Supplemental/ Bid Bulletin No. 2
22 February 2019

PUBLIC BIDDING No. 19-049-4
SUPPLY, DELIVERY, INSTALLATION, TESTING AND COMMISSIONING OF NUCLEAR MEDICAL EQUIPMENT AND ROOM SHIELDING FOR THE PHILIPPINE ORTHOPEDIC CENTER

Issued pursuant to Sec. 22.5 of the IRR of R.A. 9184 to clarify and/or amend certain provisions in the Bidding Documents issued for this project, considering the issues raised and clarifications made by prospective bidders during the Pre-Bid Conference held on **15 February 2019**, likewise respond to bidders' written queries received within the prescribed period for filing.

I. AMENDMENTS

REFERENCE	***BASES FOR AMENDMENT/ INCLUSION***
SECTION III. BID DATA SHEET ***BDS Clause 29.2*** ***Page No. 43*** *5. Valid* ***and updated*** PhilGEPS Certificate of Registration (Platinum Membership), if bidder opted to submit the eligibility documents under the Certificate during opening of bids.	***To clarify that the required PhilGEPS Certificate of Registration as part of the post-qualification documents shall be valid and updated including its Annex A (Details of Eligibility).***
SECTION VIII. BIDDING FORMS Annex H Page 113 Bid Securing Declaration *XXX* To: ~~*[Insert name and address of the Procuring Entity]*~~ Procurement Service Ground Floor, PS Complex, RR Road, Cristobal St., Paco, Manila *XXX*	***To specify the details of the Procuring Entity to ensure the compliance of the prospective Bidders.***

II. CLARIFICATIONS

ISSUE/ REQUEST		***CLARIFICATION/ RESOLUTION***
ITEM No.	**DURING THE PRE-BID CONFERENCE[1]**	

[1] *Held on 15 February 2019*

<table>
<tr><td>1</td><td>Section III. BID DATA SHEET
BDS Clause 5.4
Page 38
X X X
For this purpose, similar contracts shall refer to any contract for Supply, Delivery, Installation, <u>TESTING,</u> and Commissioning of Gamma Camera SPECT/CT, Dexa Bone Densitometer, <s>and</s> Thyroid Uptake Machine <u>OR Radiology Equipment.</u>
X X X</td><td>To include RADIOLOGY EQUIPMENT in the list of contracts for the Single Largest Completed Contract to encourage the participation of more suppliers.</td></tr>
<tr><td>2</td><td>SECTION VI. SCHEDULE OF REQUIREMENTS
Page 69
<table><tr><th>Lot No.</th><th>Item/ Description</th><th>Quantity</th><th>Delivery Period</th></tr><tr><td>1</td><td>Supply, Delivery, Installation, Testing and, Commissioning of Nuclear Medical Equipment and Room Shielding for the Philippine Orthopedic Center</td><td>1 Lot</td><td>Within <s>NINETY (90)</s> <u>ONE HUNDRED FIVE (105)</u> Calendar Days from receipt of Notice to Proceed including the Delivery, Installation, Testing and, Commissioning</td></tr></table></td><td>To amend the Delivery Period as requested by the prospective bidders present during the Pre-Bid Conference and was granted by Philippine Orthopedic Center (POC).</td></tr>
<tr><td colspan="3">HealthSolutions Enterprises, Inc.[2]</td></tr>
<tr><td>3</td><td>Request that the similar contract is ANY Radiology Equipments like MRI, CT Scan, XRAY or Ultrasound.</td><td>Refer to the discussion under III. Clarification, BDS Clause 5.4.</td></tr>
<tr><td>4</td><td>Request that the accessories must be compatible to SPECT/ CT or Equivalent. (since it's only accessories) Vendors has different suppliers when it comes to accessories.</td><td>The Technical Specifications stipulated in the Bidding Documents are the minimum requirements. The prospective Bidders are not</td></tr>
</table>

[2] *Received on 18 February 2019*

For the purpose of this Bulletin and for better understanding of its contents, the following rules shall apply: (a) ~~Double Strike-out~~ – denotes deletion; (b) Underline – denotes inclusion or new item/requirement; and "xxx" – denotes separation of phrase/s being amended from the rest of the main text.

