



**OFFICE OF STATEWIDE HEALTH PLANNING AND DEVELOPMENT
FACILITIES DEVELOPMENT DIVISION**

**APPLICATION FOR OSHPD SPECIAL SEISMIC
CERTIFICATION PREAPPROVAL (OSP)**

OFFICE USE ONLY

APPLICATION #: **OSP – 0081 – 10**

OSHPD Special Seismic Certification Preapproval (OSP)

Type: New Renewal

Manufacturer Information

Manufacturer: **Toshiba Medical Systems Corporation**

Manufacturer's Technical Representative: Greg Patterson

Mailing Address: 2441 Michelle Drive, Tustin CA 92780

Telephone: On File Email: On File

Product Information

Product Name: **RADREX-i SYSTEM**

Product Type: Radiography medical imaging system

Product Model Number: See Attachment 1

(List all unique product identification numbers and/or part numbers)

General Description: Multiple component systems for the provision of radiography medical imaging. Seismic certification is limited to the components identified in Attachment 1. Seismic enhancements made to the test units and modifications required to address the anomalies observed during the tests shall be incorporated into the production units.

Mounting Description: Rigid base mounted (i.e. floor mounted), except as noted in Attachment 1

Applicant Information

Applicant Company Name: **EASE Co.**

Contact Person: JONATHAN ROBERSON, S.E

Mailing Address: 5877 Pine Ave, Suite 210, Chino Hills, CA. 91709

Telephone: (909) 606-7622 Email: j.roberson@easeco.com

I hereby agree to reimburse the Office of Statewide Health Planning and Development review fees in accordance with the California Administrative Code, 2013.

Signature of Applicant:  Date: June 30, 2015

Title: Principal Engineer Company Name: **EASE LLC**

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





**OFFICE OF STATEWIDE HEALTH PLANNING AND DEVELOPMENT
FACILITIES DEVELOPMENT DIVISION**

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

Company Name: EASE LLC

Name: JONATHAN ROBERSON, S.E. California License Number: S4197

Mailing Address: 5877 Pine Ave, Suite 210, Chino Hills, CA. 91709

Telephone: (909) 606-7622 Email: j.roberson@easeco.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: Environmental Testing Laboratory, Inc.

Contact Name: Brady Richard

Mailing Address: 11034 Indian Trail, Dallas, TX 75229-3513

Telephone: (972) 247-9657 Email: brady@etldallas.com

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STATE OF CALIFORNIA – HEALTH AND HUMAN SERVICES AGENCY
OSH-FD-759 (REV 10/21/14)



OSHPD

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FACILITIES DEVELOPMENT DIVISION

Seismic Parameters

Design in accordance with ASCE 7-10 Chapter 13: [X] Yes [] No

Design Basis of Equipment or Components (Fp/Wp) = SEE ATTACHMENT 1

Sds (Design spectral response acceleration at short period, g) = SEE ATTACHMENT 1

ap (In-structure equipment or component amplification factor) = SEE ATTACHMENT 1

Rp (Equipment or component response modification factor) = SEE ATTACHMENT 1

Omega_0 (System overstrength factor) = SEE ATTACHMENT 1

Ip (Importance factor) = 1.5

z/h (Height factor ratio) = SEE ATTACHMENT 1

Equipment or Component Natural Frequencies (Hz) = SEE ATTACHMENT 2

Overall dimensions and weight (or range thereof) = SEE ATTACHMENT 1

Equipment or Components @ grade designed in accordance with ASCE 7-10 Chapter 15: [] Yes [X] No

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

Sds (Design spectral response acceleration at short period, g) =

Sd1 (Design spectral response acceleration at 1 second period, g) =

R (Response modification coefficient) =

Omega_0 (System overstrength factor) =

Cd (Deflection amplification factor) =

Ip (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, 2010: [] Yes [X] No

List of Attachments Supporting Special Seismic Certification

[X] Test Report(s) [] Drawings [] Calculations [] Manufacturer's Catalog

[X] Other(s) (Please Specify): ATTACHMENTS 1 & 2

OSHPD Approval (For Office Use Only) - Approval Expires on December 31, 2019

Signature: [Signature] Date: September 3, 2015

Print Name: Timothy J. Piland Title: SSE

Special Seismic Certification Valid Up to: Sds (g) = See Above z/h = See Above

Condition of Approval (if applicable): Approval is limited to units identical to tested units.



