

Kim Reynolds, Governor Kelly Garcia, Director

November 19, 2024

Daniel Roach 7402 COUNTY ROAD E SOUTH RANGE, WI 54874

Dear Daniel Roach,

This letter is to verify that you have met all MQSA initial qualification requirements as stated in the final regulations, 900.12(a)(3)(i) and all Iowa registration requirements for a medical physicist in:

Mammography: Digital

Mammography: Tomosynthesis

Therefore, you are permitted to perform all those procedures required under Iowa Radiation Machines Rules for the above categories. Your **registration number MPHY10101** expires on April 30, 2025.

Each Iowa facility where you provide medical physics services must have a copy of this Medical Physics Approval letter.

Thank you for your cooperation. Please call 515-285-3246 if you have any questions.

Sincerely,

Patty Riesberg, Bureau Chief Bureau of Radiological Health

Patty Riesberg

Office Phone: 515-371-2255

Email: patty.riesberg@hhs.iowa.gov



November 7, 2024

ATTESTATION REGARDING INITIAL REQUIREMENTS OF THE MAMMOGRAPHY QUALITY STANDARDS ACT AND/OR ACR REQUIREMENTS FOR DIGITAL AND DBT BREAST IMAGING

This document is intended to provide proof of medical physicist's initial qualification in Digital and Tomosynthesis (DBT) Mammography.

Attestation must include as much of the following information as possible:

Name of the institution/facility where the applicable training or mammography reading/interpreting, or other activity, took place; name of the course(s) or training (where applicable); the attendance, reading/interpreting, or other activity dates; and the supervising/responsible person (where applicable) for the institution/facility.

I, Steven Nicholas, attest that, to the best of my knowledge and my belief, the following information provided in this declaration is true and correct. Under my direct supervision, Daniel Roach, MS, a Radiation Physics Consultants, Inc. physicist, has met the Initial Qualifications requirements of MQSA and the FDA with 3 hours of Digital Mammography training and 28 hours of DBT Mammography training.

"Have a master's degree or higher in a physical science with at least 20 semester hours (30 quarter hours) of graduate or undergraduate physics, and, have the experience of conducting surveys of at least one mammography facility with a total of at least 10 mammography units, and at least 20 hours of mammography facility survey training."

Please see the additional details on the following pages.

Please do not hesitate to contact me if you have any additional questions.

Sincerely,

Steven T. Nicholas, M.S., DABMP

President, RPC



Type of Unit	Description of Tests	Time (hrs)	Date
DBT	Annual Physics Survey	3	1/19/23
DBT	Annual Physics Survey	3.00	2/23/23
DBT	Annual Physics Survey	3.5	3/3/23
DBT	Annual Physics Survey	3.00	12/20/23
DBT	Annual Physics Survey	3.00	12/22/23
DBT	Annual Physics Survey	3.00	1/5/24
DBT	Annual Physics Survey	3.50	1/25/24
DBT	Annual Physics Survey	3.50	2/14/24
DBT	Annual Physics Survey	2.50	7/25/24
Digital	Annual Physics Survey	3	7/29/24
	DBT	DBT Annual Physics Survey DBT Annual Physics Survey	Type of Unit Description of Tests (hrs) DBT Annual Physics Survey 3.00 DBT Annual Physics Survey 3.50 DBT Annual Physics Survey 3.00 DBT Annual Physics Survey 3.50 DBT Annual Physics Survey 2.50

Total DBT (hrs):

28

Total Digital (hrs):

3



Site Name Bigfork Valley Hospital				Report Date 11/7/2024				24
Address	S 258 Pine Tree Drive, Bigfork, MN			Survey Date /2/23/			/2/23/202	23, 11
Medical Physicist's Name	Steve Nicholas and Danny	y Roach (T	raining)	Si	gnature	Z	TY	166
X-Ray Unit Manufacturer	Lorad/Holo	gic			Model	Sele	enia Dimens	ions DBT
Date of Installation	5/16/201	8		F	Room ID		Mammogra	aphy
				1	SN		81002132	
QC Manual Version #	MAN-03706, Rev. 010	(August	2020)	(use any ve	rsion applica	able to mode	l; contact mfr	if questions)
Accessory Equipment	Manufacturer	Мо	odel	Loca	ation	Q	C Manual V	ersion #
Review Workstation	Barco/Hologic	MDM	G-5221	✓ On-site	Off-site	MA	AN-02568, F	Rev. 002
Film Printer	NA NA	١	NA	N	Α		NA	
*FDA recommends that only moni FDA's Policy Guidance Help Syste	em (www.accessdata.fda.gov/co	drh_docs/pi	resentations	/pghs/Polic	_Guidance	e_Help_Sys	stem.htm).	_
Survey Type	Mammo Eqpt Evaluation (MEE	,	•	•	nts for Man	nmo Eqpt c	hecklist) 🔽	Annual Survey
Features	2D ☑ Digita	al Breast To	omosynthesi	is (DBT)				
	Medical P	hvsici	st's Q	C Test	ts			
("Pass" means all components o						for both on	and off-site	e equipment.)
								PASS/FAIL
1. Mammographic Unit A	ssembly Evaluation							Pass
2. Collimation Assessme	nt							Pass
3. Artifact Evaluation								Pass
4. kVp Accuracy and Rep	roducibility							Pass
5. Beam Quality Assessn	nent - HVL Measurement							Pass
6. Evaluation of System I								Pass
	ontrol (AEC) Function Pe)		Pass
	sure, AEC Reproducibility	2	_				_	
Average glandular dos	e for average breast is ≤3	mGy (300	omrad) (co	onventiona)	113	mrad	Pass
Average glandular dos	e for average breast is ≤3	mGy (300	O mrad) (D	BT)		130	mrad	Pass
9. Radiation Output Rate								Pass
10. Phantom Image Qualit		Fibers	Specks	Masses				
WII .	scores (conventional)	6.0	4.0	4.5				Pass
		5.5	4.0	4.0				Pass
11. Signal-To-Noise Ratio		atio Mea	surement	t s (values	required fo	r all tests)		
SNR (value)	51.9							Pass
CNR (value)	10.76 (required for i			ual Survey)			
	vary by more than ±15% (A			ee				Pass
12. Diagnostic Review Wo		II RWS, eve	en if located	offsite; NA	if only har	dcopy read)	Pass
13. DICOM Printer QC (if ap								NA NA
14. Detector Flat Field Cal		EE amba	VIII					NA NA
15. Geometry Calibration I16. Compression Thickness		⊏E ONIY)	TOMO					NA Bass
•								Pass
17. Compression (MEE only) 18. Detector Ghosting (trou								NA NA
TO. DELECTOR GITUSTING (I/OL	DICSHOULHIQ UHIY)							INA

*** YOUR MEDICAL PHYSICIST MUST SUMMARIZE HIS/HER RESULTS ON THIS FORM ***

(Lorad, continued)

Evaluation of Site's Technologist QC Program

		Frequency	PASS/FAIL
1.	DICOM Printer Quality Control (if applicable)	Weekly	NA
2.	Viewboxes and Viewing Conditions	Weekly	Pass
3.	Artifact Evaluation	Weekly	Pass
4.	Signal-To-Noise and Contrast-To-Noise Measurements	Weekly	Pass
5.	Phantom Image Quality Evaluation	Weekly	Pass
6.	Detector Flat-Field Calibration	Weekly	Pass
7.	Compression Thickness Indicator	Bi-weekly	Pass
8.	Visual Checklist	Monthly	Pass
9.	Repeat/Reject Analysis	Quarterly	Pass
10	Compression	Semi-annually	Pass
11.	Geometry Calibration (Tomosynthsis Option) (DBT)	Semi-annually	Pass
12	Diagnostic Review Workstation QC (NA if only hardcopy read)	See Hologic QC Manual	Pass
13	Mobile Unit Quality Control (if applicable)	After every move	NA

Medical Physicist's Recommendations for Quality Improvement

This is a Medical Physicist's annual survey. There was also a software upgrade performed on 2/11/2022. It did not require an MEE but let this report serve as oversight and verification.

