



**MIAMI-DADE COUNTY, FLORIDA
FUTURE SOLICITATION DRAFT**

TITLE:

**VARIOUS MEDICAL, INDUSTRIAL GASES
AND RELATED ITEMS**

**Please send all feedback, suggestions and or questions to Martha Garofolo,
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November 16, 2013

Miami-Dade County is requesting feedback, suggestions for a future solicitation for the following: Various Medical and Industrial Gases.

The vendor shall furnish and deliver various medical and industrial gases to various Miami-Dade County Departments.

VENDOR REQUIREMENTS:

Vendors shall provide the following documentation with bid submittal:

1. The vendor is required to provide written guarantees on the integrity of the cylinders and the mixtures and purity of the gases offered. This information must be provided with the product specifications sheets for each type of gas or mixture of gas being offered in accordance with the best industry standards and practices.
2. The vendor agrees by the submission of their bid to prioritize delivery to the Miami-Dade Fire Rescue Department in cases of emergencies or natural disasters. The vendor shall submit emergency contact information for 24-hour contact. (See Emergency Service Section 2, Paragraph 2.17)
3. If the vendor shall be utilizing a third party distributor or manufacturer as the source of supply for obtaining and delivering products and/or materials required in conjunction with this Solicitation, the vendor shall be required to supply a copy of its contractual agreement with the supplier with bid submission. The information contained in this contractual agreement shall include, but not be limited to shipping and delivery terms, packaging requirements, and product specification sheets that attest to the quality of the product.

3.1 SCOPE
See below for specifications

3.2 GAS PURITY

1. Vendors must be prepared to provide a certificate of analysis, upon request, for the gases supplied. The certificate must state the type of analysis performed and its lowest detectable limits.
2. Purity of gases must be stated in either weight percent or volume percent and the units stipulated.
3. In the case of liquid nitrogen, the purity stated by the vendor must indicate if it represents the liquid or gas phase.

3.3 GAS SPECIFICATIONS

HELIUM

1. Guaranteed analysis of: Oxygen < 1 ppm; Water < 1 ppm; Total Hydrocarbons 0.5 ppm
2. Tank size: Approx. 9" x 51", 260 cu. ft., size J
3. 99.999% Purity Min.
4. Use: Gas chromatographic carrier gas

3.4 HYDROGEN

1. Guaranteed analysis of: Oxygen < 5 ppm; Total Hydrocarbons < 0.5 ppm; Water < 2 ppm
2. Tank size: Approx. 9" x 51", 260 cu. ft., size J
3. 99.999% Purity
4. Use: Gas chromatographic detector fuel gas
5. Zero Grade Hydrogen

3.5 NITROGEN

1. High pressure Dewar nitrogen (liquid)
2. Guaranteed analysis of: Oxygen < 0.5 ppm; Water < 2 ppm; Halocarbons < 0.001 ppm; Total Hydrocarbons < 0.5 ppm
3. Use: gas chromatograph detector mark-up gas
4. 160 Liters
6. Size: GP45
7. UHP Nitrogen

3.6 METHANE

1. Guaranteed analysis of: Oxygen < 5 ppm; Nitrogen < 20 ppm; Water < 1 ppm; Ethane and Propane < 20 ppm
2. Tank size: Approx. 9" x 51", 356 cu. ft., size J
3. 99.99% Purity
4. Use: Mass spectrometry chemical ionization gas

3.7 ARGON / METHANE (95.5): (ELECTRON-CAPTURE MIXTURE)

1. Guaranteed analysis of: Oxygen < 1 ppm; Water < 1 ppm; Carbon Dioxide < 1 ppm
2. Tank size: Approx. 9" x 56"
3. Use: Electron-capture detector gas

3.8 ACETYLENE: (ATOMIC ABSORPTION GRADE)

1. Use: Atomic Absorption Spectrophotometric fuel gas

3.9 CARBON DIOXIDE

1. Purity approx. 99%
2. Tank size: Approx. 9" x 51", with dip tube
3. Use: Preparation of dry ice and as a coolant gas in sub-ambient gas chromatography

