

		USE ONLY
APPLICATION FOR OSHPD SPECIAL SEISMIC		
CERTIFICATION PREAPPROVAL (OSP)	APPLICATION #:	OSP – 0409
OSHPD Special Seismic Certification Preapproval (OSP)		
Type: 🗌 New 🛛 Renewal		
Manufacturer Information		
Manufacturer: Siemens Healthcare GmbH		
Manufacturer's Technical Representative:		
Mailing Address: Siemensstr. 3, D-91301 Forchheim, Germany		
Telephone: +49 9191 185412	dieter@siemens-healthir	ieers.com
Product Information	MDI	
Product Name: Luminos Agile MAX OSHPD	FZ	
Product Type: <u>Radiography &amp; Fluoroscopy medical imaging system</u>	· Cri	
Product Model Number: <u>See attachments</u> (List all unique product identification numbers and/or part numbers) OTAV J Pila		
General Description: <u>Components of multi-component radiography</u> Seismic enhancements incorporated into the test units and enhancements re shall be incorporated into the certified units. Motorized transverse table motio from Special Seismic Certification.	& fluoroscopy medical im equired to address anomalie	s observed during the tests
Mounting Description: See attachments		
Applicant Information	2001	
Applicant Company Name: W.E. Gundy & Associates, Inc.		
Contact Person:		
Mailing Address: 1199 Shoreline Drive, Suite 310, Boise, ID 83702		
Telephone: (208) 342-5989 Ext. 115 Email: tsoppe	@wegai.com	
I hereby agree to reimburse the Office of Statewide Health F accordance with the California Administrative Code, 2016.	⊃lanning and Develo	oment review fees in
Signature of Applicant:	Date:	8/01/2019
Title: President Company Name: W.E. G	Gundy & Associates, Inc.	
"Access to Safe, Quality Healthcare Environments that Meet California's Diverse and Dynamic Needs"	ALL AM AAAA	OSHPD
STATE OF CALIFORNIA – HEALTH AND HUMAN SERVICES AGENCY OSH-FD-759 (REV 12/16/15)	And hand hand have	Page 1 of 3



California Licensed Structural Engineer Responsible for the Engineering and Test Report(s)
Company Name:W.E. Gundy & Associates, Inc.
Name: <u>Travis Soppe, SE</u> California License Number: <u>S6115</u>
Mailing Address:
Telephone: (208) 342-5989 Ext. 115 Email: tsoppe@wegai.com
Supports and Attachments Preapproval
<ul> <li>Supports and attachments are preapproved under OPM- (Separate application for OSHPD Preapproval of Manufacturer's Certification (OPM) of Supports and attachments is required)</li> <li>Supports and attachments are not preapproved</li> </ul>
Certification Method
<ul> <li>☑ Testing in accordance with: □ Other (Please Specify): □ Other (Please Specify): □ OSP-0409</li> </ul>
BY:Timothy J Piland
Testing Laboratory DATE: 06/22/2021
Company Name: Environmental Testing Laboratory, Inc.
Contact Name: Brady Richard
Mailing Address:
Telephone: (972) 247-9657 Email: brady@etIdallas.com

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Seismic Parameters
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Design in accordance with ASCE 7-10 Chapter 13: Yes No
Design Basis of Equipment or Components $(F_p/W_p) = Multiple$ , see attachments S <sub>DS</sub> (Design spectral response acceleration at short period, g) = 2.00
$a_p$ (In-structure equipment or component amplification factor) = Multiple, see attachments
$R_p$ (Equipment or component response modification factor) = Multiple, see attachments
$\Omega_0$ (System overstrength factor) = Multiple, see attachments
$I_p$ (Importance factor) = 1.5
z/h (Height factor ratio) = 1.0
Equipment or Component Natural Frequencies (Hz) = Multiple, see attachments
Overall dimensions and weight (or range thereof) =Multiple, see attachments
FORCODECO
Equipment or Components @ grade designed in accordance with ASCE 7-10 Chapter 15:  Yes No
Design Basis of Equipment or Components (V/W) =
S <sub>DS</sub> (Design spectral response acceleration at short period, g) =
S <sub>D1</sub> (Design spectral response acceleration at 1 second period, g) =
R (Response modification coefficient) =
Ω₀ (System overstrength factor) = <del>By:Timothy J Piland</del>
C₄ (Deflection amplificat <mark>ion fa</mark> ctor) =
I <sub>P</sub> (Importance factor) = 1.5 DATE: 06/22/2021
Height to Center of Gravity above base =
Equipment or Component Natural Frequencies (Hz) =
Overall dimensions and weight (or range thereof) =
Tank(s) designed in accordance with ASME BPVC, 2015: 🔲 Yes 🖾 No
List of Attachments Supporting Special Seismic Certification
🖾 Test Report(s) 🗌 Drawings 📄 Calculations 🖾 Manufacturer's Catalog
Other(s) (Please Specify): Certified Product Line Matrix, UUT Summary Sheets, SE Certification Letter
OSHPD Approval (For Office Use Only) – Approval Expires on December 31, 2025
Signature: Mm ll Date: June 22, 2021
Print Name:       Timothy J./Piland       Title:       SSE         Special Seismic Certification Valid Up to:       SDS (g) =       2.00       z/h =       See Above
Condition of Approval (if applicable):
"Access to Safe, Quality Healthcare Environments that Meet California's Diverse and Dynamic Needs"
STATE OF CALIFORNIA – HEALTH AND HUMAN SERVICES AGENCY OSH-FD-759 (REV 12/16/15) Page 3 of 3 Page 3 of 3