ATTACHMENT 1: SEISMIC CERTIFIED COMPONENTS

TABLE 1:

Manufacturer		TOSHIBA MEDICAL SYSTEMS CORPORATION ^{[2] [4]}												
System		RADREX-I Radiography System				DRAD-3000E/U8			DRAD-3000E/U9			DRAD-3000E/US		
COMPONENT	PART NO.	APPROX. DIMENSIONS (IN.)			MAX. WT. (LB.)	MOUNT	BASIS ^[1]	F _p /W _p	S _{DS}	z/h	a _p	R _p	Ω ₀	
		W	D	H										
Ceiling Suspended Tube Support • Ceiling Travel Rails	DST-3000A1/W3	25	37	24.2 / 51.4	1105	Ceiling Suspended	UUT-1	3.60	2.0	1	2 ½	2½	2½	
	DSR-242B/W1	---	205.5	3	215		1.50	2.5	0					
Elevator-Type Bucky Table with FPD (Flat Panel Detector)	EBT-3000A1/V6	39.5	94	19.7 / 37.4	894 ^[3]	Floor	UUT-2	2.40 1.13	2.0 2.5	1 0	1	1½	1½	
Elevator-Type Bucky Table for Wireless FPD	EBT-3000A1/V5	39.5	94	19.7 / 37.4	882 ^[3]	Floor	UUT-3	2.40 1.13	2.0 2.5	1 0	1	1½	1½	
REXPanel Portable Wireless Digital Detector (Varian)	TFP-4336W	15.1	18.1	0.6	7.7									
Vertical Bucky Stand with FPD	VBS-3100A1/V6	34.1	33.3	85.8	321	Wall/Floor	UUT-4	2.40 1.13	2.0 2.5	1 0	1	1½	1½	
Vertical Bucky Stand for Wireless FPD	VBS-1000A1/V7	31.5	23.1	79.6	426	Wall/Floor	UUT-5	2.40 1.13	2.0 2.5	1 0	1	1½	1½	
REXPanel Portable Wireless Digital Detector (Varian)	TFP-4336W	15.1	18.1	0.6	7.7									
System Interface	SYS-3000A1/S3	22.5	15.8	35.4	147	Wall/Floor	UUT-6	1.44 1.13	2.0 2.5	1 0	1	2½	2½	
Diagnostic X-Ray High Voltage Generator	KXO-80SS/D9	26.75	14.9	35.4	318	Wall/Floor	UUT-7	1.44 1.13	2.0 2.5	1 0	1	2½	2½	
Digital Radiographic System	TFD-3000B/W2	21.7	16.5	40.1	221	Floor	UUT-8	1.44 1.13	2.0 2.5	1 0	1	2½	2½	
19" LCD monitor w/ touch panel (iiyama)	PLT1900	16.9	2.25	15	11	CT-A	UUT-11	1.44 1.13	2.0 2.5	1 0	1	2½	2½	
19" LCD monitor (EIZO)	0FTD1930 NNO	17	2.5	14	8.5	CT-A	UUT-12							
3-Bay Charger for REXPanel Portable Wireless Digital Detector (Varian)	35205 REV B	10.2	13.5	2.2	2.5	CT-A	UUT-13	1.44 1.13	2.0 2.5	1 0	1	2½	2½	
Eaton 9PX 5000 UPS	9104-5211-00P	5.1	28.4	17.3	104.5	Floor	UUT-A1	1.80	2.5	1.0	1	2½	2½	
Mount	<p>FLOOR (RIGID BASE): a free-standing, base mounted condition with the component rigidly attached to a supporting structure and no lateral support above the base.</p> <p>WALL/FLOOR MOUNTED: refers to a condition where the unit bears on, and is anchored directly to the supporting floor. In addition, lateral restraint anchoring the unit to an adjacent wall or other supporting structure is provided along the height of the equipment.</p> <p>CEILING SUSPENDED: refers to a condition where the unit is anchored to and suspended from a framing system at or slightly above the ceiling line of the room.</p> <p>CTA (COUNTERTOP ANCHORED) refers to a condition where the unit is anchored to a counter, desk, or other piece of fixed furniture..</p>													
Notes	<ol style="list-style-type: none"> BASIS: <ul style="list-style-type: none"> UUT#: Indicates that a test specimen matching these characteristics was tested as part of this testing program. SAME: Model is physically, mechanically & electrically the same as test specimen. Difference is limited to model number, color, software and/or GE manufacturing location. INT (Interpolate/Extrapolate): indicates a model that was not specifically tested, and by which seismic certification is established through evaluation of testing of other, similar models in the product line All components in table above are manufactured by Toshiba Medical Systems Corporation (TMSC) except as noted. Patient Couch weights do not include the 500 lb simulated patient loads present during testing. Toshiba seismic kits used in the testing programs shall be installed as a necessary condition of Special Seismic Certification. 													

