

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT		1. CONTRACT ID CODE	PAGE OF PAGES 1 55
2. AMENDMENT/MODIFICATION NO. 000003	3. EFFECTIVE DATE 06/19/2007	4. REQUISITION/PURCHASE REQ. NO.	5. PROJECT NO. (If applicable)
6. ISSUED BY NASA/John F. Kennedy Space Center Office of Procurement MAIL CODE OP KENNEDY SPACE CENTER FL 32899	CODE KSC	7. ADMINISTERED BY (If other than Item 6) NASA/Kennedy Space Center Office of Procurement MAIL CODE OP KENNEDY SPACE CENTER FL 32899	CODE KSC
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)		(x) 9A. AMENDMENT OF SOLICITATION NO. NNK07192919E	
		x 9B. DATED (SEE ITEM 11) 06/19/2007	
		10A. MODIFICATION OF CONTRACT/ORDER NO.	
		10B. DATED (SEE ITEM 11)	
CODE	FACILITY CODE	11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS	

The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers is extended. is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning 3 copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)

13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

<u>CHECK ONE</u>	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
	D. OTHER (Specify type of modification and authority)

E. IMPORTANT: Contractor is not. is required to sign this document and return _____ copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

INCO TERMS 2: Destination
The purpose of this amendment is to (a) revise the period of performance for this IFB, (b) incorporate an additional delivery point, and (c) revise FAR 52.252-2 to update Government property clauses. As are result of this amendment, the due date for receipt of bids/bid opening date has been extended to August 10, 2007 at 1300 LT.

See page 2 for a description of the changes identified above.

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)	16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Marcus Orr
15B. CONTRACTOR/OFFEROR <i>(Signature of person authorized to sign)</i>	15C. DATE SIGNED
16B. UNITED STATES OF AMERICA <i>(Signature of Contracting Officer)</i>	16C. DATE SIGNED

Continuation of Block 14 of SF30: This amendment revises IFB NNK07192919E as follows:

- (a) Revise the period of performance. The period of performance is revised from a 3-year base period with two 1-year options, to a 2-year performance period (no options). As a result of this change, the following sections are revised:
 - (1) C1.3. Period of Performance
 - (2) C5.4. Contract Price Adjustments for Variances in Government-controlled Crude Helium Prices
 - (3) C6.4. FAR 52.252-2 Clauses Incorporated by Reference (Feb 1998): Removed FAR 52.217-9 Option to Extend the Term of the Contract (Mar 2000)
 - (4) E1. Instructions, Conditions, and Notices to Bidders
 - (i) Removed all references to "options"
 - (ii) Revised E1.7.(a) to delete reference to "Attachment 003. Requirements and Contract Pricing" and revise to "Attachment 004. Priced Bid."
 - (5) Attachment 003: Removed all requirements for FY 2010 - 2012
- (b) Incorporate an additional delivery point. As a result of this addition, the following attachments have been revised: Attachments: 001, 002, 003, and 004.
- (c) Revise FAR 52.252-2 to update Government property clauses. Section C6.4. FAR 52.252-2 Clauses Incorporated by Reference (Feb 1998) has been revised to remove FAR 52.245-2 and its Alternate I, and incorporate FAR 52.245-1 and its Alternate I and 52.245-9.

Replacement pages are attached.

Section C: Contract Clauses – Addendum to FAR 52.212-4

C1. Description/Specifications

C1.1. Scope of Work

The Contractor shall produce and deliver provide helium as specified in [Attachment 003. Requirements and Contract Pricing](#) in accordance with Performance Specification MIL-PRF-27407C, “Propellant Pressurizing Agent, Helium,” dated November 29, 2006, unless otherwise specified in the attachment as “high purity” or “ultra high purity”. This specification is incorporated by reference.

To obtain a copy of this document, contact:

John F. Kennedy Space Center, NASA
Specification and Standards Section, Library – S
Kennedy Space Center, FL 32899

Telephone: (321)867-3603 (collect calls will not be accepted)

C1.2. Routine Requirements and Best Estimated Quantities

The routine requirements indicate a quantity that is expected to be requested in the time period indicated (e.g., weekly, monthly, etc.); however, deliveries are based on the nature of usage and are not necessarily required every week or month of the year (e.g., if a user requires helium for a test program, typically the test program will not be 52 weeks per year).

Best Estimated Quantity (BEQ) reflects estimated total yearly usage at a location. At some locations, where due to the nature of their operations there is a requirement for a steady delivery of helium, the Best Estimated Quantity reflects an extension of the routine requirement thru the entire year. For other locations, where deliveries are not required on a steady basis, the Best Estimated Quantity reflects the estimated total yearly usage based on anticipated operational requirements for that location.

C1.3. Period of Performance

The period of performance of this contract is from October 1, 2007 to September 30, [2009](#).

C2. Inspection and Acceptance

C2.1. Material Inspection and Receiving Report

- (a) At the time of each delivery under this contract, the Contractor shall furnish to the Government a Material Inspection and Receiving Report (MIRR) DD Form 250 or equivalent commercial invoice, prepared in three copies (original and two copies). The Contractor may submit a commercial document provided it contains equivalent information in the same level of detail as the DD250. If the Contractor elects to use the DD Form 250, it shall be prepared in accordance with NASA FAR Supplement 1846.672-1. The Contractor shall include with each MIRR a laboratory analysis report pertaining to each shipment.

C5. Special Contract Requirements

C5.1. Flash Reports

The Contractor shall provide the Contracting Officer, or his designated representative, with an immediate verbal Flash Report of any accident or incident which may have an adverse impact on the contractor's ability to deliver helium to the Government, such as a conveyance malfunction, or of any other occurrence in which the Government could reasonably be expected to have an interest by virtue of this contract. The contractor shall confirm said Flash Reports timely, in writing, and in appropriate detail.

C5.2. Compliance with Helium Privatization Act of 1996

- (a) The Contractor shall comply with the Helium Privatization Act of 1996. The contractor shall provide notice to the U.S. Department of the Interior, Bureau of Land Management, Helium Operations, 801 South Fillmore, Suite 500, Amarillo, TX 79101 that it has been awarded a contract to supply helium to the National Aeronautics and Space Administration.
- (b) The contractor, or its subcontractor(s), shall enter into an enforceable contract to purchase an equivalent amount of crude helium from the Bureau of Land Management, referred to as an "In Kind Crude Helium Sales Contract."

C5.3. Conversion Factors for Helium

1.0000 LB = 3.631 Liters = 0.9590 Gallons = 96.720 SCF
 0.2754 LB = 1.000 Liters = 0.2642 Gallons = 26.630 SCF
 1.0420 LB = 3.785 Liters = 1.0000 Gallons = 100.820 SCF

C5.4. Contract Price Adjustments for Variances in Government-controlled Crude Helium Prices

- (a) Purpose - Government suppliers of helium are required to obtain crude helium from the Bureau of Land Management (BLM). Prices charged for crude helium are set annually by the Secretary of the Department of Interior (Secretary) in the spring prior to each Government fiscal year (Oct.1 – Sep 30). Estimated future-year crude helium prices are provided in this solicitation for offerors to consider in developing pricing. Since the actual crude helium future-year prices will be set by the Secretary and may vary significantly from estimates, this provision is established to provide for adjustment of contract product prices in the event the actual future-year prices set by the Secretary vary from the estimates by two (2) percent or more.
- (b) Baseline and Adjustment Thresholds – The following table presents the estimated and actual crude helium prices and the adjustment thresholds for determining whether contract prices will be adjusted.

Crude Helium Prices*				
Gov't Fiscal Year	Estimate	Downward Adjustment Threshold	Actual	Upward Adjustment Threshold
2008	N/A	N/A	60.50	N/A
2009	63.50	62.23	TBD	64.77

*Prices are for 1,000 standard cubic feet (MSCF).

(c) Computation of Contract Price Adjustments - Each year after the Secretary sets the price for crude helium for the next Government fiscal year the Contracting Officer will enter the actual price set by the Secretary in the table in paragraph (b), compare it to the adjustment thresholds, and determine if the actual price (rounded to two decimal places) is equal to either of the thresholds, less than the downward adjustment threshold, or greater than the upward adjustment threshold. If so, the Contracting officer will compute adjusted contract prices, notify the contractor, and amend the contract accordingly. Product price adjustments will be computed using the following formulas.

(1) Step 1: Computation of adjustment factor for one SCF

$$AF = (A-E)/1000$$

Where,

AF = Adjustment factor

A = Actual value from table in Section (b)

E = Estimate value from table in Section (b)

(2) Step 2: Computation of adjusted contract product prices

(i) Where the contract product item price is based upon the SCF unit of sale:

$$ACPP = CPP + AF$$

Where,

ACPP = Adjusted contract product price

CCP = Contract product price from Attachment 003

AF = Adjustment factor from Step 1

(ii) Where the contract product item price is based upon a liter unit of sale:

$$ACPP = CPP + (AF \times 26.63)$$

Where,

ACPP = Adjusted contract product price

CCP = Contract product price from Attachment 003

AF = Adjustment factor from Step 1

this clause, beginning at the expiration of the loan period specified in paragraph (b) of this clause, and continuing to the date on which the cylinder was delivered to the Contractor.

C6.4. FAR 52.252-2 Clauses Incorporated by Reference (Feb 1998)

This contract incorporates one or more clauses by reference, with the same force and effect as if they were given in full text. Upon request, the Contracting Officer will make their full text available. Also, the full text of a clause may be accessed electronically at this/these address(es): Federal Acquisition Regulation (FAR) clauses: <http://www.acqnet.gov/far/>. NASA FAR Supplement (NFS) clauses: <http://www.hq.nasa.gov/office/procurement/regs/nfstoc.htm>.

- FAR 52.204-9 Personal Identity Verification of Contractor Personnel (Nov 2006)
- FAR 52.211-16 Variation in Quantity (Apr 1984)
Insert: (b) 10 Percent increase. 10 Percent decrease. This increase or decrease shall apply to all delivery containers
- FAR 52.216-18 Ordering (Oct 1995)
Insert: (a) Any supplies and services to be furnished under this contract shall be ordered by issuance of delivery orders or task orders by the individuals or activities designated in the Schedule. Such orders may be issued from October 1, 2007 through the end of the period of performance stated in [C1.3. Period of Performance](#).
- FAR 52.216-19 Order Limitations (Oct 1995)
Insert: (a) Minimum order. None. However, the Government will endeavor to order in container sized increments (i.e., a liquid dewar, 30, 60, 100, 200, or 500 liters; gas cylinder; bulk gas trailer; or bulk liquid tanker.

Insert: (b)(1) Any order for a single item in excess of the peak requirements specified in [Attachment 003. Requirements and Contract Pricing](#) at a particular delivery point;

Insert: (b)(2) Any order for a combination of items in excess of the peak requirements specified in [Attachment 003. Requirements and Contract Pricing](#) for all delivery points aggregated; or

Insert: (b)(3) A series of orders from the same ordering office within 10 days that together call for quantities exceeding the limitation in subparagraph (i) or (ii) of this section.

Insert: (d) Notwithstanding paragraphs (b) and (c) of this section, the Contractor shall honor any order exceeding the maximum order limitations in paragraph (b), unless that order (or orders) is returned to the ordering office within 2 days after issuance, with written notice stating the Contractor's intent not to ship the item (or items) called for and the reasons. Upon receiving this notice, the Government may acquire the supplies or services from another source.
- [FAR 52.245-1](#) [Government Property \(Jun 2007\)](#)
- [FAR 52.245-1 *A1](#) [Government Property \(Jun 2007\) - Alternate I \(Jun 2007\)](#)
- [FAR 52.245-9](#) [Use and Charges \(Jun 2007\)](#)
- FAR 52.247-34 FOB Destination (Nov 1991)
- NFS 1852.223-70 Safety and Health (Apr 2002)
- NFS 1852.223-75 Major Breach of Safety or Security (Feb 2002) – Alternate I (Feb 2006)

- NFS 1852.225-70 Export Licenses (Feb 2000)
Insert: (b) The Contractor shall be responsible for obtaining export licenses, if required, before utilizing foreign persons in the performance of this contract, including instances where the work is to be performed on-site at delivery points specified in [Attachment 002. Delivery Points](#), where the foreign person will have access to export-controlled technical data or software.
- NFS 1852.219-76 NASA 8 Percent Goal (Jul 1997)

C6.5. NFS 1852.215-84 Ombudsman (Oct 2003)

- (a) An ombudsman has been appointed to hear and facilitate the resolution of concerns from offerors, potential offerors, and contractors during the preaward and postaward phases of this acquisition. When requested, the ombudsman will maintain strict confidentiality as to the source of the concern. The existence of the ombudsman is not to diminish the authority of the contracting officer, the Source Evaluation Board, or the selection official. Further, the ombudsman does not participate in the evaluation of proposals, the source selection process, or the adjudication of formal contract disputes. Therefore, before consulting with an ombudsman, interested parties must first address their concerns, issues, disagreements, and/or recommendations to the contracting officer for resolution.
- (b) If resolution cannot be made by the contracting officer, interested parties may contact the installation ombudsman, [Insert name, address, telephone number, facsimile number, and e-mail address]. Concerns, issues, disagreements, and recommendations which cannot be resolved at the installation may be referred to the NASA ombudsman, the Director of the Contract Management Division, at 202-358-0445, facsimile 202-358-3083, e-mail james.a.balinskas@nasa.gov. Please do not contact the ombudsman to request copies of the solicitation, verify offer due date, or clarify technical requirements. Such inquiries shall be directed to the Contracting Officer or as specified elsewhere in this document.

C6.6. NFS 1852.242-70 Technical Direction (Sep 1993)

- (a) Performance of the work under this contract is subject to the written technical direction of the Contracting Officer Technical Representative (COTR), who shall be specifically appointed by the Contracting Officer in writing in accordance with NASA FAR Supplement 1842.270. "Technical direction" means a directive to the Contractor that approves approaches, solutions, designs, or refinements; fills in details or otherwise completes the general description of work or documentation items; shifts emphasis among work areas or tasks; or furnishes similar instruction to the Contractor. Technical direction includes requiring studies and pursuit of certain lines of inquiry regarding matters within the general tasks and requirements in Section C of this contract.

Section D: List of Document, Exhibits, and other Attachments

Document Name	Pages
Attachment 001. Acronyms and Abbreviations	01
Attachment 002. Delivery Points	01
Attachment 003. Requirements and Contract Pricing	38
Attachment 004. Priced Bid	03
Attachment 005. Demurrage	01
Attachment 006. Purging and Cool-Down	01
Attachment 007. Maintenance	01
Attachment 008. Inability to Accept Delivery	01
Attachment 009. One Way Charge	01
Attachment 010. Unforecasted Requirements	01
Attachment 011. Residual Credit	01
Attachment 012. Discount Terms	01
Attachment 013. PIV Card Issuance Procedures	03

Section E: Solicitation Provisions

E1. Instructions, Conditions, and Notices to Bidders

E1.1. FAR 52.216-1 Type of Contract (Apr 1984)

The Government contemplates award of a fixed-price requirements contract(s) resulting from this solicitation.

