor determines during the analytical sequence that an instrument blank needs to be analyzed for any reason within an analytical sequence, the instrument blank must meet the requirements of Method TO-15 Section 10.7 to be acceptable and the requirements of this Contract. The sample must be labeled as an instrument blank and the reason for analyzing the blank documented in the case narrative and the instrument run log.
2. Humidified ultra- pure zero air is the required air source for the instrument blanks.
3. The instrument blank canister must be a dedicated canister that has never left the Contractor's facility. The serial number of the instrument blank canister must be noted on all applicable instrument run logs.
4. A canister that has been used for sample collection out in the field shall not be used as instrument blank canister.
5. A canister that has been designated as a canister that is being certified clean as part of the batch certification process shall not be designated as an instrument blank.
6. The instrument blank demonstrates that there was no carryover from the previous sample is to be reported. The Contractor can also report the instrument blank that demonstrates that the system is clean. Instrument blanks analyzed during the instrument decontamination process that exceed the requirements listed in this section do not need to be reported.

Q. Internal Standards

Internal standard responses and retention times in all samples must be evaluated during, or immediately after, data acquisition. The criteria for evaluation is as follows:

1. As required by Method TO-15 Section 10.3.5 in the note, the following criteria must be used if the samples are analyzed with the initial calibration.

"If the most recent valid calibration is an initial calibration, internal standard area responses and the retention times in the sample are evaluated against the corresponding internal standard area responses and retention times in the mid level standard (10 ppbv) of the initial calibration."

2. The retention time for each internal standard must be within +/- 0.33 minutes of the retention time of the internal standard in the most recent valid calibration.
3. If the retention time for any internal standard changes by more than +/- 33 minutes from the latest daily (24 hour) calibration standard (or mean retention time over the initial calibration range), the GC/MS must be inspected for malfunctions, and corrections made as required.
4. If the area response for any internal standard changes by more than +/- 40 % between the sample and the most recent valid calibration, the GC/MS system must be inspected for malfunctions and corrections made as appropriate. When corrections are made, reanalysis of samples analyzed while the system was malfunctioning shall be necessary.
5. If after reanalysis, the area responses or the retention times for all internal standards are inside the control limits, then the problem with the first analysis is considered to have been within the control of the Contractor. The Contractor must submit the data the second analysis as the compliant analysis.
6. If after reanalysis, the area responses or the retention times for all internal standards are still not inside the control limits, a matrix effect may be occurring. This matrix effect shall be considered outside the control of the laboratory. The Contractor must document in the case narrative and the instrument run logs all corrective actions undertaken prior to the reanalysis of the sample. Therefore, the Contractor shall submit both analyses.

R. Qualitative Identification of Targeted and Non Target Compounds by GC/MS

1. The compounds listed as required for NJDEP-LLTO-15 shall be identified by an analyst experienced in the interpretation of mass spectra by comparison of the sample mass spectrum to the reference mass spectrum. Two criteria must be satisfied to verify the identifications:
 - a. Elution of the sample component at the same GC relative retention time as the standard component.
 - b. Correspondence of the sample component and standard component mass spectra.
2. For establishing correspondence of the GC relative retention time (RRT) the sample component RRT must compare within +/- 0.06 RRT units of the RRT of the standard component. If samples are analyzed within the same 24-hour time period as the initial calibration standard, use the RRT values from the 10 ppbv standard (or the middle standard of the initial calibration).
3. If co-elution of interfering compounds prohibits accurate assignment for the sample component RRT from the total ion chromatogram, the RRT must be assigned by using extracted ion current profiles for ions used to obtain reference RRTs.

4. For comparison of standard and sample component mass spectrum, mass spectra obtained on the laboratory's GC/MS are required. Once obtained, these standard spectra may be used for identification purposes only if the Contractor's GC/MS meets the daily instrument performance requirements for BFB. These standard spectra may be obtained from the run used to obtain reference RRT.
5. All ions present in the standard mass spectra at a relative intensity greater than 10 percent (most abundant ion in the spectrum equals 100.0 percent) must be present in the sample spectrum.
6. The relative intensities of ions specified above must agree within ± 20 percent between the standard and sample spectra.
7. Ions greater than 10 percent in the sample spectrum but not present in the standard spectrum must be considered and accounted for by the analyst making the comparison. The verification process must favor false positives. All compounds meeting the identification criteria must be reported with their spectra.
8. Structural isomers that produce very similar mass spectra shall be explicitly identified only if they have sufficiently different GC retention times. Acceptable resolution is achieved if the height from the baseline to the valley between two peaks is less than 25% of the average height of the two peaks. Otherwise, structural isomers are identified as isomeric pairs.
9. If a compound cannot be verified by all the criteria above, but in the technical judgment of the mass spectral interpretation specialist the identification is correct, then the Contractor shall report that identification with comment and proceed with quantitation.
10. For all compounds detected below the NJDEP Reporting Limits (See Table 2), the concentrations must be reported with the numeric value of the reporting limit with the "U" qualifier. This indicates that compound was not detected at the NJDEP Reporting Limit.
11. For all compounds not detected in the sample, the sample result must be reported as the numeric value of the reporting limit with the "U" qualifier. This indicates that compound was not detected at the NJDEP Reporting Limit.
12. For samples requiring dilution, the reporting limits for the all compounds must be adjusted for the dilution that was conducted. Only data reported at or above the adjusted reporting limit are to be reported in the diluted samples. The laboratory is reported to report any compounds detected in the diluted sample that was detected in the initial analysis above the adjusted reporting limit with the "D" qualifier. Any compounds detected in the diluted sample that were not reported in the initial analysis must be reported with the "X" qualifier. All non detected results at the elevated reporting limits are to be reported with the "U" qualifier with the adjusted reporting limit. This indicates that compound was not detected at the dilution adjusted reporting limit. Additional information is provided in Appendix 1 Section 6.0 and Appendix Section 14.0 the dilution-adjusted Reporting Limit.
13. Non-Target Compound identification is required for air analysis. A maximum of 30 Non-Target compounds must be identified.

