



North Carolina Department of Health and Human Services
Division of Health Service Regulation

Pat McCrory
Governor

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Ambassador (Ret.)
Secretary DHHS

Drexdal Pratt
Division Director

July 18, 2014

Sandy T. Godwin
Cape Fear Valley Health System
1638 Owen Drive
Fayetteville, NC 28304

Exempt from Review - Replacement Equipment

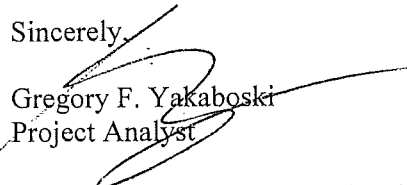
Facility: Cape Fear Valley Health System
Project Description: Replace existing PET/CT Scanner
County: Cumberland
FID #: 943057

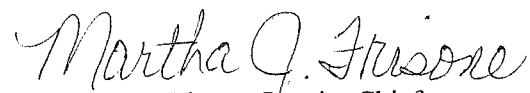
Dear Ms. Godwin:

In response to your letter of June 25, 2014 received on June 30, 2014, the above referenced proposal is exempt from certificate of need review in accordance with N.C.G.S 131E-184(a)(7). Therefore, you may proceed to acquire, without a certificate of need, the Siemens PET/CT Scanner Model Biograph 20 to replace the existing Siemens PET/CT Scanner Model Biograph 16 Serial #0301024. This determination is based on your representations that the existing unit will be removed from North Carolina and will not be used again in the State without first obtaining a certificate of need. Further please be advised that as soon as the replacement equipment is acquired, you must provide the CON Section and the Medical Facilities Planning Branch with the serial number of the new equipment to update the inventory, if not already provided. Moreover, you need to contact the Construction, Medical Facilities Planning Branch and Radiation Protection Section, DHSR to determine if they have any requirements for development of the proposed project.

It should be noted that this Agency's position is based solely on the facts represented by you and that any change in facts as represented would require further consideration by this Agency and a separate determination. If you have any questions concerning this matter, please feel free to contact this office.

Sincerely,


Gregory F. Yakaboski
Project Analyst


Martha J. Frisone, Interim Chief
Certificate of Need Section

cc: Medical Facilities Planning Branch, DHSR
Construction Section, DHSR
Radiation Protection Section, DHSR

Certificate of Need Section

www.ncdhhs.gov

Telephone: 919-855-3873 • Fax: 919-733-8139

Location: Edgerton Building • 809 Ruggles Drive • Raleigh, NC 27603

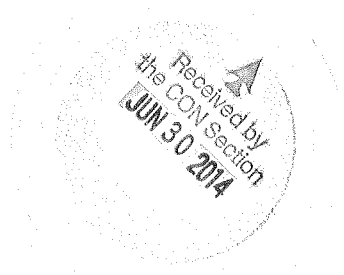
Mailing Address: 2704 Mail Service Center • Raleigh, NC 27699-2704

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June 25, 2014



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BLADEN COUNTY HOSPITAL
CAPE FEAR VALLEY
MEDICAL CENTER
CAPE FEAR VALLEY
REHABILITATION CENTER
HEALTH PAVILION NORTH
HIGHSMITH-RAINEY
SPECIALTY HOSPITAL

Greg Yakaboski, Project Analyst
Division of Health Service Regulation
Certificate of Need Section
2704 Mail Service Center
Raleigh, NC 27699-2704

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HOMECARE & HOSPICE, LLC
CUMBERLAND COUNTY EMS
FAMILY BIRTH CENTER
HEART & VASCULAR CENTER
HEALTHPLEX
LIFELINK
CRITICAL CARE TRANSPORT
PRIMARY CARE PRACTICES
SLEEP CENTER

SUBJECT: Replacement of Siemens Biograph 16 PET/CT Scanner at Cape Fear Valley Health System

Dear Mr. Yakaboski:

Cumberland County Hospital System, Inc. d/b/a Cape Fear Valley Health System (“Cape Fear”) is proposing to replace an existing PET CT Scanner with a Siemens Biograph MCT 20 Excel PET/CT Scanner (the “Replacement Equipment”). The purpose of this letter is to request a determination that Cape Fear’s purchase of the Replacement Equipment is exempt from Certificate of Need (CON) review under the replacement equipment exemption provisions contained in N.C. Gen. Stat. 131E-184(a)(7).

The General Assembly has chosen to exempt certain, otherwise reviewable event from CON review. Among these exemptions is the acquisition of “replacement equipment,” as defined in NC Gen Stat. 131E-176(22a).

To qualify for this exemption, the replacement equipment must: (1) be “comparable” to the equipment it replaces; and (2) be “sold or otherwise disposed of when replaced.” Cape Fear’s proposal qualifies for this exemption.”

1. **Exhibit A** is a comparison of the existing and replacement equipment.
2. The existing PET CT Scanner is utilized for diagnostic PET/CT imaging. Additionally, the exiting PET/CT Scanner has radiation treatment planning capabilities. The proposed PET CT Scanner has all of these capabilities as well as the ability to acquire images faster, produce higher resolution images, has a larger aperture and increased weight limit which allows for the accommodation of larger patients. The Siemens Biograph MCT 20 Excel PET/CT Scanner provides PET/CT image acquisition time of approximately 20 minutes as compared to 40 minutes on the existing scanner. This provides a higher degree of comfort for the patient minimizes the potential for motion related artifacts and increases throughput.
3. Please see **Exhibit B** for brochures and letters describing new equipment.
4. Please see **Exhibit C** for a copy of documentation supporting the purchase of the existing Siemens Biograph 16 PET/CT Scanner.



5. Please see **Exhibit D** for supporting ownership documentation for the existing equipment.

BEHAVIORAL HEALTH CARE
BLADEN COUNTY HOSPITAL
CAPE FEAR VALLEY
MEDICAL CENTER
CAPE FEAR VALLEY
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SPECIALTY HOSPITAL

6. **Exhibit E** is a copy of the proposed purchase order/quotation, including the amount of the purchase price before discounts and trade-in allowance.

7. **Exhibit F** is a letter from the person taking possession of the existing equipment that acknowledges the existing equipment: will be permanently removed from North Carolina, will no longer be exempt from requirements of the North Carolina Certificate of Need law, and will not be used in North Carolina without first obtaining a new certificate of need.

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FAMILY BIRTH CENTER
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HEALTHPLEX
LIFELINK
CRITICAL CARE TRANSPORT
PRIMARY CARE PRACTICES
SLEEP CENTER

8. **Exhibit G** is documentation stating that the existing equipment is currently in use and has not been taken out of service.

If you have any questions concerning this request, please do not hesitate to call me.

Sincerely,

Sandy T. Godwin
Executive Director of Planning
Cape Fear Valley Health System

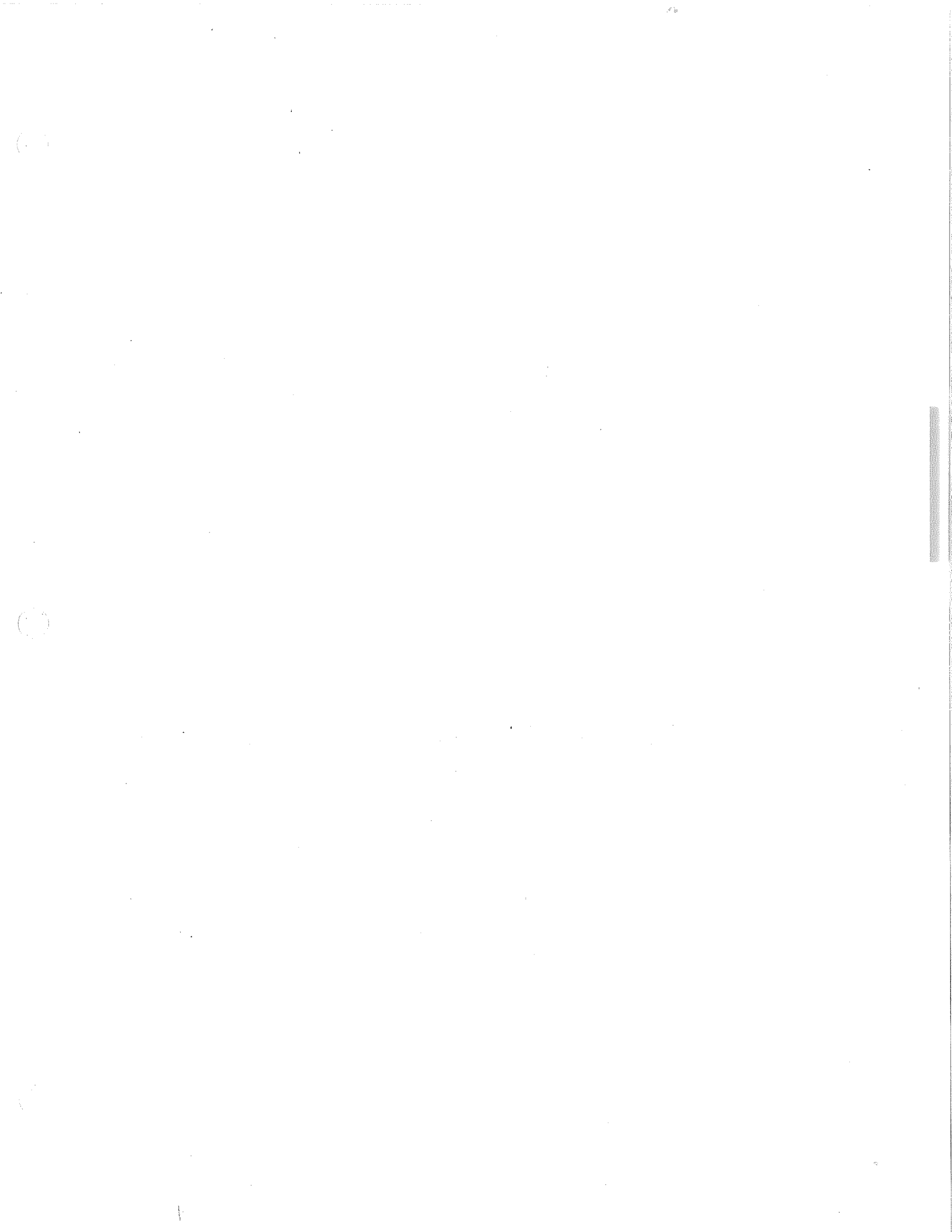


EXHIBIT A

EXHIBIT A
EQUIPMENT COMPARISON

	EXISTING EQUIPMENT	REPLACEMENT EQUIPMENT
Type of Equipment (List Each Component)	PET/CT Scanner	PET/CT Scanner
Manufacturer of Equipment	Siemens	Siemens
Tesla Rating for MRIs	N/A	N/A
Model Number	Biograph 16	Biograph 20
Serial Number	0301024	
Provider's Method of Identifying Equipment	Serial #	Serial #
Specify if Mobile or Fixed	Fixed	Fixed
Mobile Trailer Serial Number/VIN #	N/A	N/A
Mobile Tractor Serial Number/VIN #	N/A	N/A
Date of Acquisition of Each Component	2003	2014
Does Provider Hold Title to Equipment or Have a Capital Lease?	Title	Equipment will be Titled
Specify if Equipment Was/Is New or Used When Acquired	New	New
Total Capital Cost of Project (Including Construction, etc.) <Use Attached Form>	\$3,117,156	\$1,233,861
Total Cost of Equipment		\$1,105,675
Fair Market Value of Equipment		
Net Purchase Price of Equipment		\$1,105,675
Locations Where Operated	Cape Fear Valley Medical Center	Cape Fear Valley Medical Center
Number Days In Use/To be Used in N.C. Per Year	260	260
Percent of Change in Patient Charges (by Procedure)	NA	NA
Percent of Change in Per Procedure Operating Expenses (by Procedure)	NA	NA
Type of Procedures Currently Performed on Existing Equipment	PET/CT Imaging and CT Treatment Planning Simulation	PET/CT Imaging and CT Treatment Planning Simulation
Type of Procedures New Equipment is Capable of Performing	PET/CT Imaging and CT Treatment Planning Simulation	PET/CT Imaging and CT Treatment Planning Simulation

**EXHIBIT A continued
PROPOSED TOTAL CAPITAL COST OF PROJECT**

Project Name: Replacement of PET-CT Scanner

Provider/Company: Cape Fear Valley Health System

A. Site Costs

(1) Full purchase price of land.....		\$ <u>NA</u>	
Acres _____ Price per Acre	\$ <u>NA</u>		
(2) Closing costs.....			\$ <u>NA</u>
(3) Site Inspection and Survey.....			\$ <u>NA</u>
(4) Legal fees and subsoil investigation		\$ <u>NA</u>	
(5) Site Preparation Costs			
Soil Borings.....	\$ <u>0</u>		
Clearing-Earthwork...	\$ <u>0</u>		
Fine Grade For Slab...	\$ <u>0</u>		
Roads-Paving.....	\$ <u>0</u>		
Concrete Sidewalks...	\$ <u>0</u>		
Water and Sewer.....	\$ <u>0</u>		
Footing Excavation....	\$ <u>0</u>		
Footing Backfill.....	\$ <u>0</u>		
Termite Treatment....	\$ <u>0</u>		
Other (Specify).....	\$ <u>0</u>		
Sub-Total Site Preparation Costs		\$ <u>0</u>	
(6) Other (Specify)		\$ <u>0</u>	
(7) Sub-Total Site Costs			\$ <u>0</u>

B. Construction Contract

(8) Cost of Materials			
General Requirements	\$ <u>17,732</u>		
Concrete/Masonry	\$ <u>2,000</u>		
Woods/Doors & Windows/Finishes	\$ <u>0</u>		
Thermal & Moisture Protection	\$ <u>333</u>		
Equipment/Specialty Items	\$ <u>0</u>		
Mechanical/Electrical	\$ <u>36,234</u>		
Other (Specify)	\$ <u>0</u>		
Sub-Total Cost of Materials.....		\$ <u>56,299</u>	
(9) Cost of Labor.....		\$ <u>58,937</u>	
(10) Other (Specify).....10% Contingency		\$ <u>0</u>	
(11) Sub-Total Construction Contract			\$ <u>115,236</u>

C. Miscellaneous Project Costs

(12) Building Purchase.....		\$ _____	
(13) Fixed Equipment Purchase (Exhibit E 1,081,000 + 24,675)		\$ <u>1,105,675</u>	
(14) Movable Equipment Purchase/Lease		\$ _____	
(15) Furniture		\$ _____	
(16) Landscaping		\$ _____	
(17) Consultant Fees			
Architect and Engineering Fees (incl. exp.)	\$ <u>12,950</u>		
Legal Fees.....	\$ _____		
Market Analysis.....	\$ _____		
Other (Specify)..... <u>Building Permit</u>	\$ _____		
Other (Specify)..... <u>DHSR Fees</u>	\$ _____		
Sub-Total Consultant Fees.....		\$ <u>12,950</u>	
(18) Financing Costs (e.g. Bond, Loan, etc.).		\$ _____	
(19) Interest During Construction.		\$ _____	
(20) Other (Specify) - Mobile during installation		\$ _____	
(21) Sub-Total Miscellaneous..			\$ <u>1,118,625</u>
(22) Total Capital Cost of Project (Sum A-C above)			\$ <u>1,233,861</u>

I certify that, to the best of my knowledge, the above construction related costs of the proposed project named above are complete and correct.

(Signature of Licensed Architect or Engineer)

I assure that, to the best of my knowledge, the above capital costs for the proposed project are complete and correct and that it is my intent to carry out the proposed project as described.

Sandy Modwin
Signature of Office Authorized to Represent Provider/Company (Title of Officer)



EXHIBIT B

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Pages 20-21 (left and middle image), page 32-33
(left and middle image), page 44-45
Department of Nuclear Medicine, Imaging
Institute Cleveland Clinic, Ohio, USA
Page 21 (right image), page 33 (right image)

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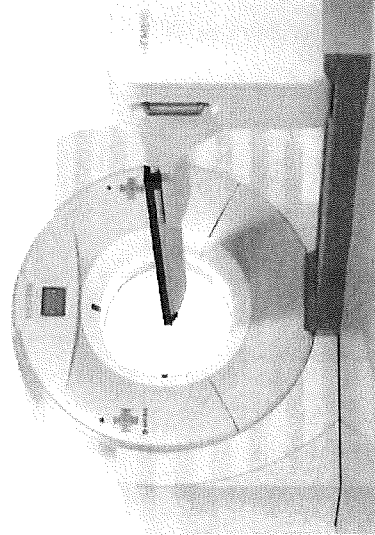
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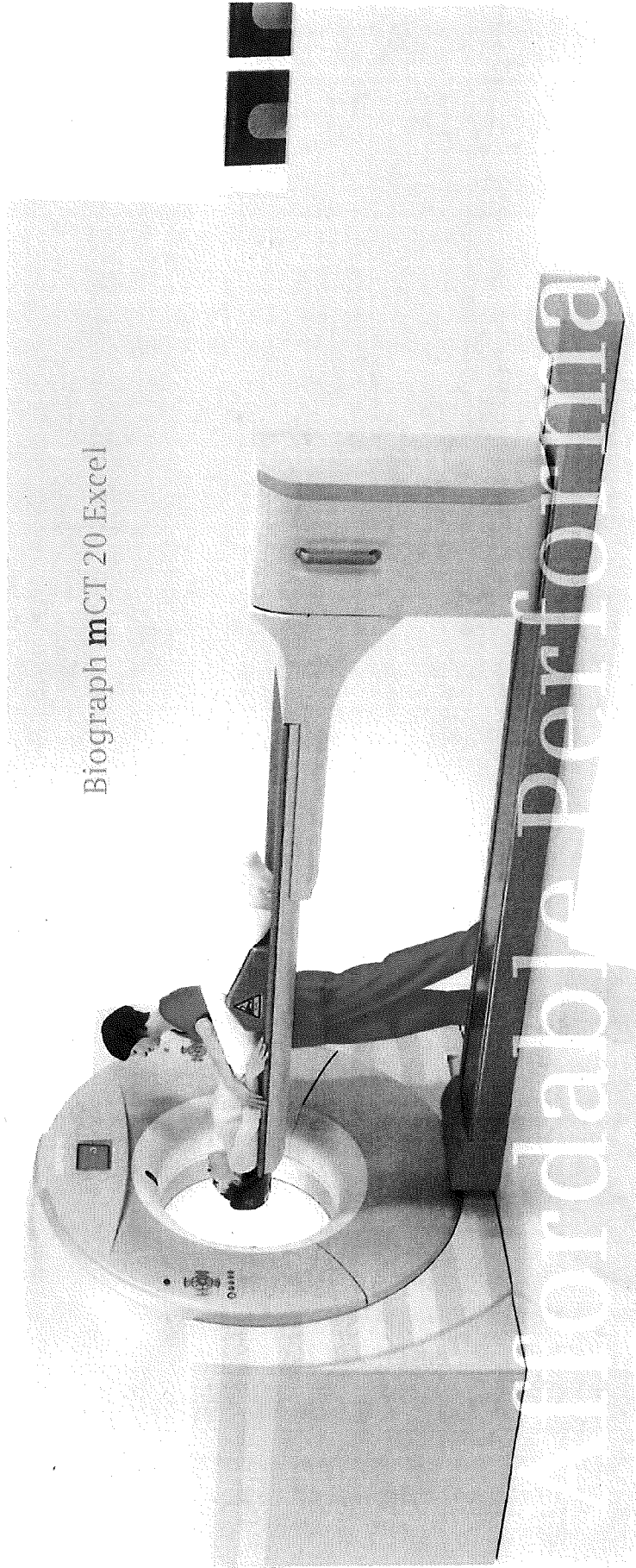


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Biograph mCT 20 Excel
Affordable Performance

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Answers for life.



Biograph **mCT 20 Excel**

Affordabile Performance

The Siemens
Molecular Imaging Division

Leadership

Siemens industry leadership and cutting-edge innovations have contributed significantly to the transformation of nuclear medicine from a research-driven imaging test into daily clinical practice. Today, molecular imaging is one of the fastest growing imaging procedures worldwide. And we are continuing to fuel this momentum by consistently delivering technologies that offer clear clinical, workflow and financial returns to our customers. Thus equipping you with the tools you need to further enhance clinical utilization, offer molecular imaging to more patients, manage new clinical applications, and help hospitals truly transforming disease management and patient care. We know it's



Today's reality

The realities of daily clinical routine often challenge this goal through: long wait times to diagnose and treat with personnel issues, while maintaining high clinical standards and throughput. At the same time, patients demand better and faster results.

Your return on innovation

In order to address these hurdles, Siemens Molecular Imaging partners closely with its customers to determine the direction of our molecular imaging technologies. With a focus on fulfilling your clinical, workflow and financial needs, our products are designed to deliver the following benefits:

- Lead the way in technological and medical advancement
- Maximize workflow efficiency
- Make state-of-the-art molecular imaging affordable

Simply put, Siemens' molecular imaging solutions are designed to maximize your overall return on innovation.

Measurable performance

We believe innovation is not only about introducing cutting-edge systems to the high-end health market, but also about bringing these Siemens solutions focused solutions to more people. By applying forward-thinking approaches to our core technologies, Siemens offers you greater value by increasing the longevity of your investment. Biograph mCT 700 faced the world of PET/CT innovation by making two sizes easier to understand through technology paired with the same level of patient care. With its one-size and lower total cost of ownership on the other. With Biograph mCT 700 faced, Siemens is helping expand patient access, making molecular PET available to a broader variety of institutions and ultimately, more patients.

Biograph mCT 20 Excel

Biograph combines PET, molecular imaging to visualize biological processes of the with the anatomical imaging capabilities of CT. When they come together, they reveal the complete picture.

