



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

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

OFFICE USE ONLY

APPLICATION #: OSP-0741

HCAI Special Seismic Certification Preapproval (OSP)

Type: New Renewal

Manufacturer Information

Manufacturer: Fulton Equipment Pacific

Manufacturer's Technical Representative: Sean Skiles

Mailing Address: 5160 Fulton Drive, Suite B, Fairfield, CA 94534

Telephone: (707) 419-5885

Email: Sean.Skiles@Fulton-Pacific.com

Product Information

Product Name: Industrial Control Panels

Product Type: Boiler Control Panels

Product Model Number: VSRT

General Description: Boiler control panels containing fuses, power supplies, combustion controllers, relays, and switches.

Mounting Description: Rigid and Isolated, Wall Mounted with Manufacturer's Bracket

Tested Seismic Enhancements: None

Applicant Information

Applicant Company Name: Dynamic Certification Laboratories, LLC

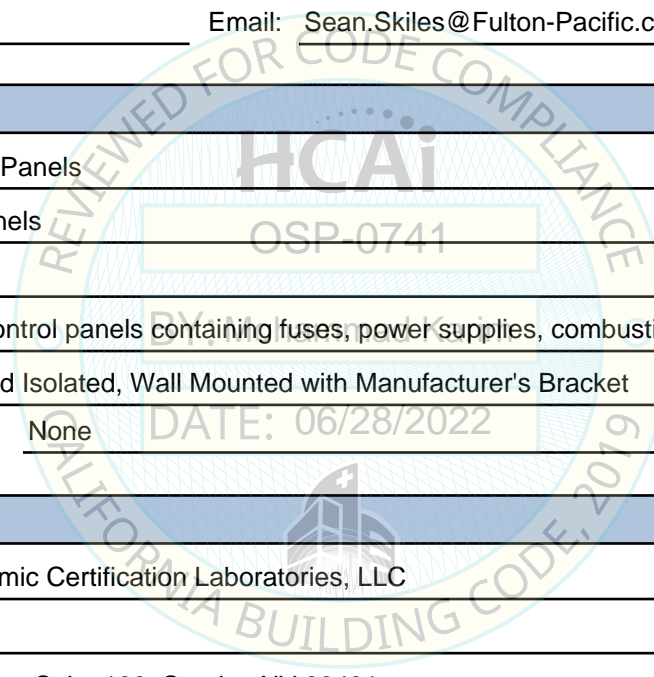
Contact Person: Kelly Laplace

Mailing Address: 1315 Greg Street, Suite 109, Sparks, NV 89431

Telephone: (775) 358-5085

Email: kelly@shaketest.com

Title: Business Manager





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

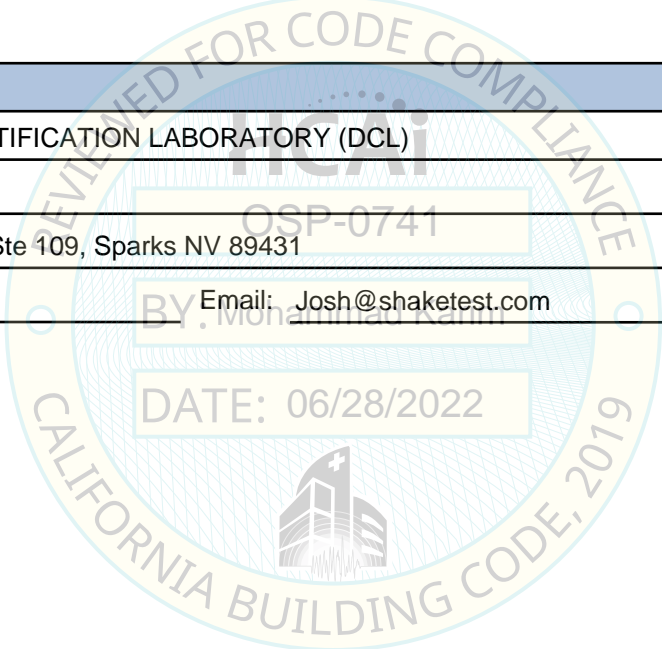
Company Name: THE VMC GROUP
Name: Kenneth Tarlow California License Number: S2851
Mailing Address: 980 9th Street, 16th Floor, Sacramento, CA 95814
Telephone: (832) 627-2214 Email: ken.tarlow@thevmcgroup.com