8.36.11 TRACER COMPOUNDS FOR SOIL GAS

- A. The Contractor must be aware that the Contract User may or may not use a tracer compound to determine if the soil gas collection system at the probe level is free of leaks. Two common tracer compounds are isopropanol and n-butane. In most commercially prepared gas standard cylinders, isopropanol is in the mixture while n-butane may not be in the standard mixture.
- B. If the Contract User wants to use n-butane or other recognized compounds as the tracer compound, the Contract User must contact the State Contract Manager to determine if the Contractor can obtain a commercially-prepared gas standard that contain that compound. The Contractor shall have to obtain certification for this new tracer compound prior to use by the Contract User.
- C. The Contract User must inform the State Contract Manager that a tracer gas compound is to be used. The State Contract Manager will convey this information to the Contractor. If the State Contract Manager fails to inform the Contractor that a tracer gas was used and it causes saturation of the GC/MS system and the instrumentation has to be taken out of service, the State Contract Manager must be contacted. The resolution of the situation shall be as follows:
 - 1. The Contractor shall be instructed to analyze the sample at the appropriate dilution that will allow the instrumentation to operate properly. A more concentrated dilution shall not be required. If the dilution analysis meets all the criteria of the contract, the Contractor shall be able to bill for two samples to address the saturation of the instrument and instrumentation taken out of service and the reanalysis of the sample at an appropriate dilution.
 - 2. The sample analysis shall be canceled. The Contractor shall be able to bill for one analytical run for this sample.

8.36.12 ISPROPANOL AND ETHANOL

- A. High concentrations of isopropanol and ethanol in indoor air samples are causing laboratories to conduct unnecessary dilutions of samples. These two alcohols are present in numerous products found in residences and businesses. Ethanol is also a gasoline additive. This is one source of the elevated levels of the alcohols in the samples.
- B. The Contractor shall not be required to dilute the sample to bring the concentration of the two alcohols compounds within the calibration range of the instrument.
- C. If the Contractor in their submittals to the state for certification has ethanol or isopropanol in their calibration standards, then they must report the concentration of the compound in the samples and obtain certification. If in the future, the Contractor add either compound to their calibration standards, the Contractor must report the concentration of that compound in the samples. Additionally, if in the future the Contractor obtains standards that do not have the compound, they would not report the presence of that compound in the samples.
- D. If the Contractor currently does not have ethanol or isopropanol in the standard mixture, the Contractor shall not be required to obtain standards that contain that compound.

- E. Please be advised if the Contractor does not have ethanol or isopropanol in its standard mixture, and detects either compound in the sample, then it must be reported as a tentatively identified compound as per Method Section 23 and Contract Section 8.36.10.
- F. If from the Contractor's initial application for certification, the Contractor's use of ethanol or isopropanol changes, the Contractor shall notify the Office of Quality Assurance and the State Contract Manager. The Contractor shall make an application to either add these compounds to their list of certified parameters or drop the compounds from their list.

8.36.13 CLEAN CANISTER CERTIFICATION REQUIREMENTS

- A. The canister used for batch certification must be certified clean prior to the shipment of any canisters to the field for sample collection.
- B. The Contractor shall follow the requirements of USEPA Method TO-15, Section 3.3 regarding cleaning and certifying canisters.
- C. Canisters that are used for method blanks and instrument blanks cannot be used for clean canister certification.
- D. The Contractor must document and track which canisters are associated with each batch certification. A separate logbook page must be generated documenting the canisters associated with each batch certification. The logbook page must include the start and stop date/time of cleaning, heating unit type, number of cycles, analyst's name and signature and canister serial numbers. In addition, the laboratory file number from the GC/MS analysis associated with the canister being cleaned must be listed.
- E. The Contractor must specify the canister cleaning procedures that are used in their SOP. For each type of canister cleaning procedure (baths, ovens or heating jacket) a separate canister must be used to demonstrate that the cleaning procedure meets the requirement of the method.
- F. NJDEP has not established a batch maximum for canisters cleaned by a particular cleaning technique. All the canisters in a batch must be cleaned under the same conditions (temperature, time, cycles etc.). The Contractor in their SOP must specify the maximum number of canisters in a cleaning batch. The Contractor shall follow the requirements of USEPA Method TO-15, Section 3.3 regarding cleaning and certifying canisters.
- G. The Contractor must utilize the same Reporting Limits for the clean canister certification as for the sample data. Clean canister data less than 0.2 ppbv shall not be reported. The reporting requirements are provided in the section below entitled "SAMPLE REPORTING LIMITS FOR ALL OF THE CANISTER TYPE".
- H. Tracer gas compounds must meet the same clean canister requirements as the target compounds in this method.
- I. Clean Canister Certification for 6-Liter Canisters for Building Interior, Soil Gas Sampling and Other Types of Sampling (as specified) is as follows.

The canisters must be batch cleaned and certified with the majority of Method TO-15 target analytes at a less than 0.20 ppbv Reporting Limit. Exceptions to the required clean canister certification limit are detailed below.

Compound	Clean Canister Certification Level (Maximum)
Acetone	2.0 ppbv
Tetrahydrofuran	2.0 ppbv
1,4-Dioxane	2.0 ppbv
Tert-Butyl Alcohol	2.0 ppbv
Xylenes (m& p)	0.5 ppbv

- J. Clean Canister Certification for 1- Liter, 2.7-Liter and 3.2-Liter Canisters used for Soil Gas Sampling is as follows.

The canisters must be batch cleaned and certified with the majority of Method TO-15 target analytes at a $\leq$ 0.20 ppbv Reporting Limit. Exceptions to the required clean canister certification limit are detailed below.

