



OFFICE OF STATEWIDE HEALTH PLANNING AND DEVELOPMENT  
FACILITIES DEVELOPMENT DIVISION

**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](mailto: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

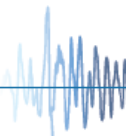
Email: [tsoppe@wegai.com](mailto:tsoppe@wegai.com)

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:  Date: 03-03-2017

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

"Access to Safe, Quality Healthcare Environments that Meet California's Diverse and Dynamic Needs"





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**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](mailto: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): \_\_\_\_\_

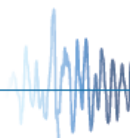
**Testing Laboratory**

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](mailto:roedling@iabg.de)





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**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

$\Omega_0$  (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) = \_\_\_\_\_

$\Omega_0$  (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

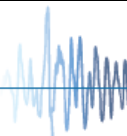
**OSHPD Approval (For Office Use Only) – Approval Expires on December 31, 2022**

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.  
Approval is limited to units identical to tested units.



**SIEMENS HEALTHCARE GmbH  
SPECIAL SEISMIC CERTIFICATION  
CERTIFIED SYSTEM AND COMPONENTS**



**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 <sup>2</sup>	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 <sub>DS</sub> (g)	z / h	I <sub>p</sub>	a <sub>p</sub>	R <sub>p</sub>	Ω <sub>0</sub>	F <sub>p</sub> / W <sub>p</sub>
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**



**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 detector 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 Frequency (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 <sub>DS</sub> (g)	z / h	I <sub>p</sub>	A <sub>FLX-H</sub> (g)	A <sub>RIG-H</sub> (g)	A <sub>FLX-V</sub> (g)	A <sub>RIG-V</sub> (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 functional 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**



**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 Frequency (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 procedures. 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 <sub>DS</sub> (g)	z / h	I <sub>P</sub>	A <sub>FLX-H</sub> (g)	A <sub>RIG-H</sub> (g)	A <sub>FLX-V</sub> (g)	A <sub>RIG-V</sub> (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 functional before and after the ICC-ES AC156 test. The unit maintained structural integrity during and after the ICC-ES AC156 Test.