TABLE 1		SPECIA	AL SE	HEALT ISMIC ( STEM A	CERTIFI	CATIO		W.E. GUNDY & STRUCTURAL & EAR	GAI ASSOCIATES, INC. ITHQUAKE ENGINEERING			
Manufacturer:	Siemer	s Healthc	are Gmb	Н								
System: LUMI	NOS AG	GILE MAX	X "SEIS	MIC EDITI	ON"							
Sautom Comm		Siem	ens	Di	mensions (	in)	Weight	Mounting	UUT <sup>2</sup>			
System Comp	onent	Part Nu	ımber	Width	Depth	Height	(lb)	Mounting	UUI			
Ceiling Suspension Ysio X-Ray Tubes												
3D Stand Y 3m track-synchr	onized	70422	232	167	119	32 - 103	754	ceiling	UUT <sub>x</sub> -1			
3D Stand Y 4m track-synchr	onized	70422	240	167	172	32 - 103	815	ceiling	interpolated			
3D Stand Y 4m track-autor		70422	224	167 R	C 0172E	32 - 103	888	ceiling	UUT <sub>w</sub> -1			
			C	eiling Sus	pension l	Displays						
DCS-2 with (2 monitor		10052	164	167	27.9 - 55.1	63 - 102	392	ceiling	UUT <sub>y</sub> -5			
DCS-2 withou (2 monitor	s)	10094	053	167	27.9 - 55.1	50 - 89	400	ceiling	interpolated			
DCS-1 with (1 monitor	;)	10 <mark>05</mark> 2	.163	BY: Timo	27.9 - 55.1	and 102	419	ceiling	interpolated			
DCS-1 withou (1 monitor		10094	052	DAT16806	27.9/-251.1	1 50 - 89	290	ceiling	UUT <sub>x</sub> -6			
			E.	Pati	ent Table	s	5					
Luminos Agile "Seismic Edit		10762	200	82.7	87.5	77.0	3970 <sup>3)</sup>	floor	UUT <sub>z</sub> -6A UUT <sub>z</sub> -6B			
<ul> <li>All components</li> <li>of component, ma</li> <li><sup>2</sup> The units were two second seco</li></ul>	anufactu tested at 204-01-r	rer, and ma different tin 3 x = S	terial of o mes and t SC10-10	construction the subscripts 10-02-r2	for each sub- s on the UUT y = SQ35-1	-componene Is reference 301-01-r1	ent within th the followi	ne tested units				
			SEIS	MIC CER	<b>FIFICATI</b>	ON LIMIT	ſS					
System Comp	onent	Code	S <sub>DS</sub> (g)	z / h	I <sub>P</sub>	a <sub>P</sub>	R <sub>P</sub>	Ω <sub>0</sub>	$\mathbf{F}_{\mathbf{P}}$ / $\mathbf{W}_{\mathbf{P}}$			
Ceiling Suspe X-Ray Tub	bes	CBC 2016	2.0	1.0	1.50	2.5	2.5	2.0	3.60			
Ceiling Suspe Displays		CBC 2016	2.0	1.0	1.50	2.5	2.5	2.0	3.60			
Patient Tab	les	CBC 2016	2.0	1.0	1.50	1.0	1.5	1.5	2.40			