Compound	Clean Canister Certification Level (Maximum)
Acetone	5.0 ppbv
Carbon Disulfide	0.50 ppbv
Methylene Chloride	0.50 ppbv
Methyl Ethyl Ketone	0.50 ppbv
1,2,4-Trichlorobenzene	0.50 ppbv
Tetrahydrofuran	2.0 ppbv
Dichlorodifluoromethane	0.50 ppbv
Methyl Methacrylate	0.50 ppbv
1,4-Dioxane	5.0 ppbv
Methyl Isobutyl Ketone	0.50 ppbv
Tert-Butyl Alcohol	5.0 ppbv
Xylenes (m& p)	0.50 ppbv

8.36.14 SAMPLE REPORTING LIMITS FOR ALL OF THE CANISTER TYPES

- A. The Contractor shall not report any target data lower than the Reporting Limits established by this method. The Reporting Limits are found at the end of this section Table 2 *"List of Required Compounds, Molecular Weights and CAS Numbers and NJDEP Required Reporting Limits"*.
- B. For all compounds detected below the NJDEP Reporting Limits, the concentrations shall be reported with the numeric value of the reporting limit with the "U" qualifier. This indicates that the compound was not detected at the NJDEP Reporting Limit.
- C. For all compounds not detected in the sample, the sample result shall be reported as the numeric value of the reporting limit with the "U" qualifier. This indicates that the compound was not detected at the NJDEP Reporting Limit.
- D. For samples requiring dilution, the reporting limits for the all compounds must be adjusted for the dilution that was conducted. Only data reported at or above the

adjusted reporting limit are to be reported in the diluted samples. The Contractor is reported to report any compounds detected in the diluted sample that was detected in the initial analysis above the adjusted reporting limit with the “D” qualifier. Any compounds detected in the diluted sample that were not reported in the initial analysis must be reported with the “X” qualifier. All non detected results at the elevated reporting limits are to be reported with the “U” qualifier with the adjusted reporting limit. This indicates that compound was not detected at the dilution adjusted reporting limit. Additional information is provided in Appendix 1 Section 6.0 and Appendix Section 14.0 the dilution-adjusted Reporting Limit.

- E. The Contractor has the option of using lower Reporting Limits for the limited compounds that NJDEP has indicated that higher Reporting Limits are acceptable. However, the reporting requirements of this section (no values reported below 0.2 bv) must be met.
- F. Reporting Limits for 6 Liter Canisters (Building Interiors, Soil Gas and other types of sampling [as specified]) is as follows.
 - 1. For the majority of the compounds, the Reporting Limits (RL) have been set at 0.20 ppbv. For the compounds listed below, the reporting limits have been set at a higher level due to the type of compound. The Contractor can use a lower reporting limit for these compounds, however, they cannot be lower than 0.20 ppbv.
 - 2. When a soil gas sample is collected in a 6-liter canister and the Contractor decides to draw the same volume of air from the canister as it does for a building interior sample, the Contractor shall to use the reporting limits in this section.

<i>Compound</i>	<i>Reporting Limit (Maximum)</i>
Acetone	5.0 ppbv
Carbon Disulfide	0.50 ppbv
Chloroethane	0.50 ppbv
Chloromethane	0.50 ppbv
Ethanol	5.0 ppbv
Isopropanol	5.0 ppbv
Methylene Chloride	0.50 ppbv
Methyl Ethyl Ketone	0.50 ppbv
1,2,4-Trichlorobenzene	0.50 ppbv
Tetrahydrofuran	5.0 ppbv
Dichlorodifluoromethane	0.50 ppbv
Methyl Methacrylate	0.50 ppbv
1,4-Dioxane	5.0 ppbv
Methyl Isobutyl Ketone	0.50 ppbv
tert-Butyl Alcohol	5.0 ppbv
Xylenes (m & p)	0.50 ppbv

- G. Reporting Limits for 1-Liter, 2.7-Liter and 3.2- Liter Canisters (Soil Gas Canisters) is as follows.
 - 1. For the majority of the compounds, the Reporting Limits (RL) have been set at 2.0 ppbv. The higher reporting limits factor in the automatic dilution that occurs

when 1-liter canisters are used. The dilution must be conducted with ultra pure humidified zero air. This makeup air is required to be the volume of air for introduction into the instrument. For the compounds listed below, the reporting limits have been set at a higher level due to the type of compound. The Contractor can use a lower reporting limit for these compounds. However, they cannot be lower than 2.0 ppbv.

2. When a soil gas sample is collected in a 6-liter canister and the Contractor decides to draw the same volume of air from the canister as it does from a 1-liter soil gas canister (reduced volume), the Contractor shall use the reporting limits in this section.

<i>Compound</i>	<i>Reporting Limit (Maximum)</i>
Acetone	50.0 ppbv
Carbon Disulfide	5.0 ppbv
Chloroethane	5.0 ppbv
Chloromethane	50.0 ppbv
Ethanol	50.0 ppbv
Isopropanol	50.0 ppbv
Methylene Chloride	5.0 ppbv
Methyl Ethyl Ketone	5.0 ppbv
1,2,4-Trichlorobenzene	5.0 ppbv
Tetrahydrofuran	50.0 ppbv
Dichlorodifluoromethane	5.0 ppbv
Methyl Methacrylate	5.0 ppbv
1,4-Dioxane	50.0 ppbv
Methyl Isobutyl Ketone	5.0 ppbv
tert-Butyl Alcohol	50.0 ppbv
Xylenes (m & p)	5.0 ppbv

Table 1

Required Concentrations of the Low and High Calibration Standards
and Laboratory Control Sample Concentrations

