APPLICATION FOR OSHPD SPECIAL SEISMIC CERTIFICATION PREAPPROVAL (OSP)

OFFICE USE ONLY	
APPLICATION #:	OSP – 0509 – 10

OSHPD Special Seismic Certification Preapproval (OSP)

Type: ☒ New ☐ Renewal

Manufacturer Information

Manufacturer: Siemens Healthcare GmbH, Diagnostic Imaging, Computed Tomography

Manufacturer's Technical Representative: Ottmar Förstel

Mailing Address: Siemensstr. 1, 91301 Forchheim, Germany

Telephone: +49 9191 – 18 8761 Email: ottmar.foerstel@siemens.com

Product Information

Product Name: SOMATOM Confidence CT System

Product Type: Computed Tomography (CT) medical imaging system

Product Model Number: See Attachment
(List all unique product identification numbers and/or part numbers)

General Description: Multiple component system for producing Computed Tomography (CT) medical images for a wide variety of medical diagnostic results. Patient weight shall not exceed 374 lbs.

Mounting Description: Rigid floor mounted.

Applicant Information

Applicant Company Name: W.E. Gundy & Associates, Inc.

Contact Person: Travis Soppe, SE

Mailing Address: 250 Bobwhite Ct, Suite 100, Boise, ID 83706

Telephone: (208) 342-5898 Ext. 115 Email: tsoppe@wegai.com

I hereby agree to reimburse the Office of Statewide Health Planning and Development review fees in accordance with the California Administrative Code, 2016.

Signature of Applicant: Travis Soppe Date: 03-03-2017

Title: Vice President Company Name: W.E. Gundy & Associates, Inc.

California Licensed Structural Engineer Responsible for the Engineering and Test Report(s)

Company Name: W.E. Gundy & Associates, Inc.

Name: Travis Soppe, SE California License Number: S6115

Mailing Address: 205 Bobwhite Ct, Suite 100, Boise, ID 83706

Telephone: (208) 342-5898 Ext. 115 Email: tsoppe@wegai.com

Supports and Attachments Preapproval

☐ Supports and attachments are preapproved under OPM- _____
(Separate application for OSHPD Preapproval of Manufacturer's Certification (OPM) of Supports and attachments is required)

☒ Supports and attachments are not preapproved

Certification Method

☒ Testing in accordance with: ☒ ICC-ES AC156

☐ Other (Please Specify): _____

Testing Laboratory

Company Name: IABG mbH

Contact Name: Dr. Steffen Roedling

Mailing Address: Einsteinstrasse 20, Ottobrunn, Germany D-85521

Telephone: +49 (0) 89 / 6088-2052 Email: roedling@iabg.de

Seismic Parameters

Design in accordance with ASCE 7-10 Chapter 13: ☒ Yes ☐ No

Design Basis of Equipment or Components (F_p/W_p) = See attachment

S_{DS} (Design spectral response acceleration at short period, g) = 2.0 for z/h = 1.0 and 2.5 for z/h = 0

a_p (In-structure equipment or component amplification factor) = See attachment

R_p (Equipment or component response modification factor) = See attachment

Ω_0 (System overstrength factor) = See attachment

I_p (Importance factor) = 1.5

z/h (Height factor ratio) = 1.0 at S_{DS} = 2.0g and 0 at S_{DS} = 2.5g

Equipment or Component Natural Frequencies (Hz) = See attachment

Overall dimensions and weight (or range thereof) = See attachment

Equipment or Components @ grade designed in accordance with ASCE 7-10 Chapter 15: ☐ Yes ☒ No

Design Basis of Equipment or Components (V/W) =

S_{DS} (Design spectral response acceleration at short period, g) =

S_{D1} (Design spectral response acceleration at 1 second period, g) =

R (Response modification coefficient) =

Ω_0 (System overstrength factor) =

C_d (Deflection amplification factor) =

I_p (Importance factor) = 1.5

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 System Matrix, UUT Summary Sheets, Subcomponent Certification Letter

OSHPD Approval (For Office Use Only) – Approval Expires on December 31, 2022

Signature: Date: April 5, 2017

Print Name: Timothy J. Piland Title: SSE

Special Seismic Certification Valid Up to : S_{DS} (g) = See Above z/h = See Above

Condition of Approval (if applicable): Patient weight shall not exceed 374 lbs.

SIEMENS HEALTHCARE GmbH
SPECIAL SEISMIC CERTIFICATION
CERTIFIED SYSTEM AND COMPONENTS

WEGAI
W.E. GUNDY & ASSOCIATES, INC.
STRUCTURAL & EARTHQUAKE ENGINEERING

Manufacturer: Siemens Healthcare GmbH

System: SOMATOM Confidence CT System

System Component	Siemens Part Number	Dimensions (in)			Weight (lb)	Mounting	UUT
		Width	Length	Height			
SOMATOM Confidence Gantry	10590100	93.7	36.8	78.0	4523	floor	UUT-1
PHS-1b Patient Table	10643655	29.5	96.3-159.3	19.7-36.2	845[2]	floor	UUT-2

1) All components are manufactured by Siemens Healthcare GmbH unless noted otherwise. The part numbers listed uniquely identify the type of component, manufacturer, and material of construction for each sub-component within the tested units.