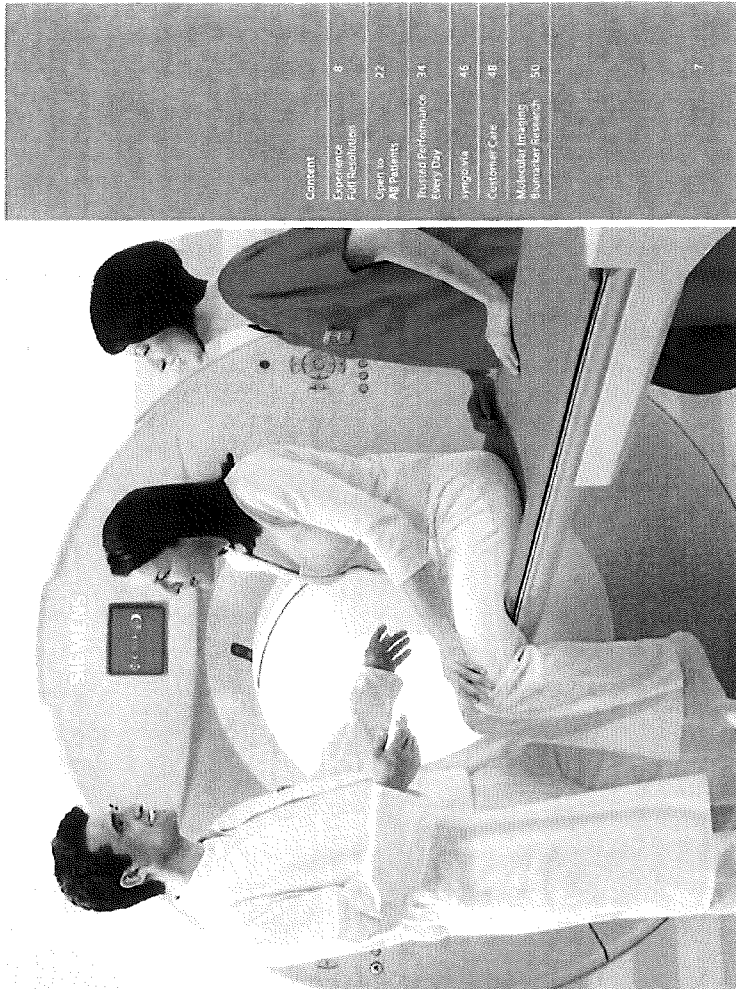
PET/CT systems are important tools to answer the clinical questions crucial to improving patient care. Questions such as:

- Is the mass benign or malignant?
- What is the viability of the heart tissue?
- Is there a single mass or a primary tumor and a metastasis?

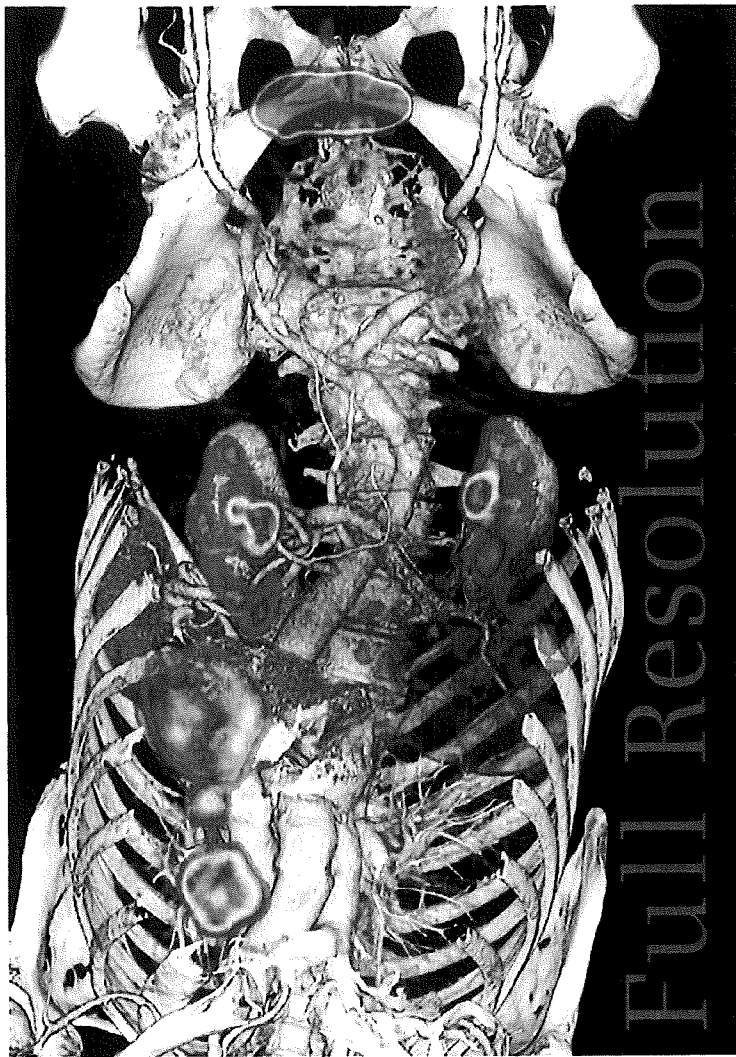
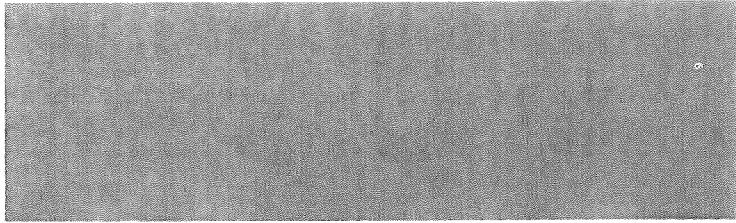
Unfortunately, only a small percentage of the world's population currently has access to this highly advanced molecular imaging technology.

Introducing Biograph mCT 20 Excel

Biograph mCT 20 Excel, a powerful molecular CT within reach to all. Now, you have a state-of-the-art tool to aid in detecting disease earlier, characterizing disease more accurately as well as improving therapy planning and monitoring – all while staying within your budget. Performance has never been so affordable.



Compact	
Experience	8
Full facilities	
Open to	22
All Patients	
Daily Performance	34
Every Day	
Angioma	46
Customer Care	48
Molecular Imaging	
Structure Research	50



Full Resolution

Experience Full Resolution

Experience

Return on Innovation

Experience Full Resolution

The ability to detect disease sooner and to accurately monitor disease progression is a major focus in PET/CT imaging. These requirements demand high image quality to see small details in any organ, with quantitative accuracy. Biograph mCT 20 Excel exhibits exceptional image quality throughout the entire field of view giving clinicians the diagnostic confidence to make sound clinical decisions.

Clinical Return

- Industry leading PET resolution for visualization of small tumors*
- Accurate SUV quantification and full HD lesion detection with motion frozen images

Workflow Return

- One-click gating integrated in daily routine
- Highest quality PET resolution with fast reconstruction times*

Financial Return

- Increase referral base by offering molecular resolution
- Attract patients and referring physicians with high definition image quality

* Based on clinical evaluation of Biograph mCT 20 Excel

Experience Full Resolution

Highest NEMA resolution in the market*

Siemens many years of experience in Lutetium Oxyorthosilicate (LSO) crystal technology. The result is a PET scanner with PET image quality delivered with Biograph mCT 20 Exact. Built on Siemens patented detector technology with 4 x 4 mm isotropic LSO crystals, Biograph mCT 20 Exact delivers the highest NEMA resolution in the market.

Uniform resolution throughout the field of view

Siemens HD PET delivers uniform resolution throughout the field of view and a further 2x improvement in signal-to-noise ratio. HD PET delivers HD clarity with greater specificity and accuracy to demonstrate crystal-clear results for more confident diagnoses and earlier, more targeted treatments.

2x improvements in contrast

Improvements in signal-to-noise ratio, noise reduction and diagnostic confidence by revealing sharper images, as well as greater distinctness within the image. Biograph mCT 20 Exact includes Time of Flight (TOF) as a standard feature, providing 2x improvement in signal-to-noise

Full HD lesion detection and accurate SUV quantification

HD Chest is a breakthrough technology from Siemens that eliminates the tradeoff between diagnostic confidence and examination time. An innovative combination of hardware and software, HD Chest virtually freezes respiratory motion, enabling full HD lesion detection and accurate SUV quantification. HD Chest is designed to be as fast as a conventional PET examination, so you can have increased diagnostic confidence without affecting your patient schedule.

Summary

So what does all this mean to you? Quicker scans mean earlier and better diagnostic reports, more accurate staging and improved therapy planning with Biograph mCT 20 Exact. From 100% full-body coverage, you can now see smaller lesions, able to understand lesions revealing that a seemingly single mass is actually a primary tumor and a metastasis, to highly detailed images indicating metastasis - this presents your key to greater diagnostic confidence.

Better yet, you get all these clinical benefits without disrupting your workflow or impacting your patient scheduling. Biograph mCT 20 Exact lets you take better care of your patients and your business.



LSD is capable of tremendous light output, which enables the design of very small and individual detector crystals. The extremely small HiRes7 crystals result in exceptional isotropic spatial resolution - an improvement of 2.0µm compared to conventional crystals - without loss of sensitivity.

- Highest NEMA resolution***
- High resolution - 4.4 x 20 mm LSD crystal.
 - Improved sensitivity
 - Decreased partial volume effect.
 - Increased quantification accuracy



LSD - HiRes7 detector crystal 4.4x20 mm (shown)

Conventional

Crystal 2
 Resolution: 4.6 mm

Biograph mCT 20 Excel

Crystal 1
 Resolution: 4.4 mm

Events which enter the crystal at an angle are more likely to interact with the crystal and deflect the L-Block they travel. If the event is detected once it has passed into a crystal, the event is lost. This is known as the 'edge effect' and is proportional to the crystal size.

Crystal	Crystal Size (mm)	Pixel Matrix	Number of Crystals
Conventional	4.2 x 6.3 x 25	356 x 256	13,824
Biograph mCT 20 Excel	4.4 x 20	400 x 400	24,336

Crystal	BCO	LYSO	Competitor 1	Competitor 2	Competitor 3	Biograph mCT 20 Excel
Crystal	300	53	300	53	53	40
Crystal decay time (nsec)	420	420	420	420	420	420
Crystal size (mm)	4.2 x 6.3 x 30	4.2 x 6.3 x 25	4.2 x 6.3 x 30	4.2 x 6.3 x 25	4 x 4 x 22	4 x 4 x 20
Pixel spacing (mm)	3.2	3.2	3.2	3.2	2	2
NEMA resolution (mm)	5.1	4.9	5.1	4.9	4.7	4.4
Slices	47	47	47	47	90	81 or 109
Relative light output (N/A)	15%	75%	15%	75%	75%	75%

* Based on competitive literature available at time of publication. Data on file.

How I work Siemens Time of Flight

Conventional

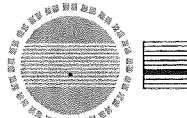
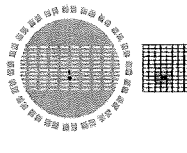


Time of Flight

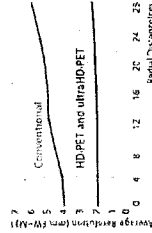


- 2x the improvement in signal-to-noise
- 2x improvement in contrast
- Significantly more time of flight (TOF)
- Faster reconstruction times
- Fast reconstruction times

Siemens TOF measures the actual time difference between the detection of each coincident photon. The additional information is used to better localize the event within a small range along each line-of-response (LOR). The better localization of each event using TOF reduces blurring in the reconstructed image.

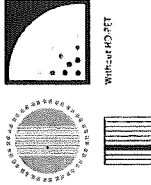
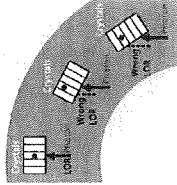


- HD uniformity - HD resolution - 2x HD contrast
- HD-PET improves resolution to 2 mm!
- Offers uniform resolution throughout the field of view (FOV)
- 2x improvement in signal-to-noise



How I work HD-PET

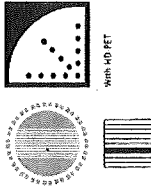
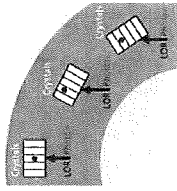
Conventional



Without HD-PET

Conventional PET uses the same reconstruction principles across the entire FOV and does not take into account the detector geometry and mispositioning of the LORs. This results in blurry edges and increased distortion further from the center of the FOV.

HD-PET

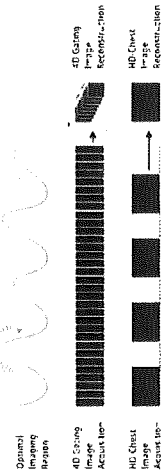


With HD-PET

HD-PET incorporates millions of accurately measured point spread functions (PSF) in the reconstruction algorithms. Using measured PSFs, HD-PET effectively positions the LORs in their actual geometric location, which dramatically reduces blurring and distortion in the final image.

HD Chest

- **Full HD lesion detection**
- **Accurate SUV quantification**
- **One-click routine**
- Amplitude based gating automatically analyzes each patient's individual breathing pattern
- Identifies portion of the respiratory cycle with the least motion and the most data = the optimum imaging area



HD-Chest applies an innovative algorithm to analyze each patient's individual breathing pattern and identify the portion of the respiratory cycle with the least motion. This area of the cycle is where most data can be collected, without motion in the shortest amount of time.

With HD-Chest image data from the optimal portion of the breathing cycle goes into the image. The system then reconstructs a single, high resolution image with superior lesion conspicuity. The entire process is automated, which means it is operator independent, saving you valuable time.

Conventional Examination

In the conventional scan, respiratory motion causes the lesions to be obscured.

HD-Chest

With less noise and more data, small moving lesions are clearer and their edges are sharper.

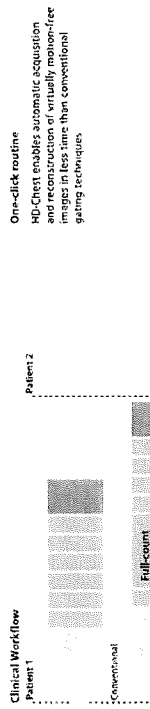
Conventional Examination SUV

With HD-Chest, the lesion is clearly visible.

HD-Chest SUV

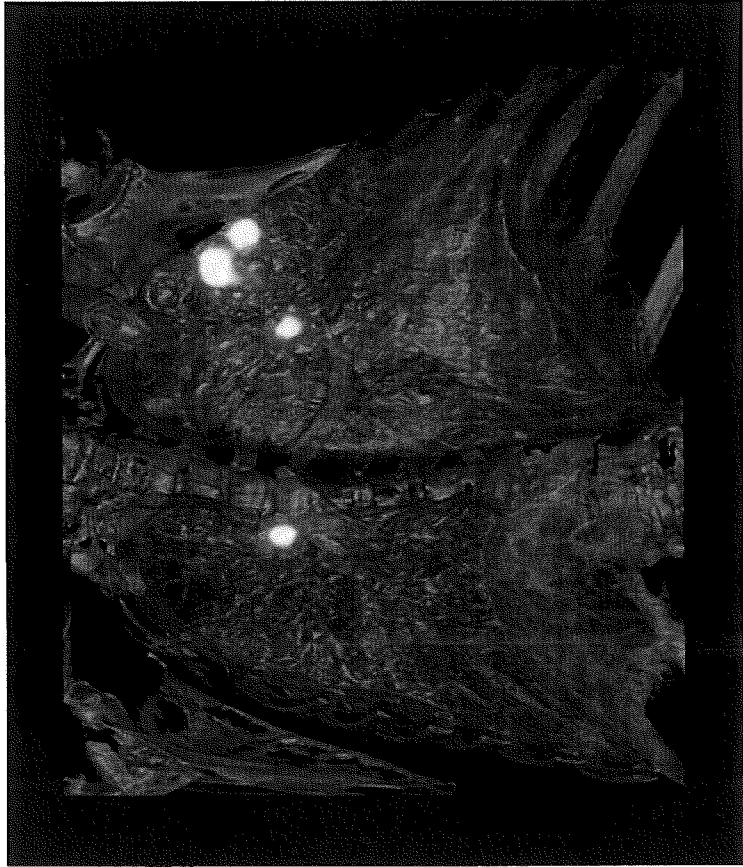
Accurate SUV quantification

HD-Chest's motion freeze also enables more accurate standard uptake value (SUV) measurement.

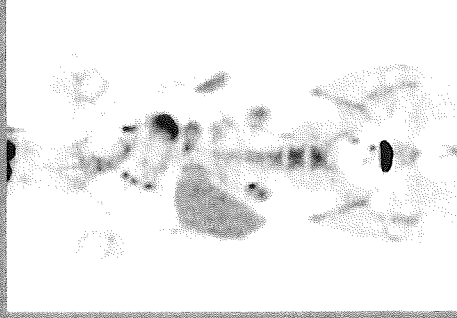
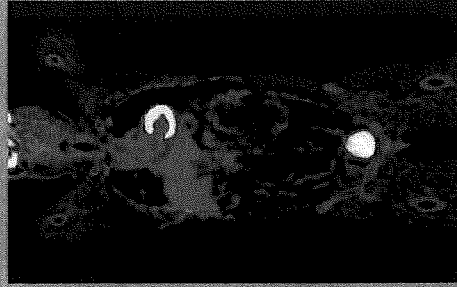


One-click routine

HD-Chest enables automatic acquisition and reconstruction of virtually motion-free images in less time than conventional gating techniques.



L1000
Experience 10 Repulsion with 2005 in CT 2.0. Exalt
to the level of specific contents.



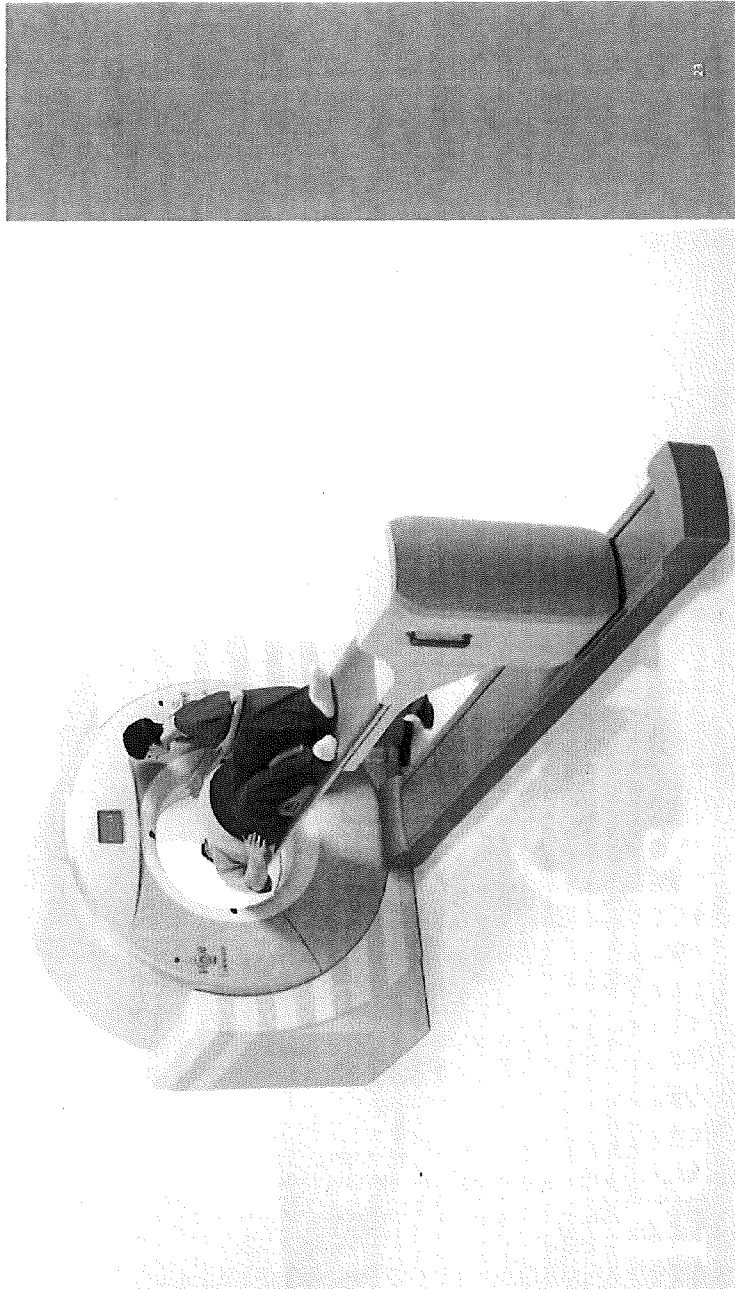
Left:
Experience 1000 in CT 2.0. Exalt
to the level of specific contents
with necessary saving (EMA,
EMA, EMA)

Right:
Experience 1000 in CT 2.0. Exalt
to the level of specific contents
with necessary saving (EMA,
EMA, EMA)

Open to All Patients*

18

Open to All Patients






Return on Innovation

Open to All Patients

Your patient population is highly diverse and comprises all kinds of patients – including pediatric and bariatric. With pediatric patients, minimizing radiation exposure is a top concern. This is why Biograph mCT 20 Excel integrates the most innovative technologies to modulate dose and shield your patients from unnecessary radiation, while also being open to accommodate bariatric patients* and radiation therapy planning devices (RTP) without compromising comfort or image quality.

* up to 227 lb (103 kg)

<p>Clinical Return</p> <ul style="list-style-type: none"> • High resolution PET imaging with time of flight technology for bariatric patients • Low dose CT imaging – especially for pediatric patients 	<p>Workflow Return</p> <ul style="list-style-type: none"> • Automated dose modulation ensures low dose without additional set-up time • Image bariatric patients without impacting schedule 	<p>Financial Return</p> <ul style="list-style-type: none"> • Increase referral base – from pediatric to bariatric • Target services to rising bariatric patient demographic
		

Open to All Patients

Access to virtually all patients

Overweight and obese patients represent a number of challenges for your imaging system. Many obese patients are excluded from conventional PET/CT systems due to limitations in the system design. Biograph mCT 20 Excel virtually eliminates all these barriers. With a 78 cm bore and 227 kg (500 lb) bore limit, the system is designed to accommodate large patients*. In addition, specialized algorithms simplify signal in areas where excess body weight traditionally causes reduction in data acquisition.

