

INVITATION TO BID

State of Ohio
Department of Administrative Services
General Services Division
Office of Procurement Services

The original signed bid must be submitted to the Office of Procurement Services to receive consideration for award.		BIDDER NAME	
BID NUMBER 0B101614	OPENING DATE (1:00 p.m.) April 18, 2014	STREET ADDRESS <input type="checkbox"/> Check if remit address is different and list on separate sheet	
General Services Division Office of Procurement Services 4200 Surface Road Columbus, OH 43228-1395 Attn: Bid Desk		CITY STATE ZIP	
		COUNTY	MBE/EDGE CERTIFICATE NUMBER
		TELEPHONE NO. ()	TOLL FREE NO. 1 - ()
		CONTACT PERSON	FAX NO. ()
REQ./INDEX NO. 0000022081	BID NOTICE DATE 4/2/2014	CONTRACTOR'S E-MAIL ADDRESS	
SELECT YOUR PREFERRED METHOD OF RECEIVING PURCHASE ORDERS AND ENTER THE E-MAIL OR FAX NUMBER INFORMATION (ONLY SELECT ONE METHOD)			
<input type="checkbox"/> E-Mail <input type="checkbox"/> Fax			
In addition to the standard terms for payment, the payment terms for state agency(ies) will be 2%, 10 Days, Net 30 Days unless otherwise stated in the following space. If no discount is offered, bidder should circle "Net 30 Days". _____%, _____ Days, Net 30 Days			
BILL TO: Accounts Payable Ohio Department of Health 246 N. High St. Columbus, OH 43215		SHIP TO: ODH Warehouse Ohio Department of Health 5835 Green Pointe Dr., Ste. D Groveport, OH 43125	
DELIVERY REQUESTED F.O.B./DEST. P.P.D. AUGUST 15, 2014		DELIVERY OFFERED (IF DIFFERENT) F.O.B./DEST.P.P.D. _____	
MINORITY SET-ASIDE BID IN ACCORDANCE WITH ORC CH. 125.081			
THE DEPARTMENT OF ADMINISTRATIVE SERVICES, OFFICE OF PROCUREMENT SERVICES IS SOLICITING BIDS FOR: MOBILE MEDICAL OXYGEN GENERATOR SYSTEM			
QUANTITY AND DURATION: This Invitation to Bid, which is not a contract, is considered to be a one-time procurement offer for the product(s)/service(s) as listed herein. The successful Contractor may commence performance of the awarded contract upon receipt of an official state of Ohio Purchase Order (ADM0523/ORDE). Upon completion of the contract and upon receipt of proper invoices, payment will be provided by the ordering agency. The contract will then be considered as complete and no further purchases may be placed against the contract. With the exception of approved overrun/underrun tolerances, any deviations from the quantity listed in the awarded contract shall not be permissible nor acceptable.			
INSTRUCTIONS, TERMS AND CONDITIONS FOR BIDDING; STANDARD CONTRACT TERMS AND CONDITIONS; AND SUPPLEMENTAL CONTRACT TERMS AND CONDITIONS, Rev. 10/2013 are a part of this Invitation to Bid. Copies may be downloaded by clicking on this link: Instructions: Terms and Conditions for Bidding, Standard Contract Terms and Conditions, and Supplemental Contract Terms and Conditions . All prior versions of Instructions to Bidders, Contract Terms and Conditions are null and void.			
Any questions or clarifications regarding this Invitation to Bid should be directed to the Office of Procurement Services through the Internet at www.ohio.gov/procure . All questions should be submitted a minimum of five (5) working days prior to the bid opening date.			
PRINTED/TYPED SIGNATURE	AUTHORIZED SIGNATURE (ORIGINAL SIGNATURE ONLY) <i>(Please sign in blue ink)</i>		DATE

The original signed bid must be submitted to the Office of Procurement Services by 1:00 o'clock p.m. on the above listed opening date to receive consideration for award. It is requested that the bidder not sign their bid in black ink. Bidder certifies, by signature affixed to this bid, that the information provided by it in its bid including the certified statements, is accurate and complete. Bidder declares to have read and understood and agrees to be bound by all of the instructions, terms, conditions and specifications of this Invitation to Bid and agrees to fulfill the requirements of any awarded contract at the prices bid.

