



APPLICATION FOR PREAPPROVAL SPECIAL SEISMIC CERTIFICATION OF EQUIPMENT AND COMPONENTS

For Office Use Only

APPLICATION NO.

OSP – 0062-10

Check whether application is: NEW RENEWAL

1.0 Siemens Medical Solutions Jonathan Roberson
Manufacturer Manufacturer's Technical Representative
 2801 Connery Way, Suite B, Missoula, MT 59808
Mailing Address

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

2.0 Multix X-Ray System X-Ray System
Product Name Product Type

SEE ATTACHMENT 1

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

General Description: A multi-component X-ray system used for medical imaging.

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

April 29, 2010
Date

SENIOR ENGINEER
Title

EQUIPMENTANCHORAGE.COM
Company Name

1/4



Registered Design Professional Preparing the Report

4.0 Department of Civil Engineering, University of Nevada, Reno

Gokhan Pekcan, Ph.D. / Richard La Brie		C-45902
<i>Contact Name</i>		<i>California License Number</i>
Mail Stop 258, Reno, NV 89523		
<i>Mailing Address</i>		
775-784-4512	pekcan@unr.edu	
<i>Telephone</i>	<i>E-mail Address</i>	

California Licensed Structural Engineer Review and Acceptance of the Report

5.0 **EQUIPMENTANCHORAGE.COM**

Jonathan Roberson, S.E.		S4197
<i>Contact Name</i>		<i>California License Number</i>
5877 Pine Ave, Suite 210, Chino Hills, CA. 91709		
<i>Mailing Address</i>		
909-606-7622	jon@easeco.com	
<i>Telephone</i>	<i>E-mail Address</i>	

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 Department of Civil Engineering, University of Nevada, Reno

Gokhan Pekcan, Ph.D.

Mail Stop 258, Reno, NV 89523		
<i>Mailing Address</i>		
775-784-4512	pekcan@unr.edu	
<i>Telephone</i>	<i>E-mail:</i>	



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) = 2.32g

S_{DS} (Spectral response acceleration at short period) = 1.93g

a_p (In-structure equipment or component amplification factor) = 1.0

R_p (Equipment or component response modification factor) = 1.5

I_p (Importance factor) = 1.5

z/h (Height factor ratio) = 1.0

Equipment or Component fundamental frequency(s) = SEE ATTACHMENT 1

Building period limits (if any) = NO LIMIT

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: SE Acceptance Letter; OSHPD Conditional Acceptance letter, dated June 24, 2009.

11.0 OSHPD Approval (For Office Use Only)

Chris Tokas

5/3/10

December 31, 2013

Signature & Date

Approval Expiration Date

Chris Tokas, SHFR

S_{DS} (g) = **1.93** z/h = **1.0**

Name & Title

Special Seismic Certification Valid Up to

Condition of Approval (if any):

APPLICATION FOR PREAPPROVAL

SPECIAL SEISMIC CERTIFICATION OF EQUIPMENT AND COMPONENTS

ATTACHMENT 1

The Multix T.O.P. System is a multi-component system with components defined in the tables below:

Table 1: System Component Physical Characteristics

Description	Width (in.)	Depth (in.)	Height (in.)	Weight (lb.)	Lowest Resonant Frequency (Hz.)	
					X-Dir	Y-Dir
Polydoros IT 55/65/80 Generator Cabinet	41.3	12.6	41.3	375	11.50	15.25
Vertex T.O.P. with or without spacer box	24	31.5	88.2	452	17.63	>30
Multix T.O.P. Table	31.5	94.5	23.5 - 35	1044	--- ^A	15.38
3D T.O.P. with 3 meter bridge	119	167-251	45-104	708	--- ^B	--- ^B

Notes:

A.) No identifiable frequency because of sliding on the table top.

B.) Natural frequency governed by support structure and not components.

Table 2: Design Basis of Equipment and Anchorage

Description	Mounting Type ^A	a_p	R_p	I_p	z/h	E_h	E_v
Polydoros IT 55/65/80 Generator Cabinet	Floor	1.00	1.5	1.50	1.00	2.32 Wp	0.39 Wp
Vertex T.O.P. with or without spacer box	Floor/Wall	1.00	1.5	1.50	1.00	2.32 Wp	0.39 Wp
Multix T.O.P. Table	Floor	1.00	1.5	1.50	1.00	2.32 Wp	0.39 Wp
3D T.O.P. with bridge	Ceiling	1.00	1.5	1.50	1.00	2.32 Wp	0.39 Wp

Notes: A.) Floor/Wall indicates that the unit is anchored to the supporting structure both at its base to the floor, and at the top of the unit to an adjacent wall structure.