Advanced technology for bariatric patients

Biograph mCT 20 Excel advantages reach far beyond the exterior hardware. The system features a powerful 80 kW generator and highly efficient Ultra-Fast Creamer™ (UFCT) detector material, making your power reserves virtually unlimited. We have added advanced technology to our UFCT detector to improve image quality in challenging bariatric cases. Adaptive Signal Boost amplifies low signals (a common phenomenon with very large patients), reduces noise, and ensures the maintenance of correct HU values.

Minimal CT radiation exposure

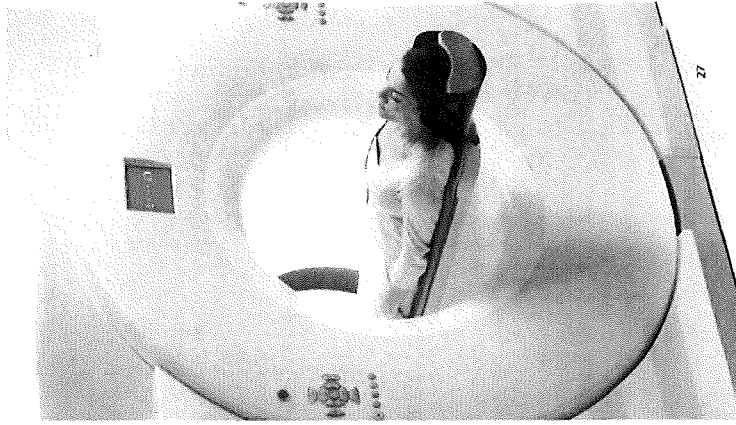
With CARE Dose4D, Biograph mCT 20 Excel provides real-time dose modulation. This allows up to 68% dose reduction without a significant effect on image quality. Adaptive Dose Shield, part of our innovative new D-MHUS STRADON tube design, blocks superfluous radiation by remaining locally sensitive to the dose for each patient. The result is a dose as low as 10 mSv. In some cases, dose is in up to additional 20% dose savings.

Radiation therapy planning

Biograph mCT 20 Excel and its open design for all patients* allow for further opportunities. It provides an excellent platform for your radiation therapy patients. The large bore allows better positioning of radiation therapy planning (RT) devices, such as breast boards, integrated PET and CT, and more. The system gives your full DICOM radiation therapy file connectivity with all major radiation therapy planning systems.

Summary

Biograph mCT 20 Excel accommodates all kinds of patients—from pediatric to bariatric. Its large 78 cm bore allows for better positioning of RT devices and CT/ PET for patients. The system's open design allows for better positioning of RT devices, breast boards, and more. Biograph mCT 20 Excel combines advanced technologies to better scan bariatric patients and allows radiation in unnecessary radiation exposure without compromising image quality.



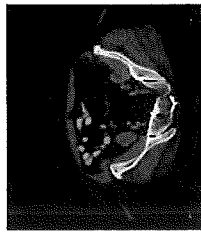
How it works
Power

Enough power reserves for everyday clinical routine

Biograph mCT 20 Ercd provides an 80 kW generator for sufficient X-ray power reserves to enable high quality imaging in everyday clinical routine and even with demanding obese patients.

In combination with our highly efficient UFC detector material, it requires only the smallest possible dose to deliver exceptional image quality

Conventional

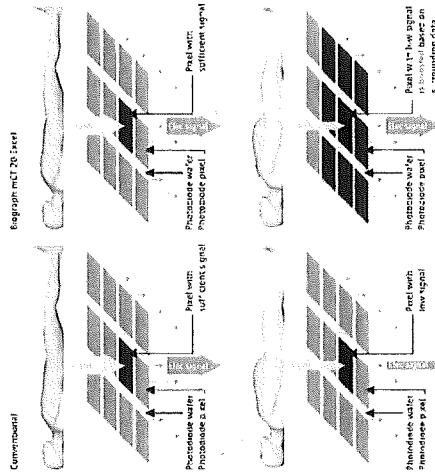


Biograph mCT 20 Ercd



Typical generator power in conventional 60-Joule system PET/CT

Biograph mCT 20 Ercd PET/CT scanner



How it works
Adaptive Signal Boost

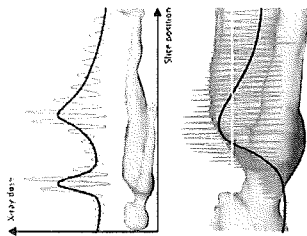
Routine scanning for all patients*
The Adaptive Signal Boost amplifies low signal areas of the CT data with comprehensive analysis of surrounding CT measurements. Adaptive Signal Boost further reduces streaks and noise in the image and maintains correct HU values even for larger patients.

HOW IT WORKS

CARE Dose4D

Low dose examinations

CARE Dose4D utilizes an advanced computer technique that provides real time dose modulation of the X-ray tube current according to the precise shape of the patient's body during both spiral and sequential scanning. It reduces the patient dose for low attenuation views, while the dose is kept at a normally higher mA for high attenuation views. This ensures that the patient's heart rate and breathing are not disturbed. During the scan, a detector element measures the attenuation through the patient and transfers that information to the output generator of the X-ray tube to keep the mA at a level providing the accepted image quality.



This fully automated dose modulation technique reduces dose by up to 58% while maintaining the same image quality as compared to clinical protocols not employing CARE Dose4D.

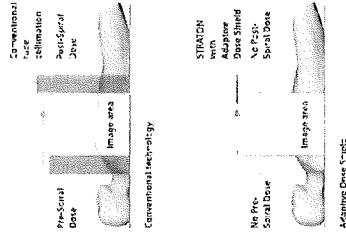
Scan with constant mA
 Reduce dose level based on weight
 Reduce angular dose modulation

HOW IT WORKS

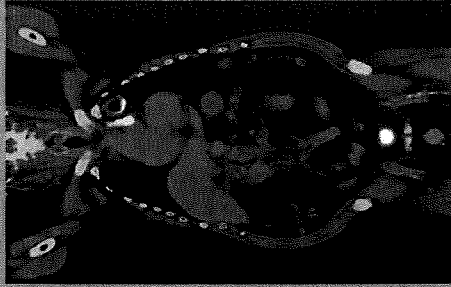
Adaptive Dose Shield

Eliminating clinically irrelevant dose is eliminated. Not only for dedicated applications, but also for every single spiral acquisition, giving you the ability to save an additional 20%* of dose in routine exams, like abdominal CT.

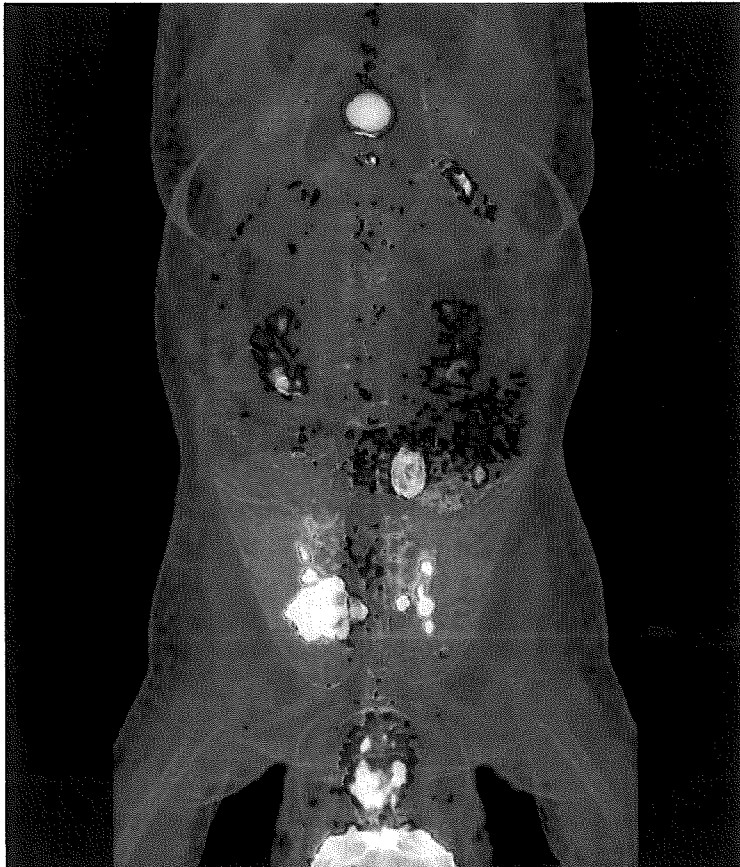
Now, all clinically irrelevant dose is eliminated. Not only for dedicated applications, but also for every single spiral acquisition, giving you the ability to save an additional 20%* of dose in routine exams, like abdominal CT.



42. Increase in lung opacities low dose techniques with 100 kVp. The lung appears CT 2300HU is Opacities all alveoli - which frequency astrophysical of lower quality



Right: The whole 78 cm box 200/277 kVp and 100 kVp. Image is a standard quality of contrast for lung quality.



Open to All Patients
 All Patients
 All Patients

Trusted Performance
Every Day

24

Trusted Performance






25

Trusted Performance Every Day

Increasing healthcare demands mean that now – more than ever – it is important to have a system you can trust. Biograph mCT 20 Excel provides reliably high throughput performance, ensuring maximum system uptime with proactive, real-time monitoring and expert online support.

Return on Innovation

<p>Clinical Return</p> <ul style="list-style-type: none"> Increased diagnostic confidence with highest resolution on proven 3rd generation ISO platform* Expand clinical capabilities on both PET and CT 	<p>Workflow Return</p> <ul style="list-style-type: none"> Maintain workflow by preventing unplanned downtime Continuous support with expert online support 	<p>Financial Return</p> <ul style="list-style-type: none"> 24/7 proactive monitoring ensures maximum uptime No interruption to revenue stream
		

Trusted Performance Every Day

Proven platform with large installed base
With over 1,200 tube-unit-based PET systems installed globally, Siemens is an industry leader in PET performance and reliability. Biograph mCT 20 Excel is a third generation lutetium-based system which is one of the main reasons that the Biograph family has earned 21st in customer satisfaction in the industry for 20 consecutive years. Choosing a proven platform is just assured.

Upgrade-ability to meet your needs today and in the future

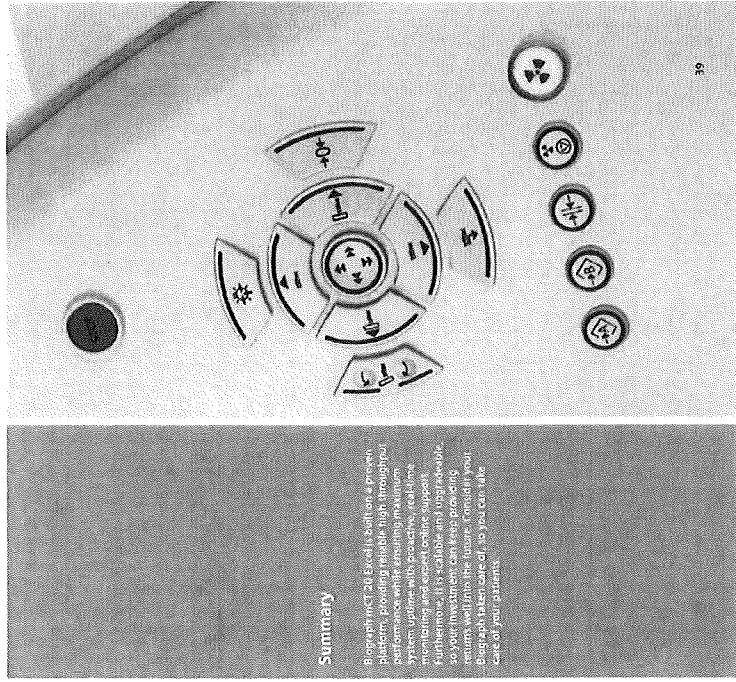
Biograph mCT 20 Excel is based on a remarkably scalable PET/CT platform and is designed to grow with your every clinical need. The system can grow to a high-end Biograph mCT scanner with technical upgrades such as TrueX 328-kVcc CT or PET/CT. The flexibility allows you to configure a system that best meets your needs – and of course your patients' needs – today and tomorrow.

Proactive monitoring program ensures maximum uptime

The system is specifically designed for maximum uptime, thanks to the Siemens Guardian Program™ including TubeGuard. More than ten sensors continuously monitor the main functions of Biograph mCT 20 Excel to ensure maximum tube life and proactively schedule service and replacement. For healthcare providers, this means set appointments, no unplanned workflow disruptions and the ability to consistently meet financial goals.

Summary

Biograph mCT 20 Excel is built on a proven platform, providing reliable high throughput performance while ensuring maximum uptime and reliability. Furthermore, it is scalable and upgrade-able so your investment can keep providing returns well into the future. Consider your Biograph tubes care of so you can take care of your patients.



How it works

Proven Platform in Lutetium-based Scanners

1200+ Lutetium-based scanners globally

Leading the industry with more than 10 years of experience in Lutetium Oxysulfide (LSO) Scintillator Crystal Technology, Siemens is a pioneer in innovative PET imaging technologies. Biograph mCT 20i excels at providing LSO PET detectors that provide clear and precise PET images. The amount of light proportion of the detector crystal material. With a fast scintillation decay time of 40 ns and highest density available, LSO crystals offer the best combination of properties of any PET scintillator known today. LSO offers a fast coincidence timing window of 10 ns, which allows for a high energy resolution examination to facilitate the efficient rejection of randoms – all to provide high count rate statistics, which are essential to high-speed PET scanning.

Biograph mCT 20i

Generation 2



Biograph mCT

Generation 2



Biograph mCT 20i

Generation 2



Biograph

How it works

A Flexible and Scalable System Expands with Your Needs

Upgradable to meet your needs today and in the future

Biograph mCT 20i Excels is field upgradable to 40, 64 or 128 slices. The system grows with your needs, giving you flexibility to access additional functionalities when required. Now you can upgrade to 400, 800 or 1200 slices to meet your system requirements. Biograph mCT 20i Excels presents the most cost-effective, flexible solution on the market today. It is the perfect fit for your future.

Biograph mCT

Biograph mCT 20i Excels



Biograph mCT

Biograph mCT 20i Excels



Biograph mCT 20i Excels

Biograph mCT 20i Excels



Available Options

HD PET
UltraHD PET
Biograph mCT 20i Excels PET FOV
IBS
Active-D Spiral

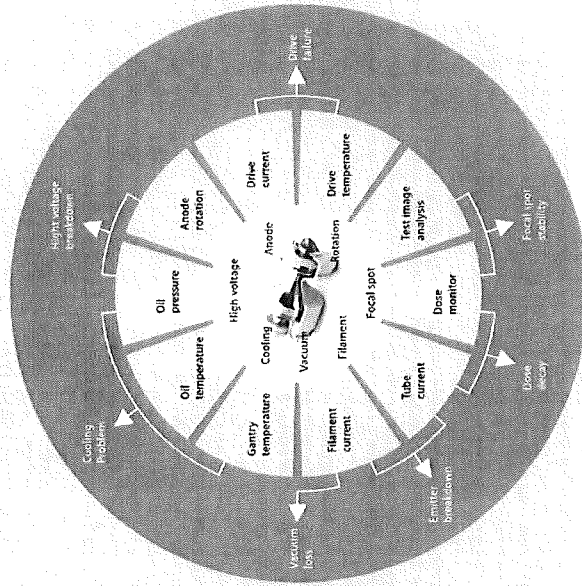
HD PET
UltraHD PET
Biograph mCT 20i Excels PET FOV
IBS
Active-D Spiral

HD PET
HD Chex

How it works

Siemens Guardian Program Including TubeGuard

Proactive real-time monitoring
 Bozaph mCT 20 Focal comes with the dependability of TubeGuard, a unique remote service that provides real-time condition reports of the scanner's STRATON X-ray tube. TubeGuard employs more than 10 proactive sensors to monitor the performance of the tube and assess its longevity based on real-time data from the scanner's internal sensors.
 TubeGuard estimates how long the tube will last and when it is due for replacement. This helps schedule service and maintenance appointments and virtually eliminates the possibility of a sudden tube failure.



- Predictable failure
- Tube function
- TubeGuard sensors

Boyer and Linder
Boyer and Linder
Boyer and Linder
Boyer and Linder
Boyer and Linder



29
The Best Performance
Every Day

syngo.via
Productivity. Anytime.

Anywhere, Anytime Access to Integrated PET-CT Reading with Revolutionary Ease-of-Use



Anytime. Anywhere. Anywhere.

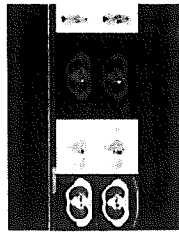
Anytime. Anywhere. Anywhere.

Anytime. Anywhere. Anywhere.



syngo.via is a multimodality reading solution that supports PET and CT on a unified platform, even in unified applications, which results in an efficient and integrated workflow. As a client-server-based platform, syngo.via provides collaboration and automation features that enable the full diagnostic and productive potential of hybrid scanners.

syngo.via provides a multimodality platform for hybrid applications in molecular imaging.



Advanced automation for high-volume hybrid studies

Hybrid exams consist of two data sets, which already double the available diagnostic information. In addition, oncology studies are often whole-body exams, further increasing the volume. And many patients have a history of prior studies for comparison. syngo.via automates the workflow from data acquisition to reading. When selecting a patient, syngo.via:

- Provides pre-fetched prior exams
- Flags hybrid studies and registers them across time points
- Starts the appropriate reading environment, for example, the syngo.mCT Oncology Engine
- Displays prior findings

Reproducible results with integrated, quantitative tools

To maximize the benefit from PET's quantitative capabilities and the reproducibility of follow-up assessments, syngo.via provides state-of-the-art quantification tools for PET and CT in unified applications for the most intuitive information. Functional information is available via SUV, SUVmax and RECIST and WHO measurements without taking your eyes off the map.

End-to-end workflow support from case preparation to results sharing

syngo.via is more than a diagnostic tool. It supports your workflow all the way to the tumor board presentation. syngo.via provides a single common platform. Working on the same case reduces the time to diagnosis. Find, the technology can prepare the case. Max, the reading physician creates findings and documents the diagnosis. Finally, the case and its results can be elegantly presented in the tumor board meeting.

syngo.via is a multimodality reading solution that supports PET and CT on a unified platform, even in unified applications, which results in an efficient and integrated workflow. As a client-server-based platform, syngo.via provides collaboration and automation features that enable the full diagnostic and productive potential of hybrid scanners.

syngo.via is more than a diagnostic tool. It supports your workflow all the way to the tumor board presentation. syngo.via provides a single common platform. Working on the same case reduces the time to diagnosis. Find, the technology can prepare the case. Max, the reading physician creates findings and documents the diagnosis. Finally, the case and its results can be elegantly presented in the tumor board meeting.

Dedicated to Your Success

Remain one step ahead and tap the full potential of your Biograph system from Siemens with our customer care program. As a worldwide innovation leader in medical imaging, Siemens is committed to helping you can profit from excellent PET/CT systems and innovative, flexible and comprehensive service solutions that enable you to concentrate on what is most important for your patient care. The customer care program is a unique solution from Siemens that helps you maximize the investment you made throughout the entire life cycle of your system.

Stay competitive with up-to-date systems and software upgrades

Due to increasing healthcare demands, the PET/CT market is becoming increasingly competitive. We will help you stay ahead of solutions up-to-date and to stay ahead of the latest technological advancements. With our technology portfolio, you can be sure that workflow improvements, clinical applications and diagnostic functions are all embedded into advanced technologies for equipment and on-site syringe budget planning. Features enhancements for your PET/CT, access to new applications and lower cost upgrades for your PET/CT system.

Be informed - get connected

To ensure you are always up to date on the latest PET/CT technology, we offer you a variety of information services including easily accessible information portals, monthly newsletters, our customer magazine Imaging Life and the Biograph World Summit, our global PET/CT users forum on clinical trends and best practices. Customer communities help you share new technologies and discuss your experiences with your peers and global experts.

Feel confident

with our proactive service solutions. High system availability, diagnostic confidence and optimized workflow are crucial for the success of your PET/CT services. To meet your performance expectations, we systematically focus on being proactive. Based on real-time system monitoring, we can identify issues and alert you before they become critical. The Siemens Guardian Program helps to make unplanned downtime a thing of the past.

Broaden your knowledge and expertise

Know-how is the key to success. With our extensive portfolio of education and training programs you can deepen your knowledge and clinical expertise. We show you how to maximize the benefits that can be achieved with our advanced technology. Classroom trainings, workshops and our broad portfolio of valuable knowledge transfer through hands-on workshops win renewed clinical experts will also help you to optimize your workflows so you can offer an even higher quality of care for your patients.



Molecular Imaging Biomarker Research

The Era of Personalized Medicine Starts Today

Siemens Molecular Imaging Biomarker Research

Siemens Molecular Imaging Biomarker Research (MIBR) is a leader in the discovery and development of new imaging biomarkers for applications in oncology, cardiology, and neurology. These novel imaging biomarkers, when approved for clinical use, will advance molecular imaging to a whole new level by enabling targeted therapies via more personalized clinical care and improving patient therapy management.

Biograph mCT 20 Excel

Siemens maximizes your return on innovation by incorporating from the earliest stages of product development and design of the Biograph mCT 20 Excel the technology to support the use of future imaging biomarkers in oncology, cardiology and neurology, to ensure the best patient care throughout the life of the system. This obsolescence protection means that you can continue to use your Biograph mCT 20 Excel for the next generation of biomarkers. Siemens MIBR scientists and engineers to make sure that the Biograph mCT 20 Excel and our imaging biomarkers are designed to work together.

Oncology

Siemens is investigating new imaging biomarkers that address the fundamental hallmarks of cancer beyond metabolism such as cell proliferation, to help oncologists assess the replicative potential of tumors. As well as, an imaging biomarker to identify hypoxic (oxygen deprived) areas of tumors to assess the insensitivity to anti-growth signals. Finally, research into the use of imaging biomarkers to help predict better understand angiogenesis, that is, blood supply to tumors. This research supports Siemens efforts to help clinicians render more specific diagnosis of cancer and aid in improvement management of cancer patients.