<i>Chemical Compound</i>	<i>Low Calibration Standard (ppbv)</i>	<i>High Calibration Standard (ppbv)</i>	<i>RLLCS Required Conc. (ppbv)</i>
Acetone	0.20 ⁴	40	0.20 ⁵
Allyl chloride	0.20	40	0.20
Benzene	0.20	40	0.20
Bromodichloromethane	0.20	40	0.20
Bromoform	0.20	40	0.20
Bromomethane	0.20	40	0.20
1,3-Butadiene	0.20	40	0.20
Chlorobenzene	0.20	40	0.20
Chloroethane	0.20 ⁴	40	0.20 ⁵
Chloroform	0.20	40	0.20
Chloromethane	0.20 ⁴	40	0.20 ⁵
Carbon disulfide	0.20 ⁴	40	0.20
Carbon tetrachloride	0.20	40	0.20
2-Chlorotoluene	0.20	40	0.20
Cyclohexane	0.20	40	0.20
Dibromochloromethane	0.20	40	0.20
1,2-Dibromoethane	0.20	40	0.20
1,2-Dichlorobenzene	0.20	40	0.20
1,3-Dichlorobenzene	0.20	40	0.20
1,4-Dichlorobenzene	0.20	40	0.20
Dichlorodifluoromethane	0.20 ⁴	40	0.20
1,1-Dichloroethane	0.20	40	0.20
1,2-Dichloroethane	0.20	40	0.20
1,1-Dichloroethene	0.20	40	0.20
1,2-Dichloroethene (cis)	0.20	40	0.20
1,2-Dichloroethene (trans)	0.20	40	0.20
1,2-Dichloropropane	0.20	40	0.20
1,3-Dichloropropene (cis)	0.20	40	0.20
1,3-Dichloropropene (trans)	0.20	40	0.20
1,2-Dichlorotetrafluoroethane	0.20	40	0.20
1,4-Dioxane	0.20 ⁴	40	0.20 ⁵
Ethanol	0.20 ⁴	40	0.20 ⁵
Ethylbenzene	0.20	40	0.20
4-Ethyltoluene	0.20	40	0.20
N-Heptane	0.20	40	0.20
1,3- Hexachlorobutadiene	0.20	40	0.20

<i>Chemical Compound</i>	<i>Low Calibration Standard (ppbv)</i>	<i>High Calibration Standard (ppbv)</i>	<i>LCS Required Conc. (ppbv)</i>
n-Hexane	0.20	40	0.20
Isopropanol	0.20 ⁴	40	0.20 ⁵
Methylene chloride	0.20 ⁴	40	0.20
Methyl ethyl ketone	0.20 ⁴	40	0.20
Methyl isobutyl ketone	0.20 ⁴	40	0.20
Methyl methacrylate	0.20 ⁴	40	0.20
Methyl tert-butyl ether	0.20	40	0.20
Styrene	0.20	40	0.20
Tert-butyl alcohol	0.20 ⁴	40	0.20 ⁵
1,1,2,2-Tetrachloroethane	0.20	40	0.20
Tetrachloroethene	0.20	40	0.20
Tetrahydrofuran	0.20 ⁴	40	0.20 ⁵
Toluene	0.20	40	0.20
1,2,4-Trichlorobenzene	0.20	40	0.20
1,1,1-Trichloroethane	0.20	40	0.20
1,1,2-Trichloroethane	0.20	40	0.20
Trichloroethene	0.20	40	0.20
Trichlorofluoromethane	0.20	40	0.20
1,1,2-Trichloro-1,2,2-trifluoroethane	0.20	40	0.20
1,2,4-Trimethylbenzene	0.20 ⁴	40	0.20
1,3,5-Trimethylbenzene	0.20	40	0.20
2,2,4-Trimethylpentane	0.20	40	0.20
Vinyl bromide	0.20	40	0.20
Vinyl chloride	0.20	40	0.20
Xylenes (m&p)	0.40 ¹	80 ²	0.40 ³
Xylenes (o)	0.20	40	0.20

Notes:

1. The low standard concentration is based on the equal contribution of both the m&p isomers of xylene.
2. The high standard concentration is based on the equal contribution of both the m&p isomers of xylene.
3. The laboratory control standard concentration is based on the equal contribution of both the m&p isomers of xylene.
4. The low calibration standard can exceed 0.20 ppbv.
5. The laboratory control sample spiking level for this compound must be equal to the low calibration standard used in the initial calibration.

Table 2
List of Required Compounds, Molecular Weights and CAS Numbers and
NJDEP Required Reporting Limits

This Table contains the required compounds and their associated molecular weights and CAS numbers. The information in this table must be used for the reporting of the analytical data to NJDEP. Changes to the compound names, CAS numbers and molecular weights are not allowed for reporting of the data to the State of New Jersey.