REQUIRED CERTIFICATION FOR BIDDING

Those bidders claiming preference for Domestic Source End Products and/or the Ohio preference, pursuant to Revised Code Sections 125.09 and 125.11 and Administrative Code Section 123:5-1-06 must complete the following information. Bidders who qualify as an "Ohio" bidder (offer an Ohio product or who have significant Ohio economic presence) or who qualify as a Border State bidder are eligible to receive a five percent (5%) preference over non-Ohio/Border state bidders. The state reserves the right to clarify any information during the evaluation process. **BIDDERS MUST COMPLETE THIS CERTIFICATION TO RECEIVE THE PREFERENCE.**

A. DOMESTIC PREFERENCE (BUY AMERICAN): [Not applicable to "Excepted Products"]

- Where is each product/services being offered mined, raised, grown, produced or manufactured?
 United States: _____(State) Canada Mexico (Go to B-1)
 Other: (Specify Country)_____ (Go to A-2)
- End product is manufactured outside the United States and at least 50% of the cost of its components are produced, mined, raised, grown or manufactured within the United States. The cost of components may include transportation costs to the place of manufacture and, in the case of components of foreign origin, duty whether or not a duty free entry certificate is issued.
 Yes (Go to Section B-1) No (Go to Section A-3)
- The Bidder hereby certifies that each end product, except the products listed below, is a domestic source end product as defined in the Buy American Act and that components of unknown origin have been considered to have been mined, produced, grown or manufactured outside the United States.

_____ (Item) _____ (Country of Origin)

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A domestic end source product is deemed to be excessively priced if it exceeds the cost of the foreign product by more than 6%. Pursuant to FAR, Part 25, the state of Ohio does not acquire supplies or services that cannot be imported lawfully into the United States. The contractor, their subcontractor(s) and any agent of the contractor or subcontractor must not acquire any supplies or services originating from sources within, or that were located in or transported from or through Cuba, Iran, Iraq, Libya, North Korea, Sudan Territory of Afghanistan controlled by the Taliban, or Serbia (excluding the territory of Kosovo).

B. OHIO PREFERENCE (BUY OHIO):



- The products/services being offered are raised, grown, produced, mined or manufactured in Ohio.
 Yes (Go to C) No (Go to B-2)
- Bidder has significant economic presence within the state of Ohio.
 Yes (Answer a, b, c, d below) No (Go to B-3)
 - Bidder has paid the required taxes due the state of Ohio Yes No
 - Bidder is registered with the Ohio Secretary of State
 Yes (Charter/Registration No.: _____) No
Questions regarding registration should be directed to (614) 466-3910 or visit their web site at:
<http://www.sos.state.oh.us/>
 - Bidder has ten or more employees based in Ohio or border state. Yes No (Go to B-2d)
 - Bidder has seventy-five percent or more employees based in Ohio or border state.
 Yes No (Go to B-3)
- Border state bidder:
 Yes (Specify which state then go to B-2c): KY MI NY PA IN No (Go to B-4)
- Border state bidder: mined products mined in respective border state Yes No Not Applicable

C. E.D.G.E. DESIGNATION

Bidder is certified E.D.G.E. business Yes No

For information on E.D.G.E. designation, please visit the DAS Equal Opportunity Division website at:

<http://www.das.ohio.gov/Divisions/EqualOpportunity/tabid/80/Default.aspx>

D. INDEPENDENT CONTRACTOR ACKNOWLEDGEMENT: Contractor certifies that Contractor is a "business entity" as that term is defined in O.R.C. Section 145.037. See SUPPLEMENTAL CONTRACT TERMS AND CONDITIONS Independent Contractor Acknowledgement.

Bidder is defined as a business entity Yes No

PRICE SCHEDULE:

Bidders shall not insert a unit cost more than 3 digits after the decimal point. Digit(s) beyond 3, after the decimal point, shall be dropped by the Office of Procurement Services and not used in evaluation and any subsequent award.

ITEM NO.	QTY.	UNIT	DESCRIPTION	UNIT PRICE	EXTENDED AMOUNT
1.	3	EA	MOBILE MEDICAL OXYGEN GENERATOR SYSTEM, AS SPECIFIED, TURNKEY	\$	\$
2.	3	EA	PREVENTATIVE MAINTENANCE AGREEMENT- ONE YEAR	\$	\$

Contains recycled materials – Y/N: _____ if Yes _____%. (Will not be part of the evaluation)

MANUFACTURER IDENTIFICATION OF COMMODITY: All bidders are to indicate in the spaces below the manufacturer's name, model, and brand or style number for product bid. Failure to comply with this stipulation may result in the bidder being deemed not responsive.

Manufacturer / Model of Mobile Medical Oxygen Generator System: _____

Manufacturer / Model of Trailer Body: _____

Manufacturer / Model of Medical Oxygen Generator: _____

Model No. and Size of Tires: _____

All equipment and/or materials shall be new and unused.