		precluded from offering higher specifications.
Assurance Controls Technologies Co., Inc.[3]		
5	*Section VII. Technical Specifications* *Accessories* *7.12 One (1) Niptong* *a. Can handle small radioactive objects up to 1" diameter with a 45 degree V cut groove on each jaw* *7.16 One (1) Leaded Sharps Container* *a. One inch (1") Lead Shielding* *7.23 One (1) Elusion Vial Shield* *b. Diameter: Minimum of 54mm* *Please remove specific dimensions.*	***Refer to the revised Technical Specifications attached as Attachment "A".***
6	*Section VII. Technical Specifications* *Accessories* *7.19 One (1) Scintimammo Overlay plexi glass overlay* *Change to: One (1) Scintimammo Overlay plexi glass or other material that can support Scintimamo Imaging*	***Refer to the revised Technical Specifications attached as Attachment "A".***
7	*Section VII. Technical Specifications* *Accessories* *7.22 One (1) Moly Assay Canister* *b. Diameter: Minimum of 54mm* *Change to standard size*	***Refer to the revised Technical Specifications attached as Attachment "A".***

The herein amendments form an integral part of the bidding documents. Correspondingly, all other provisions in the bidding documents affected by these amendments are similarly amended or modified.

The clarifications made, explain in greater detail the purpose or intent of the requirement and does not necessarily amend that particular provision in the bidding documents.

ENGR. ESTRELLITA G. FULE
Chairperson, BAC4

[3] *Received on 19 February 2019*

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Attachment "A"

Technical Specifications

LOT NO. 1	:	**Supply, Delivery, Installation, Testing, and Commissioning of Nuclear Medical Equipment and Room Shielding for the Philippine Orthopedic Center**
QUANTITY	:	**ONE (1) LOT**
APPROVED BUDGET FOR THE CONTRACT	:	**P 52,000,000.00**

AGENCY SPECIFICATIONS	BIDDER'S STATEMENT OF COMPLIANCE	ACTUAL OFFER	REFERENCE
Conforms with the following minimum requirements:	**BRAND AND MODEL:**		
A. Single-Photon Emission Computed Tomography- Computed Tomography (SPECT/CT Scan)			
Gamma Camera with all pertinent software and room preparation for shielding requirement and hot lab facility with all monitoring and measuring equipment needed for operation			
• **Shielding –not less than 6 feet height with at least 1.5 mm lead sheet thickness or equivalence in concrete, applicable to lead doors and walls as necessary.**			
A dual detector variable angle gamma camera that is integrated with multi-slice CT scanner in one gantry and one patient bed. The system should meet or exceed the following minimum requirements:			
I. GAMMA DETECTOR			
a. Detectors shall be shielded for high energy range of 85 to 100 keV			
b. Number of Detectors: Two (2)			
c. With true rectangular Field of view (FOV)(i.e., FOV corners not clipped for wider FOV and better appreciation of images)			
d. Field of View shall be equal or larger than 52 cm x 37 cm (20.5 in x 14.5 in) Crystal Thickness			

AGENCY SPECIFICATIONS	BIDDER'S STATEMENT OF COMPLIANCE	ACTUAL OFFER	REFERENCE
e. Number of PMTs /Detector > 56			
II. NEMA SPECIFICATIONS (Minimum Requirements using the appropriate NEMA Standards)			
A. Intrinsic Spatial Resolution (typical)			
a. FWHM for CFOV < 4.0 mm			
b. FWHM for UFOV < 4.0 mm			
c. FWTM for CFOV < 8.0 mm			
d. FWTM for UFOV < 8.0 mm			
B. Intrinsic Spatial Linearity			
a. Differential CFOV < 0.25 mm			
b. Differential UFOV < 0.25 mm			
c. Absolute CFOV < 0.5 mm			
d. Absolute UFOV < 0.8 mm			
C. Maximum count rate (per detector) > 300 000 cps			
D. System Sensitivity per detector (Tc-99m, LEHR collimator) > 160cts/min/uCi			
1. GANTRY			
a. The gantry should support variable angle configurability of the detectors including 90°, 180° SPECT, and other angles useful for SPECT.			
b. At least one of the detectors shall permit caudal and cephalic tilt of ≥15 degrees, allowing detector positioning close to imaging area and detector motion shall allow patient imaging in sitting and standing positions.			
c. The system shall support Step and Shoot and Continuous SPECT detector rotation modes.			
d. The system shall support Non-circular orbits and automatic contouring for SPECT Acquisitions with all detector configurations (90° and 180°)			