3.10 ARGON

1. 99.9% Purity
2. Tank Size: Approx. 9" x 56" (300 ft³)
3. Atomic Absorption Spectrophotometry

3.11 ARGON / HYDROGEN MIX

1. 95% Argon (99.99% Purity) with 5% Hydrogen (99.99% Purity)
2. Size: Approx. 9" x 56" (260 ft³)
3. Use: Atomic Absorption Spectrophotometry

3.12 ARGON

1. CP Grade, 99.998%

3.13 AIR GUARANTEED ANALYSIS

1. THC < 0.1
2. H₂O < 1

3.14 AIR

1. High Purity. 99.99%, 9" x 51"
2. Use: Gas chromatography

3.15 METHANE

1. Ultra High Purity. 99.995% Min.
2. Lecture bottle size with valve
3. Use: Gas chromatography/Mass Spectrometry Ionization Gas

3.16 ISOBUTANE

1. Ultra High Purity, 99.95% Min.
2. Lecture bottle size with valve

3.17 GASES TO BE USED BY THE DEPARTMENT OF PERMITTING ENVIRONMENT, AND REGULATORY AFFAIRS (RER) AIR MONITORING SECTION GROUP (3)

These gases are for the calibration and testing of ambient air monitors. All gases must be in Spectra Seal Aluminum Cylinders with a metal valve handle on the cylinder. Gases must be prepared and analyzed in accordance with the USEPA's most current guidelines. EPA Protocol gases must be directly traceable to either NIST (National Institute of Standards) SRMs (Standard Reference Materials) or NTRMS (NIST Traceable Reference Materials). The gases must achieve +/- 1 % accuracy. Analyses must be for carbon monoxide (CO), sulfur dioxide (SO₂), nitric oxide (NO) and nitrogen oxides (NO_x) as appropriate using the appropriate analytical methods and procedures. It cannot be assumed that the nitric oxide concentration is equal to the nitrogen oxides concentration in the nitric oxide in nitrogen cylinders. Analysis must be done for both (NO and NO_x) to the second decimal place (For Example: 24.05 PPM). The NO_x concentration cannot be greater than 105% of the NO concentration. Gases must be delivered within one month after being requested with the required documentation and certificates of analysis arriving within two weeks of delivery. Each cylinder must have an individual identification number, which is used for certification records, cylinder tracking and cylinder demurrage fee calculation. An itemized statement must be provided at the end of each month with each cylinder being tracked by the cylinder identification number. The company must be the manufacturer/producer of the specified gases.

DESCRIPTION

- Nitric Oxide in Oxygen Free Nitrogen (NO in N₂)
23.00-27.00 ppm
~140 Cubic Feet (CF)
NO and NO_x concentrations must be done to the second decimal place.
For example, 24.05 PPM. NO and NO_x concentrations cannot be equal.
NO_x concentration cannot be greater than 105% of the NO concentration.
EPA Certification Period 24 months.
- Sulfur Dioxide in Nitrogen (SO₂ in N₂)
51.0-55.0 ppm
~140 Cubic Feet (CF)
Concentration must be done to the second decimal place.
For example, 53.77 PPM.

EPA Certification Period 24 months.

- Carbon Monoxide in Air (CO in Air)
8.0-10.0 ppm
~144 Cubic Feet (CF)
Concentration must be done to the first decimal place.
For example, 9.6 PPM.
EPA Certification Period 36 months.
- Carbon Monoxide in Air (CO in Air)
22.0-25.0 ppm
~76 Cubic Feet (CF)
Concentration must be done to the first decimal place.
For example, 23.6 PPM.
EPA Certification Period 36 months.
- Carbon Monoxide in Air (CO in Air)
8.0-10.0 ppm
~144 Cubic Feet (CF)
Concentration must be done to the first decimal place.
For example, 9.6 PPM.
EPA Certification Period 36 months.
- Carbon Monoxide in Air (CO in Air)
22.0-25.0 ppm
~76 Cubic Feet (CF)
Concentration must be done to the first decimal place.
For example, 23.6 PPM.
EPA Certification Period 36 months.
- Carbon Monoxide in Air (CO in Air)
38.0-40.0 ppm
~144 Cubic Feet (CF)
Concentration must be done to the first decimal place.
For example, 38.9 PPM.
EPA Certification Period 36 months.