SCOPE: This Invitation to Bid (ITB) is issued to purchase three (3) Mobile Medical Oxygen Generator Systems. These Systems are for the Ohio Department of Health, 246 N. High St., Columbus, OH 43215. The Contractor will be responsible to build, maintain and repair three (3) Mobile Medical Oxygen Generator Systems, which will be a part of the Ohio Department of Health (the Agency)'s mobile health preparedness assets. The Contractor is to provide the Mobile Medical Oxygen Generator Systems as a complete, finished product, i.e., a turnkey solution. The resulting Mobile Medical Oxygen Generator Systems will be ready to tow to the needed location, plug into the Agency's existing generators (specified herein), and function to refill clients' oxygen cylinders with medical oxygen for immediate use. All components, information, and literature necessary to accomplish this will be included with the system. These assets will be stored at the Agency's warehouse in Groveport, OH.

The trailer will be properly equipped and rated to safely transport, operate, and store the oxygen generator unit, storage tanks, plumbing, wiring, and other components necessary but not specifically mentioned herein. The components, including trailer, oxygen generator unit, storage tanks, plumbing, hoses, wiring, doors, fixtures, accessories, hardware, fittings, tools, safety devices, and other components necessary but not specifically mentioned herein, once completed/assembled into a ready-to-use finished (turnkey) product, will be referred to as Mobile Medical Oxygen Generator System (MMOGS). All items not specified which are necessary to provide a complete and acceptable MMOGS shall be furnished by the Contractor and conform in strength, quality and workmanship. Equipment offered must meet the full operational capacities of the vehicle specified. The trailer bid must be the latest model and include any necessary engineering changes. The assembly of the MMOGS shall conform to all requirements and recommendations of the trailer manufacturer and the oxygen generator manufacturer. All components will carry the full manufacturer warranties.

The MMOGSs, completed as part of this contract, shall be delivered to the Agency's warehouse in Groveport, OH, by no later than August 15, 2014. The MMOGS can be delivered in either a single delivery, or in a staggered schedule beginning as early as June 1, 2014, and ending no later than August 15, 2014.

SPECIAL TERMS AND CONDITIONS

AMENDMENTS TO CONTRACT TERMS AND CONDITIONS: The following Amendments to the Contract Terms and Conditions do hereby become a part hereof. In the event that an amendment conflicts with the Contract Terms and Conditions, the Amendment will prevail.

LITERATURE: Descriptive literature and technical data are crucial to the state's evaluation. Therefore, all bidders should submit a complete description, including guaranteed specifications and any or all technical data sufficient, in the opinion of the Office of Procurement Services, to reasonably and properly evaluate all bids. This information should include notations of deviations from specifications and/or additions that will be made to satisfy the specifications furnished with this bid. Any deviations taken from these specifications should be listed on company letterhead, describing in detail, the nature of the deviation. In the event the required literature and information are not submitted with the bid, the bidder will be required to provide the information within five (5) business days after notification. Failure to provide the information within the stated time period will result in the bidder being deemed as not responsive

Upon delivery of the three (3) MMOGSs and their acceptance by ODH, the successful Contractor shall provide the ODH Contract Manager with at least three (3) hardcopies – and, if available, one electronic copy – of all materials relevant to the operation or maintenance of the assets and their associated equipment (i.e., technical manuals, specification sheets, user guides, etc.)

EVALUATION: This bid will be evaluated based upon the price of the Mobile Medical Oxygen Generator System (MMOGS), as specified, turnkey, with all equipment installed, operational and adjusted to factory specifications. The Preventive Maintenance Agreement (PMA) will not be included in the evaluation, but will be purchased at the option of the State of Ohio.

AWARD: There will be one (1) award per line item to the lowest responsive and responsible bidder meeting all bid specifications and requirements listed herein.

DELIVERY AND ACCEPTANCE: Supplies will be delivered to the participating agency no later than August 15, 2014 and, in accordance with paragraphs S-8, S-9, and S-10 of the SUPPLEMENTAL CONTRACT TERMS AND CONDITIONS. The delivery location will be noted on the purchase order issued by the participating agency. Acceptance (transfer of title) will occur upon the inspection and written confirmation by the ordering agency that the supplies delivered conform to the requirements set forth in the ITB. Unless otherwise provided in the Contract, acceptance shall be conclusive except as regards to latent defects, fraud, or such gross mistakes as amount to fraud. No bidder or dealer names, logos, or marketing information shall be affixed to any part of the delivered MMOGS. Any affixed bidder or dealer information may be cause for the return of the vehicle.