TABLE 1		SPECL	AL SE		CERTIF	GmbH [CATIO] MPONE]		W.E. GUNDY 8 STRUCTURAL & EA	ASSOCIATES, INC.				
Manufacturer:	Manufacturer: Siemens Healthcare GmbH												
System: LUMINOS AGILE MAX "SEISMIC EDITION"													
System Compo	onent <sup>1)</sup>		SiemensDimensions (in)Wart NumberWidthDepthHeight			Weight (lb)	Mounting	UUT <sup>2</sup>					
					Ill Stands		(12)						
Tilting Bucky Stand (right		10681	704	30.0	28.1	82.9	643	floor	UUT <sub>z</sub> -2				
Tilting Bucky Stand (left	Wall	10681	705	30.0	28.1	82.9	643	floor	same				
	)			Imagi	ing Syste	ms							
Flurospot Compact (FLC)         10762482         13.4         26.0         21.7         86         floor         UUT <sub>z</sub> -3													
			1	Genera	itor Cabi	nets	2						
Polydoros F8	0-2	10096	925	31.5	P-0409 17.3	86.5	826	floor/wall	UUT <sub>x</sub> -5				
				Wireless	Access I	oints		I					
SCALANCE V	V700	108 <mark>60</mark>	0657	DAT <sup>7.9</sup> 06	(22 <del>]/</del> 202	1 6.2	5.5	wall	UUT <sub>z</sub> -7				
<sup>1</sup> All components of component, ma <sup>2</sup> The units were t w = SQ35-12	anufactur ested at	rer, and ma different ti	terial of c mes and t SC10-10	onstruction he subscripts 10-02-r2	for each sub s on the UU y = SQ35-1	-componene Is reference 301-01-r1	nt within th the followi z = SQ35	ne tested units					
			SEIS	MIC CER	ΓIFICATI	ON LIMIT	<u>S</u>						
System Comp	onent	Code	$S_{DS}(g)$	z / h	I <sub>P</sub>	a <sub>P</sub>	R <sub>P</sub>	Ω <sub>0</sub>	$\mathbf{F}_{\mathbf{P}}$ / $\mathbf{W}_{\mathbf{P}}$				
Wall Stand	ls	CBC 2016	2.0	1.0	1.50	1.0	1.5	1.5	2.40				
Imaging Syst	ems	CBC 2016	2.0	1.0	1.50	1.0	2.5	2.0	1.44				
Generator Cab	oinets	CBC 2016	2.0	1.0	1.50	2.5	6.0	2.0	1.50				
Wireless Acc Points	cess	CBC 2016	2.0	1.0	1.50	1.0	2.5	2.0	1.44				
06/22/2021				(	OSP-0409	-	-	P	age 5 of 15				

UUT<sub>x</sub>-1



**Mounting Details:** Rails and connecting parts of the component bolt with 2 -M10 bolts (20 bolts total) to unistrut grid spaced at 26.0" on center. The unistrut grid consisted of Unistrut P1001 rails anchored with 2 - 3/8" bolts at each intersection to the ceiling fixture framing spaced at 20" on center.

Manufacture	r: Siemens Health		Timothy	2/2021		rironmenta	1 Testing La	lboratory
Component:	X-Ray Tube Stand	w/ 3m Bri	dge 🥂	Test Dat	te: April 20	10		
Model Numb	er: 7042232			Report 1	Number: S	SC10-101	0-2 Rev. 2	
<b>UUT Functio</b>	n: X-Ray stand, ce	eiling suspe	ended, for u	se in radi	ography im	aging, full	y synchroni	zed
<b>UUT Descrip</b>	tion: Component of	of the Lum	inos dRF S	ystem				
			UUT PRO	PERTIE	S			
Weight (1h)		Dimensio	ons (inches)			Natur	al Frequenc	y (Hz)
Weight (lb)	Width		pth		eight	FB	SS	V
754	167		19		103	N/A	N/A	N/A
patients and pro	pended tube stand m ocedures. The systen tation, and with a he	n was tested ight of 50" f	in the norm	al operatin ng point to	g position w bottom of c	ith the syste		
Building Co	de / Test Criteria	$S_{DS}(g)$	z / h	Ip	$A_{FLX-H}(g)$	$A_{RIG-H}(g)$	$A_{FLX-V}(g)$	$A_{RIG-V}(g)$
	ICC-ES AC156	2.00	1.0	1.5	3.20	2.40	1.34	0.54
Note: The unit w	as full of contents during a	ing testing an	d remained fu	inctional be			_	

UUT<sub>w</sub>-1



**Mounting Details:** Rails and connecting parts of the component bolt with 2 -M10 bolts (20 bolts total) to unistrut grid spaced at 27.0" on center. The unistrut grid consisted of Unistrut P1001 rails anchored with 2 - 3/8" bolts at each intersection to the ceiling fixture framing spaced at 32" on center.