Certification Method

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

Testing Laboratory

Company Name: DYNAMIC CERTIFICATION LABORATORY (DCL)
Contact Person: Josh Sailer
Mailing Address: 1315 Greg St., Ste 109, Sparks NV 89431
Telephone: (775) 358-5085 Email: Josh@shaketest.com





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Seismic Parameters

Design Basis of Equipment or Components (F_p/W_p) = 1.5

SDS (Design spectral response acceleration at short period, g) = 2.00 for z/h=1.0, 2.50 for z/h=0.0

a_p (Amplification factor) = 2.5

R_p (Response modification factor) = 6.0

Ω_0 (System overstrength factor) = 2.0

I_p (Importance factor) = 1.5

z/h (Height ratio factor) = 1 and 0

Natural frequencies (Hz) = See Attachment

Overall dimensions and weight = See Attachment

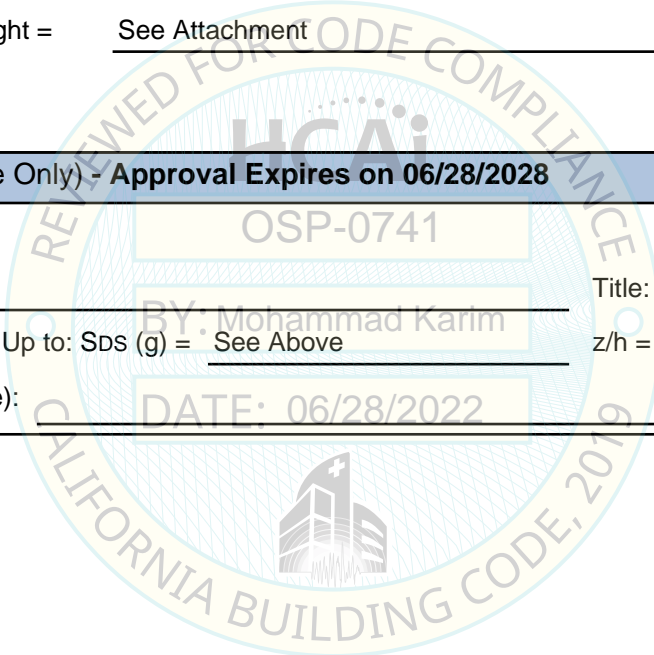
HCAI Approval (For Office Use Only) - Approval Expires on 06/28/2028

Date: 6/28/2022

Name: Mohammad Karim Title: Supervisor, Health Facilities

Special Seismic Certification Valid Up to: SDS (g) = See Above z/h = See Above

Condition of Approval (if applicable): DATE: 06/28/2022



Special Seismic Certification
Table 1 - Certified Components



DCL Project Number: 02599-2101
Manufacturer: Fulton Equipment Pacific
Product Type: Boiler Control Panels
Product Line: VSRT
Mounting Configuration: Rigid and isolated wall mount with customer brackets
Test Levels: Sds = 2.00g, z/h=1.0 (Sds = 2.50g, z/h=0.0)

Model Number	Description	Construction Material	Max. Dimensions (in)			Max. Weight ¹ (lb.)	Unit
			Depth ¹	Width	Height		
7-53-095906-S	VSRT 9.5 Back Panel Base- STOCK	Carbon steel	18.0	16.0	30.0	50	Extrapolated
7-53-095906-M	VSRT 9.5 Back Panel Base- MAX OPTIONS	Carbon steel	18.0	16.0	30.0	103	UUT-01a,b ; UUT-02a,b

1. Unit depth and weight include manufacturer mounting bracket (part no. 7-53-095800)



Special Seismic Certification

Table 2 - Certified Subcomponents - Enclosures



DCL Project Number: 02599-2101

Enclosures						
Model Number	Manufacturer	Description	Material	Mounting	Weight (lb.)	Unit
5100ES301608	CED Inc	30" x 16" x 8" NEMA 1 Panel Box Enclosure	Carbon Steel	Boiler Bracket	45	UUT-01a,b ; UUT-02a,b