TRAINING: At a date and time specified by ODH, the Contractor shall provide instruction, written training material, and conduct an orientation/training session, regarding the MMOGSs' operation, to staff from ODH, agencies, and entities. The staff attending will be identified by ODH, and may include representatives from the Ohio Emergency Management Agency, the Ohio Hospital Association, American Red Cross, and local health departments. The content and duration of the orientation/training will be agreed upon by the Contractor and the ODH Contract Manager. The orientation/training session shall be provided at the ODH Warehouse in Groveport, Ohio. The written training material shall be the property of ODH.

SERVICE POLICY AND WARRANTY: The Contractor shall furnish with the MMOGS the manufacturer's owner service policies and warranties for the basic trailer, oxygen generator unit, the installation/assembly of the oxygen generator unit and components into the trailer, and any necessary modification of the trailer and equipment.

- A. The warranty for the basic trailer shall be the manufacturer's standard warranty. This warranty shall meet or exceed the requirements in the Specifications, "12. Manufacturer Warranty", on page 9 of this ITB.
- B. The trailer tires shall be covered by the tire manufacturer's standard warranty and/or the warranty that is standard to the industry.

SPECIAL TERMS AND CONDITIONS (Continued)

- C. The warranty for the installation/assembly and modification of the trailer and equipment shall provide that all repairs and replacements needed due to factory defects shall be furnished and installed promptly without charge by authorized service representatives for a period of one (1) year after final delivery and acceptance of the vehicle. The warranty for the installation/assembly and modifications of the vehicle shall also provide that all necessary service adjustments shall be made promptly without charge by authorized service representatives within seven (7) days after requested by the Agency.
- D. All MMOGS units shall be covered by a warranty providing that all replacement parts and repairs due to defects in material or workmanship shall be furnished and installed promptly without charge by an authorized service representatives within the first year after the delivery and acceptance of all MMOGS units. The warranty may not cover replacement cost of the filter elements and sieve material.
- E. Contractor will be responsible for all warranty-related expenses incurred, if necessary, including pick-up and return, transportation and/or service calls, for repair of any of the equipment, or components thereof, while said equipment is under warranty.

BID AUTOMOBILE LIABILITY CHECKLIST:

Contractor will indicate, by checking the appropriate box(es) below, which mode of transportation will apply to this contract.

- Bidder/Broker ("The Contractor") or their Sub Contractor will make delivery or be performing services using a vehicle that is owned, leased or rented. Provide Certificate of Insurance documenting automobile liability with a Combined Single Limit of \$500,000.00.
- Goods/Services will be delivered via common carrier.
- No employee or representative of the contractor will have cause to be on state property to make deliveries or to perform services.

DISCLOSURE OF SUBCONTRACTORS / JOINT VENTURES (See Standard Contract Terms and Conditions, Section (roman numeral) V, General Provisions, Paragraph Q):

List names of subcontractors who will be performing work under the Contract.

By the signature affixed to Page 1 of this Bid, Bidder hereby certifies that the above information is true and accurate. The Bidder agrees that no changes will be made to this list of subcontractors or locations where work will be performed or data will be stored without prior written approval of DAS. Any attempt by the Bidder/Contractor to change or otherwise alter subcontractors or locations where work will be performed or locations where data will be stored, without prior written approval of DAS, will be deemed as a default. If a default should occur, DAS will seek all legal remedies as set forth in the Terms and Conditions which may include immediate cancellation of the Contract. Failure to complete this page may deem your bid not responsive.