AGENCY SPECIFICATIONS	BIDDER'S STATEMENT OF COMPLIANCE	ACTUAL OFFER	REFERENCE
e. The gantry shall have an opening of at least 70 cm			
f. Necessary hand controls, for gantry and detector motion, shall be provided on both sides of the gantry.			
g. The gantry shall have safety features including emergency stop buttons on both sides of the gantry and patient contact sensors on each collimator			
h. The gantry shall be linked to the patient table and have the necessary sensors to recognize the patient table position at all times to prevent accidental collisions.			
i. The system shall be able to perform non-uniform attenuation correction using CT Attenuation maps acquired in the same system, for general SPECT imaging.			
2. GANTRY AND ACQUISITION STATUS Patient positioning monitor (PPM) at the gantry display monitor shows status of the acquisition.			
3. SPECT/CT FEATURES & CAPABILITIES			
a. CT can acquire at least two (2) slices or better, interleaved reconstruction per rotation			
b. Minimum CT Slice Thickness: < 1mm			
c. The CT scan required for attenuation correction and anatomical mapping shall not add more than 30 seconds to the total SPECT/CT acquisition time.			
d. The system shall be capable of automatically matching the CT slice thickness to the SPECT slice thickness for accurate image fusion and attenuation correction			
e. CT Field of View Diameter: 70cm			
f. The system shall offer a technology that reduces the unnecessary CT dose			
g. Gantry Port Diameter: 70CM			

AGENCY SPECIFICATIONS	BIDDER'S STATEMENT OF COMPLIANCE	ACTUAL OFFER	REFERENCE
h. Continuous spiral CT range should be at least159 cm			
i. Tube Anode heat storage capacity: 3.5 MHU			
j. Tube Current up to 240 mA or higher			
k. Selection of Tube voltage up to 130 kV			
l. Reconstructed slice width of 1 mm			
m. Scan times for full 360 degree scan of 0.8s or faster			
n. High contrast resolution at 0% MTF (+/-10%)should be 15 lp/cm or higher			
4. PATIENT BED			
a. With motorized vertical and horizontal motion activated from the hand controls and preset positions.			
b. Patient bed height: 55cm			
c. Patient bed shall have ability to position any part of body under the detectors without moving the patient. All pallet motions shall be activated from the hand controller.			
d. The patient bed shall have < 10 % attenuation for 140 keV photons.			
e. Whole body scan Length shall be up to 200 cm			
f. Patient Table: Maximum patient load shall be less than or equal to 220 kgs			
g. ECG Cable port integrated into Bed or Gantry			
5. COMPUTER SYSTEM MINIMUM REQUIREMENTS			
a. Acquisition Workplace section: Customizable Display			
b. Acquisition Workplace section: Customizable Workflows			
c. Two (2) workstations (ws): 1WS for acquisition and 1WS for post-processing and reading			
d. All organ processing software (renal, lungs, bone, GIT, liver and neuro protocols)			

AGENCY SPECIFICATIONS	BIDDER'S STATEMENT OF COMPLIANCE	ACTUAL OFFER	REFERENCE
e. Appropriate and Authentic Licenses for operating system software.			
f. Conversion data files to DICOM format integrated to existing hospital information system and modality worklist.			
6. ACQUISITION SYSTEM REQUIREMENTS			
a. User shall have the ability to modify acquisition parameters easily and quickly.			
b. Simultaneous acquisition and processing capability on same computer			
c. Independent energy window selection			
d. Number of energy windows supported should be at least 6 windows per detector			
e. Energy window width up to 60 x 40 cm.			
f. The system shall support symmetric and asymmetric energy windows			
g. The system shall offer manual and automatic annotation (patient, study)			
h. Start and stop acquisition control from: i. Camera hand control ii. Computer			
i. Allow the user to combine acquisition and processing of protocols in one protocol			
j. Capable of combining multiple SPECT acquisitions (e.g. Cardiac Stress & Rest acquisitions) in one protocol.			
k. ECG compatible to the system shall be provided and connected.			
l. Acquire cardiac data in-half the time (half-time imaging)			
7. STATIC ACQUISITION			
Matrix size a. 64 x 64 b. 128 x 128			