3.18 MONITOR CALIBRATION GAS FOR DEPARTMENT OF WATER AND SEWER (WASD) ONE CYLINDER OF GAS) GROUP (4)

1. Hydrogen Sulfide-25ppm; Carbon Monoxide-100ppm; Pentane-25% LEL (0.35% Vol) Oxygen-19.00%; Nitrogen-Balance; Volume 25 CuFt; 1500psig @ 70 degrees F

3.19 CERTIFICATION LABELING

1. All cylinders shall be clearly labeled with all applicable current inspection certifications in accordance with OSHA Standards Section 1910 and U.S. Department of Transportation Section 49 CFR Part 173.

3.20 CYLINDERS

1. Cylinders shall have the approved American National Standard Compressed Gas Cylinder Valve Outlet and Inlet Connections as specified in Section 1910 of the OSHA Regulations (Standards – 29 CFR) for each gas used. All valves must be functioning properly at the time of delivery.
2. In the event the cylinders do not meet the criteria, the vendor will be responsible for the repair and/or replacement of the cylinders at no additional cost to the County.
3. Vendor is responsible for filling the cylinders to the maximum capacity allowable by the manufacturer. In the event an odd size cylinder not listed on the Bid Proposal Form needs to be refilled, the vendor will charge the standard cost per cubic foot of the gas requested.
4. Cylinders that have exceeded their authorized service life shall be removed from County property by the vendor and may be properly transported for reprocessing or disposal of the cylinder's contents. Prior approval for cylinder removal shall be obtained from an authorized County representative.
5. Hydrostatic testing shall be performed on all cylinders prior to delivery and certified for a minimum of five (5) years.
6. Hydrostatic testing shall be performed on oxygen cylinders by the vendor within no more than a period of sixty (60) days prior to delivery. (MDFR) will be responsible for detecting and separating cylinders that need hydrostatic testing.

The vendor shall be responsible for furnishing, repairing and hydrostatic testing of all cylinders at no cost to the County. In addition, the vendor shall indicate cylinder numbers on their invoices and not a gas type code.

3.21 CYLINDERS DELIVERED FOR EXCHANGE

1. Cylinders delivered for exchange shall comply with all OSHA/DOT safety regulations and standards. Exchanged cylinders shall be unlabeled as to ownership. Exception: Miami-Dade Fire Rescue (MDFR) owned cylinders only. MDFR owned cylinders shall not be exchanged with other entities or county departments and must be returned to MDFR. All MDFR "D", "H" and "M" cylinders are the property of MDFR.
2. Deliveries for MDFR shall be twenty-four (24) hours after the pickup of empty oxygen bottles. Pickups shall be daily, if day is a public holiday, then the next day shall be the pickup day. During emergencies, the vendor shall be available to provide oxygen on a daily basis seven (7) days per week (Monday thru Sunday).

3.22 VALVE STEM – INSTALLATION ONLY (MDFR TO PROVIDE VALVE)

1. Valve stem for size "D" carbon wrapped cylinder (CGA 540)

3.23 VALVE STEM REPLACEMENT

1. Valve stem for size "D" aluminum/steel cylinder (Part No. CGA 870)
2. Valve stem for size "M" aluminum/steel cylinder (Part No. CGA)

