



**DEPARTMENT OF HEALTH CARE ACCESS AND INFORMATION
FACILITIES DEVELOPMENT DIVISION**

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

OFFICE USE ONLY

APPLICATION #: OSP-0760

HCAI Special Seismic Certification Preapproval (OSP)

Type: New Renewal

Manufacturer Information

Manufacturer: Generac Power Systems

Manufacturer's Technical Representative: Richard Ansley

Mailing Address: S45W29290 HIGHWAY 59, Waukesha, WI 53189

Telephone: (262) 544-2335

Email: Richard.Ansley@generac.com

Product Information

Product Name: Emergency and Standby Power Systems

Product Type: Generators

Product Model Number: ERG450

General Description: Natural Gas Generator

Mounting Description: Rigid, Floor Mounted

Tested Seismic Enhancements: None

Applicant Information

Applicant Company Name: Buehler

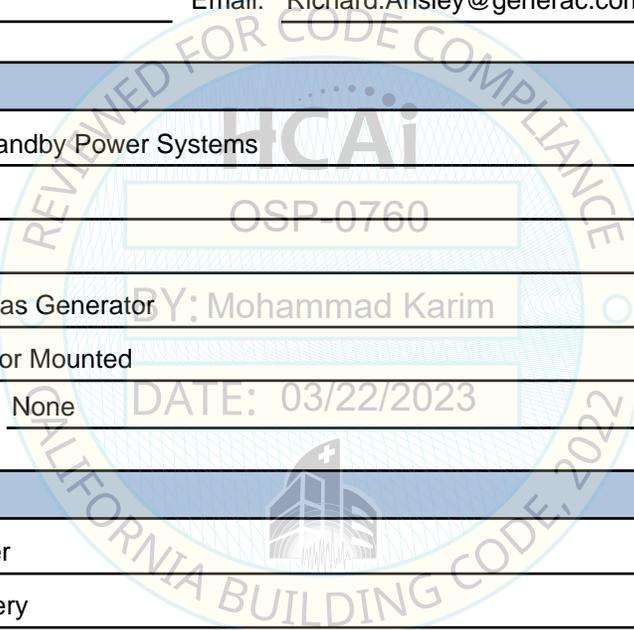
Contact Person: Gillian Montgomery

Mailing Address: 600 Q Street, Suite 200, Sacramento, CA 95811

Telephone: (916) 443-0303

Email: gmontgomery@buehlerengineering.com

Title: Senior Associate





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

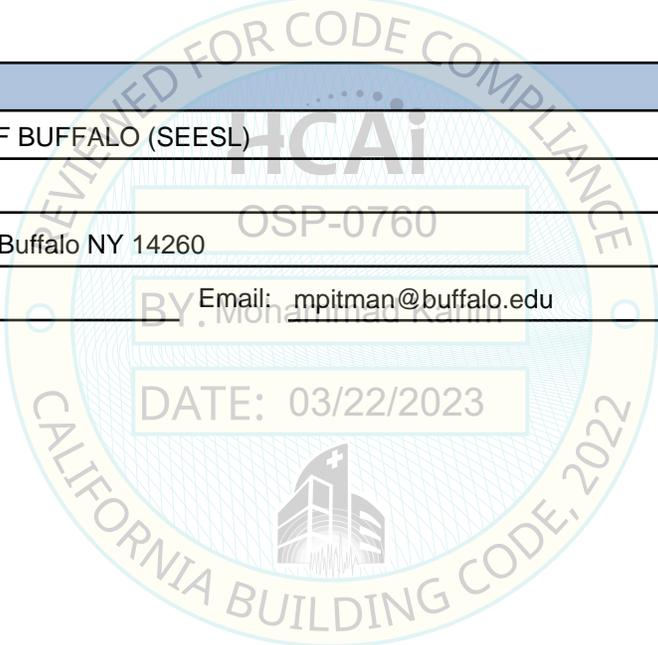
Company Name: BUEHLER ENGINEERING, INC.
Name: Gillian Montgomery California License Number: S6852
Mailing Address: 600 Q Street, Sacramento, CA 95811
Telephone: (916) 443-0303 Email: gmontgomery@buehlerengineering.com

