

SPECIFICATIONS

MEDICAL GAS UPGRADES

GREENWOOD LEFLORE HOSPITAL

GREENWOOD, MISSISSIPPI



Greenwood Leflore Hospital
www.glh.org

DATE

AUGUST 2016

SCOPE OF WORK

1. Provide all materials, equipment, controls, electrical power, labor, and recertification necessary to correct all medical gas deficiencies described in the 2016 Annual Medical Gas Pipeline System Evaluation performed by Medical Gas Testing Services, Inc. dated July 2016 (Attachment I) including all outlets, valves, area alarms, Master Alarms, source equipment, signage, etc.
 - a. Retrofit or replacement outlets, zone/service valves, retrofits/new area alarms, master alarm retrofits, and new nitrous oxide alarm to be by Beacon Medaes (Contact local representative Compressed Air Technologies, Inc.).
2. Also included in this scope of work is to replace 18 operating room utility columns with ceiling drops with hose retractors, to be by Beacon Medaes (Contact local representative Compressed Air Technologies, Inc.).

SAFETY AND HEALTH REGULATIONS

In addition to meeting all safety requirements of applicable standards, codes, and regulations as required by Federal, State, and Local government agencies, all GLH Safety & Infection Control policies must be followed.

CLEANING

At the completion of each day of work, the Contractor shall remove all excess equipment, materials, rubbish, etc. and leave all sites in a clean condition.

INSURANCE REQUIREMENTS

Commercial General Liability (CGL): CGL must be on an "occurrence" basis, including products and completed operations, property damage, bodily injury and personal & advertising injury with limits no less than **\$2,000,000** per occurrence. If a general aggregate limit applies, either the general aggregate limit shall apply separately to this project/location or the general aggregate limit shall be twice the required occurrence limit.

Workers Compensation: as required by the State of Mississippi with Statutory Limits, and Employer's Liability Insurance with limit of no less than **\$1,000,000** per accident for bodily injury or disease.

Professional Liability (Errors and Omissions): Insurance appropriate to the Contractor's profession, with limit no less than **\$1,000,000** per occurrence or claim, **\$2,000,000** aggregate.

Additional Insured Status

Greenwood Leflore Hospital (GLH), its officers, officials, employees and volunteers are to be covered as additional insured on the CGL policy with respect to liability arising out of work or operations performed by or on behalf of the Contractor including materials, parts or equipment furnished in connection with such work or operations.

Primary Coverage

For any claims related to this contract, the Contractor's insurance coverage shall be primary insurance as respects GLH, its officers, officials, employees and volunteers. Any insurance or self-insurance maintained by GLH, its officers, officials, employees or volunteers shall be excess to the Contractor's insurance and shall not contribute with it.

Notice of Cancellation

Each insurance policy required above shall provide that coverage shall not be canceled, except with notice to GLH.

Waiver of Subrogation

Contractor hereby grants to GLH a waiver of any right to subrogation which any insurer of said Contractor may acquire against the Entity by virtue of the payment of any loss under such insurance. Contractor agrees to obtain any endorsement that may be necessary to affect this waiver of subrogation, but this provision applies regardless of whether or not the Entity has received a waiver of subrogation endorsement from the insurer.

Acceptability of Insurers

Insurance is to be placed with insurers with a current A. M. Best rating of no less than A:VII, unless otherwise acceptable to GLH.

Claims Made Policies

- 1) The Retroactive Date must be shown and must be before the date of the contract or the beginning of contract work.
- 2) Insurance must be maintained and evidence of insurance must be provided **for at least five (5) years after completion of the contract of work.**
- 3) If coverage is canceled or non-renewed, and not replaced **with another claims-made policy form with a Retroactive Date prior to** the contract effective date, the Contractor must purchase "extended reporting" coverage for a minimum of **five (5) years** after completion of work.