E1.2. FAR 52.252-1 Solicitation Provisions Incorporated By Reference (Feb 1998)

This solicitation incorporates one or more solicitation provisions by reference, with the same force and effect as if they were given in full text. Upon request, the Contracting Officer will make their full text available. The offeror is cautioned that the listed provisions may include blocks that must be completed by the offeror and submitted with its quotation or offer. In lieu of submitting the full text of those provisions, the offeror may identify the provision by paragraph identifier and provide the appropriate information with its quotation or offer. Also, the full text of a solicitation provision may be accessed electronically at this/these address(es): Federal Acquisition Regulation (FAR) clauses:

<http://www.acqnet.gov/far/>. NASA FAR Supplement (NFS) clauses:

<http://www.hq.nasa.gov/office/procurement/regs/nfstoc.htm>.

- FAR 52.211-14 Notice of Priority Rating for National Defense Use
- FAR 52.214-3 Amendments to Invitations for Bids (Dec 1989)
- FAR 52.214-4 False Statements in Bids (Apr 1984)
- FAR 52.214-5 Submission of Bids (Mar 1997)
- FAR 52.214-6 Explanation to Prospective Bidders (Apr 1984)
- FAR 52.214-10 Contract Award - Sealed Bidding (Jul 1990)
- FAR 52.214-12 Preparation of Bids (Apr 1984)
- FAR 52.214-22 Evaluation of Bids for Multiple Awards (Mar 1990)

E1.3. NFS 1852.233-70 Protests to NASA (Oct 2002)

Potential bidders or offerors may submit a protest under 48 CFR Part 33 (FAR Part 33) directly to the Contracting Officer. As an alternative to the Contracting Officer's consideration of a protest, a potential bidder or offeror may submit the protest to the Assistant Administrator for Procurement, who will serve as or designate the official responsible for conducting an independent review. Protests requesting an independent review shall be addressed to Assistant Administrator for Procurement, NASA Code H, Washington, DC 20546-0001.

E1.4. NFS 1852.223-73 Safety and Health Plan (Nov 2004) – Alternate I (Nov 2004)

- (a) The apparent low bidder, upon request by the Contracting Officer, shall submit a detailed safety and occupational health plan (see NPR 8715.3, NASA Safety Manual, Appendices). The plan shall be submitted within the time specified by the Contracting Officer. Failure to submit an acceptable plan shall make the bidder ineligible for the award of a contract. The plan shall include a detailed discussion of the policies, procedures, and techniques that will be used to ensure the safety and occupational health of Contractor employees and to ensure the safety of all working conditions throughout the performance of the contract.

- (b) When applicable, the plan shall address the policies, procedures, and techniques that will be used to ensure the safety and occupational health of the public, astronauts and pilots, the NASA workforce (including Contractor employees working on NASA contracts), and high-value equipment and property.
- (c) The plan shall similarly address subcontractor employee safety and occupational health for those proposed subcontracts that contain one or more of the following conditions:
 - (1) The work will be conducted completely or partly on premises owned or controlled by the Government.
 - (2) The work includes construction, alteration, or repair of facilities in excess of the simplified acquisition threshold.
 - (3) The work, regardless of place of performance, involves hazards that could endanger the public, astronauts and pilots, the NASA workforce (including Contractor employees working on NASA contracts), or high value equipment or property, and the hazards are not adequately addressed by Occupational Safety and Health Administration (OSHA) or Department of Transportation (DOT) regulations (if applicable).
 - (4) When the assessed risk and consequences of a failure to properly manage and control the hazards warrants use of the clause.
- (d) This plan, as approved by the Contracting Officer, will be included in any resulting contract.

E1.5. Authorized Changes

The Contracting Officer is the only individual authorized to issue instructions to the contractor in matters relating to this contract. The identification, scope of authority and duties of representatives of the Contracting Officer shall be set forth in letters issued by the Contracting Officer and copies of such designations shall be furnished to the contractor.

E1.6. Bid Preparation

The offeror shall provide all price information required on [Attachment 004. Priced Bid](#) that follows these instructions. Do not enter pricing information in [Attachment 003. Requirements and Contract Pricing](#). Bidders shall ensure that page 1 of the Standard Form 33, Solicitation, Offer and Award is signed by an official who is authorized to bind the company. Four (4) copies of the bid package are required. Bidder shall complete attachments as follows:

- (a) [Attachment 004. Priced Bid](#)
 - (1) Bidders shall enter the unit price for manufacture and delivery (F.O.B. destination) of helium (as specified) to supply the destination's requirements for all five years. The price shall include:
 - (i) Assumed cost of crude helium provided in the attachment;
 - (ii) All production/refining, storage, transportation, and indirect costs; and
 - (iii) Profit as applicable.Offers that fail to state a product unit price in all contract years for a delivery point will be considered a "no-bid" for that particular delivery point.
 - (2) Bidders shall enter the city and state of the plant source (transfill, distribution, or refinery) that will service the delivery point.
- (b) [Attachment 005. Demurrage](#): Bidder shall complete the demurrage sheet by inserting the applicable demurrage terms as appropriate. Any special conditions regarding demurrage shall be explained by the bidder. Demurrage price for each contract year shall be recorded. Bidder is authorized to insert ALL in the delivery point field, only if the applicable charges apply to all delivery locations.

- (c) [Attachment 006. Purging and Cool-Down](#): Bidders shall enter their price for purging and cool down of tankers and dewars. Purging and cool-down charges must be recorded for each contract year. Any special conditions regarding purging and cool down shall be explained by the bidder. Bidder is authorized to insert ALL in the delivery point field, only if the applicable charges apply to all delivery locations. If applicable, bidders may tailor the price schedule to reflect pricing tiers based on temperature ranges.
- (d) [Attachment 007. Maintenance](#): Bidder shall identify and price any maintenance and leasing charges they may wish to include in the contract. Examples include: 30 day lease of bulk gas tube trailer; hydrostatic testing of cylinders; valve replacement; and painting. Bidders shall ensure that proposed prices are either in accordance with a commercial published price list or that prices are equal to or better than those offered to their most favored customer.
- (e) [Attachment 008. Inability to Accept Delivery](#): Bidder shall complete the table by inserting the applicable information in the appropriate fields. Charges must be recorded for each contract year. Bidder is authorized to insert ALL in the delivery point field, only if the applicable charges apply to all delivery locations.
- (f) [Attachment 009. One Way Charge](#): The bidder will enter transportation charges in the instance that the contractor is directed to drop or pick up a trailer or tanker and is unable to haul another trailer or tanker for half the route (also known as a dead-head or bob-tail run). Charges must be recorded for each contract year. Bidder is authorized to insert ALL in the delivery point field, only if the applicable charges apply to all delivery locations.
- (g) [Attachment 010. Unforecasted Requirements](#): Bidder shall insert the applicable information in the appropriate fields. Charges must be recorded for each contract year.
- (h) [Attachment 011. Residual Credit](#): Bidder shall enter residual credit amount as required.
- (i) [Attachment 012. Discount Terms](#): Bidder shall enter discount terms. If no discount is provided, enter NT30 (Net 30 days) in the discount field. Discount terms must be recorded for each contract year. Bidder is authorized to insert ALL in the delivery point field, only if the applicable charges apply to all delivery locations.

E1.7. Evaluation

Selection and award will be made to the lowest priced bidder(s) as described below:

- (a) Award will be based on the lowest evaluated price per delivery point, except where delivery points are combined [see paragraph (a)(4) of this provision], based on the best estimated quantities specified in [Attachment 004. Priced Bid](#) for the basic requirement. Bidder is advised that the Government will determine the most advantageous price for requirements by multiplying the bidder's unit price per year times the best estimated quantities specified for each respective year. This sum will be added for each contract year to determine the overall price.
- (b) BIDDER MAY PROPOSE ON ANY OR ALL DELIVERY POINTS; however, bidder must provide the total requirement for a delivery point (i.e., dewar liquid, bulk liquid, cylinder gas and bulk gas) as specified.
- (c) Combined Delivery Points
 - (1) The delivery points listed below will be combined as listed for award.
 - (i) Delivery Points 3 and 4 (GSFC and WFF)
 - (ii) Delivery Points 10 and 11 (GRC at Lewis Field and GRC Plumbrook Station)
 - (iii) Delivery Points 21 and 22 (NSBF-Palentine and NSBF-Ft. Sumner)
 - (2) For combined delivery points, award will be determined by the lowest evaluated price for both locations combined.

E2. Representations, Certifications, and Other Statements of Bidders

E2.1. FAR 52.212-3 Offeror Representations and Certifications—Commercial Items (Nov 2006)

An offeror shall complete only paragraph (k) of this provision if the offeror has completed the annual representations and certifications electronically at <http://orca.bpn.gov>. If an offeror has not completed the annual representations and certifications electronically at the ORCA website, the offeror shall complete only paragraphs (b) through (j) of this provision.

(a) Definitions. As used in this provision—

“Emerging small business” means a small business concern whose size is no greater than 50 percent of the numerical size standard for the NAICS code designated.

“Forced or indentured child labor” means all work or service—

- (1) Exacted from any person under the age of 18 under the menace of any penalty for its nonperformance and for which the worker does not offer himself voluntarily; or
- (2) Performed by any person under the age of 18 pursuant to a contract the enforcement of which can be accomplished by process or penalties.

“Manufactured end product” means any end product in Federal Supply Classes (FSC) 1000-9999, except—

- (1) FSC 5510, Lumber and Related Basic Wood Materials;
- (2) Federal Supply Group (FSG) 87, Agricultural Supplies;
- (3) FSG 88, Live Animals;
- (4) FSG 89, Food and Related Consumables;
- (5) FSC 9410, Crude Grades of Plant Materials;
- (6) FSC 9430, Miscellaneous Crude Animal Products, Inedible;
- (7) FSC 9440, Miscellaneous Crude Agricultural and Forestry Products;
- (8) FSC 9610, Ores;
- (9) FSC 9620, Minerals, Natural and Synthetic; and
- (10) FSC 9630, Additive Metal Materials.

“Place of manufacture” means the place where an end product is assembled out of components, or otherwise made or processed from raw materials into the finished product that is to be provided to the Government. If a product is disassembled and reassembled, the place of reassembly is not the place of manufacture.

“Service-disabled veteran-owned small business concern”—

- (1) Means a small business concern—
 - (i) Not less than 51 percent of which is owned by one or more service-disabled veterans or, in the case of any publicly owned business, not less than 51 percent of the stock of which is owned by one or more service-disabled veterans; and

Attachment 001. Acronyms and Abbreviations

BEQ	–Best Estimated Quantity	RPC	–Requirement Point of Contact
CLIN	–Contract Line Item Number	SCF	–Standard cubic feet
CGA	–Compressed Gas Association	SSC	–Stennis Space Center
CPC	–Contracting Point of Contact	Wk Pres	–Working Pressure
D.O.T.	–Department of Transportation	LB	–Pound
DFRC	–Dryden Flight Research Center	WSTF	–White Sands Test Facility
EAFB	–Edwards Air Force Base	WFF	–Wallops Flight Facility
F.O.B.	–Free On Board	CSBF	–Columbia Scientific Balloon Facility
FAR	–Federal Acquisition Regulation	PWRI	–Pratt and Whitney Rocketdyne Inc
FPC	–Finance Point of Contact	JPL	– Jet Propulsion Laboratory
GFE	–Government Furnished Equipment		
GRC	–Glenn Research Center		
GSFC	–Goddard Space Flight Center		
IFB	–Invitation for Bid		
JSC	–Johnson Space Center		
KSC	–Kennedy Space Center		
LaRC	–Langley Research Center		
MAF	–Michoud Assembly Facility		
MAWP	–Maximum Allowable Working Pressure		
MIRR	–Material Inspection and Receiving Report		
MSCF	–Thousand standard cubic feet		
MSFC	–Marshall Space Flight Center		
NASA	–National Aeronautics and Space Administration		
NFS	–NASA FAR Supplement		
OSHA	–Occupational Safety and Health Administration		
Peak	–Maximum requirement Contractor is obligated to furnish over a specified period of time		
PSIG	–Pounds per square inch gauge		
Routine	–Normal forecasted requirement the Contractor can expect to provide		

Attachment 002. Delivery Points

1. Ames Research Center, Moffett Field CA
2. Dryden Flight Research Center, Edwards CA
3. Goddard Space Flight Center, Greenbelt MD
4. GSFC Wallops Flight Facility, Wallops Island VA
5. Johnson Space Center, Houston TX
6. JSC White Sands Test Facility, Las Cruces NM
7. Kennedy Space Center, Kennedy Space Center FL
8. Langley Research Center, Hampton VA
9. Glenn Research Center, Cleveland OH
10. GRC Plumbrook Station, Sandusky OH
11. Marshall Space Flight Center, Marshall Space Flight Center AL
12. Michoud Assembly Facility, New Orleans LA
13. The Boeing Company, Huntington Beach CA
14. The Boeing Company, Palmdale CA
15. Pratt and Whitney Rocketdyne Inc, Canoga Park CA
16. Stennis Space Center, Stennis Space Center MS
17. ATK Thiokol Propulsion, Corinna UT
18. Columbia Scientific Balloon Facility, Palestine TX
19. Columbia Scientific Balloon Facility, Ft. Sumner NM
20. [Jet Propulsion Laboratory, Pasadena, CA](#)

ATTACHMENT 003 DELIVERY POINT REQUIREMENTS

Delivery Point 1: Ames Research Center, Moffett Field CA

CLIN	FY	Type	Metric	Specification	Price	Container Size
0101	2008	Dewar liquid	Liter	MIL-PRF-27407C Type II	TBD	30-Liter dewar
0101	2008	Dewar liquid	Liter	MIL-PRF-27407C Type II	TBD	60-Liter dewar
0101	2008	Dewar liquid	Liter	MIL-PRF-27407C Type II	TBD	100-Liter dewar
0101	2009	Dewar liquid	Liter	MIL-PRF-27407C Type II	TBD	30-Liter dewar
0101	2009	Dewar liquid	Liter	MIL-PRF-27407C Type II	TBD	60-Liter dewar
0101	2009	Dewar liquid	Liter	MIL-PRF-27407C Type II	TBD	100-Liter dewar
CLIN	FY	Type	Metric	Specification	Price	Container Size
0102	2008	Cylinder gas	SCF	MIL-PRF-27407C Type I, Grade A	TBD	200-220 MSCF cylinder
0102	2009	Cylinder gas	SCF	MIL-PRF-27407C Type I, Grade A	TBD	200-220 MSCF cylinder

(a) Delivery information:

(1) Delivery hours:

- (i) Routine delivery hours: 7:00 a.m. to 2:00 p.m. (local time) Monday through Friday
- (ii) Emergency delivery hours: 24 hours per day, 7 days per week

(2) Delivery address: Ames Research Center, Receiving Section, Building N255, Moffett Field, CA 94035-1000

(3) Delivery directions: From Highway 101, exit onto Moffett Boulevard. Proceed toward Ames Research Center Main Gate. Turn left onto Moffett Boulevard Extension prior to entering main gate. Continue past Visitor Center and enter through Gate 17 (Wright Ave.) Deliver direct to Bldg N255, Receiving via Gate 17. Directions are posted.