UUT<sub>y</sub>-5



**Mounting Details:** Rails and connecting parts of the component bolt with 2 -M10 bolts (20 bolts total) to unistrut grid spaced at 26.0" on center. The unistrut grid consisted of Unistrut P1001 rails anchored with 2 - 3/8" bolts at each intersection to the ceiling fixture framing spaced at 20" on center.



Manufacturer: Siemens Healthcare GmbH / Mavig Test Location: Environmental Testing Laboratory										
Component: Ceiling Suspension Display (2 Monitors) Test Date: January 2013										
Model Number: 10502164 Report Number: SQ35-1301-01 Rev. 1										
UUT Function: Ceiling suspended mount for dual monitors with touch user interface (TUI)										
<b>UUT Descrip</b>	UUT Description: Component of the Luminos Agile Max "Seismic Edition" system									
UUT PROPERTIES										
Weight (1b)		Dimensio	ns (inches)	)		Natura	al Frequenc	y (Hz)		
Weight (lb)	Width	De	pth	H	eight	FB	SS	V		
393	167	27.9 -	- 55.1	63	- 102	N/A	N/A	N/A		
		SEISM	IC TEST	PARAM	ETERS					
Building Co	de / Test Criteria	$S_{DS}(g)$	z / h	Ip	$A_{FLX-H}(g)$	$A_{RIG-H}(g)$	$A_{FLX-V}(g)$	$A_{RIG-V}(g)$		
CBC 2016 /	ICC-ES AC156	2.00	1.0	1.5	3.20	2.40	1.34	0.54		
	Note: The unit was full of contents during testing and remained functional before and after the ICC-ES AC156 test. The unit maintained structural integrity during and after the ICC-ES AC156 Test.									

UUT<sub>x</sub>-6



**Mounting Details:** Rails and connecting parts of the component bolt with 2 -M10 bolts (20 bolts total) to unistrut grid spaced at 26.0" on center. The unistrut grid consisted of Unistrut P1001 rails anchored with 2 - 3/8" bolts at each intersection to the ceiling fixture framing spaced at 20" on center.



Manufacturer: Siemens Healthcare GmbH/Mavig Test Location: Environmental Testing Laboratory											
Component: Ceiling Suspension Display (1 Monitor)					Test Date: April 2010						
Model / Serial Number: 10094052					Number: S	SC10-1010	)-2 Rev. 2				
UUT Function: Ceiling suspended mount for single monitor without touch user interface (TUI)											
<b>UUT Descrip</b>	tion: Component c	of the Lumi	nos dRF S	ystem							
UUT PROPERTIES											
Waight (1h)		Dimensio	ns (inches)	)		Natura	al Frequenc	y (Hz)			
Weight (lb)	Width	De	pth	Н	eight	FB	SS	V			
290	168	27.9 -	55.1	50	- 89	N/A	N/A	N/A			
		SEISM	IC TEST	PARAM	ETERS						
Building Co	de / Test Criteria	$S_{DS}(g)$	z / h	Ip	$A_{FLX-H}(g)$	$A_{RIG-H}(g)$	$A_{FLX-V}\left(g ight)$	$A_{RIG-V}(g)$			
CBC 2016 /	CBC 2016 / ICC-ES AC156 2.00 1.0 1.5 3.20 2.40 1.34 0.54										
	Note: The unit was full of contents during testing and remained functional before and after the ICC-ES AC156 test. The unit maintained structural integrity during and after the ICC-ES AC156 Test.										

UUT<sub>z</sub>-6A

## UNIT UNDER TEST (UUT) SUMMARY SHEET



Mounting Details: Rigid floor mounted with 12 - 3/4" grade 8 bolts.