Verification of Coverage

Contractor shall furnish GLH with original certificates and amendatory endorsements or copies of the applicable policy language effecting coverage required by this clause. All

certificates and endorsements are to be received and approved by GLH before work commences. However, failure to obtain the required documents prior to the work beginning shall not waive the Contractor's obligation to provide them. GLH reserves the right to require complete, certified copies of all required insurance policies, including endorsements required by the specifications, at any time.

Indemnity Language

Contractor shall hold harmless, defend and indemnify GLH and its officers, officials, employees and volunteers from and against any and all liability, loss, damage, expense, costs (including without limitation costs and fees of litigation) of every nature arising out of or in connection with Contractor's performance of work hereunder or its failure to comply with any of its obligations contained in the agreement, except such loss or damage which was caused by the sole negligence or willful misconduct of GLH.

ATTACHMENT I

CORRECTIVE ACTION LIST

HOSPITAL: Greenwood Leflore Hospital – Attachment I
CITY: Greenwood, MS

JOB #: MG16-249, Date: July 2016

2016 Annual Medical Gas Pipeline System Evaluation Medical Gas Testing Services, Inc.

FLOOR	AREA	ROOM	GAS	DISCREPANCY	DATE CORRECTED	INITIALS
OUTLETS						
1 st	ER	TRAUMA 3 EAST SIDE	O2(A)	LEAK W/ ADAPTER INSERTED		
		E/T 15 WEST SIDE	O2	BROKEN RELEASE TAB		
	RADIOLOGY	MRI SUITE	O2	LEAK THRU W/O ADAPTER INSERTED		
		NUCLEAR MED 2	O2	LEAK THRU W/O ADAPTER INSERTED		
		NUCLEAR MED OFFICE	O2	LEAK W/ ADAPTER INSERTED		
		CT 2	O2	LEAK THRU W/O ADAPTER INSERTED		
		X-RAY	X-RAY	LEAK W/ ADAPTER INSERTED		
2 nd	PATIENT	244	VAC	LEAK THRU W/O ADAPTER INSERTED		
		253	VAC	REDUCED FLOW 2.0 SCFM		
		261	VAC(B)	REDUCED FLOW 2.0 SCFM		
	ICU/CCU	295	VAC(B)	REDUCED FLOW 2.0 SCFM		
	ENDO	1	MA	CAN'T RELEASE MA		
		ENDO NURSE MANAGER	O2	LEAK THRU W/O ADAPTER INSERTED		
		PREP 3	O2	LEAK THRU W/O ADAPTER INSERTED		
	SURGERY	OR#1 (A)	VAC	REDUCED FLOW 2.4 SCFM		
		OR#1 (D)	VAC (A)	REDUCED FLOW 1.6 SCFM		
			VAC (C)			
		OR#1 (E)	MA	LEAK THRU W/O ADAPTER INSERTED		
		OR#2 (C)	O2	LEAK W/ ADAPTER INSERTED		
		OR#2 (D)	VAC (A)	REDUCED FLOW 1.0 SCFM		
			VAC (B)			
			VAC (C)			
		OR#2(E)	MA	LEAK THRU W/O ADAPTER INSERTED		