Table 3 - Certified Subcomponents - Displays

Displays						
Model Number	Manufacturer	Description	Material	Mounting	Weight (lb.)	Unit
AZL23.00A9	SCC INC	AZL Display Module LMV3	Plastic	Panel Mount	<1	UUT-01a,b ; UUT-02a,b
TDC48R	SCC INC	AZL Cable Adaptor for LMV3 Display	Plastic	Panel Mount	<1	UUT-01a,b ; UUT-02a,b
TDC207	SCC INC	Cable for LMV3 Display	Polycarbonate	Panel Mount	<1	UUT-01a,b ; UUT-02a,b

Table 4 - Certified Subcomponents - Controllers

Controllers						
Model Number	Manufacturer	Description	Material	Mounting	Weight (lb.)	Unit
LMV36.520A1	SCC INC	Control- 120 V (Programming Required)	Plastic	DIN Rail	<1	UUT-01a,b ; UUT-02a,b
UT32A-000-11-00	Yokogawa	Yokogawa UT32A Process Controller (Programming Required)	Polycarbonate Resin	Direct Panel Mounting, Mounting Bracket	1.1	UUT-01a,b ; UUT-02a,b
WCNP110-A-N	Cyclops Process Equipment	Walchem Panel Mount Conductivity Control w/ Analog Output	Polycarbonate Resin	Panel Mount	1.5	UUT-01a,b ; UUT-02a,b
OCI412.10	SCC INC	ModBus Interface Module for LMV3 Control	Plastic	DIN Rail	<1	UUT-01a,b ; UUT-02a,b

Table 5 - Certified Subcomponents - Fuse Holders

Fuse Holders						
Model Number	Manufacturer	Description	Material	Mounting	Weight (lb.)	Unit
LPSM001	CED INC	1 Pole 30 AMP Dead Front Fingersafe Fuse Holder	Plastic	DIN Rail	<1	UUT-01a,b ; UUT-02a,b
LFJ600301PID	CED INC	30 AMP Class J Single Pole Fingersafe Fuse Holder	Thermoplastic	DIN Rail	<1	UUT-01a,b ; UUT-02a,b

Table 6 - Certified Subcomponents - Fuse Block Covers

Fuse Block Covers						
Model Number	Manufacturer	Description	Material	Mounting	Weight (lb.)	Unit
LFJ60030FBC	CED INC	30 AMP Fingersafe Fuse Block Cover	Thermoplastic	DIN Rail	<1	UUT-01a,b ; UUT-02a,b

Table 7 - Certified Subcomponents - Fuses

Fuses						
Model Number	Manufacturer	Description	Material	Mounting	Weight (lb.)	Unit
JTD012ID	CED INC	12 AMP Class J Fuse, 600V, Indicating	Copper	DIN Rail	<1	UUT-01a,b ; UUT-02a,b
KLKD006	CED INC	6 AMP KLKD CC Fast Acting Fuse	Melamine	DIN Rail	<1	UUT-01a,b ; UUT-02a,b

Table 8 - Certified Subcomponents - Disconnectors

Disconnectors						
Model Number	Manufacturer	Description	Material	Mounting	Weight (lb.)	Unit
OT63F3	Kaman Automation Inc	60A Non-Fused Disconnect	Carbon Steel	Panel Mount	<1	UUT-01a,b ; UUT-02a,b
OMP6X290	Kaman Automation Inc	Disconnect Shaft (290mm)	Carbon Steel	Panel Mount	<1	UUT-01a,b ; UUT-02a,b
OHY65J6	Kaman Automation Inc	Disconnect Switch (Red Handle w/Red Insert)	Plastic	Panel Mount	<1	UUT-01a,b ; UUT-02a,b

Special Seismic Certification

Table 9 - Certified Subcomponents - Transducers



DCL Project Number: 02599-2101

Transducers						
Model Number	Manufacturer	Description	Material	Mounting	Weight (lb.)	Unit
MINI MCR-2-POT-UI-2902016	Kaman Automation Inc	Configurable Potipotition Transducer (Requires Programming by Fulton)	PBT	DIN Rail	<1	UUT-01a,b ; UUT-02a,b