<i>Required Compound Name</i>	<i>CAS Number</i>	<i>Molecular Weight</i>	<i>6- Liter Canister Reporting Limits (ppbv)</i>	<i>1, 2.7 & 3.2- Liter Canister Reporting Limits (ppbv)</i>
Acetone	67-64-1	58.08	5.0	50.0
Allyl chloride	107-05-1	76.53	0.20	2.0
Benzene	71-43-2	78.11	0.20	2.0
Bromodichloromethane	75-27-4	163.8	0.20	2.0
Bromoform	75-25-2	252.8	0.20	2.0
Bromomethane	74-83-9	94.94	0.20	2.0
1,3-Butadiene	106-99-0	54.09	0.20	2.0
Chlorobenzene	108-90-7	112.6	0.20	2.0
Chloroethane	75-00-3	64.52	0.50	50.0
Chloroform	67-66-3	119.4	0.20	2.0
Chloromethane	74-87-3	50.49	0.50	50.0
Carbon disulfide	75-15-0	76.14	0.50	5.0
Carbon tetrachloride	56-23-5	153.8	0.20	2.0
2-Chlorotoluene	95-49-8	126.6	0.20	2.0
Cyclohexane	110-82-7	84.16	0.20	2.0
Dibromochloromethane	124-48-1	208.3	0.20	2.0
1,2-Dibromoethane	106-93-4	187.9	0.20	2.0
1,2-Dichlorobenzene	95-50-1	147.0	0.20	2.0
1,3-Dichlorobenzene	541-73-1	147.0	0.20	2.0
1,4-Dichlorobenzene	106-46-7	147.0	0.20	2.0
Dichlorodifluoromethane	75-71-8	120.9	0.50	5.0
1,1-Dichloroethane	75-34-3	98.96	0.20	2.0
1,2-Dichloroethane	107-06-2	98.96	0.20	2.0
1,1-Dichloroethene	75-35-4	96.94	0.20	2.0
1,2-Dichloroethene (cis)	156-59-2	96.94	0.20	2.0
1,2-Dichloroethene (trans)	156-60-5	96.94	0.20	2.0
1,2-Dichloropropane	78-87-5	113.0	0.20	2.0
1,3-Dichloropropene (cis)	10061-01-5	111.0	0.20	2.0
1,3-Dichloropropene (trans)	10061-02-6	111.0	0.20	2.0
1,2-Dichlorotetrafluoroethane	76-14-2	170.9	0.20	2.0
1,4-Dioxane	123-91-1	88.12	5.0	50.0
Ethanol ¹	64-17-5	46.07	5.0	50.0

<i>Required Compound Name</i>	<i>CAS Number</i>	<i>Molecular Weight</i>	<i>6- Liter Canister Reporting Limits (ppbv)</i>	<i>1, 2.7 & 3.2- Liter Canister Reporting Limits (ppbv)</i>
Ethylbenzene	100-41-4	106.2	0.20	2.0
4-Ethyltoluene	622-96-8	120.2	0.20	2.0
n-Heptane	142-82-5	100.2	0.20	2.0
1,3-Hexachlorobutadiene	87-68-3	260.8	0.20	2.0
n-Hexane	110-54-3	86.17	0.20	2.0
Isopropanol ¹	67-63-0	60.10	5.0	50.0
Methylene chloride	75-09-2	84.94	0.50	5.0
Methyl ethyl ketone	78-93-3	72.11	0.50	5.0
Methyl isobutyl ketone	108-10-1	100.2	0.50	5.0
Methyl methacrylate	80-62-6	100.12	0.50	5.0
Methyl tert-butyl ether	1634-04-4	88.15	0.20	2.0
Styrene	100-42-5	104.1	0.20	2.0
Tert-butyl alcohol	75-65-0	74.12	5.0	50.0
1,1,2,2-Tetrachloroethane	79-34-5	167.9	0.20	2.0
Tetrachloroethene	127-18-4	165.8	0.20	2.0
Tetrahydrofuran	109-99-9	72.11	5.0	50.0
Toluene	108-88-3	92.14	0.20	2.0
1,2,4-Trichlorobenzene	120-82-1	181.5	0.50	5.0
1,1,1-Trichloroethane	71-55-6	133.4	0.20	2.0
1,1,2-Trichloroethane	79-00-5	133.4	0.20	2.0
Trichloroethene	79-01-6	131.4	0.20	2.0
Trichlorofluoromethane	75-69-4	137.4	0.20	2.0
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	187.4	0.20	2.0
1,2,4-Trimethylbenzene	95-63-6	120.2	0.20	2.0
1,3,5-Trimethylbenzene	108-67-8	120.2	0.20	2.0
2,2,4-Trimethylpentane	540-84-1	114.2	0.20	2.0
Vinyl bromide	593-60-2	106.9	0.20	2.0
Vinyl chloride	75-01-4	62.50	0.20	2.0
Xylenes (m&p)	179601-23-1	106.2	0.50	5.0
Xylenes (o)	95-47-6	106.2	0.20	2.0

Notes:

1. Ethanol and Isopropyl alcohol is listed only because labs report data for these compounds, but dilutions are not required. If looking for these compounds, other methods may be required.

8.37 CHAIN OF CUSTODY

The Contractor must comply with Sections 8.6.5, 8.15, 8.22 and this section in regard to Chain of Custody.

8.37.1 NJDEP CHAIN OF CUSTODY AND CUSTODY SEALS

A. When the State Contract Manager/Contract User engages the Contractor, the Contractor must use the correct chain of custody forms. The required Chain of Custody form depends on the analysis required. The requirements shall be as detailed below:

1. When releasing canisters to a Contract User, the Contractor has two options for when any samples involving Method NJDEP-LL-TO-15 are being collected.

Option 1 - Use the NJDEP Chain of Custody Forms DEP-095D only.

Option 2 - Use the NJDEP Chain of Custody Forms DEP-095C in combination with the NJDEP Field Test Data Sheet for Method NJDEP-LL-TO-15.

2. When releasing canisters to a Contract User, the Contractor has two options when any samples involving Methods 3C and 25C are being collected.

Option 1 - Use the NJDEP Chain of Custody Forms DEP-095D in combination with the NJDEP Methods 3C/25C Field Test Data Sheet.

Option 2 - Use the NJDEP Chain of Custody Forms DEP-095C in combination with the NJDEP Methods 3C/25C Field Test Data Sheet.

B. Copies of these forms are included as each of the method specific Data Report Appendices. The Contractor must record all sample custody transfers on these forms.

C. The actual NCR NJDEP Forms 095C, 095D and 077 will be made available to the Awardee(s) by the NJDEP State Contract Manager. The Contractor must request additional copies from the NJDEP State Contract Manager as needed.

8.37.2 COMMENCEMENT OF CHAIN OF CUSTODY

For all engagements, chain of custody commences when the Contractor releases or ships the canisters to Contract Users. The Contractor shall complete all the required information on the chain of custody form prior to shipping the canisters.