AGENCY SPECIFICATIONS	BIDDER'S STATEMENT OF COMPLIANCE	ACTUAL OFFER	REFERENCE
c. 512 x 512 d. 1024 x1024			
8. DYNAMIC IMAGE ACQUISITION			
Matrix size a. 64 x 64 b. 128 x 128 c. 256 x 256			
9. WHOLE BODY ACQUISITION			
Whole body scan length: 200 cm maximum length			
10. GATED IMAGE ACQUISITION			
Matrix Sizes a. 64 x 64 b. 128 x 128 c. Buffered beat d. Bad beat rejection			
11. SPECT ACQUISITION			
a. SPECT with step and shoot and acquire during step acquisition - Variable zoom factors up to 3.0 or greater			
b. Variable Start angle			
c. Dual isotope SPECT capability			
12. GATED SPECT ACQUISITION			
a. Matrix Sizes i. 64 x 64 ii. 128 x 128			
b. Buffered beat			
c. Accepted and rejected beats shall be saved separately in the patient file to ensure high statistical accuracy with the summed image			
d. Forward/Backward framing by a user-defined percentage			
e. End study by time per view or number of accepted beats per view			
13. COLLIMATORS			
a. Collimators change should include some level of automation.			

AGENCY SPECIFICATIONS	BIDDER'S STATEMENT OF COMPLIANCE	ACTUAL OFFER	REFERENCE
b. Collimator changing shall be possible without moving the patient table away			
c. Low Energy High Resolution			
d. High Energy Collimator			
e. Pinhole Collimator			
f. General Purpose			
14. QUALITY CONTROL			
a. Integrated / Supplied Source Holder for QC			
b. Simultaneous QC for Both Detectors			
c. Energy Independent QC			
d. Four-quadrant bar phantom			
e. Flood Phantom for Technetium			
f. Flood Phantom for Iodine			
g. Linearity Phantom			
h. ECT phantom			
i. Thyroid Phantom			
15. INSTALLATION REQUIREMENTS			
a. One (1) Uninterruptible Power Supply (UPS) for the Workstations - Should be compatible with the workstation			
b. One (1) Uninterruptible Power Supply (UPS) for the Gamma Camera - Should be compatible with the wattage of the Gamma Camera SPECT/CT			
c. Transformer and TVSS for the CT - Should be compatible with the wattage of the Gamma Camera SPECT/CT and UPS			
d. Lead Glass: 2.1mm Pb, 100 x 120cm			
III. SPECIFICATION FOR UPTAKE MACHINE & HOT LABORATORY			
1. THYROID UPTAKE SYSTEM WITH WELL COUNTER -			

AGENCY SPECIFICATIONS	BIDDER'S STATEMENT OF COMPLIANCE	ACTUAL OFFER	REFERENCE
RADIOACTIVE IODINE UPTAKE AND THERAPY			
a. 8" VGA LCD Color Touch Screen Display			
b. Detector: 2" x 2" shielded NaI (TI) crystal with standard Bioassay collimator			
c. Multichannel Analyzer: 512 Channels; Automatic self-calibration; Linearity - within 2% full scale; Differential Linearity - 2% SD; A to D conversion time - 10 microseconds; Low Energy Discrimination Level - 16 KeV, 4 Channels (whichever is greater); ROI - Automatic or Manual; Background subtraction and mean energy calculation via curve fittings; Maximum Count Rate- 100,000 counts per second (Real Time); Linear Display - Automatic/Manual			
d. Nuclide Data: Over 90 Nuclides in Memory (major gamma-ray energies, keV and half-life)			
e. Advanced System Setup: Test sources, Efficiencies, User Nuclides, Bioassay Data, Thyroid Uptake protocols, Thyroid Uptake Normal Values			
f. Diagnostics and Tests: Full system self-diagnostics including all program and data memories; Comprehensive test programs include automatic Chi-Square, MDA and FWHM			
g. Printer: Color Inkjet Resolution: 1200 x 1200 dpi Power Requirements: Standard: 115V .25A 90-127V 50-60Hz; Optional: 220V .125A 180-250V 50-60HZ (With circuit protections, line filter and isolation transformer)			
2. NECK PHANTOM FOR THYROID UPTAKE			
a. Made of clear lucite Poly(methyl methacrylate)			