(4) Geographic location: ARC is located on the border of the cities of Mountain View and Sunnyvale in northern California, at the southern end of San Francisco Bay. ARC occupies about 430 acres of land, and serves as host to a number of other federal, civilian, and military resident agencies on the adjoining 1,500-acre former naval air station, now known as Moffett Federal Airfield.

(b) Routine requirements:

- (1) Liquid: 250 liters per month
- (2) Gas: 5,000 SCF per month

(c) Peak requirements:

- (1) Liquid: 850 liters per month (anticipated once per year)
- (2) Gas: 7,000 SCF per month (anticipated three times per year)

(d) Special delivery equipment requirements: Contractor to provide all dewars for this delivery location

(e) Basic dewar requirements: Normally 30, 60, or 100 liter dewars

(f) Special dewar requirements: Occasional 200 or 500 liter dewars

(g) Special delivery conditions: The contractor shall deliver within 24 hours of receiving a request for shipment. Requests for shipment called in by 11:00 a.m. (local time) shall be delivered by 11:00 a.m. (local time) of the following working day. Requests for shipment called in after 11:00 a.m. (local time) shall be delivered by 11:00 a.m. (local time) of the second working day after.

- (h) Special access requirements: Delivery vehicles may be subject to search prior to entry at ARC. The contractor is required to obtain badges for delivery personnel for access to the Center. The contractor shall ensure that these badges remain current.
- (i) Government furnished equipment: There are approximately 50 Government-owned gaseous helium cylinders available for use at this delivery location
- (j) Points of contact:
 - (1) Requirement: TBD
 - (2) Contracting: TBD
 - (3) Finance: TBD

Delivery Point 2: Dryden Flight Research Facility, Edwards CA

CLIN	FY	Type	Metric	Specification	Price	Container Size
0204	2008	Bulk gas	SCF	MIL-PRF-27407C Type I, Grade A	TBD	
0204	2009	Bulk gas	SCF	MIL-PRF-27407C Type I, Grade A	TBD	

(a) Delivery information:

(1) Delivery hours:

- (i) Routine delivery hours: 8:00 a.m. to 3:00 p.m. (local time) Monday thru Friday
- (ii) Emergency delivery hours: 24 hours per day, 7 days per week

(2) Delivery address: Edwards Air Force Base, CA 93524

(3) Delivery driver directions: From Lancaster/Palmdale area, take CA-14 North/CA-138 West to CA-158 East. Enter Edwards Air Force Base thru West Gate (on E Rosamond Ave ~ 15 miles after turnoff)). Proceed on E Rosamond, turn right onto Lilley Ave. The entrance to the DFRC parking lot will be to the right (turn right at the winged spacecraft static display) then immediate left. Proceed to Bldg 4825 (ISF Visitor Registration) across the street from the parking lot for check in.

(4) Geographic location: DFRC is located on Edwards Air Force Base, approximately 100 miles northeast of Los Angeles CA.

(b) Routine requirements: Bulk gaseous helium is required at Dryden Flight Research Center (DFRC), Edwards Air Force Base (EAFB), California, to prepare for potential Space Shuttle Orbiter landings ("pre-landing support"). There are approximately 5 shuttle flights per year which will result in "pre-landing support". The nominal helium requirement for shuttle mission support (without landing) is approximately 75,000 SCF at 2250 PSIG minimum for each shuttle flight. Following the end of the Shuttle Program (anticipated in contact year 2010), routine use at DFRC (for contract years 2011 and 2012) will be 180,000 SCF per year.

(c) Peak requirements: DFRC/EAFB is an alternate landing site for the Space Shuttle Orbiters. Bulk gaseous helium is required at Dryden Flight Research Center (DFRC), Edwards Air Force Base (EAFB), California, in the event of a Space Shuttle Orbiter landing. There are approximately 5 shuttle flights per year which may result in a landing at DFRC/EAFB. The total nominal helium requirement for shuttle mission support (with landing) is approximately 150,000 SCF at 2250 PSIG minimum for each shuttle flight (note: this includes the "pre-landing support" quantities indicated in "Routine Requirements"). The contractor will be given 10 days notice to prepare requirements for "stand-by" status of trailers required in the case of a Space Shuttle Orbiter landing at DFRC. The Government may cancel the order at any time, or order delivery of the trailers to DFRC in the event of a landing, thus ending the "stand-by" period. Upon request for delivery, the contractor will have 24 hours to deliver the trailers to the landing site as directed by the Requirement Point of Contact.

(d) Special access requirements: The contractor is required to obtain badging for delivery personnel for access to EAFB. The contractor shall ensure that these badges remain current.

(e) Points of contact:

- (1) Requirement: TBD
- (2) Contracting: TBD
- (3) Finance: TBD

Delivery Point 3: Goddard Space Flight Center, Greenbelt MD

CLIN	FY	Type	Metric	Specification	Price	Container Size
0301	2008	Dewar liquid	Liter	MIL-PRF-27407C Type II	TBD	100-Liter dewars
0301	2009	Dewar liquid	Liter	MIL-PRF-27407C Type II	TBD	100-Liter dewars
CLIN	FY	Type	Metric	Specification	Price	Container Size
0303	2008	Cylinder gas	SCF	MIL-PRF-27407C Type I, Grade B*	TBD	213 SCF cylinder
0303	2009	Cylinder gas	SCF	MIL-PRF-27407C Type I, Grade B*	TBD	213 SCF cylinder

* Purity: 99.997 Percent

(a) Delivery information:

(1) Delivery hours:

- (i) Routine delivery hours: 7:30 a.m.- 1:00 p.m.(local time) Monday thru Friday
- (ii) Emergency delivery hours: 24 hours per day, 7 days per week

(2) Delivery address: Goddard Space Flight Center, Mail Code 279.0, Building 10, Room 100
 Greenbelt, MD 20771

(3) Delivery driver directions:

- (i) From Washington, DC: Take the Capital Beltway (I95/I495) to Exit 22A Greenbelt Road (Rt 193). Go east on Greenbelt Road for approximately 2 miles. The GSFC main entrance will be on the left. Go past the main entrance to the second traffic light at Good Luck Road. Make a left and follow Good Luck Road through the traffic light (road is now called Soil Conservation Road). At next traffic light, turn left on to Hubble Road. Delivery entrance to GSFC is approximately ½ mile on the right.
- (ii) From Baltimore: Take 95 South to I495 East. From I495 take Exit 22A Greenbelt Road (Rt 193). Go east on Greenbelt Road for approximately 2 miles. The GSFC main entrance will be on the left. Go past the main entrance to the second traffic light at Good Luck Road. Make a left and follow Good Luck Road through the traffic light (road is now called Soil Conservation Road). At next traffic light, turn left on to Hubble Road. Delivery entrance to GSFC is approximately ½ mile on the right.

(4) Geographic location: Goddard Space Flight Center is located in Maryland, northeast of Washington, DC.

(b) Routine requirements:

- (1) Liquid: 5,500 liters per month
- (2) Gas: 8,500 SCF per month

(c) Peak requirements:

- (1) Liquid: 9,000 liters per month
- (2) Gas: 13,000 SCF per month

(d) Liquid helium special delivery equipment requirements: Contractor must supply all dewars. Normal dewar size will be 100 liter, but occasionally 250 liter and 500 liter dewars may be used. Dewars must be super insulated and must have a 3/8 inch withdrawal connection.

(e) Gaseous helium special delivery equipment requirements: Contractor is required to pick-up cylinders from Building 87, at Goddard Space Flight Center, Greenbelt, MD., refill, and return the cylinders back to Building 87. Building 87 is a cryogenic storage facility that is unoccupied. Cylinder pickup is

usually between 7:30 a.m. and 9:00 a.m. (local time) If the contractor requires a different time for pickup, the driver will have to call before each shipment to arrange for pick-up/delivery times. The contractor is required to contact a Goddard Space Flight Center cryogenics representative during every pick-up and delivery.

- (f) Special access requirements: The contractor is required to obtain Goddard Space Flight Center badges for a minimum of 2 contractor delivery personnel for access to the Center. The contractor shall ensure that these badges remain current.
- (g) Government furnished equipment: There are a total of 150 gaseous helium cylinders available. Government owned cylinder size is 213 SCF and has a CGA 580 valve.
- (h) Special delivery conditions:
 - (1) Contractor is required to pick-up and deliver dewars twice per week, on Tuesdays and Thursdays. The driver must check in with Yvette Robinson, (301) 286-1459 for delivery instructions. The driver will be required to deliver to the following locations:
 - (i) Tom Hait, Building 7, Room 59.
 - (ii) Lon Kauder, Building 7, Room 209.
 - (iii) Near Building 7, under the 28,000 gallon tank.
 - (2) Upon completion of deliveries the driver must annotate the dewar quantity delivered (in liters), serial number, what serial number went to what customers and sign the delivery ticket. The driver will also annotate on the delivery ticket the serial numbers of any empty dewars picked up. The driver then provides one copy of all paperwork to Yvette Robinson (or her authorized representative) before leaving GSFC.
 - (3) From notification to time of dewar delivery, the contractor is required to provide a one to two day turn-around time. Normal GSFC dewar requirements are called into the contractor on Monday for the Tuesday delivery and on Wednesday for the Thursday delivery.
 - (4) Turn around time for cylinders is no later than one week from date of cylinder pick-up. Contractors are required to inspect cylinders for hydrostatic testing, painting and replacement of valves, as needed. All charges for cylinder testing, repairs, etc will be per Attachment D. Contractor is required to come each week and pick up empty cylinders without call for pickup. Upon cylinder pickup, the contractor shall annotate the quantity of cylinders on the contractor pickup form and provide a copy to GSFC for their records.
 - (5) When an empty dewar is ready for pickup, the location POC will contact the contractor by phone. The demurrage charges for the empty dewar will end on the day the contractor is notified by the location POC. The location POC will document the phone call with an e-mail to the contractor.
- (i) Points of contact:
 - (1) Requirement: TBD
 - (2) Contracting: TBD
 - (3) Finance: TBD

Delivery Point 4: GSFC Wallops Flight Facility, Wallops Island VA

CLIN	FY	Type	Metric	Specification	Price	Container Size
0403	2008	Cylinder gas	SCF	MIL-PRF-27407C Type I, Grade B*	TBD	213 SCF cylinder
0403	2009	Cylinder gas	SCF	MIL-PRF-27407C Type I, Grade B*	TBD	213 SCF cylinder

* Purity: 99.997 Percent

(a) Delivery information:

(1) Delivery hours:

- (i) Routine delivery hours: 8:00 a.m.- 3:30 p.m.(local time) Monday thru Friday
- (ii) Emergency delivery hours: None

(2) Delivery address: GSFC Wallops Flight Facility, Building B-30, Wallops Island, VA 23337

(3) Delivery driver directions:

- (i) Deliveries shall be made direct to NASA, GSFC Wallops Flight Facility. Proceed from Salisbury, MD, south on Route 13 for approximately 40 miles. At Oak Hall, VA, proceed left onto Route 175 East. Follow signs to Wallops Flight Facility (approximately 5 miles off route 13). After proceeding from Main Gate Entrance, take first left onto Wormhoudt Street. Stop at the loading dock of the third building on your right (Building F-19 Receiving). Receiving personnel will then have you follow them to Building B-30 (Hazmat Warehouse) which is less than 1 mile from the Building F-19 loading dock.
- (ii) From the Norfolk, VA area proceed north on Northampton Blvd.(Route 13) across the Chesapeake Bay Bridge and Tunnel System to Oak Hall, VA (approximately 80 miles). At Oak Hall, VA, take a right onto route 175 East. Follow signs to Wallops Flight Facility (approximately 5 miles off route 13). After proceeding from Main Gate Entrance, take first left onto Wormhoudt Street. Stop at the loading dock of the third building on your right (Building F-19 Receiving). Receiving personnel will then have you follow them to Building B-30 (Hazmat Warehouse) which is less than 1 mile from the Building F-19 loading dock.

(4) Geographic location: Wallops Flight Facility is located Approximately 45 miles south of Salisbury, Maryland on the Delmarva Peninsula.

(b) Routine requirements: 426 SCF per month, approximately 8 times per year

(c) Peak requirements: 852 SCF per month, approximately once per year

(d) Special delivery equipment requirements: Delivery truck needs to have a lift gate so that cylinders can be rolled upright from truck to cylinder locker.

(e) Special access requirements: The contractor is required to obtain badges for delivery personnel for access to the Center. The contractor shall ensure that these badges remain current.

(f) Government furnished equipment: A total of 141 Government-owned helium cylinders are available for use at this location. Cylinder size is 213 SCF.

(g) Special delivery conditions

(1) Delivery shall be within seven days after order is placed.

(2) Turn around time for cylinders is no later than one week from date of cylinder pick-up. Contractor is required to inspect cylinders for hydrostatic testing, painting and replacement of valves, as needed. All charges for cylinder testing, repairs, etc will be per Attachment D. Contractor is required to come each week and pick up empty cylinders without call for pickup.

Upon cylinder pickup, the contractor shall annotate the quantity of cylinders on the contractor pickup form and provide a copy to GSFC Wallops Flight Facility for their records.

- (h) Points of contact:
 - (1) Requirement: TBD
 - (2) Contracting: TBD
 - (3) Finance: TBD

Delivery Point 5: Johnson Space Center, Houston TX

CLIN	FY	Type	Metric	Specification	Price	Container Size
0501	2008	Dewar liquid	Liters	MIL-PRF-27407C Type II	TBD	100-Liter dewars
0501	2008	Dewar liquid	Liters	MIL-PRF-27407C Type II	TBD	500-Liter dewars
0501	2009	Dewar liquid	Liters	MIL-PRF-27407C Type II	TBD	100-Liter dewars
0501	2009	Dewar liquid	Liters	MIL-PRF-27407C Type II	TBD	500-Liter dewars
CLIN	FY	Type	Metric	Specification	Price	Container Size
0503A	2008	Cylinder gas	SCF	MIL-PRF-27407C Type I, Grade A	TBD	257 SCF cylinders
0503A	2009	Cylinder gas	SCF	MIL-PRF-27407C Type I, Grade A	TBD	257 SCF cylinders
CLIN	FY	Type	Metric	Specification	Price	Container Size
0503B	2008	Cylinder gas	SCF	MIL-PRF-27407C Type 1*	TBD	213 SCF cylinders
0503B	2009	Cylinder gas	SCF	MIL-PRF-27407C Type 1*	TBD	213 SCF cylinders
CLIN	FY	Type	Metric	Specification	Price	Container Size
0504	2008	Bulk gas	SCF	MIL-PRF-27407C Type I, Grade A	TBD	
0504	2009	Bulk gas	SCF	MIL-PRF-27407C Type I, Grade A	TBD	

* Ultra High Purity – At Least 99.9997 Percent Pure

(a) Delivery information:

(1) Delivery hours:

- (i) Routine delivery hours: 7:30 a.m.- 3:30 p.m.(local time) Monday thru Friday
- (ii) Emergency delivery hours: 24 hours per day, 7 days per week.