ATTACHMENT 2: SEISMIC CERTIFIED COMPONENTS

UUT-1 Ceiling Suspended Tube Support & Ceiling Travel Rails									
MANUFACTURER: Toshiba Medical Systems Corp.									
IDENTIFICATION: Tube Support		Ceiling Travel Rails							
DST-3000A1/W3		DSR-242B/W1							
DESCRIPTION: Component of RADREX-i System									
MOUNTING: Ceiling Suspended using (2) – M10 bolts @ (5) locations along each longitudinal rail to Unistrut P1000 supports. (20 bolts total).									
PROPERTIES:									
DIMENSIONS (in.)				Weight (lb.)	LOWEST RESONANT FREQUENCY (Hz.)				
Width	Depth	Height	Front-Axis		Side-Axis	Vert-Axis			
25	37	24.2 – 51.4	1105	4.2	4.3	4.5			
----	205.5	3	215	-----	-----	-----			
SHAKE TABLE TEST PARAMETERS									
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 2013	ICC-ES AC156	2.0 2.5	1 0	1.5	3.20 2.50	2.40 1.00	1.34 1.68	0.54 0.68	
Unit maintained structural integrity and functionality after the ICC-ES AC 156 test									

UUT- 2 Elevator-Type Bucky Table with FPD									
MANUFACTURER: Toshiba Medical Systems Corp.									
IDENTIFICATION: EBT-3000A1/V6									
DESCRIPTION: Component of RADREX-i System.									
MOUNTING: Floor mounted using (4) – ½” dia. bolts grade 8 bolts to interface plate.									
PROPERTIES:									
DIMENSIONS (in.)				Weight (lb.)	LOWEST RESONANT FREQUENCY (Hz.)				
Width	Depth	Height	Front-Axis		Side-Axis	Vert-Axis			
39.5	94	19.7 – 37.4	894+ 500 lb patient load	10.3	17.9	5.1			
SHAKE TABLE TEST PARAMETERS									
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 2013	ICC-ES AC156	2.0 2.5	1 0	1.5	3.20 2.50	2.40 1.00	1.34 1.68	0.54 0.68	
Unit maintained structural integrity and functionality after the ICC-ES AC 156 test									

ATTACHMENT 2: SEISMIC CERTIFIED COMPONENTS

UUT- 3 Elevator-Type Bucky Table for Wireless FPD									
MANUFACTURER:		Toshiba Medical Systems Corp.							
IDENTIFICATION:		EBT-3000A1/V5		Patient Table					
		TFP-4336W		REXPanel					
DESCRIPTION:		Component of RADREX-i System. REXPanel wireless portable detector (by Varian Medical Systems) installed in bucky during test.							
MOUNTING:		Floor mounted using(4) – ½” diameter grade 8 bolts to interface plate.							
PROPERTIES:									
DIMENSIONS (in.)				Weight (lb.)	LOWEST RESONANT FREQUENCY (Hz.)				
Width	Depth	Height	Front-Axis		Side-Axis	Vert-Axis			
39.5	94	19.7 – 37.4	882 + 500 lb patient load	11.2	26.9	5.5			
SHAKE TABLE TEST PARAMETERS									
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 2013	ICC-ES AC156	2.0 2.5	1 0	1.5	3.20 2.50	2.40 1.00	1.34 1.68	0.54 0.68	
Unit maintained structural integrity and functionality after the ICC-ES AC 156 test									



UUT- 4 Vertical Bucky Stand with FPD									
MANUFACTURER:		Toshiba Medical Systems Corp.							
IDENTIFICATION:		VBS-3100A1/V6							
DESCRIPTION:		Component of RADREX-i System. Tilting motorized bucky wall stand with internal fixed FPD							
MOUNTING:		Wall/Floor mounted using (4) – 3/8” diameter Allen Head cap screws to wall support and (4) – ½” diameter grade 8 bolts to interface plate.							
PROPERTIES:									
DIMENSIONS (in.)				Weight (lb.)	LOWEST RESONANT FREQUENCY (Hz.)				
Width	Depth	Height	Front-Axis		Side-Axis	Vert-Axis			
34.1	33.3	85.8	321	7.4	11.6	11.0			
SHAKE TABLE TEST PARAMETERS									
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 2013	ICC-ES AC156	2.0 2.5	1 0	1.5	3.20 2.50	2.40 1.00	1.34 1.68	0.54 0.68	
Unit maintained structural integrity and functionality after the ICC-ES AC 156 test									