AGENCY SPECIFICATIONS	BIDDER'S STATEMENT OF COMPLIANCE	ACTUAL OFFER	REFERENCE
b. With two (2) part insert for bottle counting and vial capsule counting			
c. Phantom body: 30mm ohm x 120 mm height			
d. Hole accommodating the vial: 32.5 mm ohm x 97 mm height			
e. Hole in Test Tube Insert: 32.5 mm ohm x 97 mm height			
f. With etching for the proper alignment of the caliper of the thyroid probe			
3. DIGITAL DOSE CALIBRATOR Combination of the Dose Calibrator and Well Counter			
3.1. SPECIFICATIONS			
a. Display Screen: 8" color VGA touch screen display			
b. Chamber and remote can be placed 100 feet from the readout unit			
c. Selection of Nuclide and Daily Test can be done with the remote			
d. On screen display of Nuclide Name, Number, Activity, Unit of Measure and Calibration Number			
e. Large character, high visibility display			
f. Library of over 80 nuclides with calibration number and half-life and room for 10 additional nuclides			
g. Over 80 Nuclides with half-lives in memory			
h. Full alpha numeric touchpad			
i. Built-in dose calibration, quality control and self-diagnostics			
j. Automated QC including constancy and linearity programs			
k. USB/PC Communications			
l. Software upgrade via Ethernet interface			
m. High sensitivity, drilled NaI well crystal			
n. Ionization Chamber: Thin wall, deep well, high pressure			

AGENCY SPECIFICATIONS	BIDDER'S STATEMENT OF COMPLIANCE	ACTUAL OFFER	REFERENCE
o. Fill Gas: 12atm Ultra-Pure Argon			
p. Measurement Range: Auto-ranging, up to 250GBq			
q. Resolution: 0.001 MBq (0.01 uCi)			
r. Format: Direct reading in Bq or Ci – User selectable or fixed			
s. Values Displayed: Nuclide Name (Atomic Symbol, Mass Number), calibration number			
t. Electrometer: Accuracy – Better than +-2%; Linearity - Within +-2%; Response Time – Within 2 sec., 4 to 16 sec for very low activity samples (user selectable average period)			
u. Repeatability: Within +-1% within 24 hours, during which time the calibrator is on all the time			
3.2. TESTS: DIAGNOSTICS			
a. Full test of program, system memories; Daily – Auto Zero, Background Adjust, Data Check, Accuracy and Constancy, Voltage Test; Enhanced – Linearity, Geometry, Strip QC			
3.3. NUCLEAR DATA			
a. Nuclide Keys – 28 programmable keys; System Memory – Over 80 nuclides (cal number and half-life) - Standard Source Data: System Memory – Co-57, Co-60, Ba-133, Cs-137			
3.4. STANDARD SOURCES			
a. Molybdenum-99 Assay: Mo-99 Elution, Tc-99m, Tc-99m/Mo-99 Ratio			
b. Well Diameter – 6.1cm, Well Depth – 25.4cm, Cable Length – 3.7m			
4. RADIOIODINE FUME HOOD			
a. Dosage Cabinet with stainless steel frame on both sides and glass door in front.			

AGENCY SPECIFICATIONS	BIDDER'S STATEMENT OF COMPLIANCE	ACTUAL OFFER	REFERENCE
b. Exhaust Hood with Air Filter centrifugal Exhaust blower provided with Nine (9) level setting and flexible hose for exhaust extension at 100mm x 2 meters.			
5. LAMINAR FLOW HOOD			
a. Working area:1200 x 600 x 600mm (w x d x h)			
b. Lead shielding: 5 mm			
c. Internal and external cabinet: stainless steel sheet			
d. Absolute filter for air outlet – HEPA-H14			
e. Carbon filter for air outlet active charcoal			
6. UNIVERSAL POWER SUPPLY			
a. Should be compatible with the Laminar Flow Hood			
b. At least 3KVA			
7. ACCESSORIES			
7.1 One(1) Survey Meter calibrated for appropriate radio nuclei			
a. Alpha, beta, gamma and x-ray detection			
b. Ranges: 0-0.2, 2, 20 and 200 mR/h (thin window 2" dia. P-15 external probe), 200, 2000mR/hr (energy compensated-internal probe)			
c. Indicator: In addition to meter indication, a red LED flashed once for each count of the detector			
d. Switch Positions: Rotary switch: OFF, x 1K, x100, x10, x1, x0.1			
e. Battery test switch: Push button			
f. Audio: Piezoelectric-103Db at 1ft. with volume control			
g. Detectors: Internal – Energy compensated detector +-20% 80KeV-1.2MeV			
h. External – 2" diameter pancake GM with thin end window alpha, beta, gamma probe			