SPECIFICATIONS

- I. GENERAL SPECIFICATIONS: The successful Contractor shall provide ODH with three (3) mobile medical oxygen generation systems, which will be a part of the agency's mobile health preparedness assets. Each Mobile Medical Oxygen Generator System (MMOGS) shall conform to the following:
- A. Each of the oxygen generator units shall be mounted in enclosed trailers, enabling the systems to be weather-resistant during transportation and operation.
 - B. The trailers shall be appropriately sized (i.e., interior/exterior length, width and height), suitably rated (i.e., Gross Vehicle Weight Rating and Gross Axle Weight Rating), and properly equipped (i.e., axles, tires, brakes, electrical systems, doors, vents, etc.), to safely transport and effectively operate the oxygen generators pursuant to manufacturer specifications. Trailer shall be properly equipped to be towed by a one-ton pickup truck, which will have a Class VI or Class V hitch and a 2" or 2-5/16" ball.
 - C. The MMOGS offered shall conform to applicable requirements, rules, regulations, laws, and standards of the U.S. Department of Transportation, Federal Motor Carrier Safety Administration (including, but not limited to Federal Motor Vehicle Safety Standards), the State of Ohio, Ohio Department of Transportation, and applicable industry standards.
 - D. With the Bid response, Bidder shall provide a written Preventive Maintenance Agreement (PMA) for the MMOGS's, including the oxygen generator units and their associated equipment. The price of the PMA, for each MMOGS, shall be included in the Bid submission Price Schedule. The written PMA shall include an itemized list of routine maintenance to be completed, the anticipated date(s) for completing the work, customer sales and technical support information (i.e., phone numbers, contact names, internet-based forms, etc.); and an affirmation that the Contractor will repair the oxygen generator units and their associated equipment on as-needed basis. The PMA may be purchased at the option of the State of Ohio. The PMA shall be for a one (1) year period, and will include, but not be limited to, the following materials and services:
 - 1. Transportation of the assets to and from the Contractor's facilities if their movement is required to complete any maintenance. Transportation costs shall be included in the service agreement.
 - 2. Conduct all maintenance and repairs upon approval by the ODH Contract Manager and perform in accordance with manufacturer requirements/specifications. Perform any routine maintenance or required repairs to the oxygen generator units and their associated equipment (excluding the trailers upon which they mounted) in accordance with manufacturer recommendations and specifications.
 - 3. Provide ODH with technical assistance on an as-needed basis.
 - 4. Provide all materials/services for customer service/technical support processes for the duration of the contract (i.e., phone numbers, contact names, internet-based forms, etc.).
 - E. All hoses, plumbing, and wiring shall have adequate conduit protective covers wherever there is a possibility of contact with any other components. Separators shall be used where applicable. No tape or adhesive fasteners will be accepted. All hoses, wiring, and pipes shall be routed to be clear of all heat sources and shall be protected from any present or potential source of snags, abrasions, sharp edges, or hazards. If any wiring for any lamps is routed through any tool compartment or canopy, these wires shall be enclosed in protective shield. If the oxygen generator manufacturer or trailer manufacturer recommendations/requirements are contrary to these (routing and protection) requirements, Bidder shall document this conflict in a letter, in detail, along with its recommendation.
 - F. All fasteners (nuts, bolts, rivets, & etc.) shall be grade 5 or better with rust inhibiting coating.
 - G. The design, build, maintenance, and repair of the MMOGSs shall be performed in compliance with applicable federal, state, and manufacturer regulations, requirements, specifications, and standards.

SPECIFICATIONS (Continued)

II. DATA SHEET: Shown below are the specification requirements for equipment that the State desires to purchase. These specifications are only considered as necessary to establish functional requirements. Proprietary design, exact dimensions, capacities, or restrictive features will not preclude acceptance of other recognized alternates meeting comparable performance requirements as determined by the Director, Department of Administrative Services. Bidder signifies compliance or non-compliance with specifications by listing and outlining all deviations from specifications on company letterhead and returning it with the bid. Failure to comply may deem the bid not responsive.

- | YES | NO | MINIMUM TRAILER SPECIFICATIONS: |
|-----|-----|---|
| ___ | ___ | 1. The MMOGSs shall be Mounted in a Wells Cargo Express Wagon (8' Wide) Model #EW1222 cargo trailer (www.wellscargo.com), or equivalent: |
| ___ | ___ | 2. Dimensions: <ul style="list-style-type: none">a. Body width: 7'9"b. Body length: 12'0"c. Overall length: 16'0"d. Overall width: 8'6"e. Overall height: 8'5"f. Interior length: 11'9"g. Interior width: 7'6"h. Interior height: 6'6"i. Platform height: 21" |
| ___ | ___ | 3. Axles/Suspension/Tires/Wheels: <ul style="list-style-type: none">a. Axle type: Tandem; 4" Dropb. Suspension: Torflexc. Tire size: 15"d. Load range: Ce. Wheel bolt pattern: 5-bolt/4.5f. Spare tire: Yes; 15"g. Exterior spare tire mount: Yes; front wall |
| ___ | ___ | 4. Hitch: <ul style="list-style-type: none">a. Hitch ball size: 2-5/16"b. Hitch to top of ball: 19"c. Hitch weight (lbs.): 10-15%d. Jack with removable sand pad; 2000 lb.; manual |
| ___ | ___ | 5. Safety: <ul style="list-style-type: none">a. Brakes: Yes (electric)b. Safety chains: Yes; D.O.T. compliantc. Breakaway system: Yes; D.O.T. compliantd. Lighting (clearance, marker, brake): 12-volt LEDe. Wet-cell battery with battery box (mounted to tongue; for breakaway system) |

SPECIFICATIONS (Continued)