		OR#2 (E)	VAC (A)	NO FLOW			
		OR#3 (A)	VAC	REDUCED FLOW 0.5 SCFM			
		OR#3 (D)	VAC (A)	REDUCED FLOW 1.0 SCFM			
			VAC (C)				
		OR#3 (E)	MA	LEAK THRU W/O ADAPTER INSERTED			
			VAC (A)	LEAK THRU W/O ADAPTER INSERTED			
			VAC (B)				
			O2(B)	LEAK THRU W/O ADAPTER INSERTED			
		OR#4 (D)	VAC (A)	LEAK THRU W/O ADAPTER INSERTED			
		OR#4 (E)	O2(B)	LEAK THRU W/O ADAPTER INSERTED			
			VAC (A)	LEAK THRU W/O ADAPTER INSERTED			
			VAC (B)	LEAK THRU W/O ADAPTER INSERTED			
			VAC (C)	LEAK THRU W/O ADAPTER INSERTED			
			MA	LEAK THRU W/O ADAPTER INSERTED			
		OR#6 (D)	VAC (A)	LEAK THRU W/O ADAPTER INSERTED			
			VAC (B)				
			VAC (C)				
			MA	LEAK THRU W/O ADAPTER INSERTED			
		OR#7 (D)	VAC (B)	LEAK THRU W/O ADAPTER INSERTED			
		OR#7 (E)	VAC(B)	LEAK THRU W/O ADAPTER INSERTED			
			VAC (C)				
			MA	LEAK THRU W/O ADAPTER INSERTED			
	SURGERY OR HOLDING	BED 1	O2	LEAK W/ ADAPTER INSERTED			
		BED 3		LEAK W/ ADAPTER INSERTED			
	SURGERY RECOVERY ROOM	BED 8	MA	LEAK THRU W/O ADAPTER INSERTED			
	CYSTO	TREATMENT ROOM	VAC	LEAK THRU W/O ADAPTER INSERTED			
				REDUCED FLOW 1.6 SCFM			
3 rd	PATIENT	315	O2	LEAK W/ ADAPTER INSERTED			
		321	VAC	REDUCED FLOW 2.6SCFM			
		322	VAC	LEAK THRU W/O ADAPTER INSERTED			
		381	VAC(B)	NO FLOW			

	LDR	5A	MA	LEAK THRU W/O ADAPTER INSERTED		
	C-SECTION ROOM	B	VAC	LEAK THRU W/O ADAPTER INSERTED		
	C-SECTION RECOVERY ROOM	LABOR/ RECOVERY A	O2	LEAK W/ ADAPTER INSERTED		
		LABOR/ RECOVERY B	MA	LEAK THRU W/O ADAPTER INSERTED		
4 th	GERI-PSYCH	405	O2(A)	NO FLOW		
		419	VAC	REDUCED FLOW 2.6SCFM		
		420	VAC	REDUCED FLOW 0.5SCFM		
		423	O2	LEAK THRU W/O ADAPTER INSERTED		
	PATIENT	454	VAC(A)	NO FLOW		
		456	O2(A)	LEAK W/ ADAPTER INSERTED		
5 th	PEDIATRIC	568	O2	LEAK W/ ADAPTER INSERTED		
		PED. NURSERY A	MA	LEAK THRU W/O ADAPTER INSERTED		
	PATIENT	525	O2	LEAK THRU W/O ADAPTER INSERTED		
		554	O2	LEAK THRU W/O ADAPTER INSERTED		
		560	O2	LEAK W/ ADAPTER INSERTED		

VALVES

1 st	RADIOLOGY	OUTSIDE SPECIAL PROCEDURE	MA	HANDLE REMOVED FROM VALVE-AIR NOT IN SERVICE		
	ER	WALL BEHIND CHAMBER 1	ZVB	ZVB IS IN THE SAME ROOM WITH OUTLETS IT CONTROLS		
		WALL BEHIND CHAMBER 2				
		WALL BEHIND CHAMBER 3				
		WALL BEHIND CHAMBER 1				
		WALL BEHIND CHAMBER 2				
		WALL BEHIND CHAMBER 3				
2 nd	SURGERY	OUTSIDE ENTRANCE TO OR#1	ZVB	ZVB IS HIDDEN BEHIND DOOR OR EQUIPMENT		
		OUTSIDE ENTRANCE TO OR#2				
		OUTSIDE ENTRANCE TO OR#3				
		OUTSIDE ENTRANCE TO OR#4				
		OUTSIDE ENTRANCE TO OR#5				