3.24 HYDROSTATIC TESTING TO BE PROVIDED TO THE FOLLOWING EQUIPMENT

1. Oxygen, USP, Size D, 397 liters, dimension 4" x 17"
2. Oxygen, USP, Size D, 397 liters, dimension 4" x 17" (Carbon fiber wrapped cylinder)
3. Oxygen, USP, Size D, 397 liters, dimension 4" x 17" (Aluminum cylinder)
4. Oxygen, USP, Size D, 397 liters, dimension 4" x 17" (Steel cylinder)
5. Oxygen USP, Size E, 662 liters, dimension 4" x 26 with combination regulator/flow meter
6. Oxygen USP, Size M, 122 cu. ft., dimension 7" x 43"
7. Oxygen USP, Size M, 122 cu. ft., dimension 7" x 43" (Aluminum cylinder)
8. Oxygen USP, Size M, 122 cu. ft., dimension 7" x 43" (Steel cylinder)
9. Oxygen USP, Size H, 224 cu. ft., dimension 9" x 51"
10. Nitrogen, UHP Grade, for gas chromatograph, 99-998%, Size H, 225 cu. ft.
11. Nitrogen, CP Grade, 99.0%, Size HH, 230 cu. ft.
12. Hydrogen, UHP, 99.999%, Size A, 262 cu. ft., dimension 9" x 51"
13. Air, UHP, Size HH, 310 cu. ft., 99.998%
14. Helium Gas (for balloons) 242 cu. ft., Size H
15. Helium UHP, 99.999%, Size J, 291 cu. ft.
16. Acetylene, Atomic Absorption Grade, 99.6% in large cylinder, 300 cu. ft., L-5, 12 x 16
17. Argon Liquid, size H, Dewars, 160 liter cylinder
18. Acetylene, Atomic Absorption Grade, 99.6% in 10 cu. ft.
19. Oxygen, USP, in 10 cu. ft.
20. Oxygen, USP, 7" x 23" CTC/DOT 3AL2216, Luxfer 7A87, 35 cu. ft.
21. UPC Hydrogen, 99.999%, Size J 260 SFC

22. UPC Helium, 99.999%, Size J 291 SCF

23. Calibration Gas, 2.03% oz. Balance N2, Size 13, 240 cu.ft./cylinder (Certified Standard) 9 x 15

24. Calibration Gas, 796 PPM H2, 774 PPM CO2, 1.03% O2, Balance N2, Size H, 220 cu. ft. /cylinder (Certified Standard)

25. 40% Hydrogen, 60% Nitrogen, 33 cu. ft., 28 lbs.

26. Liquid Oxygen, Medical Grade, 180 Ltr. Dewars Medium Pressure (50 PSI) cylinder with built-in flow regulator. (For Miami-Dade Fire Rescue Air Rescue).

3.25 SPECIFICATIONS FOR MIAMI-DADE POLICE DEPARTMENT

1. Nitrogen, UHP Grade, for Gas Chromatograph, 99.998%, Size J
2. Nitrogen, Low Pressure 180 liter, liquid
3. Hydrogen, Zero Grade, Size J
4. Helium UHP Grade, 99.99% Size J
5. Air, Ultra Zero Grade, Size J

3.26 SPECIFICATIONS FOR ANIMAL SERVICES DEPARTMENT

1. Oxygen, High Pressure
2. Small Medical

3.27 SPECIFICATIONS FOR INTERNAL SERVICES DEPARTMENT FLEET MANAGEMENT

1. Oxygen, "K" type cylinders, USP Approved Cylinder Size: 249 cu. ft. /cyl.
2. Acetylene, "WSL" type cylinder. Cylinder Size: 145 cu. Ft. /cyl.
3. Argon Gas "T" type cylinder
4. O25 Argon/CO2 Gas 25% "T" type cylinder

3.28 LIQUID OXYGEN

The industrial grade liquid oxygen shall be a minimum guaranteed purity 99.5%, less than 0.5% inert ingredients, 80 degrees F. dew point or lower, industrial grade "B" LOX.

3.29 TANK TRUCKS

The Liquid Oxygen will be only used if Miami-Dade County Plants cannot manufacture sufficient liquid oxygen for its needs. Vendor shall provide prices using a maximum usage of three tank trucks a day for two (2) weeks (i.e. 42 loads). Usage over the maximum given above will result in Miami-Dade County issuing an invitation to quote to all vendors on this contract for that particular Emergency.

