



APPLICATION FOR PREAPPROVAL SPECIAL SEISMIC CERTIFICATION OF EQUIPMENT AND COMPONENTS

For Office Use Only

APPLICATION NO.
OSP – 0278 – 10

Check whether application is: NEW RENEWAL

1.0 **QUANTUM MEDICAL IMAGING** Keith Matovich
Manufacturer *Manufacturer's Technical Representative*

2002 Orville Drive North, Ronkonkoma, New York, 11779
Mailing Address

631.567.5800 E-mail Address
Telephone

2.0 **Q-RAD RADIOGRAPHIC SYSTEM & T-RAD PLUS SYSTEM** **RADIOGRAPHY DIAGNOSTIC IMAGING**
Product Name *Product Type*

SEE ATTACHMENT 1

Product model No (List all unique product identification numbers and/or serial numbers)

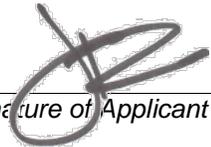
General Description: Components of multiple-component radiography diagnostic imaging systems. Special Seismic Certification is limited to mounting types and components of the Q-Rad Radiographic System and T-Rad Plus System identified in Attachment 1, Table 1.

3.0 **EQUIPMENTANCHORAGE.COM** JONATHAN ROBERSON, S.E.
Applicant Company Name *Contact Person*

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

(406) 541-EASE (3273) jon@easeco.com
Telephone *E-mail Address*

I hereby agree to reimburse the Office of Statewide Health Planning and Development for the actual costs incurred by the department for review.


Signature of Applicant

Principal Engineer
Title

June 1, 2012
Date

EQUIPMENTANCHORAGE.COM
Company Name



Registered Design Professional Preparing the Report

4.0 EQUIPMENTANCHORAGE.COM

Company Name

Jonathan Roberson, S.E.

Contact Name

S4197

California License Number

5877 Pine Ave, Suite 210, Chino Hills, CA. 91709

Mailing Address

909-606-7622

Telephone

jon@easeco.com

E-mail Address

California Licensed Structural Engineer Review and Acceptance of the Report

5.0 EQUIPMENTANCHORAGE.COM

Company Name

Jonathan Roberson, S.E.

Contact Name

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Anchorage Pre-Approval

6.0

Anchorage is pre-approved under OPA- (Separate application for anchorage pre-approval is required)

Anchorage is not Pre-approved

Certification Method

70. Testing in accordance with: ICC-ES AC-156 Other (Please Specify):

Analysis

Experience data

Combination of Testing, Analysis, and/or Experience Data (Please Specify):

Testing Laboratory (if applicable)

8.0 Environmental Testing Laboratory, Inc.

Company Name

Brady Richard

Contact Name

11034 Indian Trail, Dallas, TX 75229-3513

Mailing Address

972-247-9657

Telephone

brady@etldallas.com

E-mail:



Approval Parameters

9.0

Design in accordance with ASCE 7-05 Chapter 13: Yes No

Design Basis of Equipment or Components (F_p/W_p) = $0.6S_{DS}(a_p/R_p)(1+2 z/h)$

S_{DS} (Spectral response acceleration at short period) = **2.0g @ z/h=1.0; 2.6g @ z/h=0**

a_p (In-structure equipment or component amplification factor) = **See Attachment 2**

R_p (Equipment or component response modification factor) = **See Attachment 2**

I_p (Importance factor) = **1.5**

z/h (Height factor ratio) = **Varies (See S_{DS} above)**

Equipment or Component fundamental period(s) = **See Attachment 2**

Building period limits (if any) = **NONE**

Overall dimensions and weight (or range thereof) = **See Attachment 1**

Equipment or Components @ grade designed in accordance with ASCE 7-05 Chapter 15: Yes No