Cardiology

Cardiology related procedures represent the highest potential of growth for molecular imaging. New imaging biomarkers are being investigated to enhance patient risk stratification in coronary artery disease (CAD) with perfusion, viability, as well as vulnerable plaque studies providing the clinician with all the necessary information in a single scan. This information allows for the treatment of each specific patient.

Neurology

Neurological related procedures are expected to grow due to the rise of dementia cases resulting from the increase in the global aging population. The development of new imaging biomarkers designed for neurological studies will provide a non-invasive imaging test to help in the assessment of dementia in patients. The development of imaging biomarkers with the goal to quantify the degree of beta amyloid and abnormal tau proteins in certain regions of the brain thought to be a precursor to certain dementia types such as Alzheimer's disease.

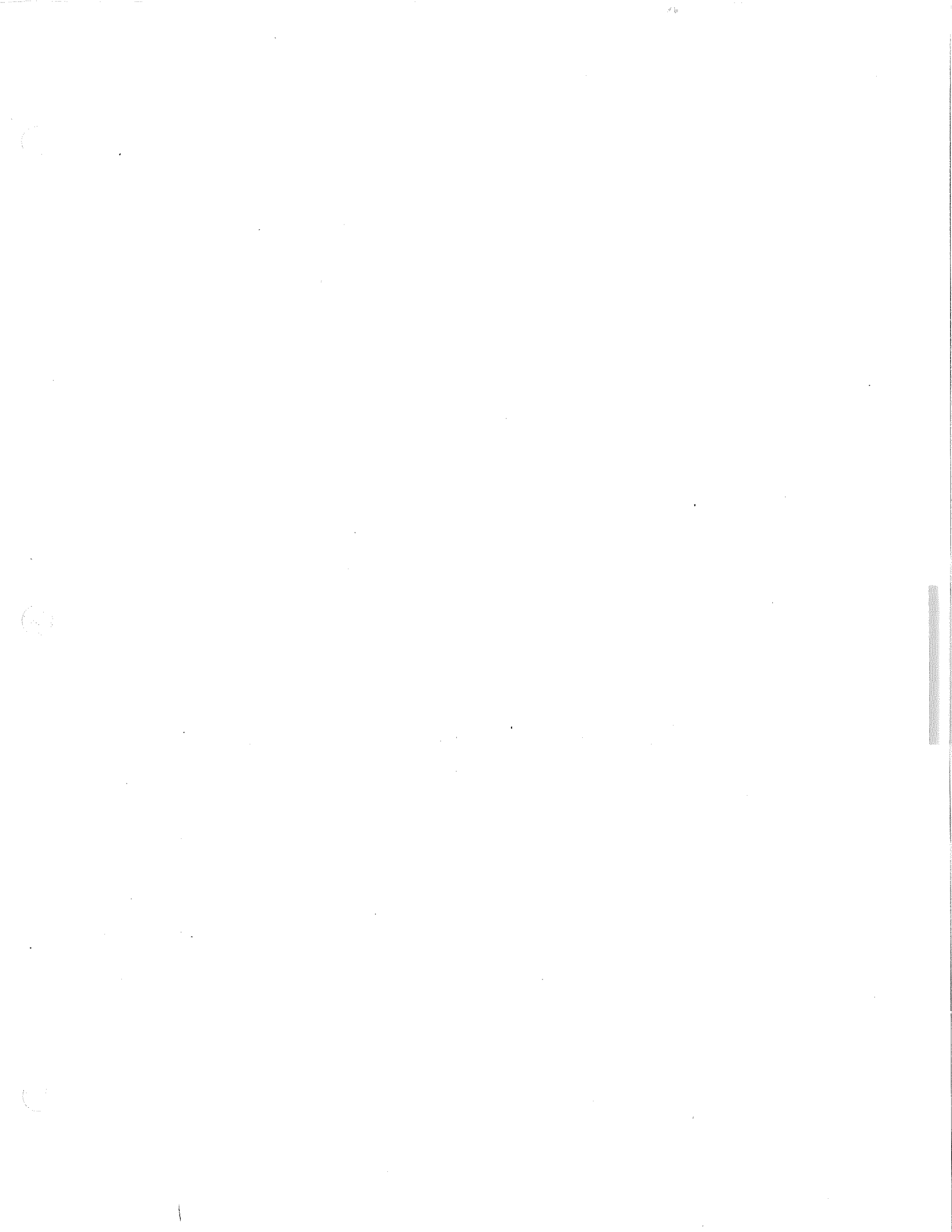


EXHIBIT C

**CERTIFICATE OF NEED
PROGRESS REPORT FORM**

County: Cumberland
 Facility: Cape Fear Valley Medical Center
 Project I.D. #: M-6755-03
 Project Description: Acquire a positron emission tomography (PET) scanner/Cumberland County

Date of Progress Report: 10/20/2004
 Facility I.D. #: 943057
 Effective Date of Certificate: 08/05/2003

A. Status of the Project – Describe the current status of the project. If the project is not going to be developed exactly as proposed in the certificate of need application, describe all differences between the project as proposed in the application and the project as currently proposed. Such changes include, but are not limited to, changes in the: 1) design of the facility; 2) number or type of beds to be developed; 3) medical equipment to be acquired; 4) proposed charges; and 5) capital cost of the project. (See the Capital Cost Section of this form for additional questions regarding changes in the total capital cost of the project). Project is complete and operational.

B. Timetable

1. Complete the following. The first column must include the timetable dates found on the certificate of need. If the CON Section has authorized an extension of the timetable in writing, you may substitute the dates from that letter.

	Projected Completion Date (from the Certificate of Need) Month/Day/Year	Actual Date Completed Month/Day/Year
Obtained Funds for the Project	<u>08/30/2003</u>	<u>09/08/2003</u>
Approval of Final Drawings and Specifications	<u>09/30/2003</u>	<u>08/31/2003</u>
Acquisition of land/facility	<u>10/31/2003</u>	<u>10/27/2003</u>
Construction Contract Executed	<u>11/30/2003</u>	<u>11/30/2003</u>
25% completion of construction	<u>12/30/2003</u>	<u>12/30/2003</u>
50% completion of construction	<u>01/30/2004</u>	<u>01/30/2004</u>
75% completion of construction	<u>08/30/2003</u>	<u>10/14/2003</u>
Completion of construction	<u>02/28/2004</u>	<u>02/11/2004</u>
Ordering of medical equipment	<u>02/28/2004</u>	<u>02/11/2004</u>
Operation of medical equipment		
Occupancy/offering of services		
Licensure		
Certification		

2. If the project is experiencing significant delays in development:

- explain the reasons for the delay; and
- provide a revised timetable for the CON Section to consider.

C. Medical Equipment Projects – If the project involves the acquisition of any of the following equipment: 1) major medical equipment as defined in NCGS §131E-176(14f); 2) the specific equipment listed in NCGS §131-176(16); 3) equipment that creates an oncology treatment center as defined in NCGS §131-176(18a); or 4) equipment that creates a diagnostic center as defined in NCGS §131E-176(7a), provide the following information for each piece or unit of equipment.

- Manufacturer Siemens
- Model Biograph LSO Sensation 16
- Serial Number 1688
- Date acquired 10/14/2003

D. Capital Expenditure

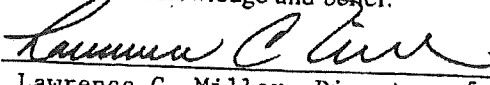
1. Complete the following table.

- a. Include all capital costs that have been paid to date as well as those that the applicant(s) are legally obligated to pay.
- b. If you have not already done so, provide copies of the executed construction contracts, including the one for architect and engineering services, and all final purchase orders for medical equipment costing more than \$10,000/unit.
- c. If the project involves renovation or construction, provide copies of the Contractors Application for Payment [AIA G702] with Schedule of Values [AIA G703].

	Capital Expense Since Last Report	Total Cumulative Capital Expenditure
Site Costs		
Purchase price of land	_____	_____
Closing costs	_____	_____
Legal Fees	_____	_____
Site preparation costs	_____	_____
Landscaping	_____	_____
Other site costs (identify)	_____	_____
Subtotal Site Costs	_____	_____
Construction Costs		
Construction Contract	243,604.69	303,295.24
Miscellaneous Costs		
Moveable Equipment	2,668,072.46	2,668,072.46
Fixed Equipment	28,344.79	28,344.79
Furniture	_____	_____
Consultant Fees	49,727.40	117,443.47
Financing Costs	_____	_____
Interest during Construction	_____	_____
Other Misc. Costs (identify)	_____	_____
Subtotal Misc. Costs	2,746,144.65	2,813,860.72
Total Capital Cost of the Project	2,989,749.34	3,117,155.96

- 2. As of the date of this progress report, what is your best estimate of the total actual capital cost of the project?
Project complete. Total cost, \$3,117,155.96.
- 3. Will the total actual capital cost of the project exceed 115% of the approved capital expenditure on the certificate of need? If yes, explain the reasons for the difference. No.

E. CERTIFICATION – The undersigned hereby certifies that the responses to the questions in this progress report and the attached documents are correct to the best of his or her knowledge and belief.

Signature of Officer: 
 Name and Title of Responsible Officer: Lawrence C. Miller, Director of Reimbursement
 Telephone Number of Responsible Officer: 910-609-6440

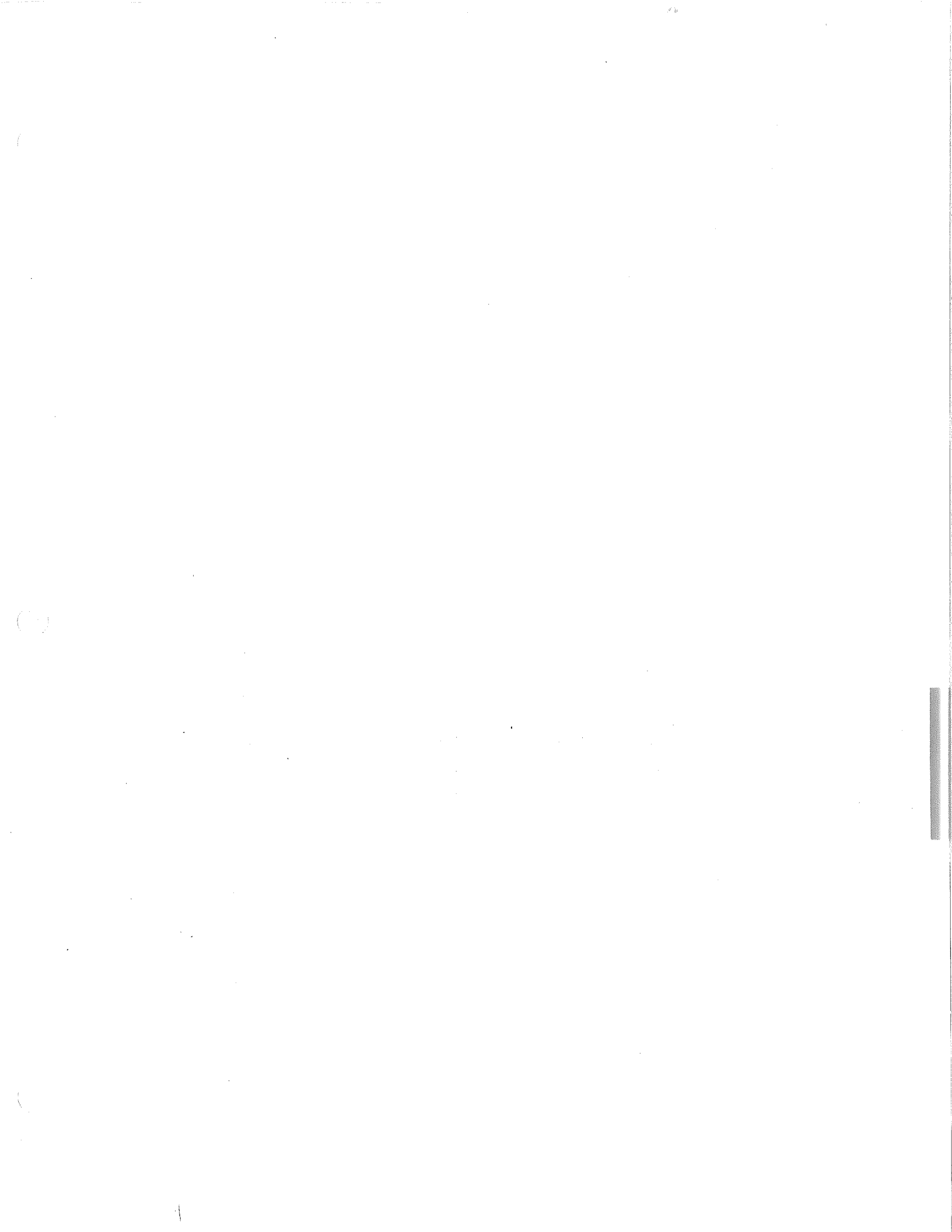


EXHIBIT D

CAPE FEAR VALLEY MEDICAL CENTER

Registration NO: 26 - M000111

- No Changes
- Not In Use
- *Sold or Donated
- Taken by Service
- Salvaged
- Landfill
- Out of State

RADIOGRAPHIC MED DIAG - CFI 2
Installation date: 7/21/2003

20 PHILIPS Model: 9890-000-02001 S/N: 98-0022
Tubes for this machine: 1 Active tube(s) & 1 Total tube(s)

- No Changes
- Not In Use
- *Sold or Donated
- Taken by Service
- Salvaged
- Landfill
- Out of State

RADIOGRAPHIC/FLUORO MED DIAG - CFI 4
Installation date: 9/15/2003

21 GENERAL ELECTRIC Model: PRECISION 500D 5307282 S/N: 1028107WK9
Tubes for this machine: 2 Active tube(s) & 2 Total tube(s)

- No Changes
- Not In Use
- *Sold or Donated
- Taken by Service
- Salvaged
- Landfill
- Out of State

CT SCANNER MED DIAG - PET/CT
Installation date: 1/14/2004

22 SIEMENS Model: BIOGRAPH PET/CT 7393569 K S/N: 1688
Tubes for this machine: 1 Active tube(s) & 1 Total tube(s)

- No Changes
- Not In Use
- *Sold or Donated
- Taken by Service
- Salvaged
- Landfill
- Out of State

RADIOGRAPHIC/FLUORO MED DIAG - OR
CYSTO #1
Installation date: 12/31/2004

23 GE-OEC Model: UROVIEW 2800 884198-01 S/N: P6-0513-R
Tubes for this machine: 1 Active tube(s) & 1 Total tube(s)

- No Changes
- Not In Use
- *Sold or Donated
- Taken by Service
- Salvaged
- Landfill
- Out of State

MAMMO STEREOTACTIC NC # 99067
Installation date: 2/15/2008

24 LORAD Model: MULTICARE ASY 00086 S/N: 31501081817
Tubes for this machine: 1 Active tube(s) & 1 Total tube(s)

- No Changes
- Not In Use
- *Sold or Donated
- Taken by Service
- Salvaged
- Landfill
- Out of State

FLUOROSCOPIC MED DIAG - VPI 3
Installation date: 8/29/2008

25 SIEMENS Model: 10093399 S/N: 1601
Tubes for this machine: 1 Active tube(s) & 1 Total tube(s)

- No Changes
- Not In Use
- *Sold or Donated
- Taken by Service
- Salvaged
- Landfill
- Out of State

FLUOROSCOPIC MED DIAG - SP #1
Installation date: 8/25/2008

26 SIEMENS Model: ARTIS ZEE S/N: 5101
Tubes for this machine: 2 Active tube(s) & 2 Total tube(s)

THE OWNER, RADIATION SAFETY OFFICER OR AUTHORIZED DESIGNEE SIGNS TO CERTIFY THIS INFORMATION IS ACCURATE AND AUTHORIZES CHANGES / CORRECTIONS:

SIGNATURE: _____ DATE: _____

For Official Use Only
Verified by Inspector: _____

Date: _____

Page 4 of 8

Accepted Rejected

RPS NOR Rev 2/14

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EXHIBIT E-1

June 13, 2014

Jonathan Harrington
Cape Fear Valley Health System
1638 Owen Drive
Fayetteville, NC 28302

Jonathan,

Per your request, I am writing to confirm that the sell price (\$1,081,000) of the Siemens Biograph mCT 20, as sold to Cape Fear Valley Health System under Quote #1-4QIRVI, includes a trade in value for the existing biograph 16 PET/CT of \$83,495.

Please contact me should you have any further questions in this regard.

Thank You,



Craig Argo
Account Executive
Siemens Healthcare

COMPANY GLN: Purchase Order: 100007092-0-1 REVISION

CUMBERLAND CO HOSPITAL SYSTEM Page: 1
Revision Number: 001 Date: 12/23/13

SHIP TERMS: FOB DESTINATION PREPAY & ADD FREIGHT; FOB DEST PP&A
SHIP VIA:

VENDOR: 1216 SHIP TO:
SIEMENS MEDICAL SOLUTIONS USA CAPE FEAR VALLEY MEDICAL CTR
PO BOX 120001 DEPT 0733 ATTN: RECEIVING DEPARTMENT
DALLAS TX 75312-0733 1638 OWEN DRIVE
FAYETTEVILLE NC 28304

CONTACT: CUSTOMER SERVICE CONTACT: GEORGE DAVIS JR
PHONE: (800)888-7436 PHONE: (910)615-6868
FAX: (732)494-2250 FAX: (910)615-9712
BUYER GLN:

DISCOUNT
TERMS DAYS RATE NET ACCOUNT NUMBER

Terms 1

| Deliver on December 23, 2013 unless specified by line |
| Purchase Order Currency: USD DOLLARS |
| Invoice by mail |
| Process Level: 1000 |
| ***** |
| PLEASE SEND INVOICES TO: |
| CAPE FEAR VALLEY MEDICAL CENTER |
| PO BOX 2000 |
| FAYETTEVILLE NC 28302-2000 |
| ATTN: ACCOUNTS PAYABLE |
| ***** |
| NUCLEAR MEDICINE |
| REPLACEMENT PET/CT |
| ACTIVITY 141070440001 |
| CER 140008 |
| CTS HARRY DEMERY |
| DAN CAMERON |
QUOTE 1-4QIRV1 REV 1

ITEM NUMBER QUANTITY
LINE DESCRIPTION PRICE EXTENDED AMOUNT

1 BIOGRAPH MCT 20 ECKEL 1.00 EA 1,081,000.00
PET/CT 1,081,000.0000
Item Detail: BIOGRAPH MCT 20 ECKEL

Purchase Order Summary

COMPANY GLN:

Purchase Order: 100007092-0-1

REVISION

CUMBERLAND CO HOSPITAL SYSTEM

Page: 2

Revision Number: 001

Date: 12/23/13

Goods Total: 1,081,000.00

Order Total: 1,081,000.00

End of Purchase Order: 100007092-0-1

SIEMENS

Siemens Medical Solutions USA, Inc.
51 Valley Stream Parkway, Malvern, PA 19355

SIEMENS REPRESENTATIVE
Donald Werner - (865) 548-6348

Customer Number: 0000005028

Date: 12/18/2013

CAPE FEAR VALLEY HEALTH SYSTEM
1638 OWEN DR
FAYETTEVILLE, NC 28302

Siemens Medical Solutions USA, Inc. is pleased to submit the following quotation for the products and services described herein at the stated prices and terms, subject to your acceptance of the terms and conditions on the face and back hereof, and on any attachment hereto.

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Biograph mCT 20 Excel	2
General Terms and Conditions	6
Warranty Information	14
Detailed Technical Specifications	15
Cut Sheets	following page 23

Proposal valid until 2/01/2014

This offer is only valid if a firm, non-contingent order is placed with Siemens and a signed POS contract must accompany the equipment order.

All option pricing listed in this quote will be protected for 24 months from the date of installation.

This proposal includes the trade-in of equipment referenced in Trade Sheet Project # 2013-2249.

Purchaser can use the purchased Applications Training for up to 2 years from date of installation.

Accepted and Agreed to by:

Siemens Medical Solutions USA, Inc.

CAPE FEAR VALLEY HEALTH SYSTEM

By (sign): _____
Name: Donald Werner
Title: Product Sales Executive
Date: _____

By (sign): _____
Name: _____
Title: _____
Date: _____

All pages of the signed proposal must be returned to Siemens to process the order - Thank you.

SIEMENS

Siemens Medical Solutions USA, Inc.
51 Valley Stream Parkway, Malvern, PA 19355

SIEMENS REPRESENTATIVE
Donald Werner - (865) 548-6348

Quote Nr: 1-4QIRVI Rev. 1

Terms of Payment: 00% Down, 80% Delivery, 20% Installation
Free On Board: Destination

Purchasing Agreement: NOVATION (UHC, VHA, Provista)

NOVATION (UHC, VHA, Provista) terms and conditions apply to Quote Nr 1-4QIRVI

Biograph mCT 20 Excel

All items listed below are included for this system: (See Detailed Technical Specifications at end of Proposal.)

Qty	Part No.	Item Description
1	14415398	Biograph mCT 20 Excel
1	14415351	Install Kit with PDU - mCT Items necessary for install. Includes power distribution unit for connecting entire system to a single 3-phase power drop.
1	10249096	Cooling System Water/Air - mCT Water-to-air heat exchanger for the dissipation of heat loss generated in the gantry to the outside air. System operating temperature: 20 - 26 degrees C, 20 - 75 % rel. humidity (not condensing). Ideal for installation far from the scan room. Cooling system contains units, water/water exchanger close to the scan room and an additional remote water/air exchanger. Maximum distance between water/water unit and remote water/air exchanger up to 40 meters enabled by thin diameter of water transferring pipes.
1	10249267	Cooling System US Install Kit - mCT Kit for installation of the Cooling System Water/Air in US Includes: - Transformer for powering the Cooling System Water/Air - Service switch to shut off the outdoor cooling unit for maintenance or in case of emergency
1	10249560	Biograph Ge-68 Sources Calibration sources for the Biograph mCT. These sources are to be purchased with a new Biograph mCT scanner.
1	10097286	Biogr. Uni. Phantom Shield-Fixed Contains shield for the Biograph TrueV Uniform Phantom.
1	10249159	Keyboard, English - mCT Keyboard in the above-mentioned language.
1	14415354	RTP Pallet RTP Flat pallet for Biograph mCT. The carbon fiber table top utilizes a quick release latch for easy on/off. Varian Exact(tm) compatible indexing for accessories.
1	10412855	Installation (US/CAN)
1	MI_PET_PM	MI PET Project Management A Siemens Project Manager (PM) will be the single point of contact for the implementation of your Siemens equipment. The assigned PM will work with the customer's facilities management, architect or building contractor to assist you in ensuring that your site is ready for installation. Your PM will provide initial and final drawings and will coordinate the scheduling of the equipment, installation, and rigging, as well as the initiation of on-site clinical education.