AGENCY SPECIFICATIONS	BIDDER'S STATEMENT OF COMPLIANCE	ACTUAL OFFER	REFERENCE
i. Anti-saturation: Instrument will not fall below full scale in high fields. Tested to 100 times highest reading.			
j. Meter: Rugged meter with recessed glass or lexan face and jeweled movement.			
k. Probe Holder: Unique tongue and grove probe holder for one or two handed surface mounting.			
7.2 One (1) Contamination Meter calibrated for appropriate radio nuclei			
a. Three range surface rate meter with 2" built-in diameter pancake gauge memory detector			
b. Radiation range detected: alpha> 2 MeV, betaEmax >100 keV, gamma and X-rays from 5 keV to 3 MeV			
c. Read-out is in counts per minute (and mR/hr).			
d. Meter: 2-1/2" (6cm)			
e. Ranges: Linear – 0-500, 0-5,000, 0-50,000cpm			
f. Switch Position: Off, Battery Test, x100, x10, x1			
g. Audio: Internally mounted speaker			
h. Detector: Halogen-quenched "Pancake GM Tube"			
i. Diameter: 2" (5cm)			
j. Window Thickness: 1.5mg/cm2			
k. Background: Typical 50cmp. Thin profile of tube (13mm) gives low background			
l. Efficiency: 100% for all betas and alphas that have energy to penetrate the thin window			
m. Voltage: 900V Nominal			
n. Gamma Sensitivity: Nominal is 150 cpm/mr/h (based on Cs-137)			
o. Feet: Replaceable neoprene feet			
p. Calibration: Single master			

AGENCY SPECIFICATIONS	BIDDER'S STATEMENT OF COMPLIANCE	ACTUAL OFFER	REFERENCE
calibration pot and individual calibration pots for each scale.			
q. Power: 9 volt nominal "transistor battery" mercury or equivalent			
r. Current Drain: 3 mA typical			
s. Handle: Swivel Type polished anodized aluminum			
t. Battery Life: 100 hours in normal operation.			
7.3 Co-57, Cs-137 & Ba-133 Reference Standard for Dose Calibrator			
7.4 Personal Radiation Protection			
a. Three(3) Lead aprons with light weight flexible Lead vinyl with 0.5 mm lead attenuation			
b. Three (3) thyroid shields with light weight flexible Lead vinyl with 0.5 mm lead attenuation			
c. Two (2) pairs of lead glove c.1) Lead Equivalency: 0.10 mm c.2) Nominal Thickness: 30 mils c.3) Transmission: 50% c.4) Half-Value Thickness: (0.32") 0.80 mm c.5) Linear Absorption Coefficient: 0.87 mm			
d. Two (2) pairs of lead goggles d.1) 2" x 4.25" single sheet of fluoroscopic quality lead glass d.2) Glass provides 2.00 mm lead equivalency			
e. Two (2) Direct Read Dosimeter e.1) Range: 0-200mR			
f. One (1) Dosimeter Charger **f.1** Capable of charging any Direct-Reading Dosimeter **f.2** Conforms to ANSI N42.6-1980 **f.3** Controls: One-Turn Potentiometer **f.4** Reading: Spring-Loaded Push Rod			

AGENCY SPECIFICATIONS	BIDDER'S STATEMENT OF COMPLIANCE	ACTUAL OFFER	REFERENCE
f.5 Operating Temperature: 0-120F (-18–49C); **f.6** Lamp: LED			
7.5 **Four (4) Personal Monitoring Deviecs (TLD or OSL)** Registered with the Philippine Nuclear Research Institute (PNRI) or Private Provider of Service			
7.6 **One (1) Benchtop Clear Lead "L" Shield** a. Dimension: maximum of 305 mm w x 305 mm d x 425 (WxDxH) b. Additional 1/4" Lead Glass c. Additional 1/4" plain glass d. 6mm Lead shielding			
7.7 **One(1) Benchtop Clear Lead "L" Shield** a. Dimensions of 307 mm high x 298 mm wide on a stable base b. Minimum of One (1) inch-thick shield for stopping beta radiation from nuclides producing up to 5 MeV energies.			
7.8 **Two (2) 3cc Tungsten Syringe Shields** a. Barrel shield with 2 mm thick tungsten b. With 5.0 density lead window c. With reflective internal surface for easy reading of the syringe markings			
7.9 **Two (2) 5cc Tungsten Syringe Shields** a. Barrel shield with 2 mm thick tungsten b. With 5.0 density lead window c. With reflective internal surface for easy reading of the syringe markings			
7.10 **One (1) Small Shielded Waste Bin** a. 10 to 20 mm lead shielding b. 7 to 12 liter capacity with pedal or handle cover			
7.11 **One (1) Large Shielded Waste Bin** a. 10 to 20 mm lead shielding			