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

S_{DS} (Spectral response acceleration at short period) =

S_1 (Spectral response acceleration at 1 second period) =

R (Response modification coefficient) = 1.0

Ω_0 (System overstrength factor) = 1.0

C_d (Deflection amplification factor) = 1.0

I_p (Importance factor) = 1.5

Height to Center of Gravity above base =

Equipment or Component fundamental period(s) = Sec

Overall dimensions and weight (or range thereof) =

Tank(s) designed in accordance with ASME BPVC, 2007: Yes No

10.0 List of attachments supporting the special seismic certification of equipment or components:

- Test Report
- Drawings
- Manufacturer's Catalog
- Calculations
- Others (Please Specify): **Attachments 1 & 2**

11.0 OSHPD Approval (For Office Use Only)



9/7/2012

December 31, 2016

Signature & Date

Approval Expiration Date

M. R. Karim, SHFR

S_{DS} (g) = **See Section 9.0**

z/h = **See Section 9.0**

Name & Title

Special Seismic Certification Valid Up to

Condition of Approval (if any):

QUANTUM MEDICAL IMAGING

SPECIAL SEISMIC CERTIFICATION OF MEDICAL IMAGING EQUIPMENT

ATTACHMENT 1: SEISMIC CERTIFIED COMPONENTS

TABLE 1: SEISMIC CERTIFIED COMPONENTS:

MANUFACTURER		Quantum Medical Imaging (Unless Otherwise Noted)					
PRODUCT LINE		T-Rad Plus System & Q-Rad Radiographic Systems					
SYSTEM COMPONENT	MODEL NO.	DIMENSIONS (IN.)			MAX. WT. (LB.)	MOUNTING	BASIS
		W	D	H			
Vertical Wall Stand	TW-420-T-D	34	40.75 / 42.625	84.19	415	Wall/Floor	UUT1
Verti-Q Tilt Motorized Vertical Wall Stand	QW-420-T-D	34	40.75 / 42.625	84.19	415	Wall/Floor	SAME
Vertical Wall Stand	TW-420-T	34	40.75 / 42.625	84.19	415	Wall/Floor	OSP-0133-10
Verti-Q Tilt Motorized Vertical Wall Stand	QW-420-T	34	40.75 / 42.625	84.19	415	Wall/Floor	SAME
Verti-Q Vertical Wall Stand	QW-420-D	25.19	13.25 / NA	84	200	Wall/Floor	INT
Vertical Wall Stand	TW-420-D	25.19	13.25 / NA	84	200	Wall/Floor	INT
Verti-Q Vertical Wall Stand	QW-420	27.5	12.75 / NA	84	225	Wall/Floor	SAME
Vertical Wall Stand	TW-420	27.5	12.75 / NA	84	225	Wall/Floor	OSP-0133-10
Quiet-Lift Elevating Float-Top Table	QT-750	45.5	117	21 / 32.5	561	Rigid Base	UUT2
Elevator Bucky Table	TT-750	45.5	117	21 / 32.5	561	Rigid Base	SAME
HF Series X-Ray Generator Cabinet	QG-80	24	20.66	34.72	494.5	Rigid Base	UUT3
Generator Cabinet	QG-65	24	20.66	34.72	494.5	Rigid Base	SAME
	QG-50	24	20.66	34.72	494.5	Rigid Base	SAME
X-Ray Generator Cabinet	TG-8000-HS	24	20.66	34.72	494.5	Rigid Base	SAME
	TG-6500-HS	24	20.66	34.72	494.5	Rigid Base	SAME
	TG-5000-HS	24	20.66	34.72	494.5	Rigid Base	SAME
X-Ray Generator Control:	---	---	---	---	---	---	---
MSI MS-A923 Computer	QGV-80	---	---	---	---	Countertop	UUT-4A
MSI Keyboard	ES500	---	---	---	---	Countertop	UUT-4B
MSI Mouse	ES130	---	---	---	---	Countertop	UUT-4C
MOUNTING	<p>Rigid Base Mounted (Floor Mounted): 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: 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>Countertop: a condition where the unit sits atop but is not otherwise anchored to a counter, desk, or other piece of fixed furniture.</p>						
NOTES	<p>1. BASIS:</p> <ul style="list-style-type: none"> UUT#: Indicates that a test specimen matching these characteristics was tested. SAME: Model is physically, mechanically & electrically the same as test specimen. Difference is limited to model number, color and/or software. INT (Interpolate): indicates a model that was not specifically tested, and by which seismic qualification was established through evaluation of testing of other, similar models in the product line. <p>2. Max. Weight tabulated for Patient Table does not include the 650 lb. simulated patient load included in test.</p>						