Medical Physicist's QC Tests

No Discrepancies.

Evaluation of Site's Technologist QC Program

There are no discrepancies.

Site does not print.

Site Name	E	ssentia Health - St. Mary's Cl	inic	Report Date	2/20/20	24	
Address	1027 Wa	shington Ave., Detroit Lakes,	MN 56501	Survey Date	1/25/20	24	
Medical Phy	ysicist's Name	Shane McCotter & Dann	y Roach (training)	Signature	Sh_M	Lette	
-	, Manufacturer	Lorad/Hold	· · · · · · · · · · · · · · · · · · ·	Model	-		
Date of Inst		3/27/201	_	Room ID	Mammagraphy I	Room 1005	
				SN	81002154	1467	
QC Manual	Version #	MAN-03706 Rev. 01	11 (Nov. 2021)	(use any version appli	cable to model; contact	mfr if questions)	
Accessory	Equipment	Manufacturer	Model	Location	QC Manual V	ersion#	
F	Review Workstation*	Barco/Hologic	MDMC-12133	On-site	MAN-03706 Rev. 0	11 (Nov. 2021)	
	Film Printer*	NA	NA	NA	NA		
FDA's Policy G	Guidance Help Syster Survey Type:	rs and printers specifically cle n (www.accessdata.fda.gov/c Annual Survey	drh_docs/presentatio				
	Features:	2D & Digital Breast Tomos	synthesis (DBT)				
	•	ne test passes; indicate "Fail"	nysicist's Q if any component fail.		e for both on and off-s	PASS/FAIL	
		sembly Evaluation				Pass	
	tion Assessmen	t				Pass	
	Evaluation					Pass	
-	curacy and Repr		4			Pass	
	ion of System R	ent - HVL Measuremen	ι			Pass	
	•	esolution ontrol (AEC) Function P	erformance (N/A f	or systems without AF	- C)	Pass Pass	
	•	ure, AEC Reproducibili		=	.0)	Газэ	
Δνρια	•	for average breast is ≤3	•		125 mrad	Pass	
J111	•	for average breast is ≤3	• , ,	·	153 mrad	Pass	
_	on Output Rate	U	,			Pass	
10. Phanto	m Image Quality	Evaluation	Fibers Specks	Masses			
AN	_	scores (conventional)	6.0 4.0	4.5		Pass	
1000	Phantom image:	'	6.0 4.0	4.0		Pass	
_		nd Contrast-To-Noise	Ratio Measuremo	ents (values required	for all tests)		
	SNR (value)	56.6				Pass	
	CNR (value)		new unit MEE and A	nnual Survey)			
		vary by more than ±15%				Pass	
_		kstation (RWS) QC (for a	all RWS, even it locat	ed offsite; NA if only h	ardcopy read)	Pass	
	Printer QC (if app or Flat Field Calib	• • • • • • • • • • • • • • • • • • • •				NA NA	
		or Tomosynthsis <i>(DBT I</i>	MEE only) /W			NA NA	
	-	s Indicator (MEE only)	MEE only)			NA NA	
-	ession (MEE only)	o indicator (MLL Offig)				NA NA	
-	or Ghosting (troub	leshooting only)				NA	

(Lorad, continued)

Evaluation of Site's Technologist QC Program

(Required for Annual Surveys; not required for Mammography Equipment Evaluations of new units. However, medical physicists must review the site's technologist QC program within 45 days and complete this section so that the facility may submit this form along with the entire Mammography Equipment Evaluation report with their phantom and clinical images to the ACR.)

		Frequency	PASS/FAIL
1.	DICOM Printer Quality Control (if applicable)	Weekly	NA
2.	Viewboxes and Viewing Conditions	Weekly	Pass
3.	Artifact Evaluation	Weekly	Pass
4.	Signal-To-Noise and Contrast-To-Noise Measurements	Weekly	Pass
5.	Phantom Image Quality Evaluation	Weekly	Pass
6.	Detector Flat-Field Calibration	Weekly	Pass
7.	Compression Thickness Indicator	Bi-weekly	Pass
8.	Visual Checklist	Monthly	Pass
9.	Repeat/Reject Analysis	Quarterly	Pass
10.	Compression	Semi-annually	Pass
11.	Geometry Calibration (Tomosynthsis Option) (DBT,	Semi-annually	Fail
12.	Diagnostic Review Workstation QC (NA if only hardcopy read)	See Hologic QC Manual	Pass
13.	Mobile Unit Quality Control (if applicable)	After every move	NA

Medical Physicist's Recommendations for Quality Improvement

This is a Medical Physicist's annual survey.

Medical Physicist's QC Tests

No Discrepancies.

Evaluation of Site's Technologist QC Program

We observed the Geometry Calibration QC was not run within 6 months in 2023. Was completed on 11/1/2022 then again on 7/5/2023. Did not perform again in 2023.

Site Name	Es	ssentia Health Sandstone Hospital			Report Date 3/14/2024				24
Address	705 L	undorff Drive, Sandstone, MN	N 55072		Surv	ey Date	2/14/2024		24
Medical Ph	ysicist's Name	Steven Nicholas & Danny	y Roach (T	raining)	Si	gnature		Henry T	M
X-Ray Unit	Manufacturer	Lorad/Hold	ogic			Model	Seler	ia 3Dimer	isions DBT
Date of Inst	allation	1/6/202	2		R	Room ID		Mammogr	aphy
					<u>-</u>	SN	,	3DM16010)1808
QC Manual	Version #	MAN-03706, Rev. 0	11 (Nov	2021)	(use any ve	ersion applic	cable to mod	el; contact	mfr if questions)
Accessory	Equipment	Manufacturer	Mo	odel	Loca	ation	QC	: Manual V	ersion#
F	Review Workstation*	Barco	MDNO	G-13221	Off	site	MAN-037	06, Rev. 0	11 (Nov 2021)
	Film Printer*	NA	1	NΑ	N	A		NA	
		rs and printers specifically cle n (www.accessdata.fda.gov/c							
	Survey Type:	Annual Survey							
	Features:	2D & Digital Breast Tomos	synthesis	(DBT)					
	•	Medical Ph ne test passes; indicate "Fail"	_				for both or	າ and off-s	PASS/FAIL
	~ .	sembly Evaluation							Pass
	ition Assessmen	t							Pass
	Evaluation								Pass
-	curacy and Repr	<u>-</u>							Pass
	•	ent - HVL Measuremen	t						Pass
	tion of System R			(114.5	,		-0)		Pass
		ontrol (AEC) Function P					:C)		Pass
		ure, AEC Reproducibili for average breast is ≤3	-	_			126	mrad	Pass
		for average breast is ≤3				iai)	143	mrad	Pass
	on Output Rate	Tor average breast is =0	inoy (oc	o maa) ((001)		140	Imaa	Pass
	m Image Quality	Evaluation	Fibers	Specks	Masses				. 400
	•	scores (conventional)	6.0	4.0	4.5				Pass
<u>(</u>	Phantom image s			4.0					Pass
11. Signal-		nd Contrast-To-Noise				es required	for all test	s)	
J	SNR (value)	55.3			,	•		,	Pass
	CNR (value)	10.78 (required for	new unit N	IEE and An	nual Surve	y)			
	CNR should not	vary by more than ±15%	(NA for M	EE)					Pass
12. Diagno	stic Review Wor	kstation (RWS) QC (for a	all RWS, e	ven if locate	ed offsite; N	IA if only h	ardcopy re	ad)	Pass
13. DICOM	Printer QC (if app	licable, MEE only)							NA
14. Detecto	or Flat Field Calib	oration (MEE only)		***					NA
	-	or Tomosynthsis <i>(DBT I</i>	MEE only)	Z)]]					NA
-		s Indicator (MEE only)							NA
•	ession (MEE only)								NA
19 Dotocto	or Chaeting (troub	lochooting only)							NA

(Lorad, continued)

Evaluation of Site's Technologist QC Program

(Required for Annual Surveys; not required for Mammography Equipment Evaluations of new units. However, medical physicists must review the site's technologist QC program within 45 days and complete this section so that the facility may submit this form along with the entire Mammography Equipment Evaluation report with their phantom and clinical images to the ACR.)