8.37.3 CUSTODY SEALS

A. Custody seals must be used to seal the shipping containers prior to shipping the canisters to the Contract User.

B. Custody seals must be used to seal the packages used to ship the data reports to the State.

8.38 DATA REPORTING REQUIREMENTS

8.38.1 REPORT TURN-AROUND TIME/ORAL REPORTING

This contract specifies three time frames for the reporting of analytical data. The turnaround time frames are forty-eight (48) hours, seven (7) calendar days and fourteen (14) calendar days from sample receipt.

A. Seven (7) and Fourteen (14) Calendar Day Turn Around

Most analysis performed under this contract shall require a seven (7) or fourteen (14) calendar day turn around for the delivery of the results and a full hard copy and electronic copy of the deliverables. The turn around time shall be specified at the time of engagement. The deliverables must be delivered on the 7th or the 14th day after sample receipt or if that day falls on a weekend or State Holiday, on the next State working day that is not a weekend or holiday.

B. Forty-eight Hour Turn Around

1. For a limited number of samples (not more than 10 per sampling event) the Contractor may be required to analyze samples and deliver a partial data report within 48 hours of sample receipt. In computing the forty eight hour time period as stated in Section 6.2.9 Computation of time, Saturday, Sunday and legal holidays shall be excluded in the determination of the 48 hour time period. If the delivery day falls on a weekend or State Holiday, then the delivery day shall be the next State working day that does not fall on a weekend or State Holiday.
2. The canisters available for 48-hour turnaround time canisters have been limited to those that are set for 8 or 24 hour sampling for building interior and ambient sampling or preset for 200 ml/min sampling for soil gas or landfill gas sampling. Other sampling times are not available for 48-hour turnaround sampling unless they are ordered in accordance with section 8.14 of this RFP.
3. The data delivered in 48 hours must have undergone internal QA/QC and approval by the Contractor's QA Officer or Project Manager prior to release to the State Contract Manager. The data sent via electronic mail to the State Contract Manager.
4. Split Deliverables. - For a 48-hour turn around the Contractor shall split the deliverables into two (2) parts. 48 hours after receipt (as specified above) of the sample the Contractor shall deliver the following reduced deliverable which consists of the following parts of a full deliverable as described in each method's appendix:

The reduced data must be converted into an Adobe Acrobat PDF file and sent via Email to the State Contract Manager and consists of the following:

Title Page
Pressure Gauge Readings
Canister Dilution Calculations

In addition to the reduced data above the following Microsoft™ Excel electronic file must be provided to the State Contract Manager and the Contract User.

NJDEP-SRWM Air Methods Data Summary Table

5. The Contractor shall submit the required hard copy data reports and the remaining electronic deliverables within seven days after receipt of the 48-hour turn around sample. If the seventh day falls on a weekend or State Holiday, then the due date for the full deliverable shall be the next State working day that does not fall on a weekend or State Holiday.
- C. If the secondary laboratory for a Multiple Laboratory Contractor analyze the samples for a sampling event, the secondary laboratory must send a complete PDF file of the data packages and a copy of all the electronic deliverables to the Corporate Project Manager at the same time the data is being submitted to the State. The Corporate Headquarters Laboratory has the final responsibility for all submissions under the contract.

8.38.2 PENALTY FOR LATE DELIVERY

- A. A penalty shall be imposed if data reports are delivered late. See Section 6.6.9.10 for additional information).
- B. If a Contractor submits data reports late from three sampling events, the State Contract Manager shall drop the Contractor to the last alternate Contractor position for six months. In turn, the alternate Contractors that were below the Contractor in engagement position shall move up in their engagement position.

For example: If three Laboratories are awarded this contract and the prime Contractor has delivered data reports from three sampling events late, the State Contract Manager shall drop the Contractor to the second alternate Contractor position for engagement purposes and hold it there for the next six months. In turn the first alternate Contractor shall move up to the prime Contractor position, and the second alternate Contractor shall move up to the first alternate Contractor position.

8.38.3 ORAL REPORTING NOT REQUIRED

This contract does not require oral reporting by the Contractor. At times the State Contract Manager may request an oral telephone report on the status of a specific analysis. However, Contractors are not required to provide an oral telephone report and a refusal to give an oral status report shall not affect a Contractor's standing under this contract.

8.38.4 HARD COPY OF THE FINAL DATA REPORT DELIVERABLES

- A. NJDEP External Chain of Custody Forms (095C and 095D) perform the additional function of sample analysis request forms. When the State submits samples to the Contractor, the appropriate Chain of Custody Form accompanies each sample. NJDEP Contract Users indicate the analyses on these forms. The Contractor report must contain data for all samples submitted at the same time for the same project.
- B. Data report deliverables in the final format for each method require documentation as set forth in the method specific appendices. The Contractor shall submit an original final Extended Data Report and original data package summary to the State Contract Manager and with one copy of the summary data package for each sample group to the Contract User.
- C. Reduced data package deliverables are unacceptable.

- D. If an approved secondary corporate network laboratory is issuing the data report deliverables and the electronic files as required by the contract, the secondary laboratory must submit a complete copy of the deliverables electronically to the Corporate Project Manager. This will facilitate the submittal of invoices to the State and the resolution of any problems with the submittals. If the review of the data indicates requires resubmittals of any portion of the deliverables to the state, then the secondary laboratory shall be responsible for the generation of the revisions to both the State and the Corporate Project Manager.
- E. There are minor format differences between the deliverable requirements in Appendix 1 compared to Appendices 2 and 3. The Contractor can follow the requirements of Appendices 2 and 3 for Appendix 1 until the Appendix 1 revision is available.

8.38.5 ELECTRONIC FILES BY ELECTRONIC MAIL

Each Method specific Data Report Formats specify the required electronic files that are to be submitted to the State Contract Manager and the Contract User when the data packages are shipped to the State. See Appendices 1- 3 for the specific requirements.