ATTACHMENT 2: SEISMIC CERTIFIED COMPONENTS

UUT- 5		Vertical Bucky Stand for Wireless FPD						
MANUFACTURER:		Toshiba Medical Systems Corp.						
IDENTIFICATION:		VBS-1000A1/V7	Bucky Stand					
		TFP-4336W	REXPanel					
DESCRIPTION:		Component of RADREX-i System. Non-tilting bucky. REXPanel wireless portable detector (by Varian Medical Systems) installed in bucky during test.						
MOUNTING:		Wall/Floor mounted using (2) – 3/8" diameter diameter Allen Head cap screws to wall support and (4) – 3/8" diameter diameter Allen Head cap screws to interface plate.						
PROPERTIES:								
DIMENSIONS (in.)			Weight (lb.)	LOWEST RESONANT FREQUENCY (Hz.)				
Width	Depth	Height		Front-Axis	Side-Axis	Vert-Axis		
31.5	23.1	79.6	426	7.6	12.5	11.9		
SHAKE TABLE TEST PARAMETERS								
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 2013	ICC-ES AC156	2.0 2.5	1 0	1.5	3.20 2.50	2.40 1.00	1.34 1.68	0.54 0.68
Unit maintained structural integrity and functionality after the ICC-ES AC 156 test								



UUT- 6		System Interface						
MANUFACTURER:		Toshiba Medical Systems Corp.						
IDENTIFICATION:		SYS-3000A1/S3						
DESCRIPTION:		Component of RADREXi System.						
MOUNTING:		Wall/Floor mounted using (4) – 1/4" diameter hex washer head sheet metal screws to wall support and (4) – 3/8" diameter Allen Head cap screws to interface plate.						
PROPERTIES:								
DIMENSIONS (in.)			Weight (lb.)	LOWEST RESONANT FREQUENCY (Hz.)				
Width	Depth	Height		Front-Axis	Side-Axis	Vert-Axis		
22.5	15.8	35.4	147	21.4	17.7	36.4		
SHAKE TABLE TEST PARAMETERS								
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 2013	ICC-ES AC156	2.0 2.5	1 0	1.5	3.20 2.50	2.40 1.00	1.34 1.68	0.54 0.68
Unit maintained structural integrity and functionality after the ICC-ES AC 156 test								



ATTACHMENT 2: SEISMIC CERTIFIED COMPONENTS

UUT- 7 Diagnostic X-Ray High Voltage Generator								
MANUFACTURER:	Toshiba Medical Systems Corp.							
IDENTIFICATION:	KXO-80SS/D9							
DESCRIPTION:	Component of RADREX-i System.							
MOUNTING:	Wall/Floor mounted using (4) – ¼” diameter hex washer head sheet metal screws to wall support and (4) – ½” diameter grade 8 bolts to interface plate.							
								
PROPERTIES:								
DIMENSIONS (in.)			Weight (lb.)	LOWEST RESONANT FREQUENCY (Hz.)				
Width	Depth	Height		Front-Axis	Side-Axis	Vert-Axis		
26.75	14.9	35.4	318	20.0	19.6	19.0		
SHAKE TABLE TEST PARAMETERS								
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 2013	ICC-ES AC156	2.0 2.5	1 0	1.5	3.20 2.50	2.40 1.00	1.34 1.68	0.54 0.68
Unit maintained structural integrity and functionality after the ICC-ES AC 156 test								

UUT- 8 Digital Radiographic System								
MANUFACTURER:	Toshiba Medical Systems Corp.							
IDENTIFICATION:	TFD-3000B/W2							
DESCRIPTION:	Component of RADREX-i System.							
MOUNTING:	Floor mounted using (4) – 3/8” diameter Allen Head cap screws to interface plate.							
								