Manufacturer	: Siemens Healthc	DAT	OSH OSH OSP- imothy E:06/22	2/2021		ironmenta	Testing La	boratory
	uminos Agile Ma							looratory
Model Numbe		PA	7.10		Number: S		02 Rev. 4	
<b>UUT Function</b>	: Motorized patier	nt table and	l digital im	aging dev	vice via flue	oroscopy/ra	adiography	(Horizontal
UUT Descript	ion: Luminos Agi	le Max "Se	ismic Editi	ion" syste	em with pat	ient table /	detector in	horizontal
position. Pixiu	m 3543 Ezh detect	or (107624	02)					
			JUT PRO	PERTIE	S			
Weight (lb)		Dimensio	ns (inches)	)		Natur	al Frequenc	y (Hz)
with Patient	Width	Dej			eight	FB	SS	V
4,370	82.7	87	.5		77	3.6	3.2	3.3
·	e in the horizontal po ed in the normal vert	tical operatir	ng position o	of 33" and	with a total			
			IC TEST	1				
	le / Test Criteria	$S_{DS}(g)$	z / h	I <sub>P</sub>	$A_{FLX-H}(g)$		$A_{FLX-V}(g)$	$A_{RIG-V}(g)$
	ICC-ES AC156	2.00	1.0	1.5	3.20	2.40	1.34	0.54
	s full of contents durin st. The unit maintaine				-	-	ent) before an	d after the

UUT<sub>z</sub>-6B

## UNIT UNDER TEST (UUT) SUMMARY SHEET



Mounting Details: Rigid floor mounted with 12 - 3/4" grade 8 bolts.



UUT<sub>z</sub>-2

#### UNIT UNDER TEST (UUT) SUMMARY SHEET



Mounting Details: Rigid floor mounted with 4 - 5/8" grade 8 bolts.



7.						
Manufacturer: Siemens Healthcare GmbH	Test Location: Environmental Testing Laboratory					
Component: Tilting Bucky Wall Stand	Test Date: July 2014					
Model Number: 10681704	Report Number: SQ35-1415-02 Rev. 4					

UUT Function: Radiographic wall stand for X-ray exposures

**UUT Description:** Component of the Luminos Agile Max "Seismic Edition" system with Pixium 3543 Ezh detector (10762402)

UUT PROPERTIES											
Weight (lb)		Dimensio		Natural Frequency (Hz)							
Weight (lb)	Width	De	pth	He	eight	FB	SS	V			
643	30	28	8.1	8	2.9	11.7	9.1	9.1			
		SEISM	IC TEST	PARAM	ETERS						
Building Co	de / Test Criteria	$S_{DS}(g)$	z / h	I <sub>P</sub>	$A_{FLX-H}(g)$	$A_{\text{RIG-H}}(g)$	$A_{FLX\text{-}V}\left(g\right)$	$A_{RIG-V}(g)$			
CBC 2016 /	CBC 2016 / ICC-ES AC156 2.00 1.0 1.5 3.20 2.40 1.34 0.54										
	as full of contents durin				fore and after	the ICC-ES	AC156 test. T	The unit			

maintained structural integrity during and after the ICC-ES AC156 Test.

UUT<sub>z</sub>-3



**Mounting Details:** Rigid floor mounted with 4 - 3/8" grade 8 bolts.



UUT<sub>x</sub>-5



**Mounting Details:** Rigid wall mounted at top back side of unit with 4 - 1/4" grade 8 bolts and rigid floor mounted with 2 - 3/8" grade 8 bolts. Wall mount brackets constructed of 4" long L4x2.5x0.25 angles that bolt thru the short leg to the UUT with a single 1/2" grade 8 bolt.



		00			OV'			
Manufacturer: Siemens Healthcare GmbH/A				Test Location: Environmental Testing Laboratory				
Component: Polydoros F80 Generator Cabinet				Test Date: April 2010				
<b>Model Number:</b> 10681704 / 7738680				Report Number: SSC10-1010-2 Rev. 2				
<b>UUT Functio</b>	n: Generator for ra	diography a	and fluoros	scopy sys	tems			
UUT Descrip	tion: Component o	f the Lumi	nos dRF S	ystem				
		τ	JUT PRO	PERTIE	S			
Weight (lb)	Dimensions (inches)			)		Natural Frequency (Hz)		
	Width	De	pth	Height		FB	SS	V
826	31.5	17.3		86.5		10.1	11.8	31.0
		SEISM	IC TEST	PARAM	ETERS			
Building Code / Test Criteria		$S_{DS}(g)$	z / h	IP	$A_{FLX-H}(g)$	$A_{RIG-H}(g)$	$A_{FLX-V}(g)$	$A_{RIG-V}(g)$
CBC 2016 / ICC-ES AC156		2.00	1.0	1.5	3.20	2.40	1.34	0.54
	as full of contents duri ural integrity during an				efore and after	r the ICC-ES	AC156 test.	The unit

UUT<sub>z</sub>-7



Mounting Details: Rigid wall mounted with 4 - #12 sheet metal screws and washers.