8.38.6 FILES ON COMPACT DISC

Each Method specific Data Report Formats specify the required files and format of the files that are to be submitted on Compact Disc to the State Contract Manager with the data packages. See Appendices 1- 3 for the specific requirements.

8.39 CONTRACT KICK-OFF MEETING

The NJDEP State Contract Manager shall arrange a contract kick-off meeting between the NJDEP Contract Users and the Contractor after this contract is awarded. The meeting will be held in the Trenton, NJ. The Contractor's attendance is mandatory and shall be at no cost to the State. The State will not pay the Contractor to attend this meeting. At the meeting, all aspects of the contract will be discussed including but not limited to, shipment of samples, analysis of samples, data reports, quality control and payment procedures.

At the kick-off meeting the Contractor shall bring his shipping containers and demonstrate the proper unpacking and packing of canisters for return shipment of samples back to the Contractor in accordance with the approved shipping plan.

8.40 OTHER MEETINGS

The NJDEP State Contract Manager may arrange other meetings with the Contractor over the time of the contract to discuss non-compliance with the terms of the contract. The Contract Users will not pay the Contractor for attending these meetings.

8.41 FIELD SAMPLING ASSISTANCE CONTRACT

NJDEP may use the services of a separate Contractor to take samples under this contract. It shall be the responsibility of the Contract User to inform the appropriate State Contract Manager when coordination is required. It is the responsibility of the Contract User to coordinate the use of both contracts and the Contract User shall advise the Contractor when the Field Sampling assistance contract will be used.

8.42 **COORDINATION WITH OTHER STATE CONTRACTS**

If Coordination with Other State Contracts is required, the State Contract Manager shall coordinate all sampling engagements with the Project Team or State Contract Manager who is responsible for the other state contract.

9.0 ENGAGEMENT PROCESS

9.1 ENGAGEMENT

When NJDEP intends to have samples analyzed, The State Contract Manager or Contract User shall engage the Prime Contractor for that task, unless the Prime Contractor is suspended, has a conflict of interest, or has not capacity available. The Alternate Contractor shall be offered the engagement if the Prime Contractor cannot perform the work. The engagement process shall be the same for additional alternate Laboratories.

In accordance with Section 8.36.8, if a Contractor has delivered data reports late from three sampling events, the State Contract Manager shall drop the offending Contractor in engagement position as specified in Section 8.36.8 and then proceed with the new engagement order for the next six months.

When the Contract User engages the Contractor, all telephone contacts must be documented by Email and sent to the State Contract Manager. If contact is by made by electronic mail to the Contractor, the State Contract Manager must be copied. Also copies of all engagement packages must be forwarded to the State Contract Manager.

9.2 WEEKLY SAMPLE ALLOCATION LIMIT

There is no limit to the number of samples that may be submitted to the Prime Contractor on a weekly basis except for the Forty-eight Hour Turnaround samples (See Section 8.38.1.B). If the Contract User is planning a sampling event and the State Contract Manager discovers that the Prime Contractor cannot accept any additional for that weekly period, the Contract User will be advised to engage the Alternate Contractor.

9.3 CONTRACT USER RESPONSIBILITIES

The Contract User shall prepare a sampling event in the following manner:

9.3.1 Estimated Number of Samples - The Contract User shall determine the total number of samples to be collected for each line item on the Price Schedules and the projected date of sample collection.

9.3.2 Contact of State Contract Manager - The Contract User shall contact the State Contract Manager to document that an engagement is required for a sampling event. The initial notification can be made by telephone, but a written notification must also be provided. The notification must include the following:

- Turn around time required
- Expected date of sampling
- Date canisters are to be delivered to contract user
- Shipping location (shipping to location and from location)
- Site specific information (project team information, funding source and job number)

9.4 STATE CONTRACT MANAGER /CONTRACT USER

9.4.1 Determine Subtotal Price - The State Contract Manager/Contract User will determine a subtotaled price for the engagement by multiplying the number of samples by the unit prices in the contract.

- 9.4.2 Reanalysis Contingency – 25% - The State Contract Manager/Contract User will calculate the reanalysis contingency by multiplying the subtotaled total price by 25%. The reanalysis contingency will be added to the subtotal totaled price to establish the engagement price.
- 9.4.3 Additional Shipping Cost - If additional shipping costs are required because of location and/or time requirements, the State Contract Manager/Contract User will calculate the additional cost and add them to the cost of the engagement.
- 9.4.4 Contractor Contact and Purchase Order Request - The State Contract Manager/Contract User will contact the Contractor, provide the site specific engagement as specified Section 9.8.2 above, confirm the engagement by Email and USPS mail. The State Contract Manager/Contract User will prepare the engagement package for the preparation of the Purchase Order to the Contractor in the amount of the total engagement price.
- 9.4.5 Initial Confirmation of Engagement – The State Contract Manager will inform the Contract User that the Contractor has accepted the Engagement.
- 9.4.6 Final Confirmation of Engagement- Based on the Timeline established by the Contractor, the State Contract Manager will confirm the final count of the bottles and obtain the final Sample Container Request Form as per section 8.9.
- 9.4.7 When the Contract User engages the Contractor, all telephone contacts must be documented by Email and sent to the State Contract Manager. If contact is by made by electronic mail to the Contractor, the State Contract Manager must be copied. Copies of all engagement packages must to forwarded to the State Contract Manager for processing.

9.5 CONTACT OF CONTRACTOR

- 9.5.1 The State Contract Manager/Contract User will contact the Contractor's Project Manager by telephone and provide following information:
- A. Contract User Name, Office Location, Telephone Number and Email or telefax number.
 - B. A description of the sampling event including project number, date of sampling event, number of samples and contract price lines utilized.
 - C. The location of sample bottle delivery and return shipping back to the lab, as well as any special delivery or pickup requirements.
 - D. Advise the Contractor that additional shipping costs beyond the base shipping rate may be incurred and additional billing will be required.
 - E. Date sample bottles should be delivered to State Agency or State Contractor.
- 9.5.2 If the Contractor is a Multiple Contractor Laboratory, the Contractor will establish which laboratory will ship bottles.
- 9.5.3 In rare incidents, if samples will be delivered with the actual identification of the sample location in lieu of a coded sample number, the Contractor shall be subject to the Conflict of Interest provisions of Section 6.1.12.