AGENCY SPECIFICATIONS	BIDDER'S STATEMENT OF COMPLIANCE	ACTUAL OFFER	REFERENCE
b. With 14 to 20 liter capacity with pedal or handle cover			
7.12 One (1) Niptong a. Specific for Nuclear Medicine Use			
7.13 One (1) Forceps a. Specific for Nuclear Medicine Use			
7.13 One (1) Set Rectangular interlocking Lead Bricks a. Depend on the size of dose calibrator shield b. With V- shaped edges and common straight-edge bricks interlocking to cover the area of the dose calibrator shield			
7.14 One (1) Decontamination Kit which contains the following: a. One (1) 30 gallon fiber drum b. Two (2) pairs of coverall, disposable c. Two (2) pairs Shoe cover, disposable d. Two (2) disposable nostril type Respirators e. Four (4) pieces eight inches by eleven inches (8" x 11") size Filters f. Two (2) Pairs Gloves, reusable g. One (1) gallon Radiation Decontamination Wash h. One (1) canister Radiation Decontamination Wipes i. One (1) bottle of One (1) Liter Radiation Decontamination Spray Mist j. Ten (10) Poly bags at least 6" x 9" x 2 mil k. One (1) piece metal 12" Niptong l. One (1) piece hand Sponge m. One (1) piece standard Mop n. One (1) piece hand Scrub Brush o. One (1) piece 5 liter pail p. One (1) piece 5 meter at least			

AGENCY SPECIFICATIONS	BIDDER'S STATEMENT OF COMPLIANCE	ACTUAL OFFER	REFERENCE
9.0 mm thickness rope q. One (1) set of at least 5 pieces of the following: q.1) radiation danger warning, q.2) radiation contamination sign q.3) Emergency sign with radiation hazard.			
7.15 Aluminum Radiation Warning Signs and Labels a. For small room: 210mm x 85 mm (at least 10 pieces) b. For large room: 280 mm x 122 mm (at least 5 pieces)			
7.16 One (1) Leaded Sharps Container a. Compatible for Nuclear Medicine Waste b. With lockable hinge access			
7.17 One (1) Movable Lead Barrier with Lead Plastic Window a. Opaque Panel with 0.8mm Lead Casters b. Shielding Window: 0.5 mm lead equivalency c. Four hospital grade: two locking and two non-locking			
7.18 One (1) Laboratory Cart, Stainless Steel a. Stainless steel b. With four (4) wheels			
7.19 One (1) Dehumidifier a. Water Container Capacity: Minimum of five (5) liters			
7.20 One (1) Scintimammo Overlay a. At least 2 cm thick pad and cut out for breast b. Made from material that is compatible for Scintimammo Imaging			
7.21 One (1) Temperature & Humidity Monitor (For Gamma Camera room) a. Indoor monitor with temperature range of 0 to 50°C b. Humidity range of 16% to 98%			

AGENCY SPECIFICATIONS	BIDDER'S STATEMENT OF COMPLIANCE	ACTUAL OFFER	REFERENCE
7.22 One (1) Moly Assay Canister a. 0.5 lead canister thickness b. Standard size			
7.23 One (1) Elution Vial Shield a. Lead glass thickness: 14 mm b. Shielding thickness: 6mm lead with 360 view point			
7.24 Radioaerosol Administration System for V-Q Scan enclosure is lead-shielded from top to bottom with oxygen dedicated external port and nebulizer attachments			
7.25 One (1) Urea Breath Test (14Carbon) starter kit set			
7.26 TVSS, transformer and circuit breaker for the SPECT CT for at least 80 KVA			
B. DEXA CENTRAL DUAL ENERGY X-RAY ABSORPTIOMETRY (DEXA) BONE DENSITOMETER			
a. **Scanning method:** Linear x-ray fan-beam with motorized table and motorized C-arm.			
b. **Detector system**: High density multi-detector array assembly.			
c. **X-ray system:** Dual-energy 100kVp/140kVp			
d. With automated internal calibration system and capable of storing and analyzing data			
e. Single energy scan switch capability			
f. Automated bone mapping features			
g. Ability to scan lumber spine(AP and Lateral), femur and forearm			
h. Supine lateral imaging			
i. Supine lateral lumbar spine densitometry for volumetric calculation of Bone Mineral Density (BMD)			