Table 10 - Certified Subcomponents - Switches

Switches						
Model Number	Manufacturer	Description	Material	Mounting	Weight (lb.)	Unit
3SB3001-2DA41/3SB3400	Kaman Automation Inc	Illuminated Green 3 Position Switch, 2 Double Pole N/O Contact	Plastic	Panel Mount	<1	UUT-01a,b ; UUT-02a,b
ZB5AW143-ZB5AW0G41	Kaman Automation Inc	120V Red Illuminated Push Button w/ Single Pole N/O Contact	Plastic	Front Mounting	<1	UUT-01a,b ; UUT-02a,b
ZB5AW143-ZB5AW0G41	Kaman Automation Inc	120V Red Illuminated Push Button w/ Single Pole N/C Contact	Plastic	Front Mounting	<1	UUT-01a,b ; UUT-02a,b
XB5AA21	Kaman Automation Inc	Black Push Button N/O Contact	Plastic	Panel Mount	<1	UUT-01a,b ; UUT-02a,b
52PP2A2/52AAR/52BAE	AAI Acquisition LLC	E-Stop	Plastic	Panel Mount	<1	UUT-01a,b ; UUT-02a,b
ZB5AW143-ZB5AW0G41	Kaman Automation Inc	120V Red Illuminated Push Button w/ Single Pole N/O Contact	Plastic	Front Mounting	<1	UUT-01a,b ; UUT-02a,b

Table 11 - Certified Subcomponents - Relays

Relays						
Model Number	Manufacturer	Description	Material	Mounting	Weight (lb.)	Unit
LW-1-C-1-A-03-BE	Proto Design Inc	Fulton Water Level Safety Relay 120V w/Test Function	Plastic	DIN Rail	<1	UUT-01a,b ; UUT-02a,b
OT11-PC	Scibetta Distributors	11 pin Base for Fulton Low/High Water Relay	Thermoplastic	DIN Rail	<1	UUT-01a,b ; UUT-02a,b
16MB1MO-FF	Gems Sensor Inc	Fulton Feedwater Control Relay 120V	Plastic	DIN Rail	<1	UUT-01a,b ; UUT-02a,b
OT08-PC	Scibetta Distributors	8 pin Base for Fulton Feed Water Relay	Thermoplastic	DIN Rail	<1	UUT-01a,b ; UUT-02a,b
700-HLT12U1	CED Inc	AB Relay	Molded High-Dielectric	DIN Rail	<1	UUT-01a,b ; UUT-02a,b
PLC-RSC-120UC/21	CED Inc	120V Coil Relay 1PDT, 6 AMP, Phoenix Contact	Plastic	DIN Rail	<1	UUT-01a,b ; UUT-02a,b
700-HLT12U1	CED Inc	AB Relay	Molded High-Dielectric	DIN Rail	<1	UUT-01a,b ; UUT-02a,b
RR2KP-UAC120	Kaman Automation Inc	Idec Latch Relay	Silver	DIN Rail	<1	UUT-01a,b ; UUT-02a,b
SR3P-05C	Kaman Automation Inc	Idec Relay Base	Plastic	DIN Rail	<1	UUT-01a,b ; UUT-02a,b
THR-11662-F30ST	AAI Acquisition LLC	30 Second Fixed Time Delay Relay	Plastic	DIN Rail	<1	UUT-01a,b ; UUT-02a,b
ZB5AW143-ZB5AW0G41	Kaman Automation Inc	120V Red Illuminated Push Button w/ Single Pole N/C Contact	Plastic	Panel Mount	<1	UUT-01a,b ; UUT-02a,b

Table 12 - Certified Subcomponents - Communication Protocol Translator Modules

Communication Protocol Translator Modules						
Model Number	Manufacturer	Description	Material	Mounting	Weight (lb.)	Unit
FPC-N54-1851	MSA Safety Sales LLC	BACnet MS/TP and IP Gateway Protonode w/ Cloud	Plastic	DIN Rail	<1	UUT-01a,b ; UUT-02a,b

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Table 13 - Tested Units



DCL Project Number: 02599-2101

Manufacturer: Fulton Equipment Pacific

Product Line: VSRT

Test Levels: Sds = 2.00g, z/h=1.0 (Sds = 2.50g, z/h=0.0)

Model Numbers	Manufacturer	Description	Dimensions (in)			Weight (lb.)	Mounting Configuration	Unit
			Depth	Width	Height			
7-53-095906-M	Fulton Equipment Pacific	VSRT 9.5 Back Panel Base-MAX OPTIONS	18.0	16.0	30.0	103	Rigid and isolated wall mount with customer brackets	UUT-01a,b
7-53-095906-M	Fulton Equipment Pacific	VSRT 9.5 Back Panel Base-MAX OPTIONS	18.0	16.0	30.0	103	Rigid and isolated wall mount with customer brackets	UUT-02a,b