		OUTSIDE ENTRANCE TO OR#6				
		OUTSIDE ENTRANCE TO OR#7				
		OUTSIDE ENTRANCE TO OR#5	N2 ZVB	PB- N2 ZVB WINDOW BROKEN 9-1/2" x 5-3/4"		
		OUTSIDE ENTRANCE TO OR#6				
		OUTSIDE ENTRANCE TO OR#7	ZVB	ZVB IS HIDDEN BEHIND DOOR OR EQUIPMENT		
		OUTSIDE ENTRANCE TO OR#8				
		OUTSIDE ENTRANCE TO OR#9				
		OUTSIDE ENTRANCE TO OR#8	O2 ZVB	PB- O2 ZVB WINDOW BROKEN 9-1/2" x 5-3/4"		
		OUTSIDE ENTRANCE TO OR#9				
		RECOVERY ROOM	MA	CAN NOT FIND REQUIRED M.A. VALVE		
3 RD	PATIENT	RM 350	ZVB	ZVB CAN NOT BE IN ROOM- MUST BE IN CORRIDOR		
			VAC	PSI 0-200 SHOULD BE 0-30		
		RM 365	ZVB	ZVB CAN NOT BE IN ROOM- MUST BE IN CORRIDOR		
			O2	PSI 0-200, SHOULD BE 0-100		
		NURSES DESK		BROKEN WINDOW 7-5/8" x 11-5/8		
		ACROSS FROM NURSES DESK		SENSED ON SOURCE SIDE- BY CODE SHOULD BE SENSED ON PATIENT SIDE		
4 TH	PATIENT	RM 450 TELEMETRY	ZVB	ZVB CAN NOT BE IN ROOM- MUST BE IN CORRIDOR		
		RM 465				
5 TH	PATIENT	Pediatric Playroom	ZVB	ZVB CAN NOT BE IN ROOM- MUST BE IN CORRIDOR		
		NURSES DESK	VAC	VAC VALVE WILLN OT CLOSE		
		CLEAN SUPPLY	ZVB	ZVB CAN NOT BE IN STORAGE AREA- MUST BE IN CORRIDOR		

ALARMS						
1 st	CANCER CENTER		O2	SHOULD ALARM AROUND 40 PSI		
2 ND	RECOVERY		MA	CAN NOT TEST MA ALARM CAN NOT FIND MA ZV TO TEST		
	PATIENT	260-271	VAC	NO ALARM FOR VAC		
	ICU/CCU	290-296	MA	MA SENSED INCORRECTLY ON THE SOURCE SIDE OF THE ZV		
3 rd	L&D	WELL BABY NURSERY 1 & 2	ZVB	BOTH NURSERY ZVB'S BEING CONTROLLED BY ONE ANOTHER. PER CODE SHOULD ONLY CONTROL ONE ZONE.		
	PATIENT	LDR 1-5	ZVB	SENSED ON WRONG SIDE OF ZV. SHOULD BE SENSED ON PATIENT SIDE OF ZV		
	L&D RECOVERY			REQUIRED ALARM NOT PRESENT		
5 TH	PATIENT	514-529	VAC	VACUUM VALVE WILL NOT CLOSE		
MASTER ALARMS						
SHIPPING & RECEIVING- LINE PRESSURE LOW	OXYGEN	REQUIRED ALARM NOT PRESENT				
	NITROUS OXIDE					
	MA					
	VAC					
	NITROGEN	N2 LOW PSI				
SHIPPING & RECEIVING- LINE PRESSURE HIGH	OXYGEN	REQUIRED ALARM NOT PRESENT				
	NITROUS OXIDE					
	MA					
	NITROGEN	N2 HIGH				
SHIPPING & RECEIVING- MANIFOLDS	NITROUS OXIDE	REQUIRED ALARM NOT PRESENT				
	NITROGEN	BANK EMPTY				
SHIPPING & RECEIVING- BULK SITES	OXYGEN	O2 PRIMARY LIQ. LEVEL LOW				
		O2 EMER. RESERVE IN USE				
		O2 EMER. RESERVE LOW				
		O2 EMER. RESERVE LOW PRESSURE				
SHIPPING & RECEIVING- MEDICAL AIR COMPRESSOR	CO	CO HIGH				
	MA	COMPRESSOR HIGH AIR TEMP –PUMP FAULT				
SHIPPING & RECEIVING-VACUUM PUMPS	VAC	REQUIRED ALARM NOT PRESENT				
SECURITY OFFICE-- LINE PRESSURE LOW	OXYGEN	O2 L/P LOW				