		Frequency	PASS/FAIL
1.	DICOM Printer Quality Control (if applicable)	Weekly	Pass
2.	Viewboxes and Viewing Conditions	Weekly	Pass
3.	Artifact Evaluation	Weekly	Pass
4.	Signal-To-Noise and Contrast-To-Noise Measurements	Weekly	Pass
5.	Phantom Image Quality Evaluation	Weekly	Pass
6.	Detector Flat-Field Calibration	Weekly	Pass
7.	Compression Thickness Indicator	Bi-weekly	Pass
8.	Visual Checklist	Monthly	Pass
9.	Repeat/Reject Analysis	Quarterly	Pass
10.	Compression	Semi-annually	Pass
11.	Geometry Calibration (Tomosynthsis Option) (DBT,	Semi-annually	Pass
12.	Diagnostic Review Workstation QC (NA if only hardcopy read)	See Hologic QC Manual	Pass
13.	Mobile Unit Quality Control (if applicable)	After every move	Pass

Medical Physicist's Recommendations for Quality Improvement

-	•
This is a Medical Physicist's annual survey.	
Medical Physicist's QC Tests	
No Discrepancies.	
Evaluation of Site's Technologist QC Program	
No Discrepancies.	

Site iv	iaiiie	ame Essentia Health- Grand Rapids Clinic				кер	ort Date		4/2/20	۷۵	
Addre	ess	1542 G	olf Course Rd, Grand Rapids, N	/N 55744		Surv	Survey Date 3/3/2023, /			23, 11	
Medic	al Ph	ysicist's Name	Steven T. Nicholas and Dar	nny Roach	(trainee)	Si	gnature	Z	Hem TV hilas		
X-Ray	/ Unit	Manufacturer	Lorad/Holo	gic			Model	Sel	Selenia Dimensions DBT		
Date o	of Ins	tallation	3/2/2018	3		F	Room ID	Mar	Mammo Room (Suite 204)		
		·				•	SN		SDM1315	00483	
QC M	anual	Version #	MAN-03706, Rev. 00	9 (Sept 2	2019)	(use any ve	rsion applica	able to mode	el; contact m	fr if questions)	
_				ı		· 					
Acces	-	Equipment	Manufacturer	Mo	odel	Loca		C	C Manual \	/ersion #	
		Review Workstation*	Hologic	Secu	urView	□ On-site □	■ Off-site	1AM	N-03706, Rev. 0	09 (Sept 2019)	
		Film Printer*	NA	N	NA .	N	A		NA		
		•	ors and printers specifically clea v.accessdata.fda.gov/cdrh_doc		•				, ,	ised. See FDA's	
Surve	у Тур	e -	Mammo Eqpt Evaluation (MEE	(i) following	major upgra	de.			Ø	Annual Survey	
Featu	res	Ø	2D 🗷 Digita	al Breast To	mosynthesi	s (DBT)					
			Medical P	hysic	ist's Q	C Tes	ts				
("Pa	ass" m	eans all components	of the test passes; indicate "Fai	il" if any cor	mponent fail:	s. Tests mu	st be done	for both on	and off-site	e equipment.)	
										PASS/FAIL	
		• .	sembly Evaluation							Pass	
2. C	ollim	ation Assessmer	nt							Pass	
3. A	rtifac	t Evaluation								Pass	
4. k	Vp Ac	curacy and Repr	oducibility							Pass	
5. B	eam (Quality Assessm	ent - HVL Measurement							Pass	
		tion of System R								Pass	
		_	ontrol (AEC) Function Pe							Pass	
		-	ure, AEC Reproducibility		_				_		
W)	Avera	ge glandular dose	e for average breast is ≤3 i	mGy (300	mrad) (co	onventional))	122	mrad	Pass	
			e for average breast is ≤3 i	mGy (300) mrad) <i>(D</i>	BT)		154	mrad	Pass	
		on Output Rate								Pass	
10. P		m Image Quality		Fibers	Specks	Masses					
	m	•	cores (conventional)	6.0	4.0	4.5				Pass	
		Phantom image s		6.0	4.0	4.5				Pass	
11. S	_		and Contrast-To-Noise R	atio Mea	surement	: S (values r	equired for	all tests)			
		SNR (value)	57.6							Pass	
		CNR (value)	11.18 (required for i			ual Survey)					
			ary by more than ±15% (N							Pass	
12. D	iagno	stic Review Wor	kstation (RWS) QC (for all	I RWS, eve	n if located	offsite; NA i	if only hard	copy read)		Pass	
13. D	ICOM	Printer QC (if app	olicable, MEE only)							NA	
			bration (MEE only)		***					NA	
		•	or Tomosynthsis <i>(DBT M</i>	EE only)						Pass	
	-		s Indicator (MEE only)							Pass	
	•	ession (MEE only)								NA	
18. D	18. Detector Ghosting (troubleshooting only)								NA		

(Lorad, continued)

Evaluation of Site's Technologist QC Program

		Frequency	PASS/FAIL
1.	DICOM Printer Quality Control (if applicable)	Weekly	NA
2.	Viewboxes and Viewing Conditions	Weekly	Pass
	Artifact Evaluation	Weekly	Pass
4.	Signal-To-Noise and Contrast-To-Noise Measurements	Weekly	Pass
5.	Phantom Image Quality Evaluation	Weekly	Pass
6.	Detector Flat-Field Calibration	Weekly	Pass
7.	Compression Thickness Indicator	Bi-weekly	Pass
8.	Visual Checklist	Monthly	Pass
9.	Repeat/Reject Analysis	Quarterly	Pass
10	. Compression	Semi-annually	Pass
11.	. Geometry Calibration (Tomosynthsis Option) (DBT)	Semi-annually	Pass
12	Diagnostic Review Workstation QC (NA if only hardcopy read)	See Hologic QC Manual	Pass
13	. Mobile Unit Quality Control (if applicable)	After every move	NA

Medical Physicist's Recommendations for Quality Improvement

This is annual testing.	
Medical Physicist's QC Tests	
No Discrepancies.	
Evaluation of Site's Technologist QC Program	
No discrepancies.	
Facility does not print hard copy.	