UUT-01a,b

UNIT UNDER TEST (UUT)

Summary Sheet



DCL Project Number: 02599-2101

Manufacturer: Fulton Equipment Pacific

Product Line: VSRT

Model Number: 7-53-095906-M

Product Construction Summary:

Painted Carbon Steel, NEMA 1

Options / Component Summary:

Enclosure, Displays, Controllers, Fuse Holders, Fuse Block Cover, Fuses, Disconnectors, Transducers, Switches, Communication Protocol Translator Module, Relays

Note: The UUT was operational before and after shaking and was full of operating content during the tests. The structural integrity of the component attachment system and force-resisting systems was maintained.

UUT Properties

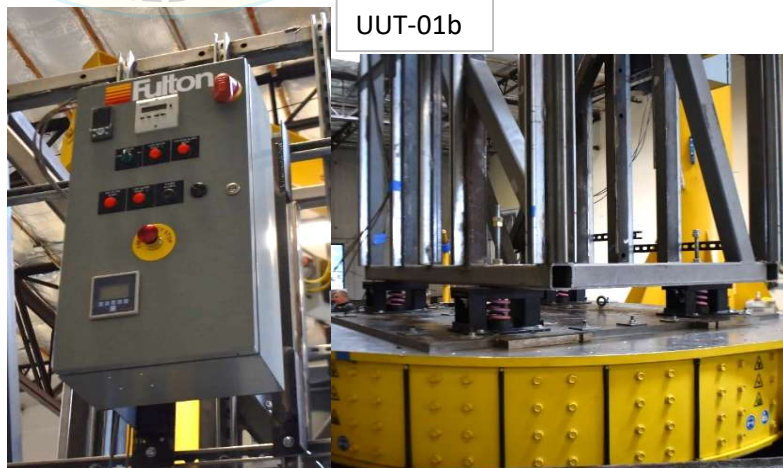
Operating Weight (lb)	Dimensions (inches)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
103	18.0	16.0	30.0	N/A	N/A	N/A

Seismic Test Parameters

Building Code	Test Criteria	Sds (g)	z/h	Ip	Aflx-H (g)	Arig-H (g)	Aflx-V (g)	Arig-V (g)
CBC 2021	ICC-ES AC156	2.00	1.0	1.5	3.20	2.40	1.67	0.67
		2.50	0.0	1.5				

Unit Mounting Description:

The UUT enclosure is mounted to the manufacturer provided panel box bracket (part no. 7-53-095800) using (4) 3/8" grade 5 bolts, lock washers, nuts and (8) flat washers. The panel box bracket was mounted to the wall fixture with (16) #10 bolts, (8) on each side, approximately 4 1/8-inches on center.



UUT-02a,b

UNIT UNDER TEST (UUT)

Summary Sheet



DCL Project Number: 02599-2101

Manufacturer: Fulton Equipment Pacific

Product Line: VSRT

Model Number: 7-53-095906-M

Product Construction Summary:

Painted Carbon Steel, NEMA 1

Options / Component Summary:

Enclosure, Displays, Controllers, Fuse Holders, Fuse Block Cover, Fuses, Disconnectors, Transducers, Switches, Communication Protocol Translator Module, Relays

Note: The UUT was operational before and after shaking and was full of operating content during the tests. The structural integrity of the component attachment system and force-resisting systems was maintained.

UUT Properties

Operating Weight (lb)	Dimensions (inches)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
103	18.0	16.0	30.0	N/A	N/A	N/A

Seismic Test Parameters

Building Code	Test Criteria	Sds (g)	z/h	Ip	Aflx-H (g)	Arig-H (g)	Aflx-V (g)	Arig-V (g)
CBC 2021	ICC-ES AC156	2.00	1.0	1.5	3.20	2.40	1.67	0.67
		2.50	0.0	1.5				

Unit Mounting Description:

The UUT enclosure is mounted to the manufacturer provided panel box bracket (part no. 7-53-095800) using (4) 3/8" grade 5 bolts, lock washers, nuts and (8) flat washers. The panel box bracket was mounted to the wall fixture with (16) #10 bolts, (8) on each side, approximately 4 1/8-inches on center.