(2) Delivery address: Johnson Space Center, B421 Receiving Area, Houston, TX 77058

(3) Delivery driver directions: Normal access is from Interstate 45, proceeding east on NASA Road 1 approximately five miles to the main gate. Deliveries must go to the receiving area, B 421, first. They will then be directed to either B 380, B 352, or B 356 Laydown Area.

(4) Geographic location: Lyndon B. Johnson Space Center is adjacent to Clear Lake at 2101 NASA Road 1, about 20 miles southeast of downtown Houston via Interstate 45.

(b) Routine requirements:

- (1) Liquid: 100 liters per month
- (2) Bulk Gas: 80,000 SCF per three months
- (3) Cylinder Gas: 1600 SCF per month
- (4) UHP Cylinders: 4,240 SCF per month

(c) Peak requirements:

- (1) Liquid: 600 liters per month
- (2) Bulk Gas: 100,000 SCF per month
- (3) Cylinder Gas: 2,400 SCF per month
- (4) UHP Cylinder Gas: 6,360 SCF per month

(d) Special delivery equipment requirements: For bulk gas, the tube trailers listed below may be removed from the delivery site, filled, and returned.

- (e) Special access requirements: The contractor is required to obtain badges for delivery personnel for access to the Center. The contractor shall ensure that these badges remain current.
- (f) Government furnished equipment: Approximately 350 GHe cylinders are available. Seven tube trailers are available for use at this delivery point:

Government License No.	Wk Pres	Test Pressure	Volume at Wk Pres	Water Volume
NA8602	4,500	7,500	72,857 SCF	238 SCF
NA8629	5,000	8,330	80,076 SCF	238 SCF
NA8823	5,000	8,330	80,076 SCF	238 SCF
NA8650	2,400	4,000	54,693 SCF	335 SCF
NA8553	2,400	4,010	59,680 SCF	328 SCF
NA8825	2,400	4,000	55,500 SCF	317 SCF
NA8924	2,400	4,170	55,550 SCF	313 SCF

- (g) Special delivery conditions: All deliveries must first go to the receiving area, B 421. POC: Aaron VanSickle, Materials Operations Supervisor @ (281) 483-6673 (alt: Brenda Lewis @ (281) 244-0935)
- (h) Points of contact:
 - (1) Requirement: TBD
 - (2) Contracting: TBD
 - (3) Finance: TBD

Delivery Point 6: JSC White Sands Test Facility, Las Cruces NM

CLIN	FY	Type	Metric	Specification	Price	Container Size
0603	2008	Cylinder gas	SCF	MIL-PRF-27407C Type I, Grade A	TBD	213 SCF @ 2200 PSIG
0603	2009	Cylinder gas	SCF	MIL-PRF-27407C Type I, Grade A	TBD	213 SCF @ 2200 PSIG
CLIN	FY	Type	Metric	Specification	Price	Container Size
0604	2008	Bulk gas	SCF	MIL-PRF-27407C Type I, Grade A	TBD	
0604	2009	Bulk gas	SCF	MIL-PRF-27407C Type I, Grade A	TBD	

(a) Delivery information:

(1) Delivery hours:

- (i) Routine delivery hours: 7:30 a.m.- 2:00 p.m.(local time) Monday thru Friday
- (ii) Emergency delivery hours: 24 hours per day, 7 days per week.

(2) Delivery address: JSC White Sands Test Facility, Las Cruces, NM 88004

(3) Ship to address: Johnny Bernel, Mail Code: RE, NASA JSC, White Sands Test Facility, Las Cruces, NM 88004

Telephone: (505) 524-5140

- (i) Alternate: Janet Reese
Telephone: (505) 524-5133
- (ii) Alternate: Robert Cort
Telephone: (505) 524-5521

(4) Directions: From Las Cruces, NM, go east on highway 70, 10.5 miles from the I-25 exit 6. Turn north at the WSTF sign and go 6 miles. Stop at the guard gate. You will be directed to the weigh scales, and escorted from that point.

(5) Geographic location: The White Sands Test Facility (WSTF) is remotely located on the west slope of the San Andres mountains between Las Cruces, New Mexico, and the White Sands Missile Range, about 20 miles Northeast of Las Cruces, New Mexico.

(b) Routine requirements:

- (1) Bulk gas: 130,000 SCF per week to occur 10 times per year
- (2) Cylinder gas: 3,000 SCF per month to occur twice per year

(c) Peak requirements:

- (1) Bulk gas: 260,000 SCF per week to occur two times per year
- (2) Cylinder gas: 4,500 SCF per month to occur once per year

(d) Special delivery requirements: WSTF is a potential back-up landing site in the event that a Space Shuttle Orbiter landing is required when the primary landing site (KSC) or the alternate site (DFRC) are both unavailable. There are approximately 5 shuttle flights per year, any of which may result in an emergency landing at WSTF. The total nominal helium requirement for this shuttle landing support is approximately 75,000 SCF at 2250 PSIG minimum. Minimum of 72 hour notice will be provided to the supplier to prepare required GHe trailers to support this special emergency requirement. Upon request for delivery, the contractor will have 24 hours to deliver the trailers to the landing site as directed by the Requirement Point of Contact. This special requirement will be valid until completion of the Space Shuttle program, anticipated to occur by the end of Contract year 2010.

(e) Special delivery equipment requirements: Connections adaptable to Standard "AN" fittings. Bulk gas minimum offload pressure 600 PSIG.

- (f) Special access requirements: The contractor is required to obtain badges for delivery personnel for access to the Center. The contractor shall ensure that these badges remain current.
- (g) Government furnished equipment: None
- (h) Special delivery conditions: For delivery of Shuttle Landing support helium (see Special delivery requirements), upon request for delivery, the contractor will have 24 hours to deliver the trailers to the landing site as directed by the Requirement Point of Contact. A minimum of 72 hour notice will be provided to the supplier to prepare required GHe trailers to support this special emergency requirement. All other deliveries within 48 hours of ordering.
- (i) Point of contact:
 - (1) Requirement: TBD
 - (2) Contracting: TBD
 - (3) Finance: TBD

Delivery Point 7: Kennedy Space Center, KSC FL

CLIN	FY	Type	Metric	Specification	Price	Container Size
0701	2008	Dewar liquid	Liter	MIL-PRF-27407C Type II	TBD	
0701	2009	Dewar liquid	Liter	MIL-PRF-27407C Type II	TBD	
CLIN	FY	Type	Metric	Specification	Price	Container Size
0702	2008	Bulk liquid	Liter	MIL-PRF-27407C Type II	TBD	
0702	2009	Bulk liquid	Liter	MIL-PRF-27407C Type II	TBD	

(a) Delivery information:

(1) Delivery hours:

- (i) Routine delivery hours: 6:00 a.m. through 3:30 p.m.(local time) Monday thru Friday
- (ii) Emergency delivery hours: 24 hours per day, 7 days per week

(2) Delivery address: Propellant North Operations BOC-341, Building K7-416, Kennedy Space Center, FL 32899

(3) Delivery driver directions: Deliveries shall be made direct to NASA, Kennedy Space Center, Florida, Building K7-468, KSC Propellants North CCF Area. The driver will enter KSC at Gate 3 on State Road 405 and obtain clearance/badging at the Visitor Pass and ID station located just east of US Highway 1 near the Indian River bridge (unless driver already badged and cleared). Proceed approximately 8 miles east to exit ramp marked "To VAB" (just prior to overpass). The driver will exit, turn left and travel north on SR 3 through Gate 2C approximately 4 miles to Saturn Causeway. Turn right on Saturn Causeway and proceed past the VAB and around the curve. Approximately 3/4 mile past the curve, the driver will turn left (north) at the first road past Ordnance Road, which crosses the gravel crawler-way. Check in with the scheduler in Building K7-468, the first building on the right after crossing the gravel Crawlerway.

(4) Geographic location: KSC is located approximately 50 miles east of Orlando, Florida, and two miles south of Titusville, Florida.

(b) Routine requirements:

- (1) Dewar Liquid (CLIN 0701): 500 liters per week in 500 liter dewars, approx 4 times per year. 100 liters per month in 100 liter dewars Bulk Liquid (CLIN 0702): 40,000 liters every week
- (2) Bulk Liquid (CLIN 0702): 40,000 liters every week

(c) Peak requirements:

- (1) Dewar Liquid (CLIN 0701): 1000 liters per week in 500 liter dewars, anticipated once per year. 200 liters per month in 100 liter dewars, anticipated once per year.
- (2) Bulk Liquid (CLIN 0702): 320,000 bulk liters in a 7 day period. This requirement is expected approximately eight times per year, normally coincident with Space Shuttle and Delta IV launches. This peak requirement is expected to decrease to approximately three times per year in contract years 2011 and 2012 with the conclusion of the Space Shuttle program (anticipated to occur by the end of Contract Year 2010).

(d) Special delivery equipment requirements: Only bulk liquid delivery tankers, nominally 40,000 liter capacity for bulk LHe deliveries. Dewar requirements: 100 liter and 500 liter dewars

(e) Special access requirements: Entry into KSC is restricted to badged personnel only. The contractor is required to obtain badges for delivery personnel for access to the Center. The contractor shall ensure that these badges remain current.

(f) Special delivery conditions:

- (1) KSC storage facilities will be two liquid helium storage vessels with a capacity of 30,000 gallons (approximately 113,000 liters) each. Helium storage is anticipated to be operational by Summer 2007.
 - (2) Liquid tanker detention at KSC may occur for extended periods (up to 10 days) as many as seven times per year.
- (g) Points of contact:
- (1) Requirement: TBD
 - (2) Contracting: TBD
 - (3) Finance: TBD

(h) List of Government-furnished property

Item	Quantity	Acquisition Cost	Date Furnished to the Contractor
Liquid Tanker, HAL-101	1	\$266,600.00	
Liquid Tanker, HAL-102*	1	\$260,075.00	
Dewar, 100 Liter, S/N 2237	1	\$2,615.00	
Dewar, 100 Liter, S/N 1876	1	\$2,615.00	
Dewars, 500 Liter	4	\$16,380.00	

* Currently undergoing inspection/evaluation for potential repair.

- (i) List of Government-furnished property continued:
- (1) The Contractor shall maintain the Government-Furnished tankers as part of the Contractor's fleet. Contractor paint, designs and logos may be applied to the tankers. The Contractor shall repair and maintain the tankers in compliance with DOT regulations, and applicable safety standards. Repair work and workmanship must be in accordance with applicable DOT and American Society of Mechanical Engineers (ASME) codes. The Contractor shall also be responsible for any tanker modification work required due to changes in applicable DOT regulations for the transportation of helium. An on-going maintenance program for the tankers shall be in accordance with Contractor fleet standards. The tankers are to be used by the Contractor only in the Continental United States (CONUS), unless specifically approved in writing by the Contracting Officer.
 - (2) The Contractor shall provide the Government a copy of any design documentation utilized to modify or perform major repairs on the tankers. The Contractor shall document all changes that affect material compatibility or configuration of the tanker fluid system. Configuration changes must be coordinated and approved by the Contracting Officer prior to tanker modifications. The Contractor is not responsible for major modifications or repairs that exceed \$10,000 per tanker per year, unless repairs are attributable to damage caused by a mishap while under the Contractor's control. Tanker disposal, in the event a tanker is no longer usable, will be performed by the Government.
 - (3) The Contractor shall inspect the tankers prior to transfer and notify the Government of any discrepancies. Prior to transfer the Government will take appropriate action to correct all discrepancies at no cost to the Contractor. At a schedule mutually acceptable to both the Contractor and the Government, this inspection will take place at a mutually agreed upon location. The initiation of the inspection process and discrepancy correction will be made in a timely manner prior to the first scheduled helium delivery.
- (j) Tanker maintenance/repair responsibilities: Contractor shall be responsible for normal maintenance. Normal maintenance is defined as those activities required to keep the tanker operational and road

worthy in accordance with the Contractor's standard tanker maintenance program and in compliance with DOT regulations governing the transportation of liquid helium. Examples of normal maintenance include:

- (1) Repair and maintenance of automotive system such as tires, brakes, lighting, and running gear
 - (2) Corrosion control of the carbon steel surfaces to prevent degradation of structural members and outer shell
 - (3) Maintenance, repair, and like item replacement of fluid system to include piping and components
 - (4) Calibration of gauges and relief devices in accordance with DOT requirements
 - (5) Maintenance of fluid system and inner tank cleanliness integrity
 - (6) Maintenance of vacuum integrity, such as periodic pumping
 - (7) Tanker modification required to facilitate fill operations at Contractor's location(s)
 - (8) Minor welding repair to structural members
 - (9) Modifications to the fleet of Government-furnished tankers for upgrades to comply with DOT regulations for which the total cost is less than \$10,000 per each individual directive for all Government-furnished tankers combined
 - (10) Inspection and marking of tanker to meet DOT regulations
- (k) Periodic tanker refurbishment: Contractor shall be responsible for periodic refurbishment. Periodic refurbishment is defined as a program that occurs approximately every ten years where the overall condition of the tanker is assessed and reviewed for DOT compliance. Periodic refurbishment will normally include such things as:
- (1) Sandblasting and repainting of the tanker
 - (2) Disassembly, inspection, and maintenance of running gear
 - (3) Fluid system inspection and cleaning, as required
- (l) Tanker mishap: Contractor shall be responsible for any repair/restoration due to damage from vehicle mishap while under Contractor control.
- (m) Major modification: The Government will be responsible for major modification and repair required to maintain the life of the tanker. Major modification work will include such items as:
- (1) Work to repair, replace, or restore insulation or "getter" material
 - (2) Vacuum repairs to the tanker requiring cutting and welding on inner and/or outer vessel
 - (3) Major repairs required to maintain acceptable one-way travel time.
 - (4) Modifications to the tanker required for delivery of product at Government locations
 - (5) Replacement of major structural material
 - (6) Replacement of major automotive items such as bogie assembly
 - (7) Major repair to correct damage as a result of acts of God or when tanker is under control of the Government.

Special Considerations Applicable at KSC Only:

- (a) Demurrage – detention of tankers: Because the Government is providing two liquid tankers for the Contractor to use in performance of this contract, no demurrage charges will be assessed for up to two tankers detained at KSC.

- (b) Liquid dewars:
- (1) The Government will provide 100 and 500 liter dewars to the Contractor, as needed, to fill the requirements of CLIN 0801. The dewars are subject to NFS 1852.245-72, Liability for Government Property Furnished for Repair or Other Services (March 1989) only, and no other property provisions apply. In the absence of available Government dewars, contractor owned dewars will be provided. Because the Government is providing two 100 liter dewars and four 500 liter dewars to the Contractor for use in performance of this contract, no demurrage charges will be assessed for up to two 100 liter dewars and four 500 liter dewars detained at KSC.
 - (2) The contractor will provide a 7-day response time for filling Government-owned dewars. For emergency requirements, arrangements may be made to transport the dewars by common carrier for a turnaround time of 4 days. Contractor-owned dewars will be provided with 4 days notice.
- (c) One-way charges: In the event the Contractor is directed to drop or pick up a tanker at KSC and is unable to haul another tanker for ½ the route (also known as a dead-head or bob-tail run) the Government will incur a one-way charge. In the event the Contractor is directed to drop off or pick up a dewar at KSC and is unable to haul another dewar for ½ the route (also known as a dead-head or bob-tail run) the Government will incur a one-way charge.