YES NO

___ ___

6. Weight Ratings/Payload Capacity:

- a. Curb weight (lbs.): 2,080
- b. GVWR (lbs.): 7,700
- c. GAWR (lbs.): 7,000
- d. Avg. Payload Capacity (lbs.): 5,620

___ ___

7. Doors:

- a. Rear Door
- b. Spring assisted ramp
- c. Hinge: ¾" pin, full-width, corrosion-resistant
- d. Ramp extension plate (bottom of the ramp; full-length; aluminum; full-length ¾" pin hinge with corrosion-resistant fasteners)
- e. Slider plate (top of the ramp; aluminum; full-length ¾" pin hinge with corrosion-resistant fasteners)
- f. Rear door stabilizer jacks
- g. Door width: 85-3/4"
- h. Door height: 68-1/2"
- i. Door latches: Aluminum, anti-rack cam with stainless steel hasp
- j. Side door (passenger side)
- k. Door width: 36"
- l. Door height: ≤ 68-1/2"
- m. Flush door handle/lock
- n. Hinges: aluminum or steel strap
- o. 20" fold-up step

___ ___

8. Trailer frame/chassis:

- a. 3-piece integrated A-frame
- b. Center tube anchored to tube cross-member
- c. Heavy-duty tubular steel mainframe
- d. Front and rear radius steel cornerposts
- e. Full-width front wall end rail
- f. Front/side wall vertical posts = 16" on-center
- g. Galvanized roof bow supports = 24" on-center
- h. Corrosion prevention: Complete undercoat with Corrosion Preventative Compound (CPC; or equivalent) on chassis and exposed trailer floor; all exposed steel surfaces of frame primed and painted; electrolysis barrier applied between frame and exterior aluminum skin

___ ___

9. Exterior:

- a. Roof: 1-piece aluminum or galvanized steel
- b. Roof cove: Yes; .080 extruded anodized aluminum with drip rail
- c. Exterior skin: .030 aluminum
- d. Exterior color: White
- e. Exterior graphics: Ohio Department of Health logo (graphic to be provided to vendor by ODH in a soft-copy format agreed upon by the parties)
- f. Fasteners: Corrosion resistant
- g. Fenders: Aluminum mill finish
- h. Roof vent with roof vent cover

SPECIFICATIONS (Continued)

YES NO

___ ___

10. Interior:

- a. Interior side walls/ceiling material: ¼" plywood
- b. Interior side walls/ceiling covering: White vinyl
- c. Interior floor material: ¾" pressure-treated plywood; exterior surface undercoated with Corrosion Preventative Compound (CPC; or equivalent)
- d. Interior floor covering: Rubber, vinyl, or protective spray-on liner (i.e., Rhino Lining®, Line-X®, or equivalent)
- e. Interior floor color: Grey
- f. Wall guards: Aluminum tread-plate (ATP) or protective spray-on liner; (i.e., Rhino Lining®, Line-X®, or equivalent); grey preferred
- g. Wall guard color: Grey (spray-on liner only)
- h. E-track in floor and side walls

___ ___

11. Electrical:

- a. Interior Lighting: Fluorescent; one (1) fixture centered on trailer ceiling
- b. Interior electric service panel: 30A, 240-Volt
- c. Interior electric service main breaker: 30 AMP
- d. Interior wall switches: two (2), 120 V two-way switches; one switch located to the right of the side door on the interior side wall, within 16" of the door frame; one switch located on the interior side wall housing the electric service panel, within 16" of the ramp door frame
- e. Interior side wall receptacles: Two (2), 120-Volt duplex; one receptacle located on left (driver) side wall, one receptacle located on the right (passenger) side wall, both within 24" of the of the ramp door frame
- f. Interior side wall receptacle: One (1) dedicated electrical outlet/circuit for powering the oxygen generator. The receptacle/circuit must be capable of providing 230 VAC 50/60 Hz, Single Phase, 30A. The receptacle must be positioned within 8' of where the oxygen generator is installed in the trailer and be capable of being connected to power cord designed for use at 230 VAC, single phase.
- g. Exterior shoreline inlet: 30A; weather-resistant with flange cover.
- h. Shoreline cable: 30A; two (2), 25 ft. sections with male/female connectors
- i. Wiring: Run inside frame with no exposed wiring.