Sita	Name	Fee	sentia Health - Holy Trinity Ho	enital		Ren	ort Date		2/15/20	23
Addr			West 2nd St, Graceville, MN 56240			-1	ey Date			
		ysicist's Name			raining)		gnature		N. W	<u> </u>
		Manufacturer	Shane McCotter & Dann	· · · · · · · · · · · · · · · · · · ·	rairiirig)	- 31	Model	5	Jonia Dim	anaiona
	-	allation	Lorad/Holo 9/12/201	_		-	loom ID		elenia Dim	
Date	OI IIISI	allation	9/12/20	10] "	SN		SDM13190	Room #1913
QC N	/lanual	Version #	MAN-03706 Rev. 00	7 (March	2018)	(use any ve				mfr if questions)
				1	,	<u> </u>				
Acce	_	Equipment	Manufacturer	1	odel	Loca			Manual V	
	F	Review Workstation*	Barco/Hologic		reView	Off-		MAN-0370		7 (March 2018)
		Film Printer*	NA	1	NΑ	N	A		NA	
			ors and printers specifically cle on (www.accessdata.fda.gov/c							
		Survey Type:	Annual Survey							
		Features:	2D & Digital Breast Tomos	synthesis	(DBT)					
							_			
			Medical Ph	nysici	st's Q	C Test	ts			
("Pas	s" means	all components of the	ne test passes; indicate "Fail"	if any com	ponent fails	s. Tests mu	st be done	for both o	า and off-s	
	_									PASS/FAIL
			sembly Evaluation							Pass
		tion Assessmer	nt							Pass
		Evaluation								Pass
	-	curacy and Rep	_	4						Pass
		-	ent - HVL Measuremen	τ						Pass
		tion of System R	esolution ontrol (AEC) Function F	Porforma	noo /N/A #	or avatama	without Al	-01		Pass Pass
		•	ure, AEC Reproducibili		-	-		=0)		Pass
O. I			for average breast is ≤3					131	mrad	Pass
()))			for average breast is ≤3				iai)	161	mrad	Pass
		on Output Rate	To avolago broadt io =c) IIIO) (00	o maa,	(551)		101	Jiiiiaa	Pass
		m Image Quality	Evaluation	Fibers	Specks	Masses				
		Phantom image	SCORAS (conventional)	5.5	4.0	4.5				Pass
	<u>(</u>	Phantom image:	scores (DBT)	5.0	4.0	4.5				Pass
11. \$			and Contrast-To-Noise	Ratio Me	asureme	ents (value	es required	for all test	s)	
		SNR (value)	57.0							Pass
		CNR (value)	11.06 (required for	new unit N	NEE and A	nnual Surve	y)			
		CNR should not	vary by more than ±15%	(NA for M	EE)					Pass
12. I	Diagno	stic Review Wor	kstation (RWS) QC (for	all RWS, e	ven if locat	ed offsite; N	IA if only h	nardcopy re	ad)	Pass
		Printer QC (if app								NA
			oration (MEE only)		***					NA
		•	or Tomosynthsis (DBT)	MEE only)	Z III					NA
	•		s Indicator (MEE only)							Pass
	-	ession (MEE only)								Pass
18. I	Detecto	or Ghosting (trout	oleshooting only)							NA

(Lorad, continued)

Evaluation of Site's Technologist QC Program

(Required for Annual Surveys; not required for Mammography Equipment Evaluations of new units. However, medical physicists must review the site's technologist QC program within 45 days and complete this section so that the facility may submit this form along with the entire Mammography Equipment Evaluation report with their phantom and clinical images to the ACR.)

		Frequency	PASS/FAIL
1.	DICOM Printer Quality Control (if applicable)	Weekly	NA
2.	Viewboxes and Viewing Conditions	Weekly	Pass
3.	Artifact Evaluation	Weekly	Pass
4.	Signal-To-Noise and Contrast-To-Noise Measurements	Weekly	Pass
5.	Phantom Image Quality Evaluation	Weekly	Pass
6.	Detector Flat-Field Calibration	Weekly	Pass
7.	Compression Thickness Indicator	Bi-weekly	Pass
8.	Visual Checklist	Monthly	Pass
9.	Repeat/Reject Analysis	Quarterly	Pass
10.	Compression	Semi-annually	Pass
11.	Geometry Calibration (Tomosynthsis Option) (DBT)	Semi-annually	Pass
12.	Diagnostic Review Workstation QC (NA if only hardcopy read)	See Hologic QC Manual	Pass
13.	Mobile Unit Quality Control (if applicable)	After every move	NA

Medical Physicist's Recommendations for Quality Improvement

This is a	Medical	Physicist's annua	Leuryev
i i i i o i o a	IVICUICAI	r iivoicioi o aiiiiua	ı suivev.

Medical Physicist's QC Tests

No Discrepancies. Images are read at Essentia Health - Fargo Hospital. RWS testing performed annually.

Evaluation of Site's Technologist QC Program

No Discrepancies.

Site Name	Es	Essentia Health - Hermantown Clinic		Report Date 1/30/202		24	
Address	4855W.	Arrowhead Rd, Hermantown, MN 55811		Survey Date	1/5/2024		
Medical Physicist's Name		Shane McCotter & Danny Roach (training)		Signature	Sh-90	Watt	
X-Ray Unit	Manufacturer	Lorad/Hole	ogic	Model	3Dimens	ions	
Date of Inst	allation	12/2/202	21	Room ID	Mammo R	Room	
				SN	3DM16010	01598	
QC Manual	Version #	MAN-03706 Rev. 0	11 (Nov. 2021)	(use any version applic	cable to model; contact	mfr if questions)	
Accessory I	Equipment	Manufacturer	Model	Location	QC Manual V	ersion#	
F	Review Workstation*	Barco	MDMC-12133	Off-site	MAN-03706 Rev. 0	10 (Qug 2020)	
	Film Printer*	NA	NA	NA	NA		
FDA's Policy G	Guidance Help Syster	rs and printers specifically cle n (www.accessdata.fda.gov/d Annual Survey 2D & Digital Breast Tomos	cdrh_docs/presentatio	-			
Medical Physicist's QC Tests ("Pass" means all components of the test passes; indicate "Fail" if any component fails. Tests must be done for both on and off-site equipments. PASS							
	ition Assessmen	sembly Evaluation				Pass Pass	
	Evaluation	ıı				Pass	
	curacy and Repr	oducibility				Pass	
•	•	ent - HVL Measuremen	t			Pass	
	ion of System R		-			Pass	
	•	ontrol (AEC) Function F	Performance (NA f	or systems without AE	EC)	Pass	
8. Breast	Entrance Expos	ure, AÈC Réproducibili	ty and Average C	Blandular Dose	•		
_{AN} Averag	ge glandular dose	for average breast is ≤3	3 mGy (300 mrad)	(conventional)	123 mrad	Pass	
Averag	ge glandular dose	for average breast is ≤3	3 mGy (300 mrad)	(DBT)	152 mrad	Pass	
	on Output Rate					Pass	
	m Image Quality		Fibers Specks	Masses			
\III	_	scores (conventional)	6.0 4.0	4.5		Pass	
,,,	Phantom image		6.0 4.0	4.5		Pass	
_		nd Contrast-To-Noise	Ratio Measureme	ents (values required	for all tests)		
	SNR (value)	55.2				Pass	
	CNR (value)		new unit MEE and A	nnual Survey)		Dana	
		vary by more than ±15%	'	and affaire. NIA if and the		Pass	
•		kstation (RWS) QC (for	ali RWS, even it locat	ea offsite; NA if only n	aracopy reaa)	Pass NA	
13. DICOM Printer QC (if applicable, MEE only)							
 14. Detector Flat Field Calibration (MEE only) 15. Geometry Calibration For Tomosynthsis (DBT MEE only) 							
	=	s Indicator (MEE only)	MEE only)			NA NA	
-		o maioator (wile only)				NA NA	
-	17. Compression (MEE only) 18. Detector Ghosting (troubleshooting only)						

18. Detector Ghosting (troubleshooting only)

(Lorad, continued)

Evaluation of Site's Technologist QC Program

(Required for Annual Surveys; not required for Mammography Equipment Evaluations of new units. However, medical physicists must review the site's technologist QC program within 45 days and complete this section so that the facility may submit this form along with the entire Mammography Equipment Evaluation report with their phantom and clinical images to the ACR.)