NFS 1852.245-73, Financial Reporting of NASA Property in the Custody of Contractors (Oct 2003)

- (a) The Contractor shall submit annually a NASA Form (NF) 1018, NASA Property in the Custody of Contractors, in accordance with the provisions of 1845.505-14, the instructions on the form, subpart 1845.71, and any supplemental instructions for the current reporting period issued by NASA.
- (b)
- (1) Subcontractor use of NF 1018 is not required by this clause; however, the Contractor shall include data on property in the possession of subcontractors in the annual NF 1018.
 - (2) The Contractor shall mail the original signed NF 1018 directly to the cognizant NASA Center Deputy Chief Financial Officer, Finance, unless the Contractor uses the NF 1018 Electronic Submission System (NESS) for report preparation and submission.
 - (3) One copy shall be submitted (through the Department of Defense (DOD) Property Administrator if contract administration has been delegated to DOD) to the following address: [Insert name and address of appropriate NASA Center office.], unless the Contractor uses the NF 1018 Electronic Submission System (NESS) for report preparation and submission.
- (c)
- (1) The annual reporting period shall be from October 1 of each year through September 30 of the following year. The report shall be submitted in time to be received by October 15. The information contained in these reports is entered into the NASA accounting system to reflect current asset values for agency financial statement purposes. Therefore, it is essential that required reports be received no later than October 15*. Some activity may be estimated for the month of September, if necessary, to ensure the NF 1018 is received when due. However, contractor's procedures must document the process for developing these estimates based on planned activity such as planned purchases or NASA Form 533 (NF 533 Contractor Financial Management Report) cost estimates. It should be supported and documented by historical experience or other corroborating evidence, and be retained in accordance with FAR Subpart 4.7, Contractor Records Retention. Contractors shall validate the reasonableness of the estimates and associated methodology by comparing them to the actual activity once that data is available, and adjust them accordingly. In addition, differences between the estimated cost and actual cost must be adjusted during the next reporting period. Contractors shall have formal policies and procedures, which address the validation of NF 1018 data, including data from subcontractors, and the identification and timely reporting of errors. The objective of this

validation is to ensure that information reported is accurate and in compliance with the NASA FAR Supplement. If errors are discovered on NF 1018 after submission, the contractor shall contact the cognizant NASA Center Industrial Property Officer (IPO) within 30 days after discovery of the error to discuss corrective action.

- (2) The Contracting Officer may, in NASA's interest, withhold payment until a reserve not exceeding \$25,000 or 5 percent of the amount of the contract, whichever is less, has been set aside, if the Contractor fails to submit annual NF 1018 reports in accordance with 1845.505-14 and any supplemental instructions for the current reporting period issued by NASA. Such reserve shall be withheld until the Contracting Officer has determined that NASA has received the required reports. The withholding of any amount or the subsequent payment thereof shall not be construed as a waiver of any Government right.
- (d) A final report shall be submitted within 30 days after disposition of all property subject to reporting when the contract performance period is complete in accordance with (b)(1) through (3) of this clause.

*Deviation for the NF 1018 reporting date changed per NASA Procurement Information Circular PIC 03-18 dated Sept 4, 2003.

Delivery Point 8: Langley Research Center, Hampton VA

CLIN	FY	Type	Metric	Specification	Price	Container Size
0801	2008	Dewar liquid	Liter	MIL-PRF-27407C Type II	TBD	
0801	2009	Dewar liquid	Liter	MIL-PRF-27407C Type II	TBD	
CLIN	FY	Type	Metric	Specification	Price	Container Size
0803	2008	Cylinder gas	SCF	MIL-PRF-27407C Type I, Grade A	TBD	220 SCF cylinder
0803	2009	Cylinder gas	SCF	MIL-PRF-27407C Type I, Grade A	TBD	220 SCF cylinder

(a) Delivery information:

(1) Delivery hours:

- (i) Routine delivery hours: 7:30 a.m.- 2:00 p.m. (local time) Monday thru Friday
- (ii) Emergency delivery hours: 24 hours per day, 7 days per week.

(2) Delivery address: Langley Research Center, Building 1206, Hampton, VA 23681

(3) Delivery driver directions:

- (i) From Richmond/Williamsburg/Newport News Area: Take I-64 east to Exit 261B, Hampton Roads Center Parkway, NASA Exit; Proceed to the end of the Parkway (approximately 1.8 miles), moving into the left lane; Turn left onto Armistead Avenue towards NASA/Langley Air Force Base; Go past the Langley Air Force Base West Gate, moving into the right lane (approximately 1.2 miles); Exit off Armistead Avenue to Commander Shepard Blvd and the NASA Main Gate.
- (ii) From Norfolk Area: Take I-64 west through the Hampton Roads Bridge Tunnel; Remain on I-64 west to Exit 262B, Magruder Blvd; Remain on Magruder Blvd. through three (3) traffic lights, moving into the right lane; Exit off Magruder Blvd onto Commander Shepard Blvd (Route 172 North, marked "NASA") (approximately 1 mile from last traffic light, and before the overpass); Remain on Commander Shepard Blvd through the traffic light (approximately 1.2 miles), and you will be at the NASA Main Gate.
- (iii) From Isle of Wight Area: Take Route 17 North over the James River Bridge (Route 17 becomes Mercury Blvd at this point); Continue on Mercury Blvd to the I-64 intersection (approximately 4 miles); Get on I-64, heading West; stay in the right lane on I-64 West to Exit 262B, Margruder Blvd; Remain on Magruder Blvd onto Commander Shepard Blvd. (Route 172 North, marked "NASA") (approximately 1 mile from last traffic light, and before the overpass); Remain on Commander Shepard Blvd. through the traffic light (approximately 1.2 miles), and you will be at the NASA Main Gate.
- (iv) From Hampton: get on I-64 west to Exit 262B, Magruder Blvd, to NASA; Proceed north on Magruder Blvd (approximately 1.5 miles); Exit Magruder Blvd at ramp to NASA/Langley Air Force Base, Route 172 north; Continue on Route 172 north to NASA Main Gate (approximately 1.2 miles).
- (v) Geographic location: Hampton, Virginia, Hampton Roads region of southeast Virginia

(b) Routine requirements:

- (1) Dewar liquid: 600 liters per month in 60, 250, or 500 liter dewars.
- (2) Cylinder gas: 440 SCF per month

(c) Peak requirements:

- (1) Dewar liquid: 1000 liters per week in 60, 250 or 500 liter dewars, anticipated 2 times per year
- (2) Cylinder gas: 660 SCF per month, anticipated two times per year

- (d) Special delivery equipment requirements: None
- (e) Special access requirements: The contractor is required to obtain badges for delivery personnel for access to the Center. The contractor shall ensure that these badges remain current.
- (f) Government furnished equipment: 75 Government-owned cylinders are available
- (g) Special delivery conditions: Cylinder delivery within 15 days of pickup
- (h) Points of contact:
 - (1) Requirement: TBD
 - (2) Contracting: TBD
 - (3) Finance: TBD

Delivery Point 9: Glenn Research Center (At Lewis Field), Cleveland OH

CLIN	FY	Type	Metric	Specification	Price	Container Size
0904A	2008	Bulk gas	SCF	MIL-PRF-27407C Type I, Grade B*	TBD	SCF @ 2,400 PSIG
0904A	2009	Bulk gas	SCF	MIL-PRF-27407C Type I, Grade B*	TBD	SCF @ 2,400 PSIG
CLIN	FY	Type	Metric	Specification	Price	Container Size
0904B	2008	Bulk gas	SCF	MIL-PRF-27407C Type I, Grade B*	TBD	SCF @ 2,400 PSIG
0904B	2009	Bulk gas	SCF	MIL-PRF-27407C Type I, Grade B*	TBD	SCF @ 2,400 PSIG

* Purity: 99.997 Percent SCF @ 2,400 PSIG

CLIN 0904A = Price/SCF for GHe delivered to GRC using contractor GHe trailers

CLIN 0904B = Price/SCF for GHe when Government trailers dropped off/picked up by the Government at transfill for fill at transfill.

Note: BEQs shown for CLIN 0904A are shared by CLIN 0904B. Separate CLINS provided to allow for pricing of same commodity (bulk gas) with different delivery options (see Special Delivery Conditions)

(a) Delivery Information:

- (1) Delivery driver directions: From I-480 West, exit at Grayton Ave. Head south on Grayton Road. Turn right (west) onto Brookpark Road for ~ ½ mile to main gate of Glenn Research Center
- (2) Delivery hours
- (3) Routine delivery hours: 6:00a.m.- 3:30 p.m. (local time)Monday thru Friday
- (4) Emergency delivery hours: 24 hours per day, 7 days per week.
- (5) Geographic location: Glenn Research Center is located at 21000 Brookpark Road, some 20 miles southwest of the city of Cleveland. Situated on 350 acres of land adjacent to Cleveland Hopkins International Airport, GRC comprises more than 140 buildings that include 24 major facilities and over 500 specialized research and test facilities.

(b) Routine requirements: Bulk Gas – 38,820 SCF per month. Typical pressure at the time of fill is 300 PSIG. Maximum allowable pressure of receiver vessel at the end of delivery is 2400-2600 PSIG. Delivery within 24 hours upon receipt of order, Monday through Thursday is required. For orders placed on Friday, a Monday delivery is required.

(c) Peak requirements: Bulk Gas – 57,083 SCF per month.

(d) Special delivery equipment requirements: None

(e) Special access requirements: The contractor is required to obtain badges for delivery personnel for access to the Center. The contractor shall ensure that these badges remain current.

(f) Government furnished equipment:

- (1) Tube Trailer # 4: 70,000 SCF capacity
- (2) Tube Trailer # 20: 75,050 SCF capacity

(g) Special delivery conditions: Contractor shall transport product in vendor owned trailers (up to 180,000 SCF capacity if requested by the Government) and fill tube trailers of gaseous helium at the Government location, or fill Government owned gaseous helium trailers that are delivered by the

Government to the contractors fill location. The Government may transport and drop off empty Government owned trailers to the contractor's facility upon notification and acceptance of the Government's requirement by the contractor. The contractor will be given a 3-day notice by the Government prior to delivery of the Government owned gaseous trailers to the transfill station. The contractor shall fill trailers within 24 hours of drop off. The Government will pick up the Government owned trailers and transport them to the delivery point. Exercising the option to drop off/pick up Government trailers at the transfill will be solely up to the Government at the time the product is ordered. A 40 mile one way distance from GRC Cleveland to the transfill will be considered the maximum reasonable distance for the Government to exercise this option of the drop off/pick up Government trailers at the transfill. Listed equipment is utilized at both the GRC Cleveland site as well as the Plumbrook site (refer to Delivery Point 10).

- (h) Points of contact:
- (1) Requirement: TBD
 - (2) Contracting: TBD
 - (3) Finance: TBD

Delivery Point 10: GRC Plumbrook Station, Sandusky OH

CLIN	FY	Type	Metric	Specification	Price	Container Size
1004A	2008	Bulk gas	SCF	MIL-PRF-27407C Type I, Grade B*	TBD	@ 2,400 PSIG
1004A	2009	Bulk gas	SCF	MIL-PRF-27407C Type I, Grade B*	TBD	@ 2,400 PSIG
CLIN	FY	Type	Metric	Specification	Price	Container Size
1004B	2008	Bulk gas	SCF	MIL-PRF-27407C Type I, Grade B*	TBD	@ 2,400 PSIG
1004B	2009	Bulk gas	SCF	MIL-PRF-27407C Type I, Grade B*	TBD	@ 2,400 PSIG

* Purity: 99.997 Percent @ 2,400 PSIG

CLIN 1004A – Price/SCF for GHe delivered to GRC using contractor GHe trailers

CLIN 1004B – Price/SCF for GHe when Government trailers dropped off/picked up by Government at transfill for fill at transfill

Note: BEQs shown for CLIN 1004A are shared by CLIN 1004B. Separate CLINS provided to allow for pricing of same commodity (bulk gas) with different delivery options (see Special Delivery Conditions)

(a) Delivery Information:

(1) Delivery address:

GRC Plumbrook Station
61000 Columbus Avenue
Sandusky, OH 44870

(2) Delivery driver directions: From Cleveland, take I-80 (Ohio Turnpike) to US-250 North to CR-112. Travel southwest on CR-112 to NASA Plumbrook Station.

(3) Delivery hours

- (i) Routine delivery hours: 8:00a.m.- 3:00 p.m.(local time) Monday thru Friday
- (ii) Emergency delivery hours: 24 hours per day, 7 days per week.

(4) Geographic location: GRC Plumbrook Station, a 6400 acre facility , is located about 3 miles south of Sandusky, Ohio and some 50 miles west of Cleveland.

(b) Routine requirements: 132,915 SCF per month during Contract Year 2010. 27,500 SCF per month for other Contract years. Typical pressure at the time of fill is 300 PSIG. Maximum allowable pressure of receiver vessel at the end of delivery is 2400-2600 PSIG. Delivery within 24 hours of receipt of order, Monday through Thursday is required. For orders placed on Friday, a Monday delivery is required.

(c) Peak requirements: 200,000 SCF per month during Contract Year 2010. 41,250 SCF per month for other Contract years. These peak requirements to occur once per year.

(d) Special delivery equipment requirements: None

(e) Special access requirements: The contractor is required to obtain badges for delivery personnel for access to the Center. The contractor shall ensure that these badges remain current.