___ ___

12. Manufacturer Warranty:

- a. For at least six (6) years from the date the trailers are delivered to ODH's warehouse in Groveport, Ohio, the Manufacturer shall repair, at its expense, any defects with the trailer incurred as the result of materials or workmanship attributable to the Manufacturer.
- b. For at least one (1) year from the date the trailers are delivered to ODH's warehouse in Groveport, Ohio, the Manufacturer's warranty shall cover any defects or failures of the trailer's jacks, jack rams, electrical wiring, windows, sealants, doors, seals, locks, paint, plumbing, exterior metal, fasteners, and couplers.
- c. For at least six (6) months from the date the trailers are delivered to ODH's warehouse in Groveport, Ohio, the Manufacturer's warranty shall cover the breakaway system's wet cell battery from any failures.

SPECIFICATIONS (Continued)

YES	NO	MINIMUM OXYGEN GENERATOR SPECIFICATIONS:
___	___	1. Equipped with an Oxygen Generating Systems International (OGSI) Medical Oxygen Generating System 100 (MOGS-100; http://www.ogsi.com), or equivalent.
___	___	2. Self-contained and use Pressure Swing Adsorption (PSA) technology.
___	___	3. Capable of producing medical-grade oxygen from ambient air that is 93% pure (+/- 3%) per the United States Pharmacopeia (USP).
___	___	4. Able to fill medical oxygen cylinders, including D, E, M, H, or K-size cylinders.
___	___	5. Able to simultaneously fill at least two D, E, or M-size medical oxygen cylinders.
___	___	6. Have a Programmable Logic Controller (PLC) with a UL® listed electrical panel.
___	___	7. Have a sound attenuating enclosure with slam-action latches and lift-off hinges.
___	___	8. External Components:
___	___	a. Control panel, with these components:
		1) Reserve Cylinder Valve to allow the reserve bank to be isolated from the system for the purpose of directly trans-filling smaller cylinders in the containment chamber.
		2) Reserve Cylinder Gauge to show the pressure in the reserve cylinder bank.
		3) Fill Chamber Pressure Regulator to regulate the outlet pressure used for trans-filling smaller cylinders loaded in the fill/blast containment chamber.
		4) Emergency Stop Button to allow the oxygen generator power to be instantly shut off in the event of an emergency.
		5) Valve – Fill Chamber #1 to control oxygen flow to a cylinder being filled in Chamber #1.
		6) Valve – Fill Chamber #2 to control oxygen flow to a cylinder being filled in Chamber #2.
		7) Gauge – Fill Chamber #1 to display the oxygen pressure in a cylinder being filled in Chamber #1.
		8) Gauge – Fill Chamber #2 to display the oxygen pressure in a cylinder being filled in Chamber #2.
		9) Touch Screen which functions as the main user interface for the machine. All controls are programmed within the touch screen.
___	___	b. Fill/Blast Containment Chamber to protect the operator in the event of a cylinder explosion.
___	___	c. Side Access Door to provide access to the oxygen generator bank and other system components.
___	___	d. Front Access Door to provide access to system components.
___	___	e. Frame Inlet Air Filter to maintain the air flow through the enclosure and only allow air to pass through the bottom of the machine. This filter shall be easily accessed by reaching under the machine from the front and pulling it forward.
___	___	f. 70 psi Upper Auxiliary Oxygen Port to allow bypassing the high pressure oxygen compressor inside the MOGS.
___	___	g. 2200 psi Lower Auxiliary Oxygen Port to allow expansion of the reserve cylinder bank beyond the two (2) cylinders that are included in the frame of the machine.

SPECIFICATIONS (Continued)

YES NO

___ ___

h. Reserve Cylinder Bank, located at the back of the unit, containing two (2) H /K size steel cylinders, rated at 2200 psi. These cylinders come fully connected and leak checked and should not have to be removed or serviced until they need to be re-certified.

___ ___

i. Power Cord designed for use at 230 VAC, single phase.

9. Internal Components:

___ ___

a. Power Distribution Panel to distribute electrical power to the different components of the system.

___ ___

b. Inlet Air Filter to keep dust and dirt from entering the compressor.

___ ___

c. Programmable Logic Controller (PLC) that processes inputs and outputs to and from system components, and communicates with the touch screen.

___ ___

d. Back Pressure Regulator Gauge with an initial setting between 45 psi and 50 psi to control the balance between oxygen flow and oxygen purity.

___ ___

e. Air Storage Tank to store air from the air compressors before going through the sieve bed sets on the side of the machine. Normal tank pressure shall be between 23 psi and 26 psi. The tank shall be painted grey.

___ ___

f. Air Compressor to supply the feed air for the sieve beds. The compressor shall be held in place by four bolted rubber mounts and can be easily replaced when necessary. The compressor shall be designed to work for a minimum of 10,000 hours.

___ ___

g. Air Pressure Transducer to give a variable output current to the PLC at different pressures.

___ ___

h. Oxygen Generators that contain the molecular sieve performing the air separation process.