3.30 SITE LOCATIONS

The contact person for all of the sites requiring liquid oxygen will be xxxxxxx Supervisor of Oxygen Plants, xxxxx or xxxxx. The following are the sites which will require liquid oxygen to be delivered to and the sizes of the storage tanks at those locations.

Size and number of Liquid Oxygen storage tanks: Four (4) each 15,000 gal. Tanks

1. North District Wastewater Treatment Plant
2575 N.E. 151 St, N Miami Beach, FL
Size and number of Liquid Oxygen storage tanks:
One (1) each: 600,000 gal. Sphere
2. Central District Wastewater Treatment Plant
3989 Rickenbacker Causeway, Miami, FL
Size and number of Liquid Oxygen storage tanks:
Four (4) each: 15,000 gal. Tanks
3. South District Wastewater Treatment Plant
8950 S.W. 232 St, Gould's, FL

3.31 DELIVERY

The vendor shall deliver items to various County facilities and locations as required.

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Please advise if your firm is capable of bidding on all items listed within each of the groups as they are listed, any suggestions and feedback you have is greatly appreciated for this project.

GROUP (1)

ITEM	UNIT	DESCRIPTION
1	Cylinder	Oxygen, USP, Size D, 397 Liters Dimension 4" x 17"
2	Cylinder	Medical Grade Liquid Oxygen supplied in DEWAR 180 Liter Cylinder with low pressure-50 PS regulator only
3	Cylinder	Oxygen, USP, Size M, 122 cu. ft. Dimension 7" x 43"
4	Cylinder	Oxygen, USP, Size H, 224 cu. ft. Dimension 9" x 51"

Is your firm capable of bidding on all line items listed above as a group?
 Yes _____ / No _____

If your answer is No, please provide a brief explanation:

GROUP (2)

ITEM	UNIT	DESCRIPTION
1	Cylinder	Nitrogen, UHP Grade, for Gas Chromatograph, 99.998%, Size H, 230 cu. ft.
2	Cylinder	Nitrogen, CP Grade, 99.0%, Size HH, 280 cu. ft.
3	Cylinder	Hydrogen, UHP, 99.999%, Size A, 262 cu. ft. Dimension 9" x 51"
4	Cylinder	Air UHP, 99.998% Size HH, 310 cu. ft.
5	Cylinder	Helium Gas (For Balloons), Size H, 242 cu. ft.
6	Cylinder	Helium UHP, 99.999%, Size J, 291 Cu. Ft.
7	Cylinder	Acetylene, Atomic Absorption Grade 99.6% in Large Cylinder, 300 cu. ft. L-5, 12 x 16
8	Cylinder	Acetylene, Atomic Absorption, Grade 99.6% in 10 cu. ft.
9	Cylinder	Oxygen, USP in 10 cu. ft.
10	Cylinder	Oxygen, USP, in Cylinders 7" x 23" CTC/DOT 3AL2216, Luxfer 7A87, 35 cu. ft.
11	Cylinder	UPC Hydrogen, 99.999%, Size J, 260 SCF 9" x 55"
12	Cylinder	UPC Helium, 99.999%, Size J, 291 SCF 9" x 55"
13	Cylinder	Calibration Gas, 2.03% O2 Balance N21, Size B, 240 cu. ft. (Certified Standard) 9" x 51"

GROUP (2) Continued

ITEM	UNIT	DESCRIPTION
14	Cylinder	Calibration Gas, 796 ppm H2, 774 ppm, CO2, 1.03%, O2 Balance N2, Size H, 220 cu. ft. (Certified Standard)
15	Cylinder	40% Hydrogen, 60% Nitrogen, 33 cu. ft. 28 lbs.
16	Cylinder	Zero-Grade (4.8) Argon Gas Approx. 220 cu. ft.
17	Cylinder	Welder's-Grade Acetylene Size 2.1
19	Cylinder	Nitrogen, UHP Grade, for Gas Chromatograph, 99.998%, Size J
20	Cylinder	Nitrogen, Low Pressure, 180 liter, liquid
21	Cylinder	Hydrogen, Zero Grade, Size J