(f) Government furnished equipment:

- (1) Tube Trailer # 4: 70,000 SCF capacity

- (2) Tube Trailer # 20: 75,050 SCF capacity
- (g) Special delivery conditions: Contractor shall transport product in vendor owned trailers (up to 180,000 SCF capacity if requested by the Government) and fill tube trailers of gaseous helium at the Government location, or fill Government owned gaseous helium trailers that are delivered by the Government to the contractors fill location. The Government may transport and drop off empty Government owned trailers to the contractor's facility upon notification and acceptance of the Government's requirement by the contractor. The contractor will be given a 3-day notice by the Government prior to delivery of the Government owned gaseous trailers to the transfill station. The contractor shall fill trailers within 24 hours of drop off. The Government will pick up the Government owned trailers and transport them to the delivery point. Exercising the option to drop off/pick up Government trailers at the transfill will be solely up to the Government at the time the product is ordered. A 40 mile one way distance from GRC Cleveland to the transfill will be considered the maximum reasonable distance for the Government to exercise this option of the drop off/pick up Government trailers at the transfill. Listed equipment is utilized at both the GRC Cleveland site as well as the Plumbrook site (refer to Delivery Point 9).
- (h) Points of contact:
 - (1) Requirement: TBD
 - (2) Contracting: TBD
 - (3) Finance: TBD

Delivery Point 11: Marshall Space Flight Center, MSFC AL

CLIN	FY	Type	Metric	Specification	Price	Container Size
1101	2008	Dewar liquid	Liter	MIL-PRF-27407C Type II	TBD	100-Liter dewar
1101	2008	Dewar liquid	Liter	MIL-PRF-27407C Type II	TBD	250-Liter dewar
1101	2008	Dewar liquid	Liter	MIL-PRF-27407C Type II	TBD	500-Liter dewar
1101	2009	Dewar liquid	Liter	MIL-PRF-27407C Type II	TBD	100-Liter dewar
1101	2009	Dewar liquid	Liter	MIL-PRF-27407C Type II	TBD	250-Liter dewar
1101	2009	Dewar liquid	Liter	MIL-PRF-27407C Type II	TBD	500-Liter dewar
CLIN	FY	Type	Metric	Specification	Price	Container Size
1102	2008	Bulk liquid	Liter	MIL-PRF-27407C Type II	TBD	
1102	2009	Bulk liquid	Liter	MIL-PRF-27407C Type II	TBD	
CLIN	FY	Type	Metric	Specification	Price	Container Size
1103A	2008	Cylinder gas	SCF	MIL-PRF-27407C Type I*	TBD	300 SCF cylinder
1103A	2009	Cylinder gas	SCF	MIL-PRF-27407C Type I*	TBD	300 SCF cylinder
CLIN	FY	Type	Metric	Specification	Price	Container Size
1103B	2008	Cylinder gas	SCF	MIL-PRF-27407C Type I**	TBD	220 SCF cylinder
1103B	2009	Cylinder gas	SCF	MIL-PRF-27407C Type I**	TBD	220 SCF cylinder
CLIN	FY	Type	Metric	Specification	Price	Container Size
1104	2008	Bulk gas	SCF	MIL-PRF-27407C Type I, Grade A	TBD	
1104	2009	Bulk gas	SCF	MIL-PRF-27407C Type I, Grade A	TBD	

* High Purity – At Least 99.999 Percent Pure

** Ultra High Purity – At Least 99.9999 Percent Pure

(a) Delivery information:

(1) Delivery hours

- (i) Routine delivery hours: Bulk Gas, Bulk Liquid, and Cylinder Deliveries: 7:00 a.m.- 2:30 p.m. Monday thru Friday
- (ii) Dewar deliveries: 8:00 a.m. - 4:00 p.m. (local time) Monday thru Friday.
- (iii) Emergency delivery hours: 24 hours per day, 7 days per week.

(2) Delivery address: Marshall Space Flight Center, Marshall Space Flight Center, AL 35812

(3) Delivery driver directions: Approaching Huntsville from west I-565, exit at South Memorial Parkway and head south. Take the Martin Road exit (west) that leads into Marshall Space Flight Center, through Gate 1. All deliveries must come through this gate for inspection.

- (i) Liquid dewar: Liquid dewar delivery shall be made to Central Receiving in Building 4631 for processing and distribution to Building 4481.
- (ii) Central Receiving: From Gate 1, proceed west on Martin Road and turn left on Dodd Road (south). Turn right (west) on Fowler Road. Turn left on Saturn. Central Receiving is located in Building 4631 on the right.
- (iii) Bulk gaseous helium: From Gate 1 proceed west on Martin Road. Turn left at Dodd road. Building 4659 is on the right side of Dodd Road six or seven buildings down. It is recessed from the road. The driver shall check in at the truck scale weigh house located by a semi-trailer parking lot in front of the building. During normal delivery hours, the driver should

use the truck horn if the weigh scale house is unoccupied. If a delivery is to be made outside of normal hours, special arrangements must be made. The telephone number at the receiving facility is (256) 544-9456.

- (4) Geographic location: Redstone Arsenal, Huntsville, Alabama
- (b) Routine requirements:
 - (1) Bulk liquid: 40,000 liters per week
 - (2) Liquid: 100 liter dewars: 800 liters per month
 - (3) Liquid: 250 liter dewars: 1000 liters per month
 - (4) Liquid: 500 liter dewars: 500 liters per month
 - (5) Bulk gas: 400,000 SCF per month
 - (6) High purity cylinders: 14,100 SCF per month
 - (7) Ultra high purity cylinders: 1,400 SCF per month
- (c) Peak requirements:
 - (1) Bulk liquid: 80,000 liters per week, anticipated once per year
 - (2) Liquid: 100 liter dewars: 1,200 liters per month, anticipated twice per year
 - (3) Liquid: 250 liter dewars: 1,500 liters per month, anticipated twice per year
 - (4) Liquid: 500 liter dewars: 1,500 liters per month, anticipated twice per year
 - (5) Bulk gas: 720,000 SCF per month. This requirement is anticipated two times per year.
 - (6) High purity cylinders: 20,000 SCF per month
 - (7) Ultra high purity cylinders: 2,800 SCF per month
- (d) Special delivery equipment requirements
 - (1) Bulk liquid deliveries are directly tied to test programs with may have erratic schedules, requiring extreme flexibility. Standard liquid helium tanker connections and fittings.
 - (2) Bulk gas deliveries require trailer connection adaptable to ½ inch AN fitting. For Bulk Gas, the Contractor trailers shall be parked at one of two unloading stations at Building 4676. They will be connected through GFE flex hoses to a GFE helium compression system which will boost the helium pressure and fill into GFE helium storage vessels. The receiver vessel volume is 330,000 SCF at the maximum allowable pressure of 4,000 PSIG. Typical receiver vessel pressure at the time of delivery is 1,000 PSIG. Typical unload time is 8 hours.
- (e) Special access requirements: The contractor is required to obtain badges for delivery personnel for access to the Center. The contractor shall ensure that these badges remain current.
- (f) Special delivery conditions:
 - (i) Liquid dewars: 100 liter and 250 liter size dewars must be nonmagnetic dewars, 500 liter size dewars occasionally may require nonmagnetic dewars
 - (ii) Bulk gas deliveries: the Government may, at its option, retain the delivery tube trailer for up to 30 days.
 - (iii) Bulk liquid deliveries: Up to two tankers may be required to be on site at one time for periods up to 30 days.
- (g) Points of contact:
 - (1) Requirement: TBD

- (2) Contracting: TBD
- (3) Finance: TBD

Delivery Point 12: Michoud Assembly Facility, New Orleans LA

CLIN	FY	Type	Metric	Specification	Price	Container Size
1201	2008	Dewar liquid	Liter	MIL-PRF-27407C Type II	TBD	
1201	2009	Dewar liquid	Liter	MIL-PRF-27407C Type II	TBD	
CLIN	FY	Type	Metric	Specification	Price	Container Size
1204	2008	Bulk gas	SCF	MIL-PRF-27407C Type I, Grade A	TBD	
1204	2009	Bulk gas	SCF	MIL-PRF-27407C Type I, Grade A	TBD	

(a) Delivery information:

(1) Delivery hours:

- (i) Routine delivery hours: 8:00 a.m.- 3:00 p.m.(local time) Monday thru Friday
- (ii) Emergency delivery hours: 24 hours per day, 7 days per week
- (iii) Note: MAF helium requirements must be met 365 days per year, without interruption

(2) Delivery address: Michoud Assembly Facility, 13800 Old Gentilly Boulevard, New Orleans, LA 70129

(3) Ship to address:

- (i) Liquid helium: Todd Surla, Michoud Assembly Facility, Mail Code: D-4730, 13800 Old Gentilly Blvd., New Orleans, LA 70129, (504) 257-3165
- (ii) Gaseous helium: Sudhir Gopinath, Michoud Assembly Facility, Mail Code: D-3141, 13800 Old Gentilly Blvd., New Orleans, LA 70129, (504) 257-3460

(4) Delivery directions:

- (i) From the New Orleans International Airport: Look for the I-10 East signs as you leave the airport. Take Airport Access Road to I-10 East. Go eastbound on I-10 for about 7 miles. At that point, the interstate splits into I-10 and I-610. Take the on I-610 fork. Travel 7 miles until you reach the I-10/I-510 interchange (Exit 246A). Refer to the last section for directions to MAF from the I-510.
- (ii) From Slidell, Louisiana or points east: Proceed west on I-10. After Slidell, Louisiana, I-10 crosses Lake Ponchartrain. Proceed approximately 14 miles after you cross the lake to the I-10/I-510 interchange (Exit 246A). Refer to the next section for directions to MAF from the I-510.
- (iii) To reach Michoud via the I-510: Turn on to I-510 from I-10 (south, headed toward Chalmette). Proceed south on I-510 to Exit 2C (third exit). Take Exit 2C, then first left. At traffic light, turn left again, crossing over I-510. Go east 0.7 miles on Old Gentilly Road. Michoud Assembly Facility will be on your right. Go straight through traffic light at intersection of Michoud Blvd and Old Gentilly Road. If you are going to building 350, turn right at blue sign marked "Bldg 350-Visitor Parking." Go to the lobby; check in with the receptionist. If you are going to building 101, proceed past building 350, the traffic light, and the Saturn booster to Building 101. (Red brick building) Park in the visitor lot and go to the lobby; check in with the receptionist.

(5) Delivery directions continued:

- (i) Liquid helium dewar: Take Old Gentilly Boulevard to Gate 12 (Gate for Contractors), Proceed to loading docks on the South side of Building 103. Guard at gate can provide directions.

- (ii) Bulk gaseous helium: Take Old Gentilly Boulevard to Gate 12 (Gate for Contractors), Proceed to 190 Tank Farm on the South side of Vertical Assembly Building (VAB) and to Building 114. Guard at gate can provide directions.
- (6) Geographic location: The 832 acre NASA Michoud Assembly Facility is located in New Orleans, Louisiana some 24 miles from New Orleans International Airport and 15 miles from the French Quarter.
- (b) Routine requirements:
 - (1) Liquid dewars: 25,000 liters per month
 - (2) Bulk gas: 400,000 SCF per month. (Nominal weekly orders of 85,000 SCF)
- (c) Peak requirements:
 - (1) Liquid dewars: 50,000 liters per month
 - (2) Bulk gas: 600,000 SCF per month
 - (i) Highest weekly order of 170,000 SCF
 - (ii) Weekly peak expected to occur twice per year
- (d) Special delivery equipment requirements:
 - (1) Liquid dewars: 500 liter dewars only.
 - (2) Bulk gas: User will normally order trailers for "drop and swap" deliveries to MAF. Cascade offload into facility storage will also be an available delivery method if requested by the user at the time of order. If cascade option is used, the minimum offload pressure is 2400 PSIG with facility storage of 217,000 SCF capacity at 2400 PSIG. (475.2 cubic feet water volume per trailer, 3 trailers, MAWP 2,640 PSIG). Typical delivery unload time for cascade option is two hours.
- (e) Special access requirements: The contractor is required to obtain badges for delivery personnel for access to the Center. The contractor shall ensure that these badges remain current.
- (f) Government furnished equipment: Approximately forty (40) 500 liter dewars are available. Contractor supplied 500 liter dewars will be provided to supplement Government dewars if insufficient quantities of Government dewars are available to support a delivery.
- (g) Special delivery conditions: Occasional requirement for 24 hour delivery, normal requirement is 48 hour delivery
- (h) Points of contact:
 - (1) Requirement: TBD
 - (2) Contracting: TBD
 - (3) Finance: TBD

Delivery Point 13: The Boeing Company, Huntington Beach CA

CLIN	FY	Type	Metric	Specification	Price	Container Size
1303	2008	Cylinder gas	SCF	MIL-PRF-27407C Type I, Grade A*	TBD	1 cylinder
1303	2009	Cylinder gas	SCF	MIL-PRF-27407C Type I, Grade A*	TBD	1 cylinder
CLIN	FY	Type	Metric	Specification	Price	Container Size
1304	2008	Bulk gas	SCF	MIL-PRF-27407C Type I, Grade A	TBD	
1304	2009	Bulk gas	SCF	MIL-PRF-27407C Type I, Grade A	TBD	

* 500 SCF @ 6,000 PSIG

(a) Delivery information:

(1) Delivery hours:

- (i) Routine delivery hours: 7:00 a.m. through 2:30 p.m.(local time) Monday thru Friday
- (ii) Emergency delivery hours: 24 hours per day, 7 days per week

(b) Delivery address: The Boeing Company, 5301 Bolsa Avenue, Huntington Beach, CA 92647

(c) Delivery driver directions: From CA-57 South, take Garden Grove Freeway (CA-22) West to exit at Bolsa Chica Avenue. Proceed south on Bolsa Chica for approximately three miles to the intersection of Bolsa Chica and Rancho Road. Turn left onto Rancho Road and proceed approximately one half (1/2) mile. The North Gate will be on your right. The driver will then be directed to either the North Gate Receiving area or the building 31/32 complex.

(d) Geographic location: Huntington Beach is a suburb of Los Angeles in southern California

(e) Routine requirements: 180,000 SCF per month for bulk gas to occur 10 times per year

(f) Peak requirements: 360,000 SCF/month to occur one time per year for bulk gas

(g) Special delivery equipment requirements: None

(h) Special access requirements: None

(i) Government furnished equipment: None

(j) Special delivery conditions:

- (1) Normal delivery requirement is 48 hours.
- (2) Deliver 6000 PSIG cylinder to Bldg 32 – Cryogenic Test Facility

(k) Points of contact:

- (1) Requirement: TBD
- (2) Contracting: TBD
- (3) Finance: TBD

Delivery Point 14: The Boeing Company, Palmdale CA

CLIN	FY	Type	Metric	Specification	Price	Container Size
1404	2008	Bulk gas	SCF	MIL-PRF-27407C Type I, Grade A	TBD	
1404	2009	Bulk gas	SCF	MIL-PRF-27407C Type I, Grade A	TBD	

(a) Delivery information:

(1) Delivery hours:

- (i) Routine delivery hours: 8:00 a.m. through 2:00 p.m. (local time) Monday thru Friday
- (ii) Emergency delivery hours: Saturday and Sunday 8:00 a.m. through 2:00 p.m.

(2) Delivery address:

- (i) Boeing Reusable Space Systems, Air Force Plant 42/Site 1, 1500 E. Ave. "M", Palmdale, CA 93550
- (ii) Mark for: Building 150 - Tank Farm, 1500 E. Ave. "M", Palmdale, CA 93550, (805) 272-4182

(3) Delivery driver directions: Enter Facility at intersection of Avenue "M" and 15th Street to Site 1 Road. Enter Gate 102 and proceed west to Building 150.

(4) Geographic location: Palmdale California

(b) Routine requirements: 50,000 SCF per month to occur 3 times per year

(c) Peak requirements: 100,000 SCF per month anticipated to occur one time per year

(d) Special delivery equipment requirements: None

(e) Special access requirements: 72 hours notice required prior to delivery to permit processing of required badging for delivery drivers.

(f) Government furnished equipment: None

(g) Special delivery conditions: Normal requirement is 72 hour delivery.

(h) Points of contact:

- (1) Requirement: TBD
- (2) Contracting: TBD
- (3) Finance: TBD

Delivery Point 15: Pratt and Whitney Rocketdyne Inc, Canoga Park CA

CLIN	FY	Type	Metric	Specification	Price	Container Size
1504	2008	Bulk gas	SCF	MIL-PRF-27407C Type I, Grade A	TBD	
1504	2009	Bulk gas	SCF	MIL-PRF-27407C Type I, Grade A	TBD	

(a) Delivery information:

(1) Delivery hours:

- (i) Routine delivery hours: 6:00 a.m. through 3:00 p.m (local time); 7 days per week
- (ii) Emergency delivery hours: 24 hours per day, 7 days per week.