		Frequency	PASS/FAIL
1.	DICOM Printer Quality Control (if applicable)	Weekly	NA
2.	Viewboxes and Viewing Conditions	Weekly	NA
3.	Artifact Evaluation	Weekly	Pass
4.	Signal-To-Noise and Contrast-To-Noise Measurements	Weekly	Pass
5.	Phantom Image Quality Evaluation	Weekly	Pass
6.	Detector Flat-Field Calibration	Weekly	Pass
7.	Compression Thickness Indicator	Bi-weekly	Pass
8.	Visual Checklist	Monthly	Pass
9.	Repeat/Reject Analysis	Quarterly	Pass
10.	. Compression	Semi-annually	Pass
11.	Geometry Calibration (Tomosynthsis Option) (DBT,	Semi-annually	Pass
12.	. Diagnostic Review Workstation QC (NA if only hardcopy read)	See Hologic QC Manual	Pass
13.	. Mobile Unit Quality Control (if applicable)	After every move	NA

Medical Physicist's Recommendations for Quality Improvement

This is a Medical Physicist's annual survey.	
Medical Physicist's QC Tests	
No Discrepancies.	
Evaluation of Site's Technologist QC Program	
No Discrepancies.	

Site Name Ess			entia Health International Falls Clinic		Report Date	8/8/202	24	
Address 2501 Ke			enan Dr, International Falls, I	MN 56649	Survey Date	7/25/20	7/25/2024	
Medical Physicist's Name			Shane McCotter & Dann	y Roach (training)	Signature	Sh91	htel	
X-Ra	ay Unit Ma	anufacturer	Lorad/Hold	ogic	Model	Selenia	a	
Date	of Instal	lation	1/16/201	5	Room ID	Mammo R	loom	
		_			SN	2841214W8	3278W	
QC I	Manual Vo	ersion #	MAN-01476 Rev. 0	02 Sept 2014	(use any version applica	able to model; contact i	mfr if questions)	
Acc	essory Ed	quipment	Manufacturer	Model	Location	QC Manual V	ersion #	
	Rev	view Workstation*	Off-Site	Hologic	SecurView	MAN-01476 F	Rev. 001	
		Film Printer*	NA	NA	NA	NA		
	s Policy Gui	dance Help System	rs and printers specifically cle n (www.accessdata.fda.gov/c Annual Survey					
			2D					
				ysicist's Q				
("Pas	ss" means ai	ll components of the	e test passes; indicate "Fail"	if any component fails	. Tests must be done t	for both on and off-si	te equipment.) PASS/FAIL	
1.	Mammon	ranhic Unit Ass	sembly Evaluation				Pass	
	_	on Assessmen	•				Pass	
			tector Uniformity				Pass	
		racy and Repr					Pass	
	-		ent - HVL Measuremen	t			Pass	
		n of System Re					Pass	
7.	Automati	c Exposure Co	ntrol (AEC) Function F	Performance (NA fo	or systems without AE	C)	Pass	
8.	Breast Er	ntrance Exposu	ıre, AEC Reproducibili	ty and Average G	landular Dose			
M	Average	glandular dose	for average breast is ≤3	mGy (300 mrad) ((conventional)	128 mrad	Pass	
TOMO	Average	glandular dose	for average breast is ≤3	mGy (300 mrad) ((DBT)	NA mrad	NA	
		Output Rate					Pass	
10.		Image Quality		Fibers Specks	Masses			
			cores (conventional)	5.0 4.0	4.5		Pass	
	,0=0	hantom image s		NA NA	NA		NA	
11.	_	_	nd Contrast-To-Noise	Ratio Measureme	nts (values required	for all tests)		
		NR (value)					Pass	
		NR (value)		new unit MEE and An	nual Survey)			
			ary by more than ±15%				Pass	
	_		station (RWS) QC (for	all RWS, even if locate	ed offsite; NA if only ha	rdcopy read)	Pass	
		rinter QC (if app	• • • • • • • • • • • • • • • • • • • •				NA	
			ration (MEE only)	M			NA	
			or Tomosynthesis (DB)	MEE only)			NA	
	-		s Indicator (MEE only)				NA NA	
	-	sion (MEE only)					NA NA	
		Ghosting (trouble	:	-45			NA	
			n Image Quality Evalua	ation			NA NA	
20.	20. Upright Biopsy QAS Evaluation						NA	

(Lorad, continued)

Evaluation of Site's Technologist QC Program

(Required for Annual Surveys; not required for Mammography Equipment Evaluations of new units. However, medical physicists must review the site's technologist QC program within 45 days and complete this section so that the facility may submit this form along with the entire Mammography Equipment Evaluation report with their phantom and clinical images to the ACR.)

		Frequency	PASS/FAIL
1.	DICOM Printer Quality Control (if applicable)	Weekly	NA
2.	Viewboxes and Viewing Conditions	Weekly	Pass
3.	Artifact Evaluation	Weekly	Pass
4.	Signal-To-Noise and Contrast-To-Noise Measurements	Weekly	Pass
5.	Phantom Image Quality Evaluation	Weekly	Pass
6.	Detector Flat-Field Calibration	Weekly	Pass
7.	Compression Thickness Indicator	Bi-weekly	Pass
8.	Visual Checklist	Monthly	Pass
9.	Repeat/Reject Analysis	Quarterly	Pass
10.	Compression	Semi-annually	Pass
11.	Geometry Calibration (Tomosynthesis Option) (DB: (DB: C)	Semi-annually	Pass
12.	Diagnostic Review Workstation QC (NA if only hardcopy read)	See Hologic QC Manual	Pass
13.	Mobile Unit Quality Control (if applicable)	After every move	NA

Medical Physicist's Recommendations for Quality Improvement

This is a Medical Physicist's annual survey.	
Medical Physicist's QC Tests	
No Discrepancies.	
Evaluation of Site's Technologist QC Program	
No Discrepancies.	

Site I	Name	Fee	entia Health Moose Lake Ho	enital		Ren	ort Date		1/2/202	24
Addr			Co. Rd. 61, Moose Lake, MN 55767			Survey Date			12/20/2023	
Medical Physicist's Name			Shane McCotter & Danny Roach (training)				gnature	11 001		<u></u>
X-Ray Unit Manufacturer			Lorad/Hol		uning)	┪	Model	Sele	enia Dimen	nions DRT
	of Installati		1/20/20	-		† _F	com ID		Mammo F	
Date	or motanati		1/20/20			J .	SN		81012167	
QC N	lanual Vers	ion#	MAN-03706 Rev. 0	11 (Nov. :	2021)	(use anv v	L	cable to mod		mfr if questions)
									.,	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
Acce	ssory Equi	pment	Manufacturer	Mo	odel	Loca	ation	QC	Manual V	ersion #
	Review	/ Workstation*	Barco	MDMC	C-12133	Off-	site	MA	N-04426 F	Rev. 001
		Film Printer*	NA	١	NA	N	A		NA	
			rs and printers specifically clo n (www.accessdata.fda.gov/o							
	Surv	ey Type:	Annual Survey							
	Feat	ures:	2D & Digital Breast Tomo	synthesis	(DBT)					
			Medical Pl	nysici	st's Q		ts			
("Pass	s" means all co	mponents of th	e test passes; indicate "Fail"	if any com	ponent fails	s. Tests mu	st be done	for both or	and off-s	
										PASS/FAIL
			sembly Evaluation							Pass
		Assessmen	ıt							Pass
	Artifact Eval									Pass
	•	cy and Repr	_							Pass
		-	ent - HVL Measuremen	it						Pass
		of System R		7 a w f a w wa a	(114 (. ,		-0)		Pass
		-	ontrol (AEC) Function F		-	-		- C)		Pass
8. E		-	ure, AEC Reproducibili	-	_			400	lmrad	Pass
			for average breast is ≤3 for average breast is ≤3				iai)	122 149	mrad mrad	Pass
	Radiation O		ioi average breast is =c	ilidy (30	o ililau)	(DBI)	L	149	Jilliau	Pass
		age Quality	Evaluation	Fibers	Specks	Masses				1 433
	Phar	ntom image	COTAS (conventional)	6.0	4.0	4.5				Pass
	Phar	ntom image s	scores <i>(DBT)</i>	5.5	4.0	4.0				Pass
11. 5			nd Contrast-To-Noise				es required	for all test	s)	
	•	(value)	57.2			,	,		,	Pass
	CNR	(value)	12.89 (required for	r new unit N	IEE and Ai	nnual Surve	ey)			L
	CNR	should not	vary by more than ±15%	(NA for M	EE)					Pass
12. [Diagnostic F	Review Wor	kstation (RWS) QC (for	all RWS, e	ven if locat	ed offsite; I	IA if only h	ardcopy re	ad)	Pass
13. DICOM Printer QC (if applicable, MEE only)							NA			
14. Detector Flat Field Calibration (MEE only)							NA			
15. Geometry Calibration For Tomosynthsis (DBT MEE only)							NA			
16. C	Compressio	n Thicknes	s Indicator (MEE only)		IOMO					NA
	Compressio									NA
18. Detector Ghosting (troubleshooting only)							NA			