Is your firm capable of bidding on all line items listed above as a group?
 Yes _____ / No _____

If your answer is No, please provide a brief explanation:

GROUP (3) ADDITIONAL ITEMS FOR DEPT OF PERMITTING, ENVIRONMENT AND REGULATORY AFFAIRS

ITEM	UNIT	DESCRIPTION
1	Cylinder	Nitric Oxide in Oxygen Free Nitrogen (NO in N2) 23-27 ppm; ~140 Cubic Feet (CF); EPA Certification Period 24 months
2	Cylinder	Sulfur Dioxide in Nitrogen (SO2 in N2) 51-55 ppm MUST BE GREATER THE 50 ppm; ~140 Cubic Feet (CF); EPA Certification Period 24 months
3	Cylinder	Carbon Monoxide in Air (CO in Air), 8-10 ppm; ~144 Cubic Feet (CF); EPA Certification Period 36 months
4	Cylinder	Carbon Monoxide in Air (CO in Air) 22-25 ppm; ~76 Cubic Feet(CF); EPA Certification Period 36 months
5	Cylinder	Carbon Monoxide in Air (CO in Air); 38-40 ppm; ~144 Cubic Feet (CF); EPA Certification Period 36 months

Is your firm capable of bidding on all line items listed above as a group?
 Yes _____ / No _____

If your answer is No, please provide a brief explanation:

GROUP (4) MONITORING CALIBRATION OF GAS FOR WATER & SEWER DEPT

ITEM	EST. ANNUAL QTY	UNIT	DESCRIPTION
1		Cylinder	Hydrogen Sulfide, 25ppm; Carbon Monoxide, 100ppm; Pentane 25% LEL (0- 35% Vol); Oxygen, 19.05%; Nitrogen, balance, col 25 cu. ft. 1500psig @ 70 degrees F (for Water & Sewer Dept.)

Is your firm capable of bidding on all line items listed above as a group?
 Yes _____ / No _____

If your answer is No, please provide a brief explanation:

GROUP (5)

ITEM	EST. ANNUAL QTY	UNIT	DESCRIPTION	UNIT PRICE
1		Cylinder	Helium, Dimension 9' x 51", Size J, 290 cu. ft.	\$ _____ /cyl.
2		Cylinder	Hydrogen, Water, Dimensions, 9" x 51" Size J, 260 cu. ft.	\$ _____ /cyl.
3		Cylinder	Nitrogen, High Pressure Dewar (Liquid) 160 Liters, Size GP45	\$ _____ /cyl.
4		Cylinder	Methane, Dimensions 9" x 51", Size J 356 cu. ft.	\$ _____ /cyl.
5		Cylinder	Argon Methane (Electron-Capture Mixture), Dimension 9" x 56", 95% Argon, 5% Methane	\$ _____ /cyl.
6		Cylinder	Air 310 cu. ft. Size J, Ultra Zero	\$ _____ /cyl.
7		Cylinder	Carbon Dioxide, 99% Purity, Dimensions 9" x 51", 50 lbs. with dip tube	\$ _____ /cyl.
8		Cylinder	Argon, 99.99% Ultra-Pure Purity, Dimensions 9"x56", 300 cu. ft.	\$ _____ /cyl.
9		Cylinder	Argon/Hydrogen Mix, 99.99% Purity with 5% Hydrogen, 99.99% Purity, Dimensions 9" x 56", 260 cu. ft.	\$ _____ /cyl.
10		Cylinder	Air, High Purity, 99.99%, 9" x 51"	\$ _____ /cyl.
11		Cylinder	Methane, Ultra High Purity, 99.995% Min. Lecture Bottle w/Valve	\$ _____ /cyl.
12		Cylinder	Isobutene Ultra High Purity, 99.995% Min. Lecture Bottle w/Valve	\$ _____ /cyl.