- 9.5.4 The engagement will be confirmed by the Contract User/State Contract Manager with a follow up telefax or Email and a letter by USPS.
- 9.5.5 The Contractor confirms acceptance of the engagement to the Contract User/State Contract Manager by telefax or Email.
- 9.5.6 Upon confirmation of the final sample count from the Contract User, the Contractor shall submit electronically to both the Contract User and the State Contract Manager the Sample Container Request Form as required by Section 8.9. The completed form must be included in the shipment of bottles to the Contract User.
- 9.5.7 When the Contract User engages the Contractor, all telephone contacts must be documented by Email to the State Contract Manager. If contact is made by electronic mail to the Contractor, the State Contract Manager must be copied. Copies of all engagement packages must be forwarded to the State Contract Manager.

9.6 SHIPMENT OF SAMPLE CANISTERS BY CONTRACTOR

- 9.6.1 At the Contractor's expense, sample bottles are to be shipped in an appropriate shipping container to the location agreed upon and on the established date. The Contractor must ship the sample bottles in accordance with the approved Shipping Plan and with all appropriate chain of custody forms.
- 9.6.2 The Contractor shall document the delivery of the shipping containers to the Contract User when special shipping was requested. The required documentation is the tracking form receipt printed out from the Common Carriers website. This documentation will be submitted for payment for any charges imposed by the Common Carrier beyond the base shipping rate.
- 9.6.3 Notify the State Contract Manager by Email of the shipment to the Contract User.
- 9.6.4 If the Common Carrier fails to deliver the shipping containers within the expected time frame, the Contractor has the responsibility to contact the Common Carrier and track the shipping containers to ensure they are delivered to the correct location.

9.7 SHIPMENT OF SAMPLES TO CONTRACTOR BY CONTRACT USER

- 9.7.1 After the sampling event, the Contract User will ship the samples, at the Contractor's expense, back to the laboratory analysis. The samples will contain the appropriate labeling and completed chain of custody forms. Additional shipping costs over and above the base rate will be the responsibility of the State.
- 9.7.2 All samples will be shipped in accordance with the approved Shipping Plan.
- 9.7.3 The Contract User will notify, by electronic mail, the State Contract Manager of the shipment.
- 9.7.4 All unused canisters and flow controllers must be shipped back to the Contractor with the samples that were collected.

9.8 DELIVERY OF CANISTERS TO CONTRACTOR

- 9.8.1 The Contractor will document the delivery of the shipping container in accordance with

the requirements of the RFP. All documentation, including the tracking form receipt, must be submitted with the invoice. The Contractor will only be reimbursed for costs exceeding the base shipping rate.

9.8.2 Upon receipt, the Contractor will provide notification to the Contract User/State Contract Manager and will disclose any problems associated with the shipment. All contacts by the Contractor are followed up by the submittal of Form A-1A and the Contractor's Sample receipt log as required by Section 8.25.4.

9.8.3 The Contractor is responsible for all contact with the Common Carrier if delivery is not within the expected time frame or at the correct location.

9.8.4 Upon completion of the logging in of the samples by the Sample Custodian, the Contractor's Project Manager shall forward to the State Contract Manager an electronic copy of the preliminary Form A-1A and the Contractor's Sample Receipt and Log in Checklist as required by Section 8.25.4. The requirements of the Contractor's Sample Receipt and Log in Checklist are specified in Section 8.25.4. These documents must be sent electronically in an Adobe Acrobat format via internet Email to the State Contract Manager within 5 days of receipt at the Contractor's facility.

9.9 SAMPLE ANALYSIS AND DELIVERY OF DATA REPORTS

9.9.1 The Contractor will submit a copy of the summary data package to the Contract user including the Hzresult file.

9.9.2 The Contractor will submit the Extended Data Report, one copy of the summary data package, all electronic deliverables (by electronic mail) and the CD Deliverable directly to the State Contact Manager.

9.10 PURCHASE ORDER/INVOICES ROUTING

9.10.1 Prior to the start of the sampling event, the State Contract Manager will forward the State Payment Voucher by USPS mail and a copy by telefax.

9.10.2 The Contractor must send the State Contract Manager two Payment Vouchers/Vendor Invoices either with the Data Reports or after submittal of the Data Reports. One Payment Voucher/Vendor Invoice shall be for 80% of the total amount due and the second Payment Voucher/Vendor Invoice shall be for the 20% retainage.

9.10.3 Additional shipping costs over and above the base shipping rate must be submitted on the invoice with supporting documentation.

9.10.4 The State Contract Manager will verify that the correct Purchase Order was used, sample and dilutions/reanalyses numbers are correct, and that all calculations based on analytical data that was submitted to the State in the data reports is correct. When verified, the documentation will be forwarded for processing and payment. If errors are detected, the Contractor will be directed to resolve the errors and may be required to submit revised invoices.

9.10.5 Reference Section 6.9 for payment procedures.

9.11 PROBLEMS

The State Contract Manager, in conjunction with the Contract User, will resolve any problems with the engagement prior to submittal of samples to the laboratory. All problems and subsequent resolutions must be documented by Email or letter and sent to all project team members.

Upon receipt of the samples by the Contractor, any problems will be discussed with the State Contract Manager and followed up in writing or by Email. The State Contract Manager will resolve any problem with the Contract User or Project Team and direct the Contractor, in writing or by Email, what measures to take to rectify the problem.