Certification Method

GR-63-Core ICC-ES AC156 IEEE 344 IEEE 693 NEBS 3
 Other (Please Specify): _____

Testing Laboratory

Company Name: UNIVERSITY OF BUFFALO (SEESL)
Contact Person: Mark Pitman
Mailing Address: 212 Ketter Hall, Buffalo NY 14260
Telephone: (716) 645-4377 Email: mpitman@buffalo.edu





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Seismic Parameters

Design Basis of Equipment or Components (F_p/W_p) = 0.9

SDS (Design spectral response acceleration at short period, g) = 2.0

a_p (Amplification factor) = 1

R_p (Response modification factor) = 2.5

Ω_0 (System overstrength factor) = 2.0

I_p (Importance factor) = 1.5

z/h (Height ratio factor) = 0

Natural frequencies (Hz) = See Attachment

Overall dimensions and weight = See Attachment

HCAI Approval (For Office Use Only) - Approval Expires on 03/21/2029

Date: 3/22/2023

Name: Mohammad Karim Title: Supervisor, Health Facilities

Special Seismic Certification Valid Up to: SDS (g) = 2.0 z/h = 0

Condition of Approval (if applicable): DATE: 03/22/2023



Table 1. Certified Product List

Model Number	Tested/ Interpolated	Length (in)	Width (in)	Height (in)	Max Operating Weight (lbs)
ERG450*	UUT-1	120	96	144	18,790

*as configured on UUT sheet. Generac is ISO 9001 certified.



UUT-1 Test Summary

Testing Lab: University of Buffalo (SEESL)
 Testing Report: 2023.01
 Testing Unit Num: 1

Model Number	Measured Operating Weight (lbs)	Mounting	Excitation Direction	Frequency (Hz)	Length (in)	Width (in)	Height (in)	
ERG450	18,790	Rigid Floor	X	Front-Back	4.25	120	96	144
			Y	Side-Side	6.88			
			Z	Vertical	12.75			

Notes: Frequencies are for units prior to ICC ES AC-156 testing.

Attachment Method Twelve (12) - 3/4"Ø Grade 8 bolts with nuts and washers.	Seismic Parameters							
	Building Code	Test Criteria	S _{Ds} (g)	z/h	Horizontal		Vertical	
					A _{FLX-H}	A _{RIG-H}	A _{FLX-V}	A _{RIG-V}
	CBC 2022	AC 156	2.00	0.0	2.00	0.80	1.34	0.54



Figure 1.1: Unit on the shake table



Figure 1.2: Mounting Detail

Notes: The UUT was full of contents during the test.
 Unit maintained structural integrity and remained functional per manufacture requirements after shake table test

UUT-1 Summary Tested Sub-Component				
Sub-Component	Weight (lb)	Part Number/Description	Manufacturer	Material
Base	2000	CONDUIT TRAY	GENERAC	Steel
Enclosure	6300	SEISM	GENERAC	Steel
Engine	3317	G21.9L	GENERAC	Cast iron and carbon steel
Alternator	2724	LSA 47	LEROY SOMER	Steel laminations, copper windings
Exhaust System	600	24R G21.9L	GENERAC	Stainless steel
Air Injection System	100	SAI G21.9L	GENERAC	Steel laminations, copper windings, rubber and plastic
Cooling System	2175	10R G21.9L	GENERAC	Aluminum fins, tanks, support plate and tubes and steel mounting
Control Panel Assembly	380	3R G21.9L	GENERAC	Carbon steel enclosure and electrical components
Fuel Train	190	20R G21.9L	GENERAC	Carbon steel, aluminum, rubber and plastic
Oil Make Up	485	OIL MAKEUP G21.9L	GENERAC	Carbon steel, aluminum, rubber and plastic
Battery	130	8D	Remy	Carbon steel, aluminum, copper and plastic