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Qty	Part No.	Item Description
1	MI_PET_INITIA L_32	Initial onsite training 32 hrs Up to (32) hours of on-site clinical education training, scheduled consecutively (Monday - Friday) during standard business hours for a maximum of (4) imaging professionals. Training will cover agenda items on the ASRT approved checklist. Uptime Clinical Education phone support is provided during the warranty period for specified posted hours. This educational offering must be completed (12) months from install end date. If training is not completed within the applicable time period, Siemens obligation to provide the training will expire without refund.
1	MI_PET_FLWU P_32	Follow-up training 32 hrs Up to (32) hours of follow-up on-site clinical education training, scheduled consecutively (Monday - Friday) during standard business hours for a maximum of (4) imaging professionals. Uptime Clinical Education phone support is provided during the warranty period for specified posted hours. This educational offering must be completed (12) months from install end date. If training is not completed within the applicable time period, Siemens obligation to provide the training will expire without refund.
1	MI_PET_BCLS	Basic Biograph Class Tuition for (1) imaging professional to attend a Siemens Classroom Course at Siemens Training Center. The objectives of this class are to introduce the user interface of the common syngo platform and instructions on building protocols, demonstration of software functions, and hands-on sessions. This class includes lunch, economy airfare, and lodging for (1) imaging professional. All arrangements must be arranged through Siemens designated travel agency. This educational offering must be completed (12) months from install end date. If training is not completed within the applicable time period, Siemens obligation to provide the training will expire without refund.
1	MI_PET_CTCR STR	CT Cross Trainer CT Cross Trainer printed self study materials for (1) imaging professional. These materials will provide the user with basic CT knowledge by testing the participant periodically. Successful completion of the self study program will provide the participant with CE credits. CT Cross Trainer printed self study materials for (1) imaging professional. These materials will provide the user with basic CT knowledge by testing the participant periodically. Successful completion of the self study program will provide the participant with CE credits. This educational offering must be completed (12) months from install end date. If training is not completed within the applicable time period, Siemens obligation to provide the training will expire without refund.
1	MI_CTPET_AD D_32	Additional CT onsite training 32 hours MI_CTPET_ADD_32 Up to (32) hours of on-site clinical education training, scheduled consecutively (Monday - Friday) during standard business hours for a maximum of (4) imaging professionals. Training will cover agenda items on the ASRT approved checklist if applicable. This educational offering must be completed (12) months from install end date. If training is not completed within the applicable time period, Siemens obligation to provide the training will expire without refund.
1	MI_PET_ADD_ CLS	Additional Training Class Tuition for (1) attendee for a customer classroom course of choice at one of the Siemens training centers. Includes economy airfare and lodging for (1) attendee. All arrangements must be arranged through Siemens designated travel agency. This educational offering must be completed (12) months from install end date. If training is not completed within the applicable time period, Siemens obligation to provide the training will expire without refund.
1	7568103L MIP_RIEDEL_ CHILLIN	Project Mgmt/Site Planning (US only) MI PET Riedel Chiller Start-up by SBT
1	4SPAS014 MIPET_ELV_B 16	Low Contrast CT Phantom & Holder Elev Bio16 (\$5,000) Deinstall, freight, and/or scrapping is included in this offer.
1	14421151	English Manual - mCT Hardcopy of English Operator's Manual for Biograph mCT
1	14415373	Respiratory Trigger System 3.0 Respiratory trigger system for PET or CT Gating. The respiratory gating and triggering hardware is comprised of: chest/abdominal belt, pressure transducer, sensor port, Wave Deck, respiratory phantom, laptop PC with connecting cables. Power: 100-240 V, 50/60 Hz
1	14415780	Dose Start Up Kit- 50 Doses 50 unit doses of Fludeoxyglucose F 18 Injection and/or Sodium Fluoride F 18 Injection to be delivered by Siemens PETNET Solutions.

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Qty	Part No.	Item Description	
1	10249279	PET + CT Resp. Gating Option - mCT Provides both CT Respiratory and Triggering option as well as PET respiratory gated acquisition/reconstruction.	
1	MIP_EOS_M20 _BONUS	MI PET EOS Promo	
1	14415353	PET Gantry UPS - mCT Uninterruptible Power Supply (UPS) option providing 10 minutes of backup power enabling proper shutdown of the PET system in the event of power loss. Specifications: 8.0 KVA, 230 Volts, 50/60 Hz.	
System Total:			\$1,081,000

OPTIONS:

Qty	Part No.	Item Description	Extended Price	Initial to Accept
1	10249568	HI-REZ PET Processing # mCT (AWP) Optimized image processing for maximum reconstructed image resolution for the most demanding clinical and research applications.	+ \$42,000	X _____
1	14415632	Acculine RT (RTP Excellence Pkg.) The Acculine RT RTP Excellence kit contains a high accuracy installation and adjustment procedure utilizing additional installation tools and a special laser phantom including the required laser system (both part of the package that remains at the customer site) to optimize the accuracy of the system. The kit also contains two index bars.	+ \$22,040	X _____
1	10249271	PET Cardiac Opt # mCT (AWP) Provides PET cardiac gated list mode acquisition, offline histogramming, and reconstruction for improved accuracy in quantitation as well as visualization of cardiac motion. Supports a maximum of 16 gate bins from the list mode PET acquisition. Requires the optional UPMM for ECG signal capture.	+ \$37,700	X _____
1	10249274	PET Dynamic Option # mCT (AWP) Support for list mode acquisition, offline histogramming and reconstruction. Support for retrospective histogramming in any arbitrary frame durations of 3 second or greater, maximum of 100 frames defined by available disk space. Whole body (multi-bed) dynamic support of up to 25 passes.	+ \$28,420	X _____
1	14421190	ECG monitoring module (UPMM-2) Universal Physiological Monitoring Module (UPMM) provides patient cardiac ECG information for either CT or PET cardiac gating. Locates in the patient handling system for convenient patient connection. Includes patient cable.	+ \$3,306	X _____
1	14415391	Auto Cardiac Registration #AWP Provides automated, rigid registration of CT and PET during cardiac imaging. A proprietary algorithm identifies the heart and aligns the two images for optimal attenuation correction, improving the workflow and reducing variability between users.	+ \$15,428	X _____
1	14415399	HD-Chest #AWP Adaptive respiratory gating for automated optimal, motion-freeze, providing improved image quality by reducing respiratory motion artifacts while providing optimized count statistics.	+ \$44,022	X _____
1	14415650	Open Interface Resp. Gating - mCT Interface kit to connect to an external respiratory device. Important note: When using the open Interface and the cable to connect the CT scanner to an external respiratory device the customer accepts the responsibility of this connection. This is not valid when using the ANZAI respiratory sensor system provided by Siemens/ANZAI.	+ \$9,164	X _____

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Qty	Part No.	Item Description	Extended Price	Initial to Accept
1	14415514	HD-PET Performance Plus The HD-PET Performance Plus enables the Biograph mCT 20 Excel system to utilize Siemens unique HD-PET technology.	+ \$106,250	X _____
1	10249566	HD-PET # mCT (AWP)	+ \$248,000	X _____
1	14415668	DICOM SR Viewer (AWP) - mCT The DICOM SR (structured report) Viewer allows to read reports created with specific applications (e.g. Circulation, Lung Care, Calcium Scoring and Onco) without the application itself being on the respective computer.	+ \$22,040	X _____
1	14415600	SMART Neuro AC (AWP) Calculated attenuation correction for brain imaging reduces the need for CT imaging for attenuation correction while providing images with quantitative units. The part is currently not expected to be available for shipment until the third calendar quarter 2012.	+ \$12,934	X _____
1	14415604	CT SAFIRE (AWP) - mCT The Sinogram Affirmed Iterative Reconstruction (SAFIRE) enhances spatial resolution, reduces image noise and increases sharpness by introducing multiple iteration steps in the reconstruction process. The resulting superior image quality enables to reduce dose. The part is currently not expected to be available for shipment until the third calendar quarter 2012.	+ \$101,500	X _____
1	10249103	Baby Mattress	+ \$3,016	X _____
1	10249177	NEMA PET Self-test - mCT NEMA PET Self-test is a kit which provides the necessary phantoms and analysis software for NEMA NU2-2007 testing. The NEMA PET Self-test kit is intended for use by a user familiar with the NEMA NU2-2007 testing procedure.	+ \$46,342	X _____

FINANCING: The equipment listed above may be financed through Siemens. Ask us about our full range of financial products that can be tailored to meet your business and cash flow requirements. For further information, please contact your local Sales Representative.

ACCESSORIES: Don't forget to ask us about our line of OEM imaging accessories to complete your purchase. All accessories can be purchased or financed as part of this order. To purchase accessories directly or to receive our accessories catalog, please call us directly at 1-888-222-9944 or contact your local Sales Representative.

COMPLIANCE: Compliance with legal and internal regulations is an integral part of all business processes at Siemens. Possible infringements can be reported to our Helpdesk "Tell us" function at www.siemens.com/tell-us.

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Siemens Medical Solutions USA, Inc. General Terms and Conditions

1. GENERAL

1.1 Contract Terms. These terms and conditions constitute an integral part of any contract between Seller and Purchaser identified on the first page hereof and shall govern the sale of the products identified in such contract ("Products"). Seller shall not be bound by, and specifically objects to, any terms, conditions or other provisions which are different from or in addition to the provisions of this Agreement (even if provided to Seller concurrently with this Agreement), unless Seller specifically agrees to any such provision in a writing signed by Seller. Neither Seller's lack of objection to any such terms, nor delivery of the Products or provision of any services hereunder, shall constitute the agreement of Seller to any such terms. Purchaser acknowledges that this is a commercial and not a consumer transaction.

1.2 Acceptance. Purchaser shall be deemed to have assented to, and to have waived any objection to, this Agreement upon the earliest to occur of any of the following: Purchaser's completion or execution of this Agreement; Purchaser's acceptance of all or any part of the Products; Purchaser's issuance of a purchase order for any Products identified on Seller's quotation or proposal; or delivery of the Products to the common carrier for shipment pursuant hereto.

1.3 Refurbished/Used Products. For Products identified on this Agreement as used or refurbished Products, these Products have been previously owned and used. When delivered to Purchaser, the Products may have received mechanical, electrical and/or cosmetic reconditioning, as needed, and will comply with the manufacturer's specifications. Since pre-owned Products may be offered simultaneously to several customers, the sale of such Products to Purchaser cannot be guaranteed and is subject to continuing availability at the time Purchaser accepts Seller's offer to sell the Products. If the Products are no longer available, Seller will use its best efforts to identify other products in its inventory that may be suitable for purchase by Purchaser, and if substitute products are not acceptable to Purchaser, then Seller will cancel the order and refund to Purchaser any deposits previously paid. The warranty period for any used or refurbished Products will be separately stated on the quotation.

1.4 Third Party Products. If this Agreement includes the sale of third party products not manufactured by Seller, then Purchaser agrees and acknowledges that (a) Purchaser has made the selection of these products on its own, (b) the products are being acquired by Seller solely at the request of and for the benefit of Purchaser, in order to eliminate the need for Purchaser to issue a separate purchase order to the manufacturer of the products, (c) no representation, warranty or guarantee has been made by Seller with respect to the products, (d) the obligation of Purchaser to pay Seller for the products is absolute and unconditional, (e) Purchaser will indemnify and hold Seller harmless from and against any and all claims, regardless of the form of action, related to, resulting from or caused by the products or any work or service provided by the manufacturer of the products or any other party, (f) use of the products may be subject to Purchaser's agreement to comply with any software licensing terms imposed by the manufacturer, as well as any applicable laws, rule and regulations; and (g) the manufacturer, and not Seller, is solely responsible for any required installation, testing, validation, tracking, product recall, warranty service, maintenance, support, and complaint handling, as well as any other applicable FDA regulatory requirements, and the Purchaser will look solely to the manufacturer regarding these services and will assert no claim against Seller with respect to these products.

2. PRICES

2.1 Quotations. Unless otherwise agreed to in writing or set forth in the quotation, all prices quoted by Seller are based on U.S. dollars, and include standard and customary packaging. F.O.B. terms are set forth in Section 6.2 hereof. Domestic prices apply only to purchasers located in, and who will use the Products in, the U.S. International prices apply to all purchasers located outside of, or who will use or ship or facilitate shipment of the Products outside of, the U.S. Unless otherwise stated, the quotation shall only be valid for forty-five (45) days from the date of the quotation.

2.2 Delay in Acceptance of Delivery. Should the agreed delivery date be postponed by Purchaser, Seller shall have the right to deliver the Products to storage at Purchaser's risk and expense, and payments due upon delivery shall become due when Seller is ready to deliver.

2.3 Escalation. Unless otherwise agreed to in writing, except as to Products to be delivered within six (6) months of Seller's acceptance of Purchaser's order, Seller reserves the right to increase its prices to those in effect at the time of shipment.

3. TAXES

3.1 Any sales, use or manufacturer's tax which may be imposed upon the sale or use of Products, or any property tax levied after readiness to ship, or any

excise tax, license or similar fee required under this transaction, shall be in addition to the quoted prices and shall be paid by Purchaser. Notwithstanding the foregoing, Seller agrees to honor any valid exemption certificate provided by Purchaser.

4. TERMS OF PAYMENT; DEFAULT

4.1 Payments; Due Date. Unless otherwise set forth in the quotation, Seller's payment terms are as follows: an initial deposit of 10% of the purchase price for each Product is due upon submission of the purchase order, an additional 80% of the purchase price is due upon delivery of each Product, and the final 10% of the purchase price is due upon completion of installation or when the Products are available for first patient use, whichever occurs first. Unless otherwise agreed, all payments other than the initial deposit are due net thirty (30) days from the date of invoice. Seller shall have no obligation to complete installation until the payment due upon delivery is received. All amounts payable pursuant to this Agreement are denominated in United States dollars, and Purchaser shall pay all such amount in lawful money of the United States. Partial shipments shall be billed as made, and payments for such shipments will be made in accordance with the foregoing payment terms.

4.2 Late Payment. A service charge of 1½% per month, not to exceed the maximum rate allowed by law, shall be made on any portion of Purchaser's outstanding balance which is not paid within thirty (30) days after invoice date, which charge shall be determined and compounded on a daily basis from the due date until the date paid. Payment of such service charge shall not excuse or cure Purchaser's breach or default for late payment.

4.3 Payment of Lesser Amount. If Purchaser pays, or Seller otherwise receives, a lesser amount than the full amount provided for under this Agreement, such payment or receipt shall not constitute or be construed other than as on account of the earliest amount due Seller. Seller may accept any check or payment in any amount without prejudice to Seller's right to recover the balance of the amount due or to pursue any other right or remedy. No endorsement or statement on any check or payment or in any letter accompanying a check or payment or elsewhere shall constitute or be construed as an accord or satisfaction.

4.4 Where Payment Due Upon Installation or Completion. Should any terms of payment provide for either full or partial payment upon completion of installation or thereafter, and completion of installation is delayed for any reason for which Seller is not responsible, then the Products shall be deemed installed upon delivery and the balance of payments shall be due no later than thirty (30) days from the delivery date regardless of the actual installation date.

4.5 Default; Termination. Each of the following shall constitute an event of default under this Agreement: (i) a failure by Purchaser to make any payment due Seller within ten (10) days of receipt of written notice of non-payment from Seller; (ii) a failure by Purchaser to perform any other obligation under this Agreement within thirty (30) days of receipt of written notice from Seller; (iii) a default by Purchaser under any other obligation to or agreement with Seller or Siemens Financial Services, Inc., or any assignee of the foregoing (e.g., a promissory note, lease, rental agreement, license agreement or purchase contract); or (iv) the commencement of any insolvency, bankruptcy or similar proceedings by or against Purchaser (including any assignment by Purchaser for the benefit of creditors). Upon the occurrence of any event of default, at Seller's election: (a) the entire amount of any indebtedness and obligation due Seller under this Agreement and interest thereon shall become immediately due and payable without notice, demand, or period of grace; (b) Seller may suspend the performance of any of Seller's obligations hereunder, including, but not limited to, obligations relating to delivery, installation and warranty services; (c) Purchaser shall put Seller in possession of the Products upon demand; (d) Seller may enter any premises where the Products are located and take possession of the Products without notice or demand and without legal proceedings; (e) at the request of Seller, Purchaser shall assemble the Products and make them available to Seller at a place designated by Seller which is reasonable and convenient to all parties; (f) Seller may sell or otherwise dispose of all or any part of the Products and apply the proceeds thereof against any indebtedness or obligation of Purchaser under this Agreement (Purchaser agrees that a period of 10 days from the time notice is sent to Purchaser shall be a reasonable period of notification of sale or other disposition of the Products by or for Seller); (g) if this Agreement or any indebtedness or obligation of Purchaser under this Agreement is referred to an attorney for collection or realization, Purchaser shall pay to Seller all costs of collection and realization (including, without limitation, a reasonable sum for attorneys' fees, expenses of title search, all court costs and other legal expenses) incurred thereby; and (h) Purchaser shall pay any deficiency remaining after collection of or realization by Seller on the Products. In addition, Seller may terminate this Agreement upon written notice to Purchaser

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Siemens Medical Solutions USA, Inc. Confidential

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SIEMENS

Siemens Medical Solutions USA, Inc.
51 Valley Stream Parkway, Malvern, PA 19355

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Donald Werner - (865) 548-6348

in the event that Purchaser is not approved for credit or upon the occurrence of any material adverse change in the financial condition or business operations of Purchaser.

4.6 Financing. Notwithstanding any arrangement that Purchaser may make for the financing of the purchase price of the Products, the parties agree that any such financing arrangement shall have no effect on the Purchaser's payment obligations under this Agreement, including but not limited to Sections 4.1 and 4.2 above.

5. EXPORT TERMS

5.1 Unless other arrangements have been made, payment on export orders shall be made by irrevocable confirmed letter of credit, payable in U.S. dollars against Seller's invoice and standard shipping documents. Such letter of credit shall be in an amount equal to the full purchase price of the Products and shall be established in a U.S. bank acceptable to Seller. Purchaser shall procure all necessary permits and licenses for shipment and compliance with any governmental regulations concerning control of final destination of Products.

5.2 Purchaser acknowledges that Seller is required to comply with applicable export laws and regulations relating to the sale, exportation, transfer, assignment, disposal and usage of the Products provided under this Agreement, including any export license requirements. Purchaser agrees that such Products shall not at any time directly or indirectly be used, exported, sold, transferred, assigned or otherwise disposed of in a manner which will result in non-compliance with such applicable export laws and regulations. It shall be a condition of the continuing performance by Seller of its obligations hereunder that compliance with such export laws and regulations be maintained at all times. **PURCHASER AGREES TO INDEMNIFY, DEFEND AND HOLD SELLER HARMLESS FROM ANY AND ALL COSTS, LIABILITIES, PENALTIES, SANCTIONS AND FINES RELATED TO NON-COMPLIANCE WITH APPLICABLE EXPORT LAWS AND REGULATIONS.** If Purchaser purchases a Product at the domestic price and exports such Product, or transfers such Product to a third party for export, outside of the U.S., Purchaser shall pay to Seller the difference between the domestic price and the international retail price of such Product pursuant to the payment terms set forth herein. Purchaser shall deliver to Seller, upon Seller's request, written assurance regarding compliance with this section in form and content acceptable to Seller.

6. DELIVERY, RISK OF LOSS

6.1 Delivery Date. Delivery and installation dates will be established by mutual agreement of the parties. Seller shall make every reasonable effort to meet the agreed upon delivery date(s), but shall not be liable for any failure to meet such date(s). Partial shipments may be made.

6.2 Risk of Loss; Title Transfer. Unless otherwise agreed to in writing, the following shall apply:

(a) For Products that do not require installation by Seller, and for options and add-on products purchased subsequent to delivery and installation of Products purchased under this Agreement, delivery shall be complete upon transfer of possession to common carrier, F.O.B. Shipping Point, whereupon title to and all risk of loss, damage to or destruction of the Products shall pass to Purchaser.

(b) For Products that require installation by Seller, delivery shall be complete upon delivery of the Products to Purchaser's designated site, F.O.B. Destination; title to and all risk of loss, damage to or destruction of such Products shall pass to Purchaser upon completion of the installation.

(c) All freight charges and other transportation, packing and insurance costs, license fees, custom duties and other similar charges shall be the sole responsibility of Purchaser unless included in the purchase price or otherwise agreed to in writing by Seller. In the event of any loss or damage to any of the Products during shipment, Seller and Purchaser shall cooperate in making a claim against the carrier.

7. SECURITY INTEREST/FILING

7.1 Purchaser grants to Seller a security interest in the Products (and all accessories and replacements thereto and all proceeds thereof) until payment in full by Purchaser and satisfaction of all other obligations of Purchaser hereunder. Purchaser hereby (i) authorizes Seller to file (and Purchaser shall promptly execute, if requested by Seller) and (ii) irrevocably appoints Seller its agent and attorney-in-fact to execute in the name of Purchaser and file, with such authorities and at such locations as Seller may deem appropriate, any Uniform Commercial Code financing statements with respect to the Products and/or this Agreement. Purchaser further represents and covenants that (a) it will keep the Products in good order and repair until the purchase price has been paid in full, (b) it will promptly pay all taxes and assessments upon the Products or the use thereof, (c) it will not attempt to transfer any interest in the Products until the purchase price has been paid in full, and (d) it is solvent and financially capable of paying the full purchase price for the Products.