(2) Delivery address: Pratt and Whitney Rocketdyne, Inc., 6633 Canoga Avenue, Canoga Park, CA 91303

(3) Delivery driver directions: The facility is located North of Hwy 101 on Canoga Ave. at the intersection of Canoga Ave. and Victory Blvd. Driver delivers direct to Rocketdyne through Gate 001. From there the driver will be directed to site at Building 1 or site across the street at Building 009.

(4) Geographic location: Canoga Park, CA 91303

(b) Routine requirements: 500,000 SCF per month. Nominal order quantity is 125,000 SCF weekly

(c) Peak requirements: 1,000,000 SCF per month . Highest projected weekly order is 250,000 SCF

(d) Special delivery equipment requirements: None

(e) Special access requirements: None

(f) Government furnished equipment: None

(g) Special delivery conditions: None

(h) Points of contact:

- (1) Requirement: TBD
- (2) Contracting: TBD
- (3) Finance: TBD

Delivery Point 16: Stennis Space Center, SSC MS

CLIN	FY	Type	Metric	Specification	Price	Container Size
1604	2008	Bulk gas	SCF	MIL-PRF-27407C Type I, Grade A*	TBD	
1604	2009	Bulk gas	SCF	MIL-PRF-27407C Type I, Grade A*	TBD	

* 2,200 PSIG

(a) Delivery information:

(1) Delivery hours:

- (i) Routine delivery hours: 7:00 a.m.- midnight (local time), Monday thru Friday
- (ii) Emergency delivery hours: 24 hours per day, 7 days per week

(2) Delivery address: John C. Stennis Space Center, Building 3305, Stennis Space Center, MS 39529

(3) Delivery driver directions: Helium deliveries shall be made directly to NASA, Stennis Space Center, Mississippi, Building 3305, High Pressure Gas Facility. The driver will enter the South Gate, just north of Interstate 10 (Exit 2). The driver will proceed through the gate on Shuttle Parkway, approximately 2.1 miles; through a four way stop, to the intersection of Shuttle Parkway and Saturn Drive. The driver will then turn right (east) onto Saturn Drive and go approximately 1.4 miles to Building 3305. Turn right and go through the entrance to Building 3305, High Pressure Gas Facility.

(4) Geographic location: SSC is located in Hancock County, Mississippi, and tests large rocket propulsion systems for the Space Shuttle and future generation space vehicles.

(b) Routine requirements: 2,880,000 SCF per month. Nominal delivery of 180,000 SCF three times per week

(c) Peak requirements: 3,960,000 SCF per month

- (1) Highest projected daily order is estimated to be 360,000 SCF, occurring one time per month
- (2) The highest projected weekly order is estimated to be 1,080,000 SCF, occurring approximately six times per year

(d) Points of contact:

- (1) Requirement: TBD
- (2) Contracting: TBD
- (3) Finance: TBD

Delivery Point 17: ATK Thiokol Propulsion, Corinna UT

CLIN	FY	Type	Metric	Specification	Price	Container Size
1701	2008	Dewar liquid	Liter	MIL-PRF-27407C Type II	TBD	
1701	2009	Dewar liquid	Liter	MIL-PRF-27407C Type II	TBD	

(a) Delivery information:

(1) Delivery hours:

- (i) Routine delivery hours: 9:00 a.m. through 2:30 p.m.(local time), Monday thru Friday
- (ii) Emergency delivery hours: None

(2) Delivery address: Bldg M-3 Receiving, 9160 N. Highway 83, Corinne, UT 84307

(3) Delivery driver directions: From Salt Lake City take I-15 to exit 368 (Brigham City) to State Highway 13 for about 3 miles to Corinne. Bear left onto State Highway 83 . Continue on State Highway 83 to 9160 N. Highway 83, Bldg. M-3 (Receiving)

(4) Geographic location: Corinne is located approximately 100 miles north of Salt Lake City, UT, west of Interstate 15

(b) Routine requirements: 200 liters per month

(c) Peak requirements: 400 liters per month

(d) Special delivery equipment requirements: 100 and 250 liter dewars required

(e) Special access requirements: None

(f) Government furnished equipment: None

(g) Special delivery conditions: None

(h) Points of contact:

- (1) Requirement: TBD
- (2) Contracting: TBD
- (3) Finance: TBD

Delivery Point 18: Columbia Scientific Balloon Facility, Palestine TX

CLIN	FY	Type	Metric	Specification	Price	Container Size
1801	2008	Dewar liquid	Liter	MIL-PRF-27407C Type II	TBD	100-Liter dewar
1801	2008	Dewar liquid	Liter	MIL-PRF-27407C Type II	TBD	500-Liter dewar
1801	2009	Dewar liquid	Liter	MIL-PRF-27407C Type II	TBD	100-Liter dewar
1801	2009	Dewar liquid	Liter	MIL-PRF-27407C Type II	TBD	500-Liter dewar
CLIN	FY	Type	Metric	Specification	Price	Container Size
1804	2008	Bulk gas	SCF	MIL-PRF-27407C Type I, Grade A	TBD	
1804	2009	Bulk gas	SCF	MIL-PRF-27407C Type I, Grade A	TBD	

(a) Delivery information:

(1) Delivery hours:

- (i) Routine delivery hours: 7:30 am - 4:40 pm (local time) Monday through Friday
- (ii) Emergency delivery hours: 24 Hours a day, 7 days a week

(2) Delivery address: Columbia Scientific Balloon Facility, Palestine, TX

(3) Delivery driver directions: From Dallas, take I-45 to Corsicana exit., follow U.S. 287 to FM 3224, turn left, approximately 3 miles on left

(4) Geographic location: Palestine is located in east Texas between Dallas and Houston. Approximately 100 miles southeast of Dallas, TX

(b) Routine requirements:

(1) Bulk gas: 1,000,000 SCF per month to occur 4 times per year

(2) Tube trailers are typically requested in the March time frame and are utilized through the end of November to support balloon launches. Typical requests are for trailers rated for greater than 3,000 PSIG and containing at least 180,000 SCF.

(3) Dewar liquid: 10,000 liters per month, to occur five times per year

- (i) 2,000 liters per month in 100 liter dewars
- (ii) 8,000 liters per month in 500 liter dewars

(c) Peak requirements:

(1) Bulk gas: 2,000,000 MSCF/month to occur one time per year

(2) Dewar liquid: 20,000 liters per month to occur one time per year

(d) Special delivery equipment requirements: Trailers shall be jumbo 12 type or equivalent. Trailers are dropped at site and returned when empty or at the end of the project. Trailer lease/rental to be determined on a per day basis. Trailers shall be equipped with a manifold header connecting all tubes together. Each tube will have a cut-off valve separating it from the manifold. The manifold shall be equipped with 2 discharge valves. The valve outlets shall terminate with a 3/4" male pipe thread or 3/4" pipe union. The manifold shall be equipped with one outlet for gauging internal pressure terminating in a standard K bottle valve or 3/4" female pipe thread. The working pressure of all manifold and outlet piping shall be 3000 PSIG or greater. Each trailer shall be equipped with a plate designating water volume per tube and total water volume.

(e) Special access requirements: None

(f) Government furnished equipment: None

- (g) Special delivery conditions: NSBF Palestine will be nominal destination for delivery. Actual delivery will be to deployment site (either Palestine or other overland deployment site) or to a designated CONUS port for ocean transport overseas (ex: to McMurdo Station Antarctica; Kiruna, Sweden) . Port Hueneme CA is the CONUS delivery site for all gas designated for use at McMurdo Station Antarctica. Overland deployment sites requiring direct delivery by vendor include Lynn Lake, Canada, and Fairbanks Alaska.
- (h) Points of contact:
 - (1) Requirement: TBD
 - (2) Contracting: TBD
 - (3) Finance: TBD

Delivery Point 19: Columbia Scientific Balloon Facility, FT Sumner NM

CLIN	FY	Type	Metric	Specification	Price	Container Size
1901	2008	Dewar liquid	Liter	MIL-PRF-27407C Type II	TBD	100-Liter dewar
1901	2008	Dewar liquid	Liter	MIL-PRF-27407C Type II	TBD	500-Liter dewar
1901	2009	Dewar liquid	Liter	MIL-PRF-27407C Type II	TBD	100-Liter dewar
1901	2009	Dewar liquid	Liter	MIL-PRF-27407C Type II	TBD	500-Liter dewar
CLIN	FY	Type	Metric	Specification	Price	Container Size
1904	2008	Bulk gas	SCF	MIL-PRF-27407C Type I, Grade A	TBD	
1904	2009	Bulk gas	SCF	MIL-PRF-27407C Type I, Grade A	TBD	

(a) Delivery information:

(1) Delivery hours:

- (i) Routine delivery hours: 7:30 am to 4:30 pm (local time)
- (ii) Emergency delivery hours: 24 hours a day, 7 days a week

(2) Delivery address: Columbia Scientific Balloon Facility, Ft. Sumner, NM

(3) Delivery directions: Delivery site is located at the Ft. Sumner Municipal Airport

(4) Geographic location: Ft. Sumner is located in east central New Mexico, approximately 60 miles west of Clovis, NM

(b) Routine requirements:

(1) Bulk gas: 1,000,000 SCF per month to occur 4 times per year

(2) Tube trailers are typically requested in the March time frame and are utilized through the end of November to support balloon launches. Typical requests are for trailers rated for greater than 3,000 PSIG and containing at least 180,000 SCF.

(3) Dewar liquid: 10,000 liters per month to occur five times per year

- (i) 2,000 liters per month in 100 liter dewars
- (ii) 8,000 liters per month in 500 liter dewars

(c) Peak requirements:

(1) Bulk gas: 2,000,000 MSFC/month to occur two times per year

(2) Dewar liquid: 20,000 liters per month, to occur one time per year

(d) Special delivery equipment requirements: Tube trailers rated for greater than 3,000 PSIG and containing at least 180,000 SCF are normally requested.

(e) Special access requirements: None

(f) Government furnished equipment: None

(g) Special delivery conditions: NSBF Ft Sumner will be nominal destination for delivery. Actual delivery will be to deployment site (either Ft Sumner or other overland deployment site) or to a designated CONUS port for ocean transport overseas (ex: McMurdo Station Antarctica; Kiruna, Sweden). Port Hueneme CA is the CONUS delivery site for all gas designated for use at McMurdo Station Antarctica. Overland deployment sites requiring direct delivery by vendor include Lynn Lake, Canada, and Fairbanks Alaska.

(h) Points of contact:

(1) Requirement: TBD

- (2) Contracting: TBD
- (3) Finance: TBD

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Delivery Point 20: Jet Propulsion Laboratory, Pasadena CA

CLIN	FY	Type	Metric	Specification	Price	Container Size
2001	2008	Dewar liquid	Liter	MIL-PRF-27407C Type II	TBD	
2001	2009	Dewar liquid	Liter	MIL-PRF-27407C Type II	TBD	
CLIN	FY	Type	Metric	Specification	Price	Container Size
2002	2008	Cylinder gas	SCF	MIL-PRF-27407C Type I, Grade A	TBD	213 SCF
2002	2009	Cylinder gas	SCF	MIL-PRF-27407C Type I, Grade A	TBD	213 SCF
CLIN	FY	Type	Metric	Specification	Price	Container Size
2003	2008	Bulk gas	SCF	MIL-PRF-27407C Type I, Grade A	TBD	
2003	2009	Bulk gas	SCF	MIL-PRF-27407C Type I, Grade A	TBD	

(i) Delivery information:

(1) Delivery hours:

- (i) Routine delivery hours: 8:00 am to 3:00 pm (local time), Monday through Friday, plus alternate Fridays. See "Special delivery conditions" (JPL only) for additional information.
- (ii) Emergency delivery hours: 24 hours a day, 7 days a week

(2) Delivery address: Jet Propulsion Laboratory, Building 338-100, Mail Code 338-100, 4800 Oak Grove Drive, Pasadena, CA 91109

(3) Delivery directions: Enter JPL via the South Gate. Proceed to parking area in front of Receiving. Notify Receiving Clerk of delivery. Cryogenics personnel will escort truck to Building 338 for off-loading.

(4) Geographic location: JPL is a federally funded research and development facility managed by the California Institute of Technology for the National Aeronautics and Space Administration. In addition to its work for NASA, JPL conducts tasks for a variety of other federal agencies. JPL's main 72-hectare (177-acre) site is at the foot of the San Gabriel Mountains near Pasadena, California, 19 kilometers (12 miles) northeast of Los Angeles.

(j) Routine requirements:

- (1) Dewar liquid: 2,000 liters per month
- (2) Cylinder Gas: 3,000 SCF per month
- (3) Bulk Gas: Trailer anticipated to be filled once over the entire contract period (anticipated in FY 2009)

(k) Peak requirements:

- (1) Dewar Liquid: 3,000 liters per month, anticipated once per year
- (2) Cylinder Gas: 11,000 SCF per month, anticipated twice per year

(l) Special delivery equipment requirements:

- (1) Cylinders shall be supplied with CGA 580 valves. Majority of 60-liter and 100-liter dewars are expected to be provided by JPL (see Government furnished equipment). Vendor to provide 30-liter, 250-liter, and 500-liter dewars, plus any additional 60-liter and 100-liter dewars required. 60-liter dewar requirement specifically requires Cryofab model CMSH-60-dewars.
- (2) Approximate Yearly Dewar usage (by size):
 - (i) 30-liter: 8 dewars per year
 - (ii) 60-liter: 100 dewars per year

- (iii) 100-liter: 160 dewars per year
 - (iv) 250-liter: 2 dewars per year
 - (v) 500-liter: 1 dewar per year
- (3) One JPL/NASA owned tube trailer (40,000 SCF) is expected to be filled once over the entire contract period (anticipated in FY 2009). MAWP is 2,400 PSIG. Trailer can be either picked up and filled at contractor location or filled on site using contractor supplied trailer.
- (m) Special access requirements: All delivery drivers to be pre-approved by JPL Security prior to access
 - (n) Government furnished equipment: There are approximately 20 Government-owned 60-liter and 12 Government-owned 100-liter dewars available for use at this delivery location.
 - (o) Special delivery conditions: Morning deliveries (before noon) are preferable. Normal delivery schedule of Mondays and Thursdays. Ordering deadline is 1:00 pm two working days prior to delivery day (e.g., 1:00 pm Thursday for Monday delivery, 1:00 pm Tuesday for Thursday delivery).
 - (p) Points of contact:
 - (1) Requirement: TBD
 - (2) Contracting: TBD
 - (3) Finance: TBD