(Lorad, continued)

Evaluation of Site's Technologist QC Program

(Required for Annual Surveys; not required for Mammography Equipment Evaluations of new units. However, medical physicists must review the site's technologist QC program within 45 days and complete this section so that the facility may submit this form along with the entire Mammography Equipment Evaluation report with their phantom and clinical images to the ACR.)

		Frequency	PASS/FAIL
1.	DICOM Printer Quality Control (if applicable)	Weekly	NA
2.	Viewboxes and Viewing Conditions	Weekly	Pass
3.	Artifact Evaluation	Weekly	Pass
4.	Signal-To-Noise and Contrast-To-Noise Measurements	Weekly	Pass
5.	Phantom Image Quality Evaluation	Weekly	Pass
6.	Detector Flat-Field Calibration	Weekly	Pass
7.	Compression Thickness Indicator	Bi-weekly	Pass
8.	Visual Checklist	Monthly	Pass
9.	Repeat/Reject Analysis	Quarterly	Pass
10.	Compression	Semi-annually	Pass
11.	Geometry Calibration (Tomosynthsis Option) (DBT)	Semi-annually	Pass
12.	Diagnostic Review Workstation QC (NA if only hardcopy read)	See Hologic QC Manual	Pass
13.	Mobile Unit Quality Control (if applicable)	After every move	NA

Medical Physicist's Recommendations for Quality Improvement

This is a Medical Physicist's annual survey.	
Medical Physicist's QC Tests	
No Discrepancies.	
Evaluation of Site's Technologist QC Program	
No Discrepancies.	

MEDICAL PHYSICIST'S MAMMOGRAPHY QC TEST SUMMARY Full-Field Digital – Siemens

Site N	ame	<u>CHI</u> - S	t. Joseph's Health F	lospital	Rep	ort Date	1/2/	2024	
Addre	ess	600 Pleasar	nt Ave., Park Rapids	, MN 56470	Surv	ey Date	12/22	2/2023	
Medic	al Phys	sicist's Name	Shane McCotter an	d Danny Roach	Si	gnature	Sh-9	-M/st	
X-Ray	Unit M	lanufacturer	Sien	nens	Model Mammon		Mammoma	t Revelation	
-	of Insta		11/1/		F	Room ID	DBT N	/lammo	
					Serial	Number	12	219	
QC Ma	anual V	ersion #	Tomo QC 56.01.2	4, 2D QC 51.01.24	(use version applicable	<u> </u>	contact mfr if questi	ions)	
٨٥٥٥٥	eory E	auinmont	Manufacturar	Model	Location		OC Manual Var	sion #	
Acces	-	quipment eview Workstation*	Manufacturer	Model 5421 HD	Location On-Site	MAN	QC Manual Vers		
	R					IVIAIN	I-01476 Rev. 001	(June 2009)	
ED 4		Film Printer		NA Visit of the second second	NA FFDM use by FDA's (Off: (D	NA	25) 5 1 0	
FDA's F			m (www.accessdata		FFDIVI use by FDA's (s/presentations/pghs/l				
Featu	res	2D & Digit	tal Breast Tomosy	nthesis (DBT)					
					ist's QC Te				
("Pass	" means	all components of t	he test passes; indi	cate "Fail" if any co	emponent fails. Tests	must be done	e for both on and o	off-site equipment.) PASS/FAIL	
1. In	nage Q	uality						Pass	
		Largest 5 fibers	, 4 speck groups	and 4 masses v	visible*				
		(*largest 4 fibers, 3	speck groups and	3 masses acceptab	ole if spatial resolution	and CNR pa	ss)		
		Phantom image	scores:	Fibers 5.0	Specks 4.0	Masses	4.0		
		Detection						Pass	
		CNR Measure	ments					Pass	
	-	Reject Analysis						Pass	
	-	ssion Force	,					Pass	
		heck (if applicable						NA Dana	
7. SI	-	R and AEC Rep Measured value	_	59.85 CNR	0.75			Pass	
			l entrance air ker		2.75			Pass	
				_	thin ±15% of mear	for measu	irements	Pass	
8. R	adiatio		i ilicali pixci valt	ics and order wil	IIIII ± 10 /0 OI IIICai	i ioi ilicaso	ircinicinis	Pass	
•• ••			lar dose for aver	age breast is <3	mGy (300 mrad)		0.750 mGy	1 455	
9. S		Resolution		_	,	<u> </u>		Pass	
10.	AEC Te	st						Pass	
11. [Detecto	r Uniformity						Pass	
12. N	Mecha r	ical Tests						Pass	
	•		n Monitor Check					Pass	
			Technologist C	_				Pass	
			e & Compression	on Paddle Posi	tion			Fail	
		Radiation Out						Pass	
			nent & Repeatal	oility				Pass	
		Glandular Dos		n and 7 Dec -1	ution (DDT) (O ::)	Pass	
		-	A and Y Direction	on and Z-Resol	ution (DBT) (Optio	nai Revelatio	n)	Pass	
		n Field <i>(DBT)</i> maging Quality	(DDT)					Fail	
Z1. 3)	-	maging Quality		> 2 maccas mil	et he vicible			Pass	
		•	peck groups and			Magaza	4.0		
22 A.		Phantom image	scores:	Fibers 5.0	Specks 4.0	Masses	4.0	Boss	
		Detection (DBT) Norkstation (R)	NS) Toete /for ="	DIVIS over # lass	ted offsite; NA if only i	nardoon: ====	d)	Pass	
ZJ. KI	CAICM A	77) IIUIIAICA IUT	IVO) ICOLO (IUI All	rivo, even il locat	eu onsile, IVA II ONIY I	iarucopy rea	u <i>)</i>	Pass	

^{***} YOUR MEDICAL PHYSICIST MUST SUMMARIZE HIS/HER RESULTS ON THIS FORM ***

(Siemens, continued)

Evaluation of Technologist QC Program

New units: Medical physicists **must** review the technologist QC **within 45 days of installation** and complete this section. The facility is required to submit the entire Mammography Equipment Evaluation report (including this form) along with their testing materials for accreditation.

Existing units: Medical physicists must complete this section as part of the unit's annual survey.

Relocating units: This section is not required if the medical physicist does not conduct a complete annual survey after relocation.

FREQUENCY

PASS/FAII

		FREQUENCT	FA33/FAIL
1.	Phantom Image Quality Novation	n & Fusion-Daily; Inspiration-Weekly	Pass
2.	Artifact Detection	Weekly	Pass
3.	SNR and CNR Measurements	Weekly	Pass
4.	Detector Calibration*	Novation-Weekly; Fusion-Quarterly	Pass
5.	Repeat/Reject Analysis	Quarterly	Pass
6.	Compression Force	Semi-annually	Pass
7.	System Imaging Quality (DBT)	Weekly	Pass
8.	Printer Check (if applicable)	Daily, when images printed	NA
9.	Review Workstation QC-Overall (NA if only hardcopy read) See FDA guidance	Pass
10.	Mobile Unit Quality Control (if applicable)	After every move	NA

^{*} For Mammomat Revelation and Inspiration, indicate NA-calibration required before QC but does not need to be documented

Medical Physicist's Recommendations for Quality Improvement

This is a Medical Physicist's annual survey.