8. CHANGES, CANCELLATION, AND RETURN

8.1 Orders accepted by Seller are not subject to change except upon Seller's written agreement.

8.2 Orders accepted by Seller are noncancellable by Purchaser except upon Seller's written consent and payment by Purchaser of a cancellation charge equal to 10% of the price of the affected Products, plus any shipping, insurance, inspection and refurbishment charges; the cost of providing any training, education, site evaluation or other services completed by Seller; and any return, cancellation or restocking fees with respect to any Third Party Products ordered by Seller on behalf of Purchaser. Seller may retain any payments received from Purchaser up to the amount of the cancellation charge. In no event can an order be cancelled by Purchaser or Products be returned to Seller after shipment.

8.3 Seller shall have the right to change the manufacture and/or design of its Products if, in the judgment of Seller, such change does not alter the general function of the Products.

9. FORCE MAJEURE

9.1 Seller shall not be liable for any loss or damage for delay in delivery, inability to install or any other failure to perform due to causes beyond its reasonable control including, but not limited to, acts of government or compliance with any governmental rules or regulations, acts of God or the public, war, civil commotion, blockades, embargoes, calamities, floods, fires, earthquakes, explosions, storms, strikes, lockouts, labor disputes, or unavailability of labor, raw materials, power or supplies. Should such a delay occur, Seller may reasonably extend delivery or production schedules or, at its option, cancel the order in whole or part without liability other than to return any unearned deposit or prepayment.

10. WARRANTY

10.1 Seller warrants that the Products manufactured by Seller and sold hereunder shall be free from defects in material or workmanship under normal use and service for the warranty period. The final assembled Products shall be new although they may include certain used, reworked or refurbished parts and components (e.g., circuit boards) that comply with performance and reliability specifications and controls. Seller's obligation under this warranty is limited, at Seller's option, to the repair or replacement of the Product or any part thereof. Unless otherwise set forth in the Product Warranty attached hereto and incorporated herein by reference, the warranty period shall commence upon the earlier of the date that the Products have been installed in accordance with Section 12.6 hereof (which date shall be confirmed in writing by Seller) or first patient use, and shall continue for 12 consecutive months. Seller makes no warranty for any Products made by persons other than Seller or its affiliates, and Purchaser's sole warranty therefor, if any, is the original manufacturer's warranty, which Seller agrees to pass on to Purchaser, as applicable. The warranty provided by Seller under this Section 10 extends only to the original Purchaser, unless the Purchaser obtains the Seller's prior written consent with respect to any sale or other transfer of the Equipment during the term of the warranty.

10.2 No warranty extended by Seller shall apply to any Products which have been damaged by fire, accident, misuse, abuse, negligence, improper application or alteration or by a force majeure occurrence as described in Section 9 hereof or by the Purchaser's failure to operate the Products in accordance with the manufacturer's instructions or to maintain the recommended operating environment and line conditions; which are defective due to unauthorized attempts to repair, relocate, maintain, service, add to or modify the Products by the Purchaser or any third party or due to the attachment and/or use of non-Seller supplied parts, equipment or software without Seller's prior written approval; which failed due to causes from within non-Seller supplied equipment, parts or software including, but not limited to, problems with the Purchaser's network; or which have been damaged from the use of operating supplies or consumable parts not approved by Seller. In addition, there is no warranty coverage for any transducer or probe failure due to events such as cracking from high impact drops, cable rupture from rolling equipment over the cable, delamination from cleaning with inappropriate solutions, or TEE bite marks. Seller's obligation under this warranty is limited to the repair or replacement, at Seller's option, of defective parts. Seller may effectuate such repair at Purchaser's facility, and Purchaser shall furnish Seller safe and sufficient access for such repair. Repair or replacement may be with parts or products that are new, used or refurbished. Repairs or replacements shall not interrupt, extend or prolong the term of the warranty. Purchaser shall, upon Seller's request, return the noncomplying Product or part to Seller with all transportation charges prepaid, but shall not return any Product or part to Seller without Seller's prior written authorization. Purchaser shall pay Seller its normal charges for service and parts for any inspection, repair or replacement that falls outside the warranty set forth in Section 10.1. Seller's warranty does not apply to consumable materials, disposables, supplies, accessories and collateral equipment, except as specifically stated in writing or as otherwise set

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forth in the Product Warranty attached hereto and incorporated herein by reference, nor to products or parts thereof supplied by Purchaser.

10.3 This warranty is made on condition that immediate written notice of any noncompliance be given to Seller and Seller's inspection reveals that Purchaser's claim is covered under the terms of the warranty (i.e., that the noncompliance is due to traceable defects in original materials and/or workmanship).

10.4 Purchaser shall provide Seller with both on-site and remote access to the Products. The remote access shall be provided through the Purchaser's network as is reasonably necessary for Seller to provide warranty services under this Agreement. Remote access will be established through a broadband internet-based connection to either a Purchaser owned or Seller provided secure end-point. The method of connection will be a Peer-to-Peer VPN IPsec tunnel (non-client based) with specific inbound and outbound port requirements.

10.5 Warranty service will be provided without charge during Seller's regular working hours (8:30-5:00), Monday through Friday, except Seller's recognized holidays. If Purchaser requires that service be performed outside these hours, such service can be made available at an additional charge, at Seller's then current rates. The obligations of Seller described in this section are Seller's only obligations and Purchaser's sole and exclusive remedy for a breach of product warranty.

10.6 SELLER MAKES NO WARRANTY OTHER THAN THE ONE SET FORTH HEREIN AND IN THE ATTACHED PRODUCT WARRANTY COVERING THE APPLICABLE PRODUCT CATEGORY. SUCH WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO ANY EXPRESS OR IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR PARTICULAR PURPOSES, AND SUCH CONSTITUTES THE ONLY WARRANTY MADE WITH RESPECT TO THE PRODUCTS AND ANY DEFECT, DEFICIENCY OR NONCONFORMITY IN ANY PRODUCT, SERVICE OR OTHER ITEM FURNISHED UNDER THIS AGREEMENT.

10.7 In the event of any inconsistencies between the terms of this Section 10 and the terms of the attached Product Warranty, the terms of the attached Product Warranty shall prevail.

11. LIMITATION OF LIABILITY

11.1 In no event shall Seller's liability hereunder exceed the actual loss or damage sustained by Purchaser, up to the purchase price of the Products. The foregoing limitation of liability shall not apply to claims for bodily injury or damages to real property or tangible personal property to the extent arising from Seller's negligence or a product defect.

11.2 SELLER SHALL NOT BE LIABLE FOR ANY LOSS OF USE, REVENUE OR ANTICIPATED PROFITS; COST OF SUBSTITUTE PRODUCTS OR SERVICES; LOSS OF STORED, TRANSMITTED OR RECORDED DATA; OR FOR ANY INDIRECT, INCIDENTAL, UNFORESEEN, SPECIAL, PUNITIVE OR CONSEQUENTIAL DAMAGES WHETHER BASED ON CONTRACT, TORT (INCLUDING NEGLIGENCE), STRICT LIABILITY OR ANY OTHER THEORY OR FORM OF ACTION, EVEN IF SELLER HAS BEEN ADVISED OF THE POSSIBILITY THEREOF, ARISING OUT OF OR IN CONNECTION WITH THIS AGREEMENT OR THE SALE OR USE OF THE PRODUCTS. THE FOREGOING IS A SEPARATE, ESSENTIAL TERM OF THIS AGREEMENT AND SHALL BE EFFECTIVE UPON THE FAILURE OF ANY REMEDY, EXCLUSIVE OR NOT.

12. INSTALLATION - ADDITIONAL CHARGES

12.1 General. Unless otherwise expressly stipulated in writing, the Products covered hereby shall be installed by and at the expense of Seller except that Seller shall not provide rigging or site preparation services unless otherwise agreed to in writing by Seller for an additional charge. Seller will not install accessory items such as cabinets, illuminators, darkroom equipment or processors for X-Ray and CT equipment, unless otherwise agreed to in writing by Seller.

12.2 Installation by Seller. If Seller specifies it will install the Products, the following applies: subject to fulfillment of the obligations set forth in Section 12.4 below, Seller shall install the Products and connect them to the requisite safety switches and power lines to be installed by Purchaser. Except as otherwise specified below, if such installation and connection are performed by Seller's technical personnel, prices shown include the cost thereof, provided that the installation and connection can be performed within the Continental United States or Puerto Rico and during normal business hours. Any overtime charges or other special expenses shall be additional charges to the prices shown.

12.3 Trade Unions. In the event that a trade union, or unions, or other local labor conditions prevent Seller from performing the above work with its own employees or contractors, then Purchaser shall either make all required arrangements with the trade union, or unions, to permit Seller to complete the work or shall provide the personnel, at Purchaser's sole cost and expense.

Moreover, any additional cost incurred by Seller and related to such labor disputes shall be paid by the Purchaser and Seller's obligations under such circumstances will be limited to providing engineering supervision of installation and connection of the Products to existing wiring.

12.4 Purchaser's Obligations. Purchaser shall, at its expense, provide all proper and necessary labor and materials for plumbing service, carpentry work, conduit wiring, and other preparations required for such installation and connection. All such labor and materials shall be completed and available at the time of delivery of the Products by Seller. Additionally, Purchaser shall provide free access to the installation site and, if necessary, safe and secure space thereon for storage of Products and equipment prior to installation by Seller. Purchaser shall be responsible, at its sole cost and expense, for obtaining all permits, licenses and approvals required by any federal, state or local authorities in connection with the installation and operation of the Products, including but not limited to any certificate of need and zoning variances. Purchaser shall provide a suitable environment for the Products and shall ensure, at its sole cost and expense, that its premises are free of asbestos, hazardous conditions and any concealed, unknown or dangerous conditions and that all site requirements are met. Seller shall delay its work until Purchaser has completed the removal of any asbestos or other hazardous materials or has taken any other precautions and completed any other work required by applicable regulations. Purchaser shall reimburse Seller for any increased costs and expenses incurred by Seller that are the result of or are caused by any such delay. In the event that Seller is requested to supervise the installation of the Products, it remains the Purchaser's responsibility to comply with local regulations. Seller is not an architect and all drawings furnished by Seller are not construction drawings.

12.5 Regulatory Reporting. In the event that any regulatory activity is performed by anyone other than Seller's authorized personnel, then Purchaser shall be responsible for fulfilling any and all reporting requirements.

12.6 Completion of Installation. Installation shall be complete upon the conclusion of final calibration and checkout under Seller's standard procedures to verify that the Products meet applicable written performance specifications. Notwithstanding the foregoing, first use of the Products by Purchaser, its agents or employees for any purpose after delivery shall constitute completion of installation.

13. PATENT, COPYRIGHT AND OTHER INFRINGEMENT CLAIMS

13.1 Infringement by Seller. Seller warrants that the Products manufactured by Seller and sold hereunder do not infringe any U.S. patent or copyright. If Purchaser receives a claim that any such Products, or parts thereof, infringe upon the rights of others under any U.S. patent or copyright, Purchaser shall notify Seller immediately in writing. As to all infringement claims relating to Products or parts manufactured by Seller or one of its affiliates:

(a) Purchaser shall give Seller information, assistance and exclusive authority to evaluate, defend and settle such claims.

(b) Seller shall then, at its own expense, defend or settle such claims, procure for Purchaser the right to use the Products, or remove or modify them to avoid infringement. If none of these alternatives is available on terms reasonable to Seller, then Purchaser shall return the Products to Seller and Seller shall refund to Purchaser the purchase price paid by Purchaser less reasonable depreciation for Purchaser's use of the Products. The foregoing states Seller's entire obligation and liability, and Purchaser's sole remedy, for claims of infringement.

13.2 Infringement by Purchaser. If some or all of the Products sold hereunder are made by Seller pursuant to drawings or specifications furnished by Purchaser, or if Purchaser modifies or combines, operates or uses the Products other than as specified by Seller or with any product, data, software, apparatus or program not provided or approved by Seller, then the indemnity obligation of Seller under Section 13.1 shall be null and void and should a claim be made that such Products infringe the rights of any third party under patent, copyright or otherwise, then Purchaser shall indemnify, defend and hold Seller harmless against any liability or expense, including reasonable attorneys' fees, incurred by Seller in connection therewith.

14. DESIGNS AND TRADE SECRETS; LICENSE; CONFIDENTIALITY

14.1 Any drawings, data, designs, software programs or other technical information supplied by Seller to Purchaser in connection with the sale of the Products are not included in the sale of the Products to Purchaser, shall remain Seller's property and shall at all times be held in confidence by Purchaser. Such information shall not be reproduced or disclosed to others without Seller's prior written consent.

14.2 For all goods purchased hereunder which utilize software for their operation, such "Applications Software" shall be licensed to Purchaser under the terms of Seller's Software License Schedule attached hereto.

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14.3 Diagnostic/Maintenance Software is not included under Section 14.2 above, is available only as a special option under a separate Diagnostic Materials License Agreement, and may be subject to a separate licensing fee.

14.4 Seller and Purchaser shall maintain the confidentiality of any information provided or disclosed to the other party relating to the business, customers and/or patients of the disclosing party, as well as this Agreement and its terms (including the pricing and other financial terms under which the Purchaser will be purchasing the Products). Each party shall use reasonable care to protect the confidentiality of the information disclosed, but no less than the degree of care it would use to protect its own confidential information, and shall only disclose the other party's confidential information to its employees and agents having a need to know this information. The obligations of confidentiality set forth herein shall not apply to any information in the public domain at the time of disclosure or that is required to be disclosed by court order or by law.

15. ENGINEERING CHANGES

15.1 Seller makes no representation that engineering changes which may be announced in the future will be suitable for use on, or in connection with, the Products.

16. ASSIGNMENT

16.1 Neither party may assign any rights or obligations under this Agreement without the prior written consent of the other and any attempt to do so shall be void, except that Seller may assign this Agreement without consent to any subsidiary or affiliated company, and may delegate to authorized subcontractors or service suppliers any work to be performed under this Agreement so long as Seller remains liable for the performance of its obligations under this Agreement. This Agreement shall inure to and be binding upon the parties and their respective successors, permitted assigns and legal representatives. Seller shall have no obligations under this Agreement to any assignee of Purchaser that is not approved by Seller in advance.

17. COSTS AND FEES

17.1 In the event that any dispute or difference is brought arising from or relating to this Agreement or the breach, termination or validity thereof, the prevailing party shall be entitled to recover from the other party all reasonable attorneys' fees incurred, together with such other expenses, costs and disbursements as may be allowed by law.

18. MODIFICATION

18.1 This Agreement may not be changed, modified or amended except in writing signed by duly authorized representatives of the parties.

19. GOVERNING LAW; WAIVER OF JURY TRIAL

19.1 This Agreement shall be governed by the laws of the Commonwealth of Pennsylvania.

19.2 EACH OF THE PARTIES EXPRESSLY WAIVES ALL RIGHTS TO A JURY TRIAL IN CONNECTION WITH ANY DISPUTE UNDER THIS AGREEMENT.

20. COST REPORTING

20.1 Purchaser agrees that it will fully and accurately account for and report in all cost reports and otherwise fully and accurately disclose to federal and state health care program payors and fully and accurately reflect where and as appropriate to the applicable reimbursement methodology, all services and other items, including any and all discounts, received from Seller under this Agreement, in compliance with all applicable laws, rules and regulations, including but not limited to the Social Security Act and implementing regulations relating to Medicare, Medicaid and other federal and state health care reimbursement programs.

21. INTEGRATION

21.1 These terms and conditions, including any attachments or other documents incorporated by reference herein, constitute the entire agreement and the complete and exclusive statement of agreement with respect to the subject matter hereof, and supersede any and all prior agreements, understandings and communications between the parties with respect to the Products.

22. SEVERABILITY; HEADINGS

22.1 No provision of this Agreement which may be deemed unenforceable will in any way invalidate any other portion or provision of this Agreement. Section headings are for convenience only and will have no substantive effect.

23. WAIVER

23.1 No failure and no delay in exercising, on the part of any party, any right under this Agreement will operate as a waiver thereof, nor will any single or partial exercise of any right preclude the further exercise of any other right.

24. NOTICES

24.1 Any notice or other communication under this Agreement shall be deemed properly given if given in writing and delivered in person or mailed, properly addressed and stamped with the required postage, to the intended recipient at its address specified on the face hereof. Either party may from time to time change such address by giving the other party notice of such change in accordance with this section.

25. RIGHTS CUMULATIVE

25.1 The rights and remedies afforded to Seller under this Agreement are in addition to, and do not in anyway limit, any other rights or remedies afforded to Seller by any other agreement, by law or otherwise.

26. END USER CERTIFICATION

26.1 Purchaser represents, warrants and covenants that it is acquiring the Products for its own end use and not for reselling, leasing or transferring to a third party (except for lease-back financings).

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Software License Schedule to the Siemens Medical Solutions USA, Inc. General Terms and Conditions

1. DEFINITIONS: The following definitions apply to this Schedule:

"Agreement" shall mean the attached (i) Quotation for Products and/or Services including the Terms and Conditions of Sale and applicable schedules; and/or (ii) Software License Agreement describing the software licensed herein and the specific system for which the license is issued.

"Licensor" shall mean Siemens Medical Solutions USA, Inc.

"Licensee" shall mean the end-user to whom Licensor provides Software or Documentation for its internal use under the Agreement.

"Software" shall mean the software described in the attached Agreement, including the following as contained therein: (i) software programs consisting of a series of statements or instructions to be used directly or indirectly in a programmable controller or computer to bring about a certain result and (ii) databases consisting of systemized collections of data to be used or referenced directly or indirectly by a programmed controller or computer. Notwithstanding the foregoing, "Software" does not include "firmware" as such term is conventionally understood. Diagnostic/Maintenance Software also is not included within the scope of the Software licensed under this Schedule, and is available only as a special option under a separate Diagnostic Materials License Agreement and may be subject to a separate licensing fee.

"Documentation" shall mean the documents and other supporting materials which are intended to support the use of an associated product, including (but not limited to) instructions, descriptions, flow charts, logic diagrams and listings of the Software, in text or graphic form, on machine readable or printed media.

"Designated Unit" shall mean a single control unit or computer identified on the first page of the Agreement, on which Software licensed hereunder may be used by Licensee.

2. SCOPE: The following terms and conditions shall apply to all Software and Documentation provided by Licensor to Licensee under the Agreement (whether included with other products listed in the Agreement or listed separately in the Agreement), together with any updates or revisions thereto which Licensor may provide to Licensee, and all copies thereof, except any Software and/or Documentation licensed directly by Licensor's supplier under a separate end-user license agreement accompanying the Software or the Documentation, in which case Licensee agrees to be bound by that license agreement as a condition to using the Software and/or Documentation. Except as expressly provided herein, and provided that in no event shall the warranties or other obligations of Licensor with respect to such Software or Documentation exceed those set forth in this Schedule, this Schedule shall be subject to the liability limitations and exclusions and other terms and conditions set forth in the Agreement. **ANY USE OF THE SOFTWARE, INCLUDING BUT NOT LIMITED TO USE ON THE DESIGNATED UNIT, WILL CONSTITUTE LICENSEE'S AGREEMENT TO THIS SOFTWARE LICENSE SCHEDULE (OR RATIFICATION OF ANY PREVIOUS CONSENT).**

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(c) The Software may contain support for programs written in Java. Java technology is not fault tolerant and is not designed, manufactured, or intended for use or resale as online control equipment in hazardous environments requiring fail-safe performance, such as in the operation of nuclear facilities, aircraft navigation or communication systems, air traffic control, direct life support machines, or weapons systems, in which the failure of Java technology could lead directly to death, personal injury, or severe physical or environmental damage. Sun Microsystems, Inc. has contractually obligated Licensor's supplier to make this disclaimer.

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information on exporting software supplied by Microsoft, see
<http://www.microsoft.com/exporting/>.

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TRADE-IN EQUIPMENT REQUIREMENTS

THE FOLLOWING APPLIES ONLY TO THE EXTENT THAT THE QUOTATION INCLUDES AN EQUIPMENT TRADE-IN. THESE REQUIREMENTS ARE IN ADDITION TO ANY OTHER REFERENCED TERMS AND CONDITIONS ON THE QUOTATION AND SHALL REMAIN IN EFFECT REGARDLESS OF ANY CONTRARY LANGUAGE IN THE QUOTATION.

This Quotation includes the trade-in equipment described herein and referenced by either the Project Number identified in the Quotation hereof (non-Ultrasound) or the Trade Allowance Part Number (Ultrasound) as further described in the associated Trade Sheet which is incorporated herein by reference. Purchaser certifies that the description of the trade-in equipment as set forth on the Trade Sheet is a true and accurate representation of the equipment, and that the equipment is in good working condition unless otherwise noted on the Trade Sheet.

The trade-in equipment must be made available for removal no later than turnover of the new equipment. Purchaser must vacate the room of all items not listed on the Trade Sheet, or otherwise clearly identify all items listed on the Trade Sheet, prior to the start of the de-installation. If this is not done, Seller will have no liability for items which are subsequently removed or scrapped. If the de-installation or return of the trade-in equipment is delayed by Purchaser for reasons other than a force majeure event, or if upon inspection by Seller it is determined that the equipment does not meet the manufacturer's operating specifications, or if any items listed as included on the Trade Sheet are not made available at the time of de-installation, then trade-in value will be re-evaluated and any loss in value or additional costs incurred by Seller shall be deducted from the established trade-in value and the pricing set forth on this Quotation will be adjusted by change order. In the event that access to the trade-in equipment is denied past 14 days post-turnover, then Purchaser shall pay to Seller a rental fee in the amount 10% of the total trade-in value plus any additional value provided by an Elevate/Promotional program included in this Quotation (no less than \$1000) for each month, or part thereof, that access is denied. In addition, if the purchase and installation of the new equipment covered by this Quotation is not completed, then Seller shall invoice Purchaser for all costs and expenses incurred by Seller in connection with the de-installation and removal of the trade-in equipment, including but not limited to labor, materials, rigging out, and transportation, which costs shall be paid by Purchaser within thirty (30) days of the invoice date.