AGENCY SPECIFICATIONS	BIDDER'S STATEMENT OF COMPLIANCE	ACTUAL OFFER	REFERENCE
j. Capable of performing whole body scans			
k. On/Off positions shall be clearly identified or has indicator light			
l. Visible indication to identify that it is ready to do exposure			
m. Radiation symbol or indicator to denote exposure			
n. Warning Signal to indicate termination of the exposure			
o. Tube housing must be easy to move and position by the operator			
p. Focal spot to skin distance is at least 200 mm			
q. Electronic timer			
r. Display of kV and mA			
s. Position indicator: laser light			
t. Spine phantom for QA/ QC			
u. Standard Software			
v. Basic Skeletal Package v.1) AP Spine v.2) Femur v.3) Dual Femur v.4) Forearm v.5) Non-seated Forearm v.6) FRAX Fracture Risk Tool			
w. Total Body BMD			
x. Pediatric Package x.1) Pediatric AP Spine x.2) Pediatric Total Body x.3) Pediatric Femur x.4) Pediatric Total Body – Birth to 20 years			
y. Orthopedic y.1) Orthopedic Hip y.2) Orthopedic Knee			
z. Other Software z.1) Digital Vertebral Assessment			

AGENCY SPECIFICATIONS	BIDDER'S STATEMENT OF COMPLIANCE	ACTUAL OFFER	REFERENCE
z.2) Advanced Hip Assessment z.3) Spine Geometry z.4) Hand, Encore z.5) Total Body Composition z.6) Advance Body Composition			
aa. Connectivity: HL7, DICOM, Multi User DB (1-3)			
bb. Work flow: Tele densitometry, Scan check, Report Composer			
cc. Accessories: cc.1) Phantoms for spine and whole body cc.2)Complete Table pad and positioning accessories cc.3) Desk top computer with at least 20 inch monitor and with Pre-installed latest Operating System, 64 bit OEM, 4-physical cores, 4 GB Memory, 1 TB Hard Disc, DVD+/-RW Sata Drive, Tower Case with power supply unit 600W Max, USB keyboard and Mouse, USP 220-240V, At least 1 KVA, Productivity Software, Internet Security cc.4) One (1) unit Mobile computer table/cart cc.5) Printer: Color Inkjet - Resolution: 1200 x 1200 dpi for letter, legal and A4 Paper with Power Requirements: 220V .125A 180-250V 50-60HZ (With circuit protections, line filter and isolation transformer)			
C. ADDITIONAL REQUIREMENTS			
I. WARRANTY			
a. Comprehensive Warranty Certificate for (1) year on parts and three (3) years on service with Service Level Agreement			

AGENCY SPECIFICATIONS	BIDDER'S STATEMENT OF COMPLIANCE	ACTUAL OFFER	REFERENCE
(SLA) after testing and acceptance registration to the Philippine Nuclear Research Institute (PNRI) and Department of Health- Food and Drug Administration – Center for Device Regulation Radiation Health and Research (DOH-FDA-CDRRHR). Reckoning of the warranty period will be upon approval of DOH-FDA-CDRRHR.			
b. The Service Level Agreement (SLA) shall cover the complete unit/system its sub-systems, components, associated accessories and peripherals supplied by third party should be considered by the bidder as its own. Warranty shall be signed by the manufacturer and must provide the guarantee that failures in materials and workmanship that occur within the warranty period will be corrected. Such failures will include those attributable to abnormal aging. The maintenance and service of third party items will also be the sole responsibility of the primary vendor. Essential non-propriety spare parts should be made available. The SLA should cover the following: a. Guaranteed up-time of at least 95% b. Availability of One (1) Service Engineer assigned within Metro Manila c. Response Time: Within twenty four (24) hours from notice d. Mode of Delivery of service-with help desk that can be contacted by email, text and phone; and remote online troubleshooting.			
c. Supplier must specify post warranty comprehensive preventive maintenance costs including list and prices of major spare parts of the SPECT CT Scan and DEXA Bone Densitometer and all			

18

AGENCY SPECIFICATIONS	BIDDER'S STATEMENT OF COMPLIANCE	ACTUAL OFFER	REFERENCE
accessories for the next three (3) years after the warranty period.			
II. TRAINING			
a. Two (2) weeks on-site training of three (3) Nuclear Medicine Technologists			
b. Two (2) weeks on-site training of one (1) Nuclear Medicine Physician			
III. DELIVERY PERIOD			
Ninety (90) Calendar days from receipt of Notice to Proceed including the Delivery, Installation, Testing and Commissioning. Partial Delivery allowed within the completion/ delivery period.			