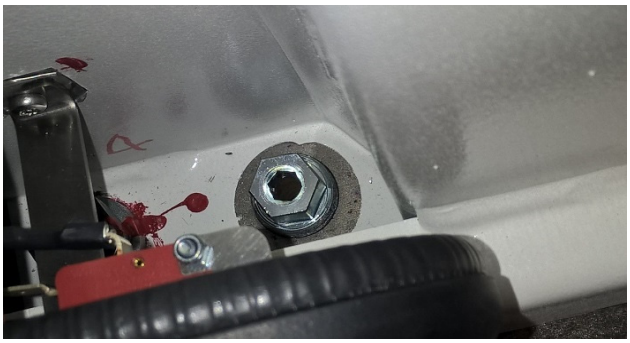
2) Patient table weight does not include 374lb simulated patient weight included during seismic test.

SEISMIC CERTIFICATION LIMITS

System Component	Code	S_{DS} (g)	z / h	I_P	a_P	R_P	Ω_0	F_P / W_P
SOMATOM Confidence Gantry	CBC 2016 ASCE 7-10	2.0	1.0	1.50	1.0	1.5	1.5	2.40
		2.5	0					1.13
PHS-1b Patient Table		2.0	1.0	1.50	1.0	1.5	1.5	2.40
		2.5	0					1.13

UUT-1	UNIT UNDER TEST (UUT) SUMMARY SHEET	WEGAI W.E. GUNDY & ASSOCIATES, INC. STRUCTURAL & EARTHQUAKE ENGINEERING

Mounting Details: Rigid floor mounted with 4 - M16 bolts



Manufacturer: Siemens Healthcare GmbH

Component: SOMATOM Confidence Gantry	**Model / Serial Number:** 10590100 / 100001
UUT Function: Continuous rotating dectector for high-resolution data acquisition	
UUT Description: Component of SOMATOM Confidence CT System	
Test Location: IABG mbH, Germany	**Test Date:** October 2016

UUT PROPERTIES

Weight (lb)	Dimensions (inches)			Natural Fequency (Hz)		
	Width	Depth	Height	FB	SS	V
4,523	93.7"	36.8"	78.0"	11.7	15.0	>33

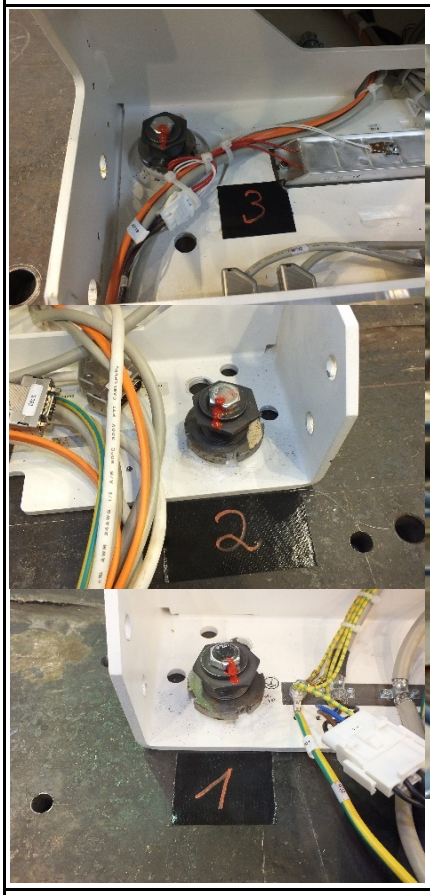
SEISMIC TEST PARAMETERS

Building Code / Test Criteria	S_{DS} (g)	z / h	I_P	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		
	2.50	0.0	1.5			1.67	0.67

Note: The unit was full of contents during testing and remained fuctional before and after the ICC-ES AC156 test. The unit maintained structural integrity during and after the ICC-ES AC156 Test.

UUT-2	UNIT UNDER TEST (UUT) SUMMARY SHEET	WEGAI W.E. GUNDY & ASSOCIATES, INC. STRUCTURAL & EARTHQUAKE ENGINEERING

Mounting Details: Rigid Floor mounted with 4 - M10 bolts



Manufacturer: Siemens Healthcare GmbH

Component: PHS-1b Patient Table	**Model / Serial Number:** 10643655 / 1996
UUT Function: Motorized table which moves patient through circular opening in the CT system	
UUT Description: Component of SOMATOM Confidence CT System	
Test Location: IABG mbH, Germany	**Test Date:** October 2016

UUT PROPERTIES

Weight (lb) with Patient	Dimensions (inches)			Natural Fequency (Hz)		
	Width	Depth	Height	FB	SS	V
1,220	29.5"	96.3"-159.3"	19.7"-36.2"	11.6	5.8	11.5

The patient table moves vertically and horizontally to accommodate different patients and proceedures. The system was tested in the tallest configuration (36.2") with a horizontal extension of 39.4" (total width = 135.7") and a total simulated patient weight of 374lbs.

SEISMIC TEST PARAMETERS

Building Code / Test Criteria	S_{DS} (g)	z / h	I_P	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		
	2.50	0.0	1.5			1.67	0.67

Note: The unit was full of contents during testing and remained fuctional before and after the ICC-ES AC156 test. The unit maintained structural integrity during and after the ICC-ES AC156 Test.