Purchaser further acknowledges and agrees that (i) the trade-in equipment will be free and clear of all liens and encumbrances including, but not limited to, unpaid leases and loans, and that upon request, it will execute a bill of sale or other documents reasonably satisfactory to Siemens to transfer title and ownership of the equipment to Seller, (ii) it is Purchaser's sole responsibility to delete all protected health information and any other confidential information from the equipment prior to de-installation, without damaging or cannibalizing the equipment or otherwise affecting the operation of the equipment in accordance with its specifications, (iii) the equipment, including all updates, upgrades, modifications, enhancements, revisions, software, S/W disks and manuals, shall be returned to Siemens in good operating condition, reasonable wear and tear excepted, and (iv) to the extent not prohibited by applicable law, Purchaser shall indemnify and hold Seller harmless from and against any and all claims, demands, causes of action, damages, liability, costs and expenses (including reasonable attorney's fees) resulting or arising from Purchaser's failure to comply with item (i) above.

FOR MR SYSTEMS: cryogen levels must be least 75% upon time of de-installation. FOR MOBILE SYSTEMS: system must be road worthy and a state issued title transferring ownership to Seller must be received by Seller prior to the removal of the mobile system. FOR MODALITY TRADE SYSTEMS (non-Ultrasound): The trade-in equipment must be available for inspection within two weeks of the scheduled de-installation date. In addition, Purchaser must provide a clear path for the removal of the trade-in equipment. Any additional costs due to the need to use a larger rig (other than a standard 80 ton rig), as well as any construction activities, street closings, permits, etc., required to de-install/remove the equipment are out-of-scope costs and will be the responsibility of Purchaser.

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MI Warranty Information

<u>Product</u>	<u>Period of Warranty¹</u>	<u>Coverage</u>	
(New Systems and "Proven Excellence" Refurbished Systems Only)			
MI-SPECT System or MI-PET System (not including radioactive sources and consumables)	12 month	Full Warranty (parts & labor including ALL CT tubes)	
<u>Post-Warranty (after expiration of system warranty) – Replacement parts only:</u>			
Straton CT tubes	Prorated to a maximum of 160,000 scan-seconds or 12 months whichever occurs first	Prorated credit given to customer against replacement cost	credit percentage = (160,000 – scan-seconds used) / 160,000*100
Dura Akron Q CT tubes	Prorated to a maximum of 120,000 scan-seconds or 12 months whichever occurs first	Prorated credit given to customer against replacement cost	credit percentage = (120,000 – scan-seconds used) / 120,000*100
All other Dura CT tubes	Prorated to a maximum of 130,000 scan-seconds or 12 months whichever occurs first	Prorated credit given to customer against replacement cost	credit percentage = (130,000 – scan-seconds used) / 130,000*100
Spare Parts	6 month	Parts only	
Radioactive Sources	Not covered		
Consumables	Not covered		

Note: Optional extended warranty coverage can be obtained by purchase of a service agreement.

¹ Period of warranty commences from the date of first use or completion of installation, whichever occurs first. In the event the completion of installation is delayed for reasons beyond Siemens' control, the stated Warranty period shall commence 60 days after delivery of equipment.

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Detailed Technical Specifications

Biograph mCT 20 Excel

Part No. / Product	Description
<p>14415398 Biograph mCT 20 Excel</p>	<p>The Biograph mCT 20 Excel is a whole-body PET•CT tomograph designed for the purposes of oncological, neurological and cardiac imaging and diagnosis. With a single noninvasive procedure, the Biograph produces remarkable CT and PET•CT images that reveal highly-detailed anatomy and biological processes at the molecular level.</p> <p>The Biograph mCT provides:</p> <ul style="list-style-type: none"> - high performance spiral computed tomography (CT) imaging and applications. - high-resolution, high-count rate, positron emission tomography (PET) imaging of metabolic and physiologic processes. - highest quality anatomic and metabolic image registration for optimal lesion detection and identification within the body. - highest quality attenuation correction and scatter correction for PET imaging. <p>Scope of Delivery:</p> <p>Scanning Unit (Integrated PET•CT Gantry)</p> <p>The fully integrated PET•CT gantry incorporates CT and PET detector assemblies and electronics in an efficient, compact design that reduces data transmission noise and increases system reliability. The large gantry opening, continuous patient port and short tunnel length provide ease of positioning for all patient types and help to minimize patient claustrophobia. Quad operator controls on gantry for positioning from either side of patient from either the front or rear. Dual gantry displays (front and rear) for system status.</p> <p>CT System</p> <p>The CT imaging capability of the Biograph mCT consists of a 20-slice CT featuring a full range of SPIRAL CT clinical applications with highest performance.</p> <p>Gantry:</p> <p>Aperture: 78 cm; power supplied via low-voltage slipring. Rotational speed of the gantry: 120 rpm with a rotation time of 500 ms.</p> <p>Scanning system:</p> <p>Adaptive Array Detector (AAD) system based on UFC™ (ultrafast ceramics) with up to 14720 elements depending on configuration, and 1472 measuring channels per slice (the measuring system can contain replacement components).</p> <p>STRATON tube high-performance X-ray system:</p> <p>The STRATON tube provides direct oil cooling of the anode with the ball bearings located outside the vacuum. The direct anode cooling and the small and compact design of the anode eliminates the need for heat storage capacity (0 MHU) and enables an unprecedented cooling rate of 7.3 MHU/min. Therefore cooling delays between multiple long range scans are eliminated, even for large patients. Tube current range: 20-666 mA. Focal spot size according to IEC 60336: 0.7 x 0.7mm/7°, 0.9 x 1.1mm/7°. Computer controlled monitoring of anode temperature, multifan principle with flying focal spot.</p> <p>High power X-ray generator:</p> <p>Microprocessor-controlled, low-noise high-frequency generator with integrated, automatic self-testing system for continuous monitoring of operation. Settings: High-voltage range 70, 80, 100, 120 and 140 kV; power max. 80 kW, adjustable in fine steps.</p> <p>PET System</p> <p>The PET imaging capability of the Biograph mCT consists of the multi-LSO-detector ring system with 3D acquisition and reconstruction and 81 image planes with a 162 mm axial field of view.</p> <p>OptisoHD detection system provides:</p>

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Part No. / Product	Description
<p><i>(Continued)</i> 14415398 Biograph mCT 20 Excel</p>	<ul style="list-style-type: none"> - Time-of-flight detection technology for improved signal-to-noise - High spatial slice resolution in trans-axial and axial dimensions. - Slice spacing (2 mm) optimized for speed and resolution. - Pico-3D ultra fast electronics for decreased deadtime and high signal-to-noise. - ACS 4 acquisition computer system for high countrate capability. - PRS reconstruction system for fast reconstruction of PET data. - Three-dimensional display of organs with a large axial view. - Excellent volume sensitivity. - Fast acquisition and reconstruction of 200 x 200 and optional 400 x 400 matrices. - Unique block detector technology provides excellent temporal and energy resolution response. - Simultaneous data acquisition and image reconstruction for high patient throughput. - Static and whole body acquisition capability. - 842 mm detector ring diameter. - 78 cm gantry aperture. - 70 cm transverse field of view - 162 mm axial field of view. - Unique, accurate Patient Handling System. - TrueC advanced scatter correction technique <p>Patient Handling System</p> <p>The Biograph mCT patient handling system (PHS) has a unique reinforced cantilever design that ensures reliable patient support with the highest weight capacity and minimal pallet deflection. As one of the pillars of SMART (Siemens Molecular & Anatomical Registration Technologies), the PHS provides:</p> <ul style="list-style-type: none"> - Reinforced cantilever design for maximum patient support and absolute positioning between PET and CT scan. - Integrated patient table design for easy patient positioning. - Low attenuation carbon fiber pallet. - 43 cm vertical motion range. - Maximum 190 cm PETCT co-scan range. - Low attenuation head holder, table extensions, head-arm support, knee-leg support. - Maximum patient weight of 227 kg (500 lbs.). <p>Control and evaluation unit: CT control box with intercom system with user-programmable patient instruction system. Dual monitors (19 inch (48 cm) LCD flat panel displays), keyboard and mouse for syngo Acquisition Workplace.</p> <p>Computer system: The computer system of the Biograph mCT consists of four components.</p> <ul style="list-style-type: none"> - syngo Acquisition Workplace console for the planning and execution of the CT examination, including evaluation and management of the CT images - Reconstruction computer for the preprocessing and reconstruction of the CT data - PET acquisition system (ACS 4) - PET data reconstruction system (PRS) with supported image reconstruction of 128 x 128, 200 x 200, and 256 x 256 (optional 400 x 400 and 512 x 512). <p>The syngo Acquisition Workplace console consists of a high-performance Celsius Windows XP based computer with Quad Xeon 2.53 Ghz processor, 8 GB RAM, 300 GB storage capacity for 480,000 images, DVD DICOM with 4.7 GB media for 8,000 images. External USB 2.0 devices for data storage are supported (recommended: Iomega 160 GB External Hard Drive Hi-Speed USB 2.0; Maxtor One Touch 160 GB External Hard Drive).</p> <p>The CT reconstruction computer contains a cluster of 2 high-performance processors performing the preprocessing and reconstruction of the CT data at up to 40 images/sec (512x512). Raw data memory is 900 GB.</p> <p>The PET acquisition system (ACS 4) provides high performance acquisition and sorting of 3D coincidence events. Supports 3D static and 3D whole body acquisition modes. Contains dual Xeon 3.3 GHz processors with a total of 64 GB RAM. Disk storage of 1.0 TB for PET raw data is provided.</p> <p>The PET reconstruction system (PRS) provides fast 3D image reconstruction of the PET raw data. Iterative and backprojection are supported. Contains dual Xeon 3.3 GHz QuadCore processors, Tesla C2075 GPU, 16 GB RAM. Disk storage of 1.0 TB for PET raw data.</p>

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Part No. / Product	Description
<p>(Continued) 14415398 Biograph mCT 20 Excel</p>	<p>syngo User Software: syngo features an intuitive and thus easy-to-learn user interface. syngo visualizes the examination in individual process steps on so-called task cards, such as patient registration or examination card. A large number of functions and input parameters as well as the language used can be selected according to individual requirements. Frequently repeated processes can be automated and saved.</p> <p>Patient registration - The system can accept patient data in different ways. These include entering the data via keyboard or transfer of a worklist via network. DICOM Worklist: Software module for accepting lists of patient data and exam requirements from a Radiology Information Systems (RIS) via DICOM Get Worklist functionality. The program enables very efficient working and ensures consistent patient data.</p> <p>Examination card - The scanner is supplied with a large number of predefined CT and fully integrated PET•CT examination protocols, making examination planning a very fast and efficient procedure.</p> <p>Viewing card - On the viewing card it is possible to move interactively with the mouse through the image volume of the ongoing examination. The images of different examinations can be displayed in parallel for comparison. A large number of functions are available for evaluation, documentation and archiving.</p> <p>Filming card - A virtual film sheet shows a 1:1 display of the film sheets to be printed out, thus permitting an effective preview of the filming job and re-windowing the images, as well as providing a large number of evaluation functions. Layout changes are possible interactively with up to 64 images. The printout parameters for the ongoing auto-filming running parallel to acquisition or reconstruction are also defined with the filming card.</p> <p>3D card - The 3D task card contains the User Interface for the operation of the MIP (Maximum Intensity Projection), SSD (Surface Shaded Display), MPR (Multi-planar Reconstruction) three-dimensional post-processing.</p> <p>3D VRT - Advanced 3D functionality as an extension to the basic 3D viewer, containing volume rendering technique (VRT) and advanced editing functions. Advanced 3D application package for the optimal display and differentiation of different organs through independent control of color, opacity, and shading in up to 4 tissue classes.</p> <p>CT Angio: Software for the reconstruction of angular projections from the images of a spiral data record for the display and diagnosis e.g. of aneurysms, plaques, stenoses, vascular anomalies or vascular origins. MIP: Maximum Intensity Projection, MinIP: Minimum Intensity Projection and Thin MIP available. Interfering or irrelevant parts of the image can be eliminated with the integrated volume editor. The angular projections are reconstructed around a definable axis, whereby the maximum CT values in this direction are selected for each angular projection. The resulting images can be viewed with the CINE function as a series of images with a 3D image effect.</p> <p>Workstream – Planning and reconstruction of diagnostic CT coronal, sagittal, oblique and MIP images can take place directly after scanning.</p> <p>DynEva card: Software for dynamic evaluation of the contrast enhancement in organs and types of tissues, enabling the reconstruction of</p> <ul style="list-style-type: none"> - Time-density curves (up to 5 ROIs) - Peak-enhancement images - Time-to-peak images. <p>Video Capture and Editing Tool: Software contains integrated solution for imaging and visualization of 4D information, allowing the generation and editing of video files for improved diagnoses, recording and teaching. A wide range of multimedia formats is supported, e.g. AVI, Flash (SWF), GIF, QuickTime (MOV), streaming video.</p> <p>HD FoV - Extended Field of View - option which allows visualization of objects with a CT FOV up to 78 cm., and improved CT image quality beyond the traditional 50 cm CT FOV for improved PET attenuation correction.</p> <p>TrueD Basic: Single-mode, single timepoint layout for displaying the PET and CT either fused or side-by-side comparison with viewer formats and color map tables. Support for 3D spherical regions-of-interest with units of Bq/ml or Standard Uptake Value (SUV). Allows re-registration of PET to CT data for correction of misregistration as a result of patient motion.</p> <p>Media Viewer: Provides basic viewing capabilities in a portable Windows-based application that can be burned to media (CD, DVD) along with patient images. Not intended for diagnostic use.</p> <ul style="list-style-type: none"> - Review volume datasets from CT and PET - Supports viewing single-modality or fused images

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<p><i>(Continued)</i> 14415398 Biograph mCT 20 Excel</p>	<p>region; - Thinner axial slices and/or longer scan ranges possible because of reduced tube loading; - Ultra-low dose examinations for pediatric patients.</p> <p>CARE Dose Configurator: Enhancement of Siemens' renowned real-time dose modulation CARE Dose4D, introducing new reference curves for each body region and for each body habitus allowing to adjust the configuration even more precisely to the patient's anatomy.</p> <p>Dose Notification: As requested by the new release of the standard IEC 60601 3rd edition, the Biograph mCT provides the ability to set dose reference values (CTDIvol, DLP) for each scan range. If these reference values are exceeded the Dose Notification window informs the user.</p> <p>Dose Alert: As requested by the new release of the standard IEC 60601 3rd edition, the Biograph mCT automatically adds up CTDIvol and DLP depending on z-position (scan axis). The Dose Alert window appears, if either of these cumulative values exceeds a user-defined threshold.</p> <p>Adaptive Dose Shield eliminates clinically irrelevant radiation in every spiral scan, adding to the lowest possible dose that CARE Solutions provide.</p> <p>Examination and Evaluation Functions: Topogram: Scanning perspectives: a.p., p.a., lat.; length of scan field: 128 - 2200mm, width of scan field: 512 mm, 1.5 - 20s. The topogram can be switched off manually when the desired examination length is reached.</p> <p>Tomogram: Scan field size: 50 cm. Standard scan times: 0.33 (optional), 0.5 and 1 seconds. Slice thickness in sequence: 0.6, 0.75, 1, 1.2, 1.5, 2.0, 2.4, 3, 3.6, 4.0, 4.8, 5, 6, 7, 7.2, 8, 9, 10, 12, 14.4, 15 mm Slice thickness in spiral: 0.6, 0.75, 1.0, 1.5, 2, 3, 4, 5, 6, 7, 8, 10 mm</p> <p>Real-time image display. Immediate image reconstruction and display without time delay simultaneously to data acquisition in 512 x 512 matrix size.</p> <p>Spiral: Scanning technique for continuous volume scans with continuous table feed in multirotation mode. Max. scan time 100 seconds with full low-contrast resolution. Volume length 1940 mm with full low-contrast resolution. Selection of the pitch factor between 0.3 and 1.5 depending on scan mode. Selection of up to 33 separately parameterizable examination ranges in a patient protocol. In addition individual anatomic sections can be successively combined and then scanned automatically. Storage of up to 10,000 examination protocols. Rotation times/cycle: 0.5 sec and 1 sec.</p> <p>Dynamic: Program for functional dynamic examinations. Serial scanning technique in one slice position with variable scan cycle times.</p> <p>Serio sequential examination without table feed: Up to 100 scans in uninterrupted, continuous sequence without table feed. Scan cycle time: 0.75 - 60 seconds.</p> <p>Multiscan spiral examination without table feed: Continuous multirotational data acquisition in one slice position. Quantitative evaluation and graphical display of time-density curves.</p> <p>WorkStream4D with Asynchronous Recon: 4D workflow with direct generation of axial, sagittal, coronal, or double-oblique images from standard scanning protocols. Elimination of manual reconstruction steps. Asynchronous Recon allows for multiple image reconstructions and reformats, parallel to scanning. With this feature, up to eight reconstruction job requests can be loaded into a scan protocol. Immediately upon completion of the scan acquisition, these reconstruction jobs are automatically executed in the background without delaying the start of next patient examination.</p> <p>Image reconstruction and storage: Image reconstruction in full resolution (512 x 512 matrix) takes place during the examination with up to 40 images per second, with full cone beam reconstruction and full image quality. Reconstruction fields of 5 cm to 50 cm through raw data zoom with the possibility of freely selecting the image center either prospectively before each scan or retrospectively. Reconstructions of different slice thicknesses from a single raw data record, e.g. lung soft tissue and lung high-contrast with CombiScan, with simultaneous suppression of partial volume artifacts. Up to 8 reconstructions per scan range can be predefined with the examination protocol. Patient-related storage of the image and raw data.</p> <p>Image display: 1024 x 1024 display matrix; screen splitting configurable up to 64 image segments; CT value scale from -1024 to +3071 HU. For very dense objects, the CT value scale can be extended from -10240 to +30710 HU (extended CT scale) e.g. for suppressing metal artifacts.</p>

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<p><i>(Continued)</i> 14415398 Biograph mCT 20 Excel</p>	<p>Image evaluation: Complete software-controlled image evaluation program for all diagnostic requirements.</p> <p>CINE Display: Dynamic display technique for the visualization of time or volume series. A series of up to 1024 images can be displayed at a frame rate of at least 30 f/s. Automatic or interactive mouse-operated control.</p> <p>Multitasking functions: Simultaneous processing during operation of the scanner.</p> <p>Real-time Display: Image reconstruction in pace with the examination in full image quality (512 x 512 matrix) with up to 40 images/second (with full cone beam reconstruction).</p> <p>Metro Display: Simultaneous display, processing and evaluation of images from other patients while the current patient is being scanned.</p> <p>Metro Documentation: Simultaneous documentation of images from any previously examined patient while the current patient is being scanned.</p> <p>Metro Copy: Automatic transfer of image data to the syngo CT Workplace (optional) or a DICOM network node.</p> <p>Networking and Documentation For the connection to a local Ethernet (10, 100 Mbit or 1-Gigabit) in order to communicate with networked printers, diagnostic and therapy workstations, RIS or HIS systems and teleradiology routers.</p> <p>Scope of functions:</p> <ul style="list-style-type: none"> - Configurable network stations. - Unlimited selection of stations. - DICOM Standard (Digital Imaging and Communications in Medicine) for the transfer of information between DICOM-compatible units from different manufacturers. The scope of functions is described in detail in the DICOM Conformance Statement, and the standard version comprises the functions Send/Receive, Query/Retrieve and BasicPrint, Worklist, Storage Commitment, MPPS (Modality Performed Procedure Step). <p>System Documentation (1 set)</p> <p>Siemens Remote Service: Siemens Remote Service (SRS) offers a wide range of medical equipment-related remote services resulting in increased system availability and efficiency. SRS employs sophisticated authentication and authorization procedures, state-of-the-art encryption technologies and logging routines together with strictly enforced organizational measures that provide optimal patient data security and access protection. The following SRS services are included for all service agreement customers and during warranty period:</p> <p>Remote Diagnosis & Repair: In case of an unforeseen system malfunction, Siemens competent experts may directly connect with the CT system in order to identify the problem quickly. Moreover the remote repair function enables Siemens to often correct software errors immediately. Should an engineer on site be required, Remote Diagnosis & Repair allows Siemens to identify defective parts efficiently and accelerate their delivery, thereby keeping repair times to a minimum.</p> <p>Event Monitoring: Event Monitoring screens the performance of the system. If a parameter deviates from a predefined value, a status message is automatically sent to the Siemens UPTIME Service Center. Service Engineers may evaluate the status message at periodic intervals and may initiate appropriate action within the scope of the service agreement.</p>
<p>10249560 Biograph Ge-68 Sources</p>	<p>Sources consist of the following:</p> <p>2 LS-ART Set-up rod sources (Max. 46.25 MBq per rod source) 1 CS-27 Low Activity Uniform Phantom (Max. 92.5 MBq)</p> <p>Disposal of sources is not included in sale price.</p>
<p>MIPET_ELV_B16 Elev Bio16 (\$5,000)</p>	<p>Deinstall, freight, and/or scrapping is included in this offer.</p>