PROPERTIES:								
DIMENSIONS (in.)			Weight (lb.)	LOWEST RESONANT FREQUENCY (Hz.)				
Width	Depth	Height		Front-Axis	Side-Axis	Vert-Axis		
21.7	16.5	40.1	221	9.4	6.4	27.4		
SHAKE TABLE TEST PARAMETERS								
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 2013	ICC-ES AC156	2.0 2.5	1 0	1.5	3.20 2.50	2.40 1.00	1.34 1.68	0.54 0.68
Unit maintained structural integrity and functionality after the ICC-ES AC 156 test								

ATTACHMENT 2: SEISMIC CERTIFIED COMPONENTS

UUT-11		19" LCD monitor w/ touch panel						
<i>MANUFACTURER:</i>		iiyama						
<i>IDENTIFICATION:</i>		Model No.: TFDK-TPLCD						
		Iiyama ProLite T1931SR Model PLT1900						
<i>DESCRIPTION:</i>		Component of RADREX-i System.						
<i>MOUNTING:</i>		Countertop Anchored mounted using 4 Toshiba provided machine screws to integral bracket on UUT-8						
<i>PROPERTIES:</i>								
DIMENSIONS (in.)					LOWEST RESONANT FREQUENCY (Hz.)			
Width	Depth	Height	Weight (lb.)		Front-Axis	Side-Axis	Vert-Axis	
16.9	2.25	15	11		10.9	6.5	27.9	
<i>SHAKE TABLE TEST PARAMETERS</i>								
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 2013	ICC-ES AC156	2.0 2.5	1 0	1.5	3.20 2.50	2.40 1.00	1.34 1.68	0.54 0.68
Unit maintained structural integrity and functionality after the ICC-ES AC 156 test								



UUT-12		19" LCD monitor without touch panel						
<i>MANUFACTURER:</i>		EIZO						
<i>IDENTIFICATION:</i>		TFDK-LCD						
<i>DESCRIPTION:</i>		Component of RADREX-i System.						
<i>MOUNTING:</i>		Countertop Anchored mounted using 4 Toshiba provided machine screws to integral bracket on UUT-8						
<i>PROPERTIES:</i>								
DIMENSIONS (in.)					LOWEST RESONANT FREQUENCY (Hz.)			
Width	Depth	Height	Weight (lb.)		Front-Axis	Side-Axis	Vert-Axis	
17	2.5	14	8.5		9.2	6.7	13.5	
<i>SHAKE TABLE TEST PARAMETERS</i>								
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 2013	ICC-ES AC156	2.0 2.5	1 0	1.5	3.20 2.50	2.40 1.00	1.34 1.68	0.54 0.68
Unit maintained structural integrity and functionality after the ICC-ES AC 156 test								



ATTACHMENT 2: SEISMIC CERTIFIED COMPONENTS

UUT- 13		3-Bay Battery Charger for Portable Wireless FPD (TFP-4336W)						
MANUFACTURER:		Varian Medical Systems (VMS)						
IDENTIFICATION:		Model No. 35205 REV B						
		S/N: 000544						
DESCRIPTION:		3-Bay battery charger for Varian Medical Systems 14.8V / 2.1 AH lithium-Ion batteries (REF 30771 REV B) , which are used with RADReX Portable Wireless FPD (TFP-4336W).						
MOUNTING:		Countertop Anchored using 1" W x 8" L Velcro hook & loop tape applied to the lower face of the charger at the two side edges.						
PROPERTIES:								
DIMENSIONS (in.)			Weight (lb.)	LOWEST RESONANT FREQUENCY (Hz.)				
Width	Depth	Height		Front-Axis	Side-Axis	Vert-Axis		
10.2	13.5	2.2		2.5	33.0	41	26.5	
SHAKE TABLE TEST PARAMETERS								
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 2013	ICC-ES AC156	2.0 2.5	1 0	1.5	3.20 2.50	2.40 1.00	1.34 1.68	0.54 0.68
Unit maintained structural integrity and functionality after the ICC-ES AC 156 test								



UUT- A1		Eaton 9PX 5000 UPS						
MANUFACTURER:		Eaton						
IDENTIFICATION:		Part No.: 9104-5211-00P Serial No.:G204D41024						
DESCRIPTION:		Uninterruptible Power Supply with internal batteries.						
MOUNTING:		Floor Mounted using (4) x 3/8" Grade 8 socket head bolts to aluminum interface plate.						
PROPERTIES:								
DIMENSIONS (in.)			Weight (lb.)	LOWEST RESONANT FREQUENCY (Hz.)				
Width	Depth	Height		X-Axis	Y-Axis	Z-Axis		
5.1	28.4	17.3		11.0	28.2	22.6		
SHAKE TABLE TEST PARAMETERS								
CODE	TEST CRITERIA	S _{DS}	z/h	I _P	A _{FLX-H}	A _{RIG-H}	A _{FLX-V}	A _{RIG-V}
CBC 2013	ICC-ES AC156	2.5	1.0	1.5	4.00	3.00	1.68	0.68
Unit maintained structural integrity and functionality after the ICC-ES AC 156 test								