QUANTUM MEDICAL IMAGING

SPECIAL SEISMIC CERTIFICATION OF MEDICAL IMAGING EQUIPMENT

ATTACHMENT 2: TEST SPECIMENS

UUT-1 Motorized Tilting Vertical Wall Stand

MANUFACTURER: Quantum Medical Imaging
 MODEL: TW-420-T-D
 IDENTIFICATION: S/N: QW420TD-12D-0401
 DESCRIPTION: Sub-component of Toshiba T.Rad Plus & Quantum Medical Imaging Q-Rad Radiographic systems.
 MOUNTING: Wall/Floor
 (4) – 3/8" dia cap screws w/ washers to unit base
 (4) – 1/4" dia hex head bolts w/ washers to bracket at top of unit
 a_p 1
 R_p 1.5



UUT PROPERTIES:

DIMENSIONS (in.)			WEIGHT (lb.)	LOWEST RESONANT FREQUENCY (Hz.)		
WIDTH	DEPTH	HEIGHT		X-Axis	Y-Axis	Z-Axis
34	40.75	83.125	383	6.2	8.0	11.8

UUT-2 Patient Table

MANUFACTURER: Quantum Medical Imaging
 MODEL: QT-750
 IDENTIFICATION: QT750-11E-0536
 DESCRIPTION: Sub-component of Toshiba T.Rad Plus & Quantum Medical Imaging Q-Rad Radiographic systems. Weight below does not include 650 lb simulated patient load included in the test.
 MOUNTING: Rigid base mounted (i.e. floor mounted) w/ (6) - 1/2" hex head bolts w/ washers.
 a_p 1
 R_p 1.5



UUT PROPERTIES:

DIMENSIONS (in.)			WEIGHT (lb.)	LOWEST RESONANT FREQUENCY (Hz.)		
WIDTH	DEPTH	HEIGHT		X-Axis	Y-Axis	Z-Axis
45.5	117	21 / 32.5	560	4.9	48.5	28.8

QUANTUM MEDICAL IMAGING

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ATTACHMENT 2: TEST SPECIMENS

UUT-3 Generator Cabinet

MANUFACTURER: Quantum Medical Imaging
 MODEL: QG-80
 IDENTIFICATION: S/N: QC80-12C-0301
 DESCRIPTION: Sub-component of Toshiba T.Rad Plus & Quantum Medical Imaging Q-Rad Radiographic systems.
 MOUNTING: Rigid Base mounte (i.e. floor mounted) w/ (4) - 3/8" Bolts & washers.
 a_p 1
 R_p 2.5



UUT PROPERTIES:

DIMENSIONS (in.)			WEIGHT (lb.)	LOWEST RESONANT FREQUENCY (Hz.)		
WIDTH	DEPTH	HEIGHT		X-Axis	Y-Axis	Z-Axis
24	20.66	34.72	494.5	12.6	27.1	26.1

UUT-4 Generator Console All in on computer, Keyboard, & Mouse

MANUFACTURER: msi
 MODEL: Wind Top AE 1920 (MS-A923) All in one PC: Keyboard: StarType ES500 Mouse: StarMouse ES 130
 IDENTIFICATION: Quantum Label: Model: QGV-80, Serial: QGV80-12A-0101 Serial: S11-0400D40-S591104010334
 DESCRIPTION: Sub-component of Toshiba T.Rad Plus & Quantum Medical Imaging Q-Rad Radiographic systems
 MOUNTING: Countertop (i.e. Un-anchored)



UUT PROPERTIES:

DIMENSIONS (in.)			WEIGHT (lb.)	LOWEST RESONANT FREQUENCY (Hz.)		
WIDTH	DEPTH	HEIGHT		X-Axis	Y-Axis	Z-Axis
N/A	N/A	N/A	N/A	N/A	N/A	N/A