Attachment 004. Priced Bid

SOLICITATION NUMBER: NNK07192919E
ATTACHMENT 004. PAGE 1

Delivery Point (Name, City State)	Transfill (City, State)	Specification: MIL-PRF-27407C	Container Type	Container Size	FY	CLIN	Best Estimated Quantity	Metric	Crude Helium (in MSCF)	FOB Dest. Price
Ames Research Center, Moffett Field CA		Type II	Dewar liquid	30-Liter dewar	2008	0101	720.00	Liter	60.5000	
Ames Research Center, Moffett Field CA		Type II	Dewar liquid	60-Liter dewar	2008	0101	600.00	Liter	60.5000	
Ames Research Center, Moffett Field CA		Type II	Dewar liquid	100-Liter dewar	2008	0101	1,800.00	Liter	60.5000	
Ames Research Center, Moffett Field CA		Type II	Dewar liquid	30-Liter dewar	2009	0101	720.00	Liter	63.5000	
Ames Research Center, Moffett Field CA		Type II	Dewar liquid	60-Liter dewar	2009	0101	600.00	Liter	63.5000	
Ames Research Center, Moffett Field CA		Type II	Dewar liquid	100-Liter dewar	2009	0101	1,800.00	Liter	63.5000	
Ames Research Center, Moffett Field CA		Type I, Grade A	Cylinder gas	200-220 MSCF cylinder	2008	0102	68,000.00	SCF	60.5000	
Ames Research Center, Moffett Field CA		Type I, Grade A	Cylinder gas	200-220 MSCF cylinder	2009	0102	68,000.00	SCF	63.5000	
Dryden Flight Research Facility, Edwards CA		Type I, Grade A	Bulk gas	None	2008	0204	600,000.00	SCF	60.5000	
Dryden Flight Research Facility, Edwards CA		Type I, Grade A	Bulk gas	None	2009	0204	525,000.00	SCF	63.5000	
Goddard Space Flight Center, Greenbelt MD		Type II	Dewar liquid	100-Liter dewars	2008	0301	68,000.00	Liter	60.5000	
Goddard Space Flight Center, Greenbelt MD		Type II	Dewar liquid	100-Liter dewars	2009	0301	68,000.00	Liter	63.5000	
Goddard Space Flight Center, Greenbelt MD		Type I, Grade B. Purity: 99.997%	Cylinder gas	213 SCF cylinder	2008	0303	102,000.00	SCF	60.5000	
Goddard Space Flight Center, Greenbelt MD		Type I, Grade B. Purity: 99.997%	Cylinder gas	213 SCF cylinder	2009	0303	102,000.00	SCF	63.5000	
GSFC WFF, Wallops Island VA		Type I, Grade B. Purity: 99.997%	Cylinder gas	213 SCF cylinder	2008	0403	3,410.00	SCF	60.5000	
GSFC WFF, Wallops Island VA		Type I, Grade B. Purity: 99.997%	Cylinder gas	213 SCF cylinder	2009	0403	3,410.00	SCF	63.5000	
Johnson Space Center, Houston TX		Type II	Dewar liquid	100-Liter dewars	2008	0501	1,000.00	Liters	60.5000	
Johnson Space Center, Houston TX		Type II	Dewar liquid	500-Liter dewars	2008	0501	1,000.00	Liters	60.5000	
Johnson Space Center, Houston TX		Type II	Dewar liquid	100-Liter dewars	2009	0501	1,000.00	Liters	63.5000	
Johnson Space Center, Houston TX		Type II	Dewar liquid	500-Liter dewars	2009	0501	1,000.00	Liters	63.5000	
Johnson Space Center, Houston TX		Type I, Grade A	Cylinder gas	257 SCF cylinders	2008	0503A	20,000.00	SCF	60.5000	
Johnson Space Center, Houston TX		Type I, Grade A	Cylinder gas	257 SCF cylinders	2009	0503A	20,000.00	SCF	63.5000	
Johnson Space Center, Houston TX		Type 1, Ultra High Purity: At Least 99.9997%	Cylinder gas	213 SCF cylinders	2008	0503B	53,000.00	SCF	60.5000	
Johnson Space Center, Houston TX		Type 1, Ultra High Purity: At Least 99.9997%	Cylinder gas	213 SCF cylinders	2009	0503B	53,000.00	SCF	63.5000	
Johnson Space Center, Houston TX		Type I, Grade A	Bulk gas	None	2008	0504	100,000.00	SCF	60.5000	
Johnson Space Center, Houston TX		Type I, Grade A	Bulk gas	None	2009	0504	60,000.00	SCF	63.5000	
JSC WSTF, Las Cruces NM		Type I, Grade A	Cylinder gas	213 SCF @ 2200 PSIG	2008	0603	6,000.00	SCF	60.5000	
JSC WSTF, Las Cruces NM		Type I, Grade A	Cylinder gas	213 SCF @ 2200 PSIG	2009	0603	6,000.00	SCF	63.5000	
JSC WSTF, Las Cruces NM		Type I, Grade A	Bulk gas	None	2008	0604	1,820,000.00	SCF	60.5000	
JSC WSTF, Las Cruces NM		Type I, Grade A	Bulk gas	None	2009	0604	1,820,000.00	SCF	63.5000	
Kennedy Space Center, KSC FL		Type II	Dewar liquid	None	2008	0701	3,800.00	Liter	60.5000	
Kennedy Space Center, KSC FL		Type II	Dewar liquid	None	2009	0701	3,800.00	Liter	63.5000	
Kennedy Space Center, KSC FL		Type II	Bulk liquid	None	2008	0702	3,600,000.00	Liter	60.5000	
Kennedy Space Center, KSC FL		Type II	Bulk liquid	None	2009	0702	3,440,000.00	Liter	63.5000	
Langley Research Center, Hampton VA		Type II	Dewar liquid	None	2008	0801	8,200.00	Liter	60.5000	
Langley Research Center, Hampton VA		Type II	Dewar liquid	None	2009	0801	8,200.00	Liter	63.5000	
Langley Research Center, Hampton VA		Type I, Grade A	Cylinder gas	220 SCF cylinder	2008	0803	5,800.00	SCF	60.5000	
Langley Research Center, Hampton VA		Type I, Grade A	Cylinder gas	220 SCF cylinder	2009	0803	5,800.00	SCF	63.5000	
Glenn Research Center, Cleveland OH		Type I, Grade B. Purity: 99.997%	Bulk gas	SCF @ 2,400 PSIG	2008	0904A	685,000.00	SCF	60.5000	
Glenn Research Center, Cleveland OH		Type I, Grade B. Purity: 99.997%	Bulk gas	SCF @ 2,400 PSIG	2009	0904A	466,000.00	SCF	63.5000	

Attachment 004. Priced Bid

Delivery Point (Name, City State)	Transfill (City, State)	Specification: MIL-PRF-27407C	Container Type	Container Size	FY	CLIN	Best Estimated Quantity	Metric	Crude Helium (in MSCF)	FOB Dest. Price
Glenn Research Center, Cleveland OH		Type I, Grade B. Purity: 99.997%	Bulk gas	SCF @ 2,400 PSIG	2008	0904B	Shared by CLIN 0904A	SCF	60.5000	
Glenn Research Center, Cleveland OH		Type I, Grade B. Purity: 99.997%	Bulk gas	SCF @ 2,400 PSIG	2009	0904B	Shared by CLIN 0904A	SCF	63.5000	
GRC Plumbrook Station, Sandusky OH		Type I, Grade B. Purity: 99.997%	Bulk gas	@ 2,400 PSIG	2008	1004A		330,000.00	SCF	60.5000
GRC Plumbrook Station, Sandusky OH		Type I, Grade B. Purity: 99.997%	Bulk gas	@ 2,400 PSIG	2009	1004A		330,000.00	SCF	63.5000
GRC Plumbrook Station, Sandusky OH		Type I, Grade B. Purity: 99.997%	Bulk gas	@ 2,400 PSIG	2008	1004B	Shared by CLIN 1004A	SCF	60.5000	
GRC Plumbrook Station, Sandusky OH		Type I, Grade B. Purity: 99.997%	Bulk gas	@ 2,400 PSIG	2009	1004B	Shared by CLIN 1004A	SCF	63.5000	
Marshall Space Flight Center, MSFC AL		Type II	Dewar liquid	100-Liter dewar	2008	1101		9,600.00	Liter	60.5000
Marshall Space Flight Center, MSFC AL		Type II	Dewar liquid	250-Liter dewar	2008	1101		12,500.00	Liter	60.5000
Marshall Space Flight Center, MSFC AL		Type II	Dewar liquid	500-Liter dewar	2008	1101		6,000.00	Liter	60.5000
Marshall Space Flight Center, MSFC AL		Type II	Dewar liquid	100-Liter dewar	2009	1101		9,600.00	Liter	63.5000
Marshall Space Flight Center, MSFC AL		Type II	Dewar liquid	250-Liter dewar	2009	1101		12,500.00	Liter	63.5000
Marshall Space Flight Center, MSFC AL		Type II	Dewar liquid	500-Liter dewar	2009	1101		6,000.00	Liter	63.5000
Marshall Space Flight Center, MSFC AL		Type II	Bulk liquid	None	2008	1102		320,000.00	Liter	60.5000
Marshall Space Flight Center, MSFC AL		Type II	Bulk liquid	None	2009	1102		240,000.00	Liter	63.5000
Marshall Space Flight Center, MSFC AL		Type I, High Purity: Min. 99.999%	Cylinder gas	300 SCF cylinder	2008	1103A		170,000.00	SCF	60.5000
Marshall Space Flight Center, MSFC AL		Type I, High Purity: Min. 99.999%	Cylinder gas	300 SCF cylinder	2009	1103A		170,000.00	SCF	63.5000
Marshall Space Flight Center, MSFC AL		Type I, Ultra High Purity: Min. 99.9999%	Cylinder gas	220 SCF cylinder	2008	1103B		17,000.00	SCF	60.5000
Marshall Space Flight Center, MSFC AL		Type I, Ultra High Purity: Min. 99.9999%	Cylinder gas	220 SCF cylinder	2009	1103B		17,000.00	SCF	63.5000
Marshall Space Flight Center, MSFC AL		Type I, Grade A	Bulk gas	None	2008	1104		6,000,000.00	SCF	60.5000
Marshall Space Flight Center, MSFC AL		Type I, Grade A	Bulk gas	None	2009	1104		6,000,000.00	SCF	63.5000
Michoud Assembly Facility, New Orleans LA		Type II	Dewar liquid	500-Liter dewar	2008	1201		300,000.00	Liter	60.5000
Michoud Assembly Facility, New Orleans LA		Type II	Dewar liquid	500-Liter dewar	2009	1201		300,000.00	Liter	63.5000
Michoud Assembly Facility, New Orleans LA		Type I, Grade A	Bulk gas	None	2008	1204		4,260,000.00	SCF	60.5000
Michoud Assembly Facility, New Orleans LA		Type I, Grade A	Bulk gas	None	2009	1204		4,260,000.00	SCF	63.5000
The Boeing Company, Huntington Beach CA		Type I, Grade A	Cylinder gas	1 cylinder @ 6,000 PSIG	2008	1303		500.00	SCF	60.5000
The Boeing Company, Huntington Beach CA		Type I, Grade A	Cylinder gas	1 cylinder @ 6,000 PSIG	2009	1303		500.00	SCF	63.5000
The Boeing Company, Huntington Beach CA		Type I, Grade A	Bulk gas	None	2008	1304		2,160,000.00	SCF	60.5000
The Boeing Company, Huntington Beach CA		Type I, Grade A	Bulk gas	None	2009	1304		2,160,000.00	SCF	63.5000
The Boeing Company, Palmdale CA		Type I, Grade A	Bulk gas	None	2008	1404		250,000.00	SCF	60.5000
The Boeing Company, Palmdale CA		Type I, Grade A	Bulk gas	None	2009	1404		250,000.00	SCF	63.5000
PWRI, Canoga Park CA		Type I, Grade A	Bulk gas	None	2008	1504		6,000,000.00	SCF	60.5000
PWRI, Canoga Park CA		Type I, Grade A	Bulk gas	None	2009	1504		6,000,000.00	SCF	63.5000
Stennis Space Center, SSC MS		Type I, Grade A	Bulk gas	2,200 PSIG	2008	1604		24,000,000.00	SCF	60.5000
Stennis Space Center, SSC MS		Type I, Grade A	Bulk gas	2,200 PSIG	2009	1604		33,000,000.00	SCF	63.5000
ATK Thiokol Propulsion, Corinna UT		Type II	Dewar liquid	None	2008	1701		800.00	Liter	60.5000
ATK Thiokol Propulsion, Corinna UT		Type II	Dewar liquid	None	2009	1701		800.00	Liter	63.5000
CSBF, Palestine TX		Type II	Dewar liquid	100-Liter dewar	2008	1801		10,000.00	Liter	60.5000
CSBF, Palestine TX		Type II	Dewar liquid	500-Liter dewar	2008	1801		40,000.00	Liter	60.5000
CSBF, Palestine TX		Type II	Dewar liquid	100-Liter dewar	2009	1801		10,000.00	Liter	63.5000
CSBF, Palestine TX		Type II	Dewar liquid	500-Liter dewar	2009	1801		40,000.00	Liter	63.5000
CSBF, Palestine TX		Type I, Grade A	Bulk gas	None	2008	1804		6,000,000.00	SCF	60.5000

Attachment 004. Priced Bid

Delivery Point (Name, City State)	Transfill (City, State)	Specification: MIL-PRF-27407C	Container Type	Container Size	FY	CLIN	Best Estimated Quantity	Metric	Crude Helium (in MSCF)	FOB Dest. Price
CSBF, Palestine TX		Type I, Grade A	Bulk gas	None	2009	1804	6,000,000.00	SCF	63.5000	
CSBF, FT Sumner NM		Type II	Dewar liquid	100-Liter dewar	2008	1901	10,000.00	Liter	60.5000	
CSBF, FT Sumner NM		Type II	Dewar liquid	500-Liter dewar	2008	1901	40,000.00	Liter	60.5000	
CSBF, FT Sumner NM		Type II	Dewar liquid	100-Liter dewar	2009	1901	10,000.00	Liter	63.5000	
CSBF, FT Sumner NM		Type II	Dewar liquid	500-Liter dewar	2009	1901	40,000.00	Liter	63.5000	
CSBF, FT Sumner NM		Type I, Grade A	Bulk gas	None	2008	1904	7,400,000.00	SCF	60.5000	
CSBF, FT Sumner NM		Type I, Grade A	Bulk gas	None	2009	1904	7,400,000.00	SCF	63.5000	
Jet Propulsion Laboratory		MIL-PRF-27407C Type II	Dewar liquid	None	2008	2001	25,000.00	Liter	60.5000	
Jet Propulsion Laboratory		MIL-PRF-27407C Type II	Dewar liquid	None	2009	2001	25,000.00	Liter	63.5000	
Jet Propulsion Laboratory		MIL-PRF-27407C Type I, Grade A	Cylinder gas	None	2008	2002	52,000.00	SCF	60.5000	
Jet Propulsion Laboratory		MIL-PRF-27407C Type I, Grade A	Cylinder gas	None	2009	2002	52,000.00	SCF	63.5000	
Jet Propulsion Laboratory		MIL-PRF-27407C Type I, Grade A	Bulk gas	None	2008	2003	-	SCF	60.5000	
Jet Propulsion Laboratory		MIL-PRF-27407C Type I, Grade A	Bulk gas	None	2009	2003	45,000.00	SCF	63.5000	