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Part No. / Product	Description
<p>14415780 Dose Start Up Kit- 50 Doses</p>	<p><u>FLUDEOXYGLUCOSE F 18 INJECTION (¹⁸F FDG)</u></p> <p>Indications and Usage Fludeoxyglucose F 18 Injection (¹⁸F FDG) is indicated for positron emission tomography (PET) imaging in the following settings:</p> <p>Oncology: For assessment of abnormal glucose metabolism to assist in the evaluation of malignancy in patients with known or suspected abnormalities found by other testing modalities, or in patients with an existing diagnosis of cancer.</p> <p>Cardiology: For the identification of left ventricular myocardium with residual glucose metabolism and reversible loss of systolic function in patients with coronary artery disease and left ventricular dysfunction, when used together with myocardial perfusion imaging.</p> <p>Neurology: For the identification of regions of abnormal glucose metabolism associated with foci of epileptic seizures.</p> <p>Important Safety Information</p> <p>Radiation Risks Radiation-emitting products, including ¹⁸F FDG, may increase the risk for cancer, especially in pediatric patients. Use the smallest dose necessary for imaging and ensure safe handling to protect the patient and health care worker.</p> <p>Blood Glucose Abnormalities In the oncology and neurology setting, suboptimal imaging may occur in patients with inadequately regulated blood glucose levels. In these patients, consider medical therapy and laboratory testing to assure at least two days of normoglycemia prior to ¹⁸F FDG administration.</p> <p>Adverse Reactions Hypersensitivity reactions with pruritus, edema and rash have been reported; have emergency resuscitation equipment and personnel immediately available.</p> <p><u>SODIUM FLUORIDE F 18 INJECTION (¹⁸F NaF)</u></p> <p>Indications and Usage Sodium Fluoride F 18 Injection (¹⁸F NaF) is indicated for diagnostic positron emission tomography (PET) imaging of bone to define areas of altered osteogenic activity.</p> <p>Important Safety Information</p> <p>Allergic Reactions As with any injectable drug, allergic reactions and anaphylaxis may occur. Emergency resuscitation equipment and personnel should be immediately available.</p> <p>Cancer Risk ¹⁸F NaF may increase the risk of cancer. Use the smallest dose necessary for imaging and ensure safe handling to protect the patient and health care worker.</p> <p>Adverse Reactions No adverse reactions have been reported based on a review of the published literature, publicly available reference sources, and adverse drug reaction reporting systems. The completeness of the sources is not known.</p>
<p>10249279 PET + CT Resp. Gating Option - mCT</p>	<p>The CT Respiratory Gating and Triggering option is comprised of software components that allow for the capture and storage of a signal representing a patient's respiratory cycle during a spiral or sequence CT acquisition. With the Respiratory Gating feature, the respiratory data is synchronized with the CT acquisition data so that a user can freely select the point at which images are retrospectively reconstructed based on the corresponding respiration amplitude. With the Respiration Triggering feature, the user prospectively selects a point in the respiratory cycle at which sequence images will be acquired.</p> <p>Through the selection and reconstruction processes, organ motion artifacts caused by respiration are minimized or eliminated and a better visualization and localization is possible resulting in more accurate assessment of tumor</p>

SIEMENS

Siemens Medical Solutions USA, Inc.
51 Valley Stream Parkway, Malvern, PA 19355

SIEMENS REPRESENTATIVE
Donald Werner - (865) 548-6348

Part No. / Product	Description
<p><i>(Continued)</i> 10249279 PET + CT Resp. Gating Option - mCT</p>	<p>and organ motion, their position, size, and volume during respiration.</p> <p>These applications generate 4D CT datasets that can be used to create more accurate treatment plans and also for the delivery of respiratory-triggered radiation therapy.</p> <p>Provides PET respiratory gated list mode acquisition, offline histogramming, and reconstruction for improved accuracy in quantitation as well as visualization of organ motion. Supports adaptive respiratory gating for automated optimal, motion-freeze, providing improved image quality by reducing respiratory motion artifacts while providing optimized count statistics. Supports a maximum of 16 gate bins from the list mode PET acquisition.</p> <p>Requires the optional Respiratory Trigger System.</p>
<p>10249558 HI-REZ PET Processing # mCT (AWP) (Optional)</p>	<p>Provides 81(109) image planes across the 162(216)mm axial field-of-view (2.0 mm slice spacing). Supported reconstruction matrix; 128 x 128, 200 x 200, 256 x 256, 400 x 400, 512x512. Maximum reconstructed image resolution is 4.4mm FWHM at center.</p>
<p>14415632 Acculine RT (RTP Excellence Pkg.) (Optional)</p>	<p>Installation procedure:</p> <ul style="list-style-type: none"> - Insuring accurate gantry orientation utilizing digital water level technique - Orthogonal alignment of gantry and patient-table at highest level (orienting z-direction to scan plane) utilizing an installation laser in combination with precise marking lines on the table and additional adjustment tools - Orienting table plane (around z-direction) to eliminate lateral deflection of table top (due to surface unevenness) utilizing digital water level technique. <p>Adjustment procedure Special alignment of gantry lasers utilizing a dedicated laser adjustment phantom for: Verification of parallel and orthogonal orientation of scan plane and laser-light planes during installation and daily QA Customer self adjustment of laser lights in case of deviance.</p> <p>Installation/use requires quantity three (3) Na-22 point sources (10 microCuries each). Customer is responsible to obtaining point sources. Recommended supplier is:</p> <p style="margin-left: 40px;">Eckert & Ziegler Isotope Products Dba Isotope Products Laboratories 24937 Avenue Tibbitts Valencia, CA 91355</p> <p style="margin-left: 40px;">Phone: +1 661 309-1082 Fax: +1 661 257-8303</p> <p style="margin-left: 40px;">Vendor Part # MMS02-022 Description: Multimodal spot marker, Na-22 nominal, 10 microCuries</p>
<p>14415514 HD-PET Performance Plus (Optional)</p>	<p>The HD-PET Performance Plus hardware enabler allows the Biograph mCT 20 Excel scanner to utilize Siemens unique HD-PET technology. The performance plus hardware enabler is a prerequisite to incorporate millions of accurately measured point spread functions (PSFs) in the iterative reconstruction of the image. HD-PET is the world's first PET technology with uniform resolution throughout the entire field of view. HD-PET provides unprecedented PET image quality with clearer, more defined PET images from edge-to-edge of the field of view, improved image signal-to-noise which can be used to either enhance image quality and/or reduce patient acquisition time. In addition the HD-PET Performance Plus option facilitates the combination of Siemens unique HD-PET and Time of Flight (TOF) imaging technologies for the Biograph mCT 20 Excel.</p>
<p>10249566 HD-PET # mCT (AWP) (Optional)</p>	<p>HD•PET Package provides unprecedented PET image quality with clearer, more defined PET images from edge-to-edge of the field of view. The world's only clinical PET technology with near uniform resolution throughout the entire field of view, HD-PET is the first to deliver razor sharp, distortion-free image quality from edge to edge. Allowing you to precisely visualize lesions with exceptional contrast and clarity. HD•PET Package contains TrueX, an innovative image processing technique, as well as HI-REZ, and 3D iterative reconstruction.</p> <p>TrueX is an innovative image processing technology that is the final key to achieving HD•PET performance levels. Conventional PET technology ultimately causes loss of resolution and contrast in the final image, especially farther</p>

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51 Valley Stream Parkway, Malvern, PA 19355

SIEMENS REPRESENTATIVE
Donald Werner - (865) 548-6348

Part No. / Product	Description
<p><i>(Continued)</i> 10249566 HD-PET # mCT (AWP) (Optional)</p>	<p>from the center of the field of view. TrueX technology utilizes millions of accurately measured point spread functions in the iterative reconstruction of the image, and produce High Definition PET images with improved uniformity, high resolution, and enhanced contrast.</p> <p>HI-REZ provides optimized image processing for maximum reconstructed image resolution for the most demanding clinical and research applications. Provides 81 (109) image planes across the 162 (216) mm axial field-of-view (2.0 mm slice spacing). Supported reconstruction matrix; 128 x 128, 200 x 200, 256 x 256, 400 x 400, 512 x 512. Maximum reconstructed image resolution is 4.4 mm FWHM at center.</p> <p>3D Iterative reconstruction (OSEM) provides improved image quality in the most demanding low statistics acquisitions.</p>
<p>14415600 SMART Neuro AC (AWP) (Optional)</p>	<p>The part is currently not expected to be available for shipment until the third calendar quarter 2012.</p>
<p>14415604 CT SAFIRE (AWP) - mCT (Optional)</p>	<p>Dose reduction with CT has been limited by the currently used filtered back projection (FBP) reconstruction algorithm. When using this conventional reconstruction of acquired raw data into image data, a trade-off between spatial resolution and image noise has to be considered. Higher spatial resolution increases the ability to see the smallest detail; however, it is directly correlated with increased image noise in standard filtered back projection reconstructions as they are used in CT scanners today.</p> <p>Iterative reconstruction approaches allow decoupling of spatial resolution and image noise. With the Sinogram Affirmed Iterative Reconstruction (SAFIRE), correction loops are introduced into the image generation process. These iteration loops utilize raw-data information to significantly improve image quality. Additionally, image noise is removed in the iterative corrections the without degrading image sharpness. The noise texture of the images is comparable to standard well-established convolution kernels. The new technique results in a significantly superior image quality with reduced noise and increased image sharpness that can be translated to dose savings for a wide range of clinical applications.</p> <p>The part is currently not expected to be available for shipment until the third calendar quarter 2012.</p>
<p>10249177 NEMA PET Self-test - mCT (Optional)</p>	<p>Included are the following Phantoms:</p> <ul style="list-style-type: none"> - PET Sensitivity Phantom NEMA which consists of six concentric tubes that slide into each other. The innermost tube is fillable. - PET Scatter Phantom NEMA which consists of a 70cm long cylinder phantom with a fillable line source that is offset 4.5 cm from the center. - PET Image Quality Phantom consists of a fillable phantom with six fillable spheres and fillable lung insert <p>Also included is a fixture for positioning point sources for the NEMA resolution measurement.</p> <p>Customer is responsible to provide F-18.</p>



EXHIBIT E-2

COMPANY GLN: Purchase Order: 100006996-0-1 REPRINT

CUMBERLAND CO HOSPITAL SYSTEM Page: 1
 Revision Number: 002 Date: 10/10/13

SHIP TERMS: FOB DESTINATION PREPAY & ADD FREIGHT: FOB DEST PP&A
 SHIP VIA:

VENDOR: 5573 SHIP TO:
 BAYER HEALTHCARE LLC CAPE FEAR VALLEY MEDICAL CTR
 PO BOX 360172 ATTN: RECEIVING DEPARTMENT
 PITTSBURGH PA 15251-6172 1638 OWEN DRIVE
 FAYETTEVILLE NC 28304

CONTACT: CUSTOMER SERVICE CONTACT: GEORGE DAVIS JR
 PHONE: (800)633-7231 PHONE: (910)615-6868
 FAX: (412)767-4120 FAX: (910)615-9712
 BUYER GLN:

TERMS	DISCOUNT		
	DAYS	RATE	NET ACCOUNT NUMBER
Terms	25		3155834/93718

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+-----+
| Deliver on December 20, 2013 unless specified by line |
| Purchase Order Currency: USD DOLLARS |
| |
| Invoice by mail |
| Process Level: 1000 |
| NUCLEAR MEDICINE |
| REPLACEMENT PET/CT |
| ACTIVITY 141070440001 |
| CER 140008 |
| CTS HARRY DEMERY |
| DAN CAMERON |
| QUOTE 3230205 |
+-----+
  
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LINE	ITEM NUMBER DESCRIPTION	QUANTITY PRICE	EXTENDED AMOUNT
1	3032458 STELLANT DUAL INJECTOR W/OCS Item Detail: 3032458	1.00 EA 22,275.0000	22,275.00
2	INSTALL INSTALL Item Detail: INSTALL	1.00 EA 2,400.0000	2,400.00

Purchase Order Summary

Goods Total: 24,675.00
 Order Total: 24,675.00



12/20/2013 139801580

Remit to:
P.O. Box 360172
Pittsburgh, PA 15251-6172
www.medrad.com

Invoice No: 139801580 Date: 12/20/2013

PO No: 100006996-0-1 Date:
Sales Order number: 3230205 Date: 10/10/2013
Packing Slip No: 83536023 Date: 12/19/2013
Customer No: 1020385B

Bill To:
ATTN: Accounts Payable
CAPE FEAR VALLEY HEALTH SYSTEMS
PO Box 31225
SALT LAKE CITY UT 84131-0225
USA

Ship To:
CAPE FEAR VALLEY MEDICAL CENTER
Attn: George Davis Jr. 910-615-6868
1638 OWEN DRIVE
FAYETTEVILLE NC 28304-3424
USA

Currency: USD
Ship Via: EXP DEFERRED
Terms of delivery : SP/3rd Party FOB SHIPPING POINT
Terms of payment: Net 30 from date of invoice

Due Date: 01/19/2014

Table with 6 columns: Item, Material No, Ship Qty, Unit Price, UoM, Amount. Contains 6 line items for medical equipment including injectors, monitors, and workstations.

The pricing for products provided herein may reflect or be subject to discounts or rebates, which must be reported to third party payers and/or be available for review by government agencies.

Correspondence Only: MEDRAD INC. Global Center, 100 Global View Drive, Warrandale, PA 15086 (724) 940-6300



35 201312300056003

DEC 30 2013

Remit to:
P.O. Box 360172
Pittsburgh, PA 15251-6172
www.medrad.com

Invoice No: 139801580

Date: 12/20/2013

Bill To:
ATTN: Accounts Payable
CAPE FEAR VALLEY HEALTH SYSTEMS
PO Box 31225
SALT LAKE CITY UT 84131-0225
USA

Ship To:
CAPE FEAR VALLEY MEDICAL CENTER
Attn: George Davis Jr. 910-615-6868
1638 OWEN DRIVE
FAYETTEVILLE NC 28304-3424
USA

Item	Material No	Ship Qty	Unit Price	UoM	Amount
Head Extension Cable, 75 ft, Stellant Single/Dual					
7	535-0243-012 North American Style Power Cord	2EA			
8	78101-00-BM-01 Product Info Pack, 110V	1EA			
9	3016424 Serial Number : 0713/16858 OCS, 580MM CEILING MOUNT, PORTEGRA2	1EA			
10	3016436 PLATE, MOUNT, CEILING, PORTEGRA2	1EA			
11	3016182 STELLANT DUAL SYRINGE QUAD-PAK W/SPIKE Batch 153202	1EA			
12	3033363 Serial Number : 101054 ASSY,DRV,USB,STELLANT CERTEGRA WKSTATION	1EA			
13	3019864 PRODUCT INFO,MEDRAD INFORMATICS SOLUTION	1EA			
14	3030450 LABEL, EULA, CERTEGRA	1EA			
15	3033362 Serial Number : 501024 ASSY,DRV,USB,CERTEGRA INFORMATICS	1EA			
16	INS SCT CS INSTALLATION - STELLANT WITH OCS	1EA	2,400.00	1EA	2,400.00

The pricing for products provided herein may reflect or be subject to discounts or rebates, which must be reported to third party payers and/or be available for review by government agencies.

Correspondence Only: MEDRAD INC. Global Center, 100 Global View Drive, Warrandale, PA 15086 (724) 940-6800

12/30/2013 7:30:00 AM

68



39 201312300050003 DEC 30 2013

Remit to:

P.O. Box 360172
Pittsburgh, PA 15251-6172
www.medrad.com

Invoice No: 139801580

Date: 12/20/2013

Bill To:

ATTN: Accounts Payable
CAPE FEAR VALLEY HEALTH SYSTEMS
PO Box 31225
SALT LAKE CITY UT 84131-0225
USA

Ship To:

CAPE FEAR VALLEY MEDICAL CENTER
Attn: George Davis Jr. 910-615-6868
1638 OWEN DRIVE
FAYETTEVILLE NC 28304-3424
USA

Sub Total		24,675.00
Tax	4.750 %	1,058.06
Tax	2.250 %	501.19
Total Due -->		26,234.25

The pricing for products provided herein may reflect or be subject to discounts or rebates, which must be reported to third party payers and/or be available for review by government agencies.

Correspondence Only: MEDRAD INC. Global Center, 100 Global View Drive, Warrandale, PA 15086 (724) 940-6800

12/30/2013 7:30:00 AM

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COMPANY GLN:

Purchase Order: 100006996-0-1

REPRINT

CUMBERLAND CO HOSPITAL SYSTEM

Page: 2

Revision Number: 002

Date: 10/10/13

End of Purchase Order: 100006996-0-1



EXHIBIT F

SIEMENS

Healthcare

May 2, 2014

Jonathan Harrington
Cape Fear Valley Health System
1638 Owen Drive
Fayetteville, NC 28302

Jonathan,

Per your request, I am writing to confirm that as part of the mCT PET/CT project Siemens will de-install your current Siemens biograph PET/CT scanner, serial number 3600216-00-0301024, and remove it from the state of North Carolina.

Please contact me should you have any further questions in this regard.

Thank You,



Craig Argo
Account Executive
Siemens Healthcare

Siemens Medical Solutions USA, Inc.

51 Valley Stream Parkway
Malvern, PA 19355-1408
USA

Tel.: +1-888-826-9702
www.usa.siemens.com/healthcare

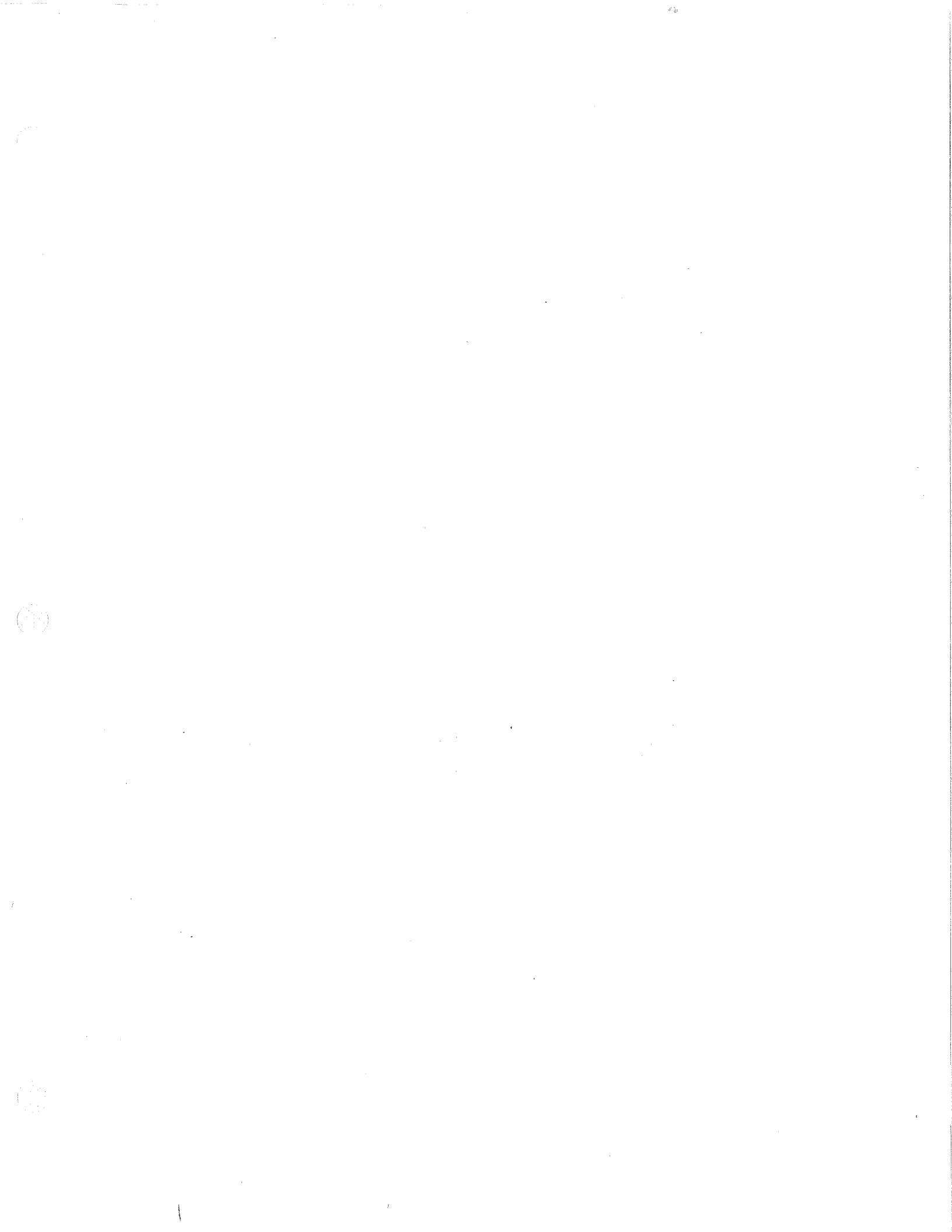


EXHIBIT G



- BEHAVIORAL HEALTH CARE
- BLADEN COUNTY HOSPITAL
- CAPE FEAR VALLEY MEDICAL CENTER
- CAPE FEAR VALLEY REHABILITATION CENTER
- HEALTH PAVILION NORTH
- HIGHSMITH-RAINEY SPECIALTY HOSPITAL
- BLOOD DONOR CENTER
- CANCER CENTER
- CARELINK
- CAPE FEAR VALLEY HOMECARE & HOSPICE, LLC
- CUMBERLAND COUNTY EMS
- FAMILY BIRTH CENTER
- HEART & VASCULAR CENTER
- HEALTHPLEX
- LIFELINK CRITICAL CARE TRANSPORT
- PRIMARY CARE PRACTICES
- SLEEP CENTER

June 2, 2014

Greg Yakaboski, Project Analyst
Division of Health Service Regulation
Certificate of Need Section
2704 Mail Service Center
Raleigh, NC 27699-2704

SUBJECT: Replacement of Siemens Biograph 16 PET/CT Scanner at Cape Fear Valley Health System

Dear Mr. Yakaboski:

Cumberland County Hospital System, Inc. d/b/a Cape Fear Valley Health System (“Cape Fear”) is proposing to replace an existing Siemens Biograph 16 PET/CT Scanner. The Biograph 16 PET/CT Scanner is currently still installed and in clinical use at Cape Fear Valley Medical Center. Cape Fear Valley Health System would like to replace the Biograph 16 with a more technologically advanced Siemens Biograph MCT 20 Excel PET/CT Scanner.

Jonathan L. Harrington MA, RTN
Manager of Nuclear Medicine
and PET/CT