___ ___

i. Low Oxygen Pressure Transducer to give a variable output current to the PLC at different pressures.

___ ___

j. Oxygen Purity Sensor to give a variable output current to the PLC at different levels of oxygen purity. The sensor shall be adjustable by the user. Instructions on how to properly adjust the sensor shall be contained in the unit's user manual.

___ ___

k. Oxygen Compressor to boost the oxygen pressure from the oxygen storage tank to 2200 psi. The compressor shall be two-stage with a self-contained motor, starting capacitor, pressure switch, pressure relief valve, and check valve. A separate service manual shall be provided for the compressor. In AUTO mode, the compressor shall turn on at approximately 1900 psi and turn off at 2200 psi.

___ ___

l. Heat Exchanger, with a fan that operates while the unit runs, to draw air into the unit to remove heat from inside the enclosure. It shall also cool the compressed air before it is delivered to the air storage tank.

___ ___

m. Oxygen Storage Tank to serve as a reservoir for the oxygen prior to entering the oxygen compressor. The tank shall be painted green. The generator shall run according to the pressure in this tank – ON at 70 psi and OFF at 90 psi.

SPECIFICATIONS (Continued)

YES NO

- n. Oxygen Booster to increase the oxygen pressure prior to it being delivered to the oxygen storage tank.
- o. Two (2) Fill Whips for Fill Chamber #1 and Fill Chamber #2. The whips shall allow oxygen to flow to the cylinders being filled in Fill Chamber # 1 and Fill Chamber #2. The ends of the whips shall have a CGA 870 Valve.
- p. Two (2) Fill Chambers, one on the left side of the blast chamber (Fill Chamber #1) and one on the right side of the blast chamber (Fill Chamber #2).

10. Specifications:

- a. Oxygen Volume: 0 – 100 SCFH (3 Nm³/h); 0 – 47 LPM
- b. Oxygen Pressure: High Pressure – up to 2200 psi (152 bar); Low Pressure – up to 70 psi (4.8 bar)
- c. Oxygen Purity United States Pharmacopeia (USP) XXII: Oxygen 93% Monograph
- d. Oxygen Concentration: 93% (± 3%)
- e. CO₂ Output: ≤ 300 ppm
- f. CO Output: ≤ 10 ppm
- g. Oxygen Dew Point: -100° F
- h. Response Time: Approximately 5 minutes to attain maximum purity after initial start-up or extended shut-down
- i. Air Inlet Filtration Level: 0.3 µm
- j. Oxygen Outlet Fitting: ¼" FNPT Bulkhead
- k. Sound Levels Door Closed: 65 dBA @ 1 m
- l. Dimensions: 34 x 70 x 72 in (W x D x H)
- m. Weight: 2550 lb. (1157 kg)
- n. Power Requirement: 230VAC, 50/60 Hz, Single Phase, 30A
- o. Operating Temperature Range: 40°F to 100°F

SPECIFICATIONS (Continued)

YES NO

11. Installation:

- ___ ___
- a. The Contractor shall follow all manufacturer-specified installation requirements/instructions to assure the safe and efficient operation of the oxygen generator. The Contractor shall provide a letter from the oxygen generator's manufacturer stating that the Contractor has conformed to these requirements/instructions, including (but not limited to):
 - 1) The oxygen generator must be positioned within 8' of a dedicated electrical outlet which will provide power to the unit powering it. The electrical outlet to which the oxygen generator is connected must be capable of providing 230 VAC single phase power at 50/60 Hz.
 - 2) To allow unrestricted airflow into the generator through the cooling fans, there must be at least 8" between the unit and the trailer's interior side walls.
 - 3) Assuring that the trailer in which the generator is contained is ventilated to allow at least 5 air changes in the trailer per hour.
 - 4) In completing the WORK, the oxygen generator's warranties have not been voided.

 - ___ ___ b. The vendor shall follow all manufacturer-specified requirements to assure the safe/efficient operation of the trailers. The Contractor shall provide a letter from the trailer's manufacturer stating that the Contractor has conformed to these requirements/instructions, including (but not limited to):
 - 1) Securing the oxygen generators to the interior of the trailer to prevent their movement at all times (i.e., during transportation, while parked, etc.).
 - 2) The trailer, with the unit installed, does not exceed its weight ratings/capacities.
 - 3) The oxygen generator is installed in the trailer in a manner that assures that the generator's weight is safely distributed at all times (i.e., during transportation, while parked, etc.).
 - 4) The trailer complies with all D.O.T. requirements.
 - 5) In completing the WORK, the trailer warranties have not been voided.