Is your firm capable of bidding on all line items listed above as a group?
 Yes _____ / No _____

If your answer is No, please provide a brief explanation:

GROUP (6)

ITEM	UNIT	DESCRIPTION
1	Cylinder	High Purity Oxygen (OX/493 CH) K
2	Cylinder	91% Oxygen/Balance, Nitrogen (OXNT2CH) K
3	Cylinder	High Purity Nitrogen, (34435) K
4	Cylinder	Zero Air (32075) K
5	Cylinder	40% Hydrogen/60% Nitrogen (38531) K
6	Lb.	Dry Ice (Carbon Dioxide)
7	Cylinder	100 ppm Methane/Balance, Air K
8	Cylinder	2.5 Methane W/Air Size F, (Refill only)

Is your firm capable of bidding on all line items listed above as a group?
 Yes _____ / No _____

If your answer is No, please provide a brief explanation:

GROUP (7) WELDING GASES AND LIQUID OXYGEN

ITEM	UNIT	DESCRIPTION
1	Cubic Ft.	Oxygen: "K" type cylinders, USP approved Cylinder size: 249 cu. ft. /cyl.
2	Cubic Ft.	Oxygen: "R" type cylinders, small Cylinder size: 125 cu. ft. /cyl.
3	Cubic Ft.	Acetylene, "WSL" type cylinder Cylinder size: 145 cu. ft. /cyl.
4	Cubic Ft.	Acetylene: small size cylinders Cylinder size: 85 cu. ft. /cyl.
5	Cubic Ft.	Argon Gas Cylinder Size: 336 cu. ft. /cyl.
6	Cubic Ft.	Argon Gas 2.2 type cylinder Cylinder size: 42 cu. ft. /cyl.
7	Cubic Ft.	Argon Gas "R" type cylinder Cylinder size: 20 cu. ft. /cyl.
8	Cubic Ft.	Argox Gas Cylinder Size: 356 cu. ft. /cyl.
9	Cubic Ft.	Co2 Gas: small cylinders Cylinder Size: 50 lbs/cyl.
10	Cubic Ft.	Nitrogen, dry process 280 Cylinder size: 304 cu. ft. /cyl.
11	Cubic Ft.	Oxygen, "T" Cylinder

GROUP (7) WELDING GASES AND LIQUID OXYGEN Continued

ITEM	UNIT	DESCRIPTION
12	Cubic Ft.	Nitrogen, "T" Cylinder, must be in accordance with BB-N-411 (type 1, Grade A and-B) for purging LOX bottles

Is your firm capable of bidding on all line items listed above as a group?
 Yes _____ / No _____

If your answer is No, please provide a brief explanation:

GROUP (8) LIQUID OXYGEN (LOX) BY TANK TRUCK

ITEM	UNIT	DESCRIPTION
1	Gallon	LOX by Tank truck as specified in Section 3, Paragraphs 3.27 thru 3.29 Product Manufacturer: _____

Is your firm capable of bidding on all line item listed above as a group?
 Yes _____ / No _____

If your answer is No, please provide a brief explanation:

GROUP (9) HYDRO TESTING

ITEM	UNIT	DESCRIPTION
1	Cylinder	Hydro Testing for Size "D" Bottles
2	Cylinder	Hydro Testing for Size "M" Bottles

Is your firm capable of bidding on all line items listed above as a group?
 Yes _____ / No _____

If your answer is No, please provide a brief explanation:

OPTIONS FOR GROUPS (1) THRU (4) REPLACEMENT CYLINDERS

ITEM	DESCRIPTION
1	Size (B) Cylinder
2	Size (D) Cylinder
3	Size (E) Cylinder
4	Size (H) Cylinder
5	Size (HH) Cylinder

OPTIONS FOR GROUPS (1) THRU (4) REPLACEMENT CYLINDERS

Continued

ITEM	DESCRIPTION
6	Size (K) Cylinder
7	Dewars Cylinder
8	Size (M) Cylinder
9	Size (T) Cylinder
10	Size (W) Cylinder

Is your firm capable of bidding on all line item listed above as a group?
Yes _____ / No _____

If your answer is No, please provide a brief explanation:

(Please advise if Product Specification Sheets for each type of gas or mixture listed are available)

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