SECURITY OFFICE-- LINE PRESSURE LOW	N2O	N2O L/P LOW			
	N2	N2 LOW PSI			
	MA	REQUIRED ALARM NOT PRESENT			
SECURITY OFFICE- LINE PRESSURE HIGH	O2	O2 L/P HIGH			
	N2O	N2O L/P HIGH			
	N2	N2 HIGH			
	MA	REQUIRED ALARM NOT PRESENT			
SECURITY OFFICE- MANIFOLDS	N2O	N2O BANK EMPTY			
	N2	N2 BANK EMPTY			
SECURITY OFFICE- BULK SITES	OXYGEN	O2 PRIMARY LIQ. LEVEL LOW			
		O2 EMER. RESERVE IN USE			
		O2 EMER. RESERVE LOW			
		O2 EMER. RESERVE LOW PRESSURE			
SECURITY OFFICE- MEDICAL AIR COMPRESSOR	MA, CO	MA, CO HIGH			
	MA	COMPRESSOR HIGH AIR TEMP -PUMP FAULT			
EVS OFFICE- LINE PRESSURE LOW	OXYGEN	REQUIRED ALARM NOT PRESENT			
	NITROUS OXIDE	REQUIRED ALARM NOT PRESENT			
	MA	MA L/P LOW			
	N2	N2 LOW PSI			
	VAC	VAC L/P LOW			
EVS OFFICE- LINE PRESSURE HIGH	OXYGEN	REQUIRED ALARM NOT PRESENT			
	NITROUS OXIDE	REQUIRED ALARM NOT PRESENT			
	MA	REQUIRED ALARM NOT PRESENT			
	NITROGEN	N2 HIGH			
EVS OFFICE- MANIFOLDS	NITROUS OXIDE	REQUIRED ALARM NOT PRESENT			
	NITROGEN	N2 BANK EMPTY			
EVS OFFICE- BULK SITES	OXYGEN	O2 PRIMARY LIQ. LEVEL LOW			
		O2 EMER. RESERVE IN USE			
		O2 EMER. RESERVE LOW			
		O2 EMER. RESERVE LOW PRESSURE			
EVS OFFICE- MEDICAL AIR COMPRESSOR	MA	MA DEWPOINT HIGH			

EVS OFFICE- MEDICAL AIR COMPRESSOR	MA, CO	MA, CO HIGH		
	MA	COMPRESSOR HIGH AIR TEMP –PUMP FAULT		
PANIC ALARM- HR OFFICE		IN ALARM		
SOURCE EQUIPMENT				
MEDICAL AIR HYPERBARIC CHAMBER	There <u>ARE NOT</u> posted signs: "CAUTION, Medical Gases, NO SMOKING or Open Flame"			
NITROUS OXIDE	*Electrical wall fixtures <u>ARE NOT</u> at least 5 feet above the floor *There <u>ARE NOT</u> posted signs: "CAUTION, Medical Gases, NO SMOKING or Open Flame" * Final line regulators <u>ARE NOT</u> duplexed with isolating valves.			
NITROGEN	*Electrical wall fixtures <u>ARE NOT</u> at least 5 feet above the floor *There <u>ARE NOT</u> posted signs: "CAUTION, Medical Gases, NO SMOKING or Open Flame"			
MEDICAL VACUUM	*The switch <u>IS NOT</u> connected with a demand check fitting. *The demand check fitting <u>IS NOT</u> gas specific.			

End of specification.