Medical Physicist's QC Tests

Item 15: The X-Ray Field to Light Field accuracy failed to be within the required 2% of the SID (must not exceed 13 mm combined). We measured the Left/Right combined deviation to be 14mm mainly from the right side where the light field measured 10 mm greater than the x-ray field. Please have a Service Engineer review the results on Page 12 and make the necessary corrections within 30 days of the testing.

Item 15: The chest Wall Missing Tissue measured 5.1mm which is greater than the 5mm allowed limit set by Siemens. Please have a Service Engineer review and make the necessary adjustments, possibly tightening the cover to decrease the missing tissue.

Item 20: We could easily see the edge of the tomo paddle in the first projection image. Per the Siemens manual, the edge of the collimator should not be seen in any projection image. Please have a Service Engineer make the necessary adjustments.

Evaluation of Site's Technologist QC Program

No Discrepancies.

Site Name CMDI at Welia Health Clinic			Repo	ort Date		8/15/20	24			
Address 142		142	25 N Main St, Pine City, MN 55063		Surv	ey Date		7/29/2024		
Medical Physicist's Name		ysicist's Name	Shane McCotter & Danny Roach (training)		Si	gnature		Sh-Mfot		
X-R	ay Unit	Manufacturer	Lorad/Holo	gic			Model	5	Selenia Dime	ensions
Date	e of Inst	allation	7/10/201	9		R	oom ID		Mamm	10
						- -	SN SDM131900771		0771	
QC	Manual	Version #	MAN-03706, Rev. 01	1 (Nov.	2021)	(use any version applicable to model; contact n		mfr if questions)		
Acc	essory	Equipment	Manufacturer	M	odel	Loca	ation	Q	QC Manual Version #	
	F	Review Workstation*	Barco/Hologic	MDMC	C-12133	Off-	Site	М	MAN-04959, Rev. 002	
		Film Printer*	NA	1	NA	N	A		NA	
			ors and printers specifically cle m (www.accessdata.fda.gov/c							
		Survey Type:	Annual Survey		(DDT)					
		Features:	2D & Digital Breast Tomos	yntnesis	(DBT)					
			Medical Ph	ysici	st's Q	C Tes	ts			
("Pas	ss" means	s all components of t	he test passes; indicate "Fail" i	if any com	ponent fails	s. Tests mu	st be done	for both (on and off-si	ite equipment.) PASS/FAIL
1.	Mammo	ographic Unit As	sembly Evaluation							Pass
2.	Collima	ation Assessmer	nt							Pass
3. Artifact Evaluation & Detector Uniformity						Pass				
4. kVp Accuracy and Reproducibility						Pass				
5. Beam Quality Assessment - HVL Measurement						Pass				
6. Evaluation of System Resolution						Pass				
7. Automatic Exposure Control (AEC) Function Performance (NA for systems without AEC)						Pass				
8.		•	ure, AEC Reproducibili	-	_					•
VIII			e for average breast is ≤3				nal)	121	mrad	Pass
()))			e for average breast is ≤3	mGy (30	00 mrad)	(DBT)		146	mrad	Pass
		on Output Rate			T					Pass
10.	Phanto	m Image Quality		Fibers	Specks	Masses				
	VIII		SCOres (conventional)	5.0	4.0	4.0				Pass
44	OMOT	Phantom image		5.0	4.0	4.0		16	. (-)	Pass
11.	Signai-	SNR (value)	and Contrast-To-Noise F	Ratio ivie	asureme	ents (vaiue	es required	i for all tes	sts)	Boss
		CNR (value)	56.8	nau unit 1	ACC and Am	anial Cimia				Pass
			11.38 (required for vary by more than ±15%			iriuai Surve	<i>'Y)</i>			Pass
12	Diagno		• •			ad offsita: N	JA if only h	ardcony i	raad)	Pass
12. Diagnostic Review Workstation (RWS) QC (for all RWS, even if located offsite; NA if only hardcopy read)13. DICOM Printer QC (if applicable, MEE only)					NA					
14. Detector Flat Field Calibration (MEE only)					NA NA					
15. Geometry Calibration For Tomosynthesis (DBT MEE only)					NA NA					
16. Compression Thickness Indicator (MEE only)					NA NA					
17. Compression (MEE only)					NA NA					
18. Detector Ghosting (troubleshooting only)					NA NA					
	19. Upright Biopsy Phantom Image Quality Evaluation					NA NA				
20. Upright Biopsy QAS Evaluation					NA					

(Lorad, continued)

Evaluation of Site's Technologist QC Program

(Required for Annual Surveys; not required for Mammography Equipment Evaluations of new units. However, medical physicists must review the site's technologist QC program within 45 days and complete this section so that the facility may submit this form along with the entire Mammography Equipment Evaluation report with their phantom and clinical images to the ACR.)

		Frequency	PASS/FAIL
1.	DICOM Printer Quality Control (if applicable)	Weekly	NA
2.	Viewboxes and Viewing Conditions	Weekly	Pass
3.	Artifact Evaluation	Weekly	Pass
4.	Signal-To-Noise and Contrast-To-Noise Measurements	Weekly	Pass
5.	Phantom Image Quality Evaluation	Weekly	Pass
6.	Detector Flat-Field Calibration	Weekly	Pass
7.	Compression Thickness Indicator	Bi-weekly	Pass
8.	Visual Checklist	Monthly	Pass
9.	Repeat/Reject Analysis	Quarterly	Pass
10.	Compression	Semi-annually	Pass
11.	Geometry Calibration (Tomosynthesis Option) (DB: (DB: C)	Semi-annually	Pass
12.	Diagnostic Review Workstation QC (NA if only hardcopy read)	See Hologic QC Manual	Pass
13.	Mobile Unit Quality Control (if applicable)	After every move	NA

Medical Physicist's Recommendations for Quality Improvement

This is a Medical Physicist's annual survey.	
Medical Physicist's QC Tests	
No Discrepancies.	
Evaluation of Site's Technologist QC Program	
No Discrepancies.	

John Patrick University Health and Applied Sciences

Upon recommendation of the Faculty,

John Patrick University of Health and Applied Sciences has conferred upon

DANIEL ROACH

the degree of

MASTER OF SCIENCE IN MEDICAL PHYSICS

Who has honorably fulfilled all the requirements prescribed by the University for that degree

at South Bend, Indiana this twenty-first day of August in the year of our Lord two thousand and twenty-three



Buto Muphy
President

John Patrick University of Health and Applied Sciences

Official Transcript

100 E. Wayne Street, Suite 140, South Bend, IN 46601 Phone: (574)232-2408, Fax: (574)232-2200

RECIPIENT:

Daniel Roach 1101 N 57th Ave. W Duluth, MN 55907

STUDENT:

