oshpd
Office of Statewide Health Planning and Development

Facilities Development Division *www.oshpd.ca.gov/fdd*
400 R Street. Suite 200, Sacramento, California 95811-6213 Phone (916) 440-8300 Fax (916) 654-2973

APPLICATION FOR PREAPPROVAL

SPECIAL SEISMIC CERTIFICATION OF EQUIPMENT AND COMPONENTS

For Office Use Only

APPLICATION NO.

OSP – 0312 – 10

Check whether application is: NEW [X] RENEWAL [ ]

1.0

Tek Tone Sound & Signal — *Manufacturer*

Brian Guercio — *Manufacturer's Technical Representative*

277 Industrial Park Road, Franklin, NC 28734 — *Mailing Address*

(828) 524-9967x155 — *Telephone*

bguercio@tektone.net — *E-mail Address*

2.0

Tek-CARE 400 Nurse Call System — *Product Name*

Nurse Call System — *Product Type*

NC450 — *Product Model No. (List all unique product identification numbers and/or serial numbers)*

General Description: Rigid wall mounted nurse call system central equipment panel. Seismic enhancements made to the test units and modifications required to address anomalies observed during the tests shall be incorporated into the production units.

3.0

Tek Tone Sound & Signal — *Applicant Company Name*

Brian Guercio — *Contact Person*

277 Industrial Park Road, Franklin, NC 28734 — *Mailing Address*

(828) 524-9967x155 — *Telephone*

bguercio@tektone.net — *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

1/16/2013 — *Date*

Product Support Manager — *Title*

Tek Tone Sound & Signal — *Company Name*

Registered Design Professional Preparing the Report

4.0

Forell/Elsesser Engineers, Inc.
Company Name

Carlos Sempere | C75648
Contact Name | *California License Number*

160 Pine St., 6th Flr., San Francisco, CA 94111
Mailing Address

415-837-0700 | c.sempere@forell.com
Telephone | *E-mail Address*

California Licensed Structural Engineer Review and Acceptance of the Report

5.0

Forell/Elsesser Engineers, Inc.
Company Name

Marco Scanu, SE | S4454
Contact Name | *California License Number*

160 Pine St., 6th Flr., San Francisco, CA 94111
Mailing Address

415-837-0700 | m.scanu@forell.com
Telephone | *E-mail Address*

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

7.0

☒ *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

National Technical Systems | Deepa Sheety
Company Name | *Contact Name*

38995 Cherry Street, Newark, CA94560
Mailing Address

(510)578-3500 | Deepa.shetty@nts.com
Telephone | *E-mail*

9.0 ***Approval Parameters*** ☑

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

Design Basis of Equipment or Components (F_p/W_p) = 2.11

S_{DS} *(Spectral response acceleration at short period)* = 2.81g

a_p *(In-structure equipment or component amplification factor)* = 2.5

R_p *(Equipment or component response modification factor)* = 6.0

I_p *(Importance factor)* = 1.5

z/h (Height factor ratio) = 1.0

Equipment or Component fundamental period(s) = N/A

Building period limits (if any) = n/a

Overall dimensions and weight (or range thereof) = See attachment, "I. Certified Product Table"

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*	☒	*Other (Please Specify):*	SE Acceptance Letter, Certified Product Table, Certified Subcomponents Table, UUT Summary Sheets,CBC 2010 & AC156 Requirements Checklist	

11.0 ***OSHPD Approval*** *(For Office Use Only)*

1/16/2013	**December 31, 2019**
Signature & Date	*Approval Expiration Date*
M. R. Karim, SHFR	S_{DS} (g) = **2.81** z/h = **1.0**
Name & Title	*Special Seismic Certification Valid Up to*

Condition of Approval (if any):

Tek Tone - Tek-CARE 400 Nurse Call System
I. Certified Product Table

Unit	Width	Depth	Height	Max. Weight	Construction Material[1,2]	Notes	Part No.	Test Status
Tek-CARE Central Equipment	20.0 in	9.0 in	25.0 in	72 lbs.	16 ga GCS	3	NC450	UUT-1, UUT-2

Notes

1. All enclosures are NEMA 1 rated.
2. GCS= galvanized carbon steel
3. Wall mounted.

FORELL/ELSESSER ENGINEERS, INC.
160 Pine Street, 6th Floor
San Francisco, CA 94111

Tek Tone - Tek-CARE 400 Nurse Call System
II. Certified Subcomponents Table

Internal Components	Manufacturer	Part #	Testing Status
Enclosure			
Housing	Tek Tone	IH450	UUT-1, UUT-2
Backplane Assembly	Tek Tone	PM450	UUT-1, UUT-2
Modules			
Power Entry Module	Tek Tone	PM457	UUT-1, UUT-2
AC Power Bus Module	Tek Tone	PM466	UUT-1, UUT-2
Hub Control Module	Tek Tone	PM451	UUT-1, UUT-2
CE Communication Module	Tek Tone	PM452	UUT-2
IR400 Master & Station Module	Tek Tone	PM453	UUT-2
P5 Master & Station Module	Tek Tone	PM455	UUT-1, UUT-2
NC300II Head End Modules	Tek Tone	PM456	UUT-2
Telephone Interface Module	Tek Tone	PM464	UUT-2
Power Supply			
24VDC Power Supplies	Tek Tone	PK450	UUT-1, UUT-2
Battery Backup Kits	Tek Tone	BA450K	UUT-2

UUT-1 (Lightest Unit)
Tek-CARE Central Equipment Control Panel
16 ga Galvanized Carbon Steel NEMA 1 enclosure
24.25”H X 19.5”W X 8”D
Weight: 37 lbs

Wall Mounted with (4) – 3/8” dia bolts

UUT-1

Subcomponents	Manufacturer	Part #
Housing	Tek Tone	IH450
Backplane Assembly	Tek Tone	PM450
Power Entry Module	Tek Tone	PM457
AC Power Bus Module	Tek Tone	PM466
Hub Control Module	Tek Tone	PM451
P5 Master & Station Module	Tek Tone	PM455
24VDC Power Supplies	Tek Tone	PK450

Test Criteria	S_{DS} (g)	z/h	A_{FLX-H}	A_{RIG-H}	A_{FLX-V}	A_{RIG-V}
ICC-ES AC 156	**2.81**	1	4.50	3.37	2.08	0.87

UUT-2 (Heaviest Unit)
Tek-CARE Central Equipment Control Panel
16 ga Galvanized Carbon Steel NEMA 1 enclosure
24.25”H X 19.5”W X 8”D
Weight: 72 lbs

Wall Mounted with (4) – 3/8” dia bolts

UUT-2

Subcomponents	Manufacturer	Part #
Housing	Tek Tone	IH450
Backplane Assembly	Tek Tone	PM450
Power Entry Module	Tek Tone	PM457
AC Power Bus Module	Tek Tone	PM466
Hub Control Module	Tek Tone	PM451
CE Communication Module	Tek Tone	PM452
IR400 Master & Station Module	Tek Tone	PM453
P5 Master & Station Module	Tek Tone	PM455
NC300II Head End Modules	Tek Tone	PM456
Telephone Interface Module	Tek Tone	PM464
24VDC Power Supplies	Tek Tone	PK450
Battery Backup Kits	Tek Tone	BA450K

Test Criteria	S_{DS} (g)	z/h	A_{FLX-H}	A_{RIG-H}	A_{FLX-V}	A_{RIG-V}
ICC-ES AC 156	**2.81**	1	4.50	3.37	2.08	0.87