



OFFICE OF STATEWIDE HEALTH PLANNING AND DEVELOPMENT
FACILITIES DEVELOPMENT DIVISION

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

OFFICE USE ONLY

APPLICATION #: OSP – 0362 – 10

OSHPD Special Seismic Certification Preapproval (OSP)

Type: New Renewal

Manufacturer Information

Manufacturer: Rauland-Borg Corporation

Manufacturer's Technical Representative: Carl Cox

Mailing Address: 1802 West Central Road, Mt. Prospect, IL 60056

Telephone: (847) 590-7100 Email: carl.cox@rauland.com

Product Information

Product Name: Responder Nurse Call Station Cabinets

Product Type: System Cabinets

Product Model Number: Responder 5 in NC2828 or 351102 System Cabinets

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

General Description: Responder nurse call stations consist of terminal cabinets containing the control and termination modules, network equipment, and power required to operate the stations. Seismic enhancements made to the test units and modifications required to address anomalies observed during the tests shall be incorporated into the production units.

Mounting Description: Rigid wall mounted

Applicant Information

Applicant Company Name: Rauland-Borg Corporation

Contact Person: Carl Cox

Mailing Address: 1802 West Central Road, Mt. Prospect, IL 60056

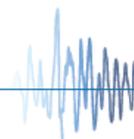
Telephone: (847) 590-7100 Email: carl.cox@rauland.com

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: 6/25/2015

Title: Vice-President Engineering Company Name: Rauland-Borg Corporation

"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: Forell/Elsesser Engineers, Inc.

Name: Marco Scanu, SE California License Number: S4454

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

Telephone: (415) 837-0700 Email: m.scanu@forell.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: National Technical Systems

Contact Name: Deepa Shetty

Mailing Address: 38995 Cherry Street, Newark, CA 94560

Telephone: (510) 578-3500 x2105 Email: deepa.shetty@nts.com

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Seismic Parameters

Design in accordance with ASCE 7-10 Chapter 13: [X] Yes [] No
Design Basis of Equipment or Components (Fp/Wp) = 2.06
Sds (Design spectral response acceleration at short period, g) = 2.75
ap (In-structure equipment or component amplification factor) = 2.5
Rp (Equipment or component response modification factor) = 6.0
Omega_0 (System overstrength factor) = 2.5
Ip (Importance factor) = 1.5
z/h (Height factor ratio) = 1.0
Equipment or Component Natural Frequencies (Hz) = N/A
Overall dimensions and weight (or range thereof) = See attachment, "I. Certified Product Table"

Equipment or Components @ grade designed in accordance with ASCE 7-10 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) =

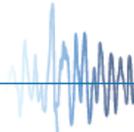
Tank(s) designed in accordance with ASME BPVC, 2010: [] Yes [X] No

List of Attachments Supporting Special Seismic Certification

- [X] Test Report(s) [] Drawings [X] Calculations [X] Manufacturer's Catalog
[X] Other(s) (Please Specify): I. Certified Product Table, II. Certified Subcomponents Table, III. UUT Summary Sheets

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

Signature: [Signature] Date: July 10, 2015
Print Name: Timothy J. Pijand Title: SSE
Special Seismic Certification Valid Up to : Sds (g) = 2.75 z/h = 1
Condition of Approval (if applicable):



Rauland-Borg Corporation - Responder Call Stations

I. Certified Product Table

Unit	Width	Depth	Height	Max. Weight	Construction Material^{1,2}	Notes	Test Status
Responder 5							
NC2828 Cabinet	28.0 in	4.5 in	28.0 in	105.0 lbs	16 ga CFS	3	R93329 UUT 1
351102 Cabinet	14.38 in	4.75 in	28.0 in	105.0 lbs	16 ga CFS	3	R93329 UUT 2

Notes

1. All enclosures are NEMA 1 rated.
2. CFS= cold-formed carbon steel
3. Wall mounted.

Rauland-Borg Corporation - Responder Call Stations
II. Certified Subcomponents Table

Subcomponents	Manufacturer	Part #	Testing Status
Cabinets			
28"Wx28"Hx4.5"D	Rauland-Borg	NC2828	R93329 UUT-1
14.375"Wx28"Hx4.75"D	Rauland-Borg	351102	R93329 UUT-2
Subcomponents			
Branch Regional Controller	Rauland-Borg	351000	R93329 UUT-2
Branch Regional Controller v2	Rauland-Borg	351001	Interpolated ¹
Responder Network Concentrator	Rauland-Borg	351010	R93329 UUT-1
Power Supply and Battery	Rauland-Borg	351003	R93329 UUT-1, UUT-2
8 Port Ethernet Switch	Rauland-Borg	351004	R93329 UUT-2
Fiber Optic Adapter	Rauland-Borg	351006	R93329 UUT-1, UUT-2
Notes: 1. The Branch Regional Controllers and Responder Network Concentrator are of similar construction, material, and configuration.			

Test Report R93329 – UUT 1

Cabinet NC2828 (Box 1)
 16 ga. Cold Formed Carbon Steel
 28"W x 5.5"D x 28"H, 67 lbs
 Wall mounted using: (4) - 3/8" bolts



Building Code	Test Criteria	S _{DS} (g)	z/h	Horizontal		Vertical	
				A _{FLX-H}	A _{RIG-H}	A _{FLX-V}	A _{RIG-H}
CBC 2013	ICC-ES AC 156	2.75	1	4.40	3.30	1.90	0.76
Natural Frequencies			Test Results				
F-B	S-S	V	The UUT maintained structural integrity and functionality after the AC156 test.				
n/a	n/a	n/a					

UUT 1 was full of content during the test.
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Subcomponents	Manufacturer	Part #
Cabinet	Rauland-Borg	NC2828
Power Supply with Battery Backup	Rauland-Borg	351003
Fiber Optic Adapter Module	Rauland-Borg	351006
Responder Network Concentrator	Rauland-Borg	351010

Rauland-Borg Corporation – Responder Call Stations

III. UUT Summary Sheets

Test Report R93329 – UUT 2

Cabinet 351102 (Box 2)

16 ga. Cold Formed Carbon Steel

14.5"W x 5"D x 28"H, 41 lbs

Wall mounted using: (4) - 3/8" bolts

Box-2



Building Code	Test Criteria	S _{DS} (g)	z/h	Horizontal		Vertical	
				A _{FLX-H}	A _{RIG-H}	A _{FLX-V}	A _{RIG-H}
CBC 2013	ICC-ES AC 156	2.75	1	4.40	3.30	1.90	0.76
Natural Frequencies			Test Results				
F-B	S-S	V	The UUT maintained structural integrity and functionality after the AC156 test.				
n/a	n/a	n/a					

UUT 2 was full of content during the test.

Subcomponents	Manufacturer	Part #
Cabinet	Rauland-Borg	351102
Branch Regional Controller	Rauland-Borg	351000
Power Supply with Battery Backup	Rauland-Borg	351003
8 Port Ethernet Switch	Rauland-Borg	351004
Fiber Optic Adapter Module	Rauland-Borg	351006