Roach, Daniel

Student ID: 2022000214 Birthdate: May 22, 1998 Enrollment Date: Sep 6, 2021

Degrees/Certificates

Master of Science in Medical Physics

Granted 8/21/2023

Transcri	pt				
	Fall 2021 - 09/06/2021 - 12/21/2021				
Course # BIOL530	Name Human Anatomy & Physiology	Attempted Cr. 4.00	Earned Cr. 4.00	Grade A	Points 16.00
MP502	Physics of Radiation Biology	3.00	3.00	В	9.00
MP590	Medical and Professional Ethics	1.00	1.00	A	4.00
Totals		8.00	8.00	Term GPA: 3.63	Cum. GPA: 3.63
2021-2022: S	Spring 2022 - 01/10/2022 - 04/25/2022				
Course # MP503	Name Physics of Diagnostic Radiology	Attempted Cr. 3.00	Earned Cr.	Grade W	Points
MP505	Physics of Radiation Oncology I	3.00	3.00	В	9.00
MP599 S1	Seminars Session 1	1.00	1.00	A	4.00
Totals		7.00	4.00	Term GPA: 3.25	Cum. GPA: 3.50
2021-2022: S	Summer 2022 - 05/09/2022 - 08/22/2022	10			
Course # MHP601	Name Shielding Design	Attempted Cr. 2.00	Earned Cr. 2.00	Grade A	Points 8.00
MP503	Physics of Diagnostic Radiology	3.00	3.00	A	12.00
Totals		5.00	5.00	Term GPA: 4.00	Cum. GPA: 3.65
2022-2023: I	Fall 2022 - 09/05/2022 - 12/19/2022				
Course # MHP510	Name Health Physics and Radiation Safety	Attempted Cr. 3.00	Earned Cr. 3.00	Grade A	Points 12.00
MP506	Physics of Radiation Oncology II	3.00	3.00	Α	12.00
MP613	Physics of Nuclear Oncology	3.00	3.00	A	12.00
Totals		9.00	9.00	Term GPA: 4.00	Cum. GPA: 3.77
2022-2023: S	Spring 2023 - 01/09/2023 - 04/24/2023				
Course # MP504	Name Physics of Nuclear Medicine	Attempted Cr. 3.00	Earned Cr. 3.00	Grade A	Points 12.00
MP508	Radiological Instrumentation	2.00	2.00	A	8.00
MP599 S10	Seminars Session 10	1.00	1.00	A	4.00
MP603	Advanced Diagnostic Radiology	2.00	2.00	В	6.00
Totals		8.00	8.00	Term GPA: 3.75	Cum. GPA: 3.76

Élizabeth M Datema

Office of the Registrar

Brent D. Murphy, MS, DABR

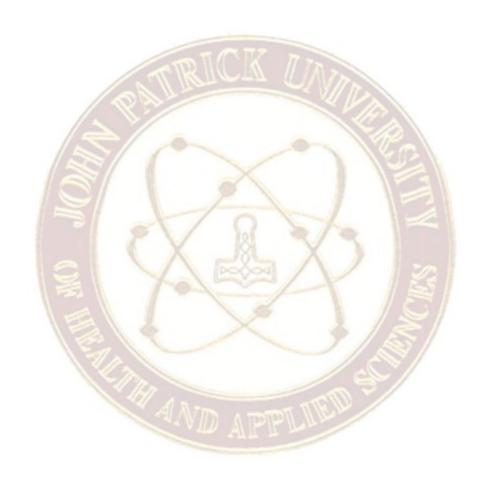
President

2022-2023: Summer 2023 - 05/08/2023 - 08/21/2023

Course #	Name	Attempted Cr.	Earned Cr.	Grade	Points
MP501	Physics of Radiation Dosimetry	4.00	4.00	A	16.00
MP699	Clinical Internship	4.00	4.00	P	16.00
STAT501	Statistical Methods	3.00	3.00	A	12.00
Totals		11.00	11.00	Term GPA: 4.00	Cum. GPA: 3.82

Cumulative

	Attempted Credits	Earned Credits	Points	GPA
Resident	48.00	45.00	172.00	3.82
Transfer	0.00	0.00	0.00	0.00
Overall	48.00	45.00	172.00	3.82



Élizabeth M Datema

Office of the Registrar

Brut D. Murphy, MS, DABR

President

KEY TO TRANSCRIPT OF ACADEMIC RECORDS

Note: The following explanation reflects information found on the John Patrick University of Health and Applied Sciences (JPU) Official Transcript produced from the Student Information System implemented June 2011. Prior to August 5, 2019, JPU was doing business as Radiological Technologies University VT.

I. Grade and Credit Point System

The following grades are considered in computing semester or cumulative grade averages. Course hours with a grade of "F" are counted when computing grade point averages but do not count toward the earned hours required for degrees.

Graduate Courses A (4.0 Pts) Excellent B (3.0 Pts) Good

Undergraduate Courses

A (4.0 Pts) Excellent B (3.0 Pts) Good

F (0.0 Pts) P (4.0 Pts) Failing Passed (Pass/Fail Option)

C (0.0 Pts) Unsatisfactory

(4.0 Pts) Passed (Pass/Fail Option) WF (0.0 Pts) Withdrawn - Failing

F (0.0 Pts) Failing

C (2.0 Pts) Satisfactory

WF (0.0 Pts)

Withdrawn - Failing

D (0.0 Pts) Unsatisfactory

D (0 Pts) Unsatisfactory

Repeated Courses

Ι

Repeated courses are counted in the John Patrick University of Health and Applied Sciences grade point average and may also be counted in the student's primary program GPA (Student Program GPA), depending on the policies of the student's program. The first attempt to complete a course is listed as attempted credits not earned. The following grades are not considered in computing semester or cumulative grade point averages:

Incomplete/Pending

Denotes credits transferred from another Institution

W Withdrawn Repeated Course R

Abbreviations and Symbols

Credit hours earned EHRS **Quality Points Earned** OPts

Grade point average (computed by dividing QPts by EHRS) **GPA**

Credit Types

Regular Credit - All John Patrick University of Health and Applied Sciences credit is reported in terms of semester hours.

II. Record Format

The "Official Transcript" standard format lists course history, grade and GPA information in chronological order sorted by the student's career level. The "Official Transcript with Enrollment" provides the same information as the standard transcript but also includes all courses in which a student is currently enrolled or registered. "Official Transcript" or "Official Transcript with Enrollment" (Without career level designation) indicates that the document contains all work completed at John Patrick University of Health and Applied Sciences.

The JPU GPA reflects the student's GPA according to standard university-wide rules. A Semester JPU GPA and a cumulative to date JPU GPA are calculated at the end of each semester. The overall JPU GPA summary statistics are reflected at the end of each student career level.

The Student Program GPA is calculated according to the rules determined by the student's primary academic program at the time of printing. The cumulative Student Program GPA summary statistics are reflected at the end of each student career level and are based on the student's last active primary program at that level.

Transfer, Test and Special Credit

Courses accepted in transfer from other institutions are listed under a Transfer Credit heading. Generally, a grade of "T" (transfer grade) is assigned and course numbers, titles and credit hours assigned reflect JPU Equivalents. Transfer hours with a grade of "T" are not reflected in the cumulative grade averages; however, the hours are included in the "Hrs Earned" Field.

This Institution is authorized by: the Indiana Board for Proprietary Education, 101 West Ohio Street, Suite 300 Indianapolis, Indiana 46204-4206. Phone (317) 464-4400 Ext. 138.

This Institution is accredited by the Accrediting Commission of Career Schools and Colleges (ACCSC), 2101 Wilson Boulevard, Suite 302 Arlington, VA 22201. Phone (703) 247-4212. Website: www.accsc.org. ACCSC is recognized by the United States Department of Education.

This Institution holds programmatic accreditation by the Joint Review Committee on Education in Radiologic Technology (JRCERT), 20 North Wacker Drive, Suite 2850 Chicago, Illinois 60606-3182. Phone (312) 704-5300. Email: mail@ircert.org. Programs Accredited: Bachelor of Science in Medical Dosimetry and Master of Science in Medical Dosimetry.

A transcript issued by John Patrick University of Health and Applied Sciences is official when it displays signatures. Printed official transcripts display signatures and are printed on SCRIP-SAFE Security paper. A raised seal is not required.

VI. Registrar Contact

Questions about the content of this record should be referred to the Office of the Registrar where it was printed.