



OFFICE OF STATEWIDE HEALTH PLANNING AND DEVELOPMENT  
FACILITIES DEVELOPMENT DIVISION

APPLICATION FOR OSHPD SPECIAL SEISMIC  
CERTIFICATION PREAPPROVAL (OSP)

OFFICE USE ONLY

APPLICATION #: OSP – 0508-10

OSHPD Special Seismic Certification Preapproval (OSP)

Type: ☒ New ☐ Renewal

Manufacturer Information

Manufacturer: Bryan Steam, LLC

Manufacturer's Technical Representative: Gregory A. Minard, Manager of Engineering

Mailing Address: 783 North Chili Ave., Peru, IN 46970

Telephone: 765.473.6651 Ext. 6029 Email: gminard@bryansteam.com

Product Information

Product Name: Control Panels

Product Type: Alarm and Pump Panels

Product Model Number: Alarm and Pump Panels

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

General Description: Galvanized carbon steel enclosures with internal components as listed in the attachments.

Mounting Description: Rigidly Mounted to Wall

Applicant Information

Applicant Company Name: The VMC Group

Contact Person: Mr. John Giuliano

Mailing Address: 113 Main Street, Bloomingdale, NJ 07403

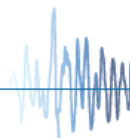
Telephone: 973-838-1780 Email: john.giuliano@thevmcgroup.com

I hereby agree to reimburse the Office of Statewide Health Planning and Development review fees in accordance with the California Administrative Code, 2016.

Signature of Applicant:  Date: 2/21/17

Title: President Company Name: The VMC Group

"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: The VMC Group

Name: Mr. Ken Tarlow California License Number: SE2851

Mailing Address: 113 Main St, Bloomingdale, NJ 07403

Telephone: 973-838-1780 Email: ken.tarlow@thevmcgroup.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): \_\_\_\_\_

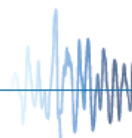
**Testing Laboratory**

Company Name: Dynamic Certification Laboratories

Contact Name: Kelly Laplace, Project Manager and Laboratory Quality Manager

Mailing Address: 1315 Greg Street, Suite 109

Telephone: (775) 358-5085 Email: kelly@shaketest.com





## OFFICE OF STATEWIDE HEALTH PLANNING AND DEVELOPMENT FACILITIES DEVELOPMENT DIVISION

### Seismic Parameters

Design in accordance with ASCE 7-10 Chapter 13: ☒ Yes ☐ No

Design Basis of Equipment or Components ( $F_p/W_p$ ) = 1.50 ( $S_{DS} = 2.0$ ,  $z/h = 1$ ); 1.3 ( $S_{DS} = 2.5$ ,  $z/h = 0$ )

$S_{DS}$  (Design spectral response acceleration at short period, g) = 2.00 ( $z/h = 1$ ) & 2.50 ( $z/h = 0$ )

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

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

$\Omega_0$  (System overstrength factor) = 2.0

$I_p$  (Importance factor) = 1.5

$z/h$  (Height factor ratio) = 1.0 ( $S_{DS} = 2.00$ ) & 0.0 ( $S_{DS} = 2.50$ )

Equipment or Component Natural Frequencies (Hz) = See attached

Overall dimensions and weight (or range thereof) = See attached

Equipment or Components @ grade designed in accordance with ASCE 7-10 Chapter 15: ☐ Yes ☒ No

Design Basis of Equipment or Components ( $V/W$ ) = \_\_\_\_\_

$S_{DS}$  (Design spectral response acceleration at short period, g) = \_\_\_\_\_

$S_{D1}$  (Design spectral response acceleration at 1 second period, g) = \_\_\_\_\_

$R$  (Response modification coefficient) = \_\_\_\_\_

$\Omega_0$  (System overstrength factor) = \_\_\_\_\_

$C_d$  (Deflection amplification factor) = \_\_\_\_\_

$I_p$  (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, 2015: ☐ Yes ☐ No

### List of Attachments Supporting Special Seismic Certification

☒ Test Report(s) ☐ Drawings ☐ Calculations ☐ Manufacturer's Catalog

☐ Other(s) (Please Specify): \_\_\_\_\_

### OSHPD Approval (For Office Use Only) – Approval Expires on December 31, 2022

Signature: M. R. Karim

Date: 5/9/2017

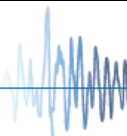
Print Name: M. R. Karim

Title: SHFR

Special Seismic Certification Valid Up to :  $S_{DS}$  (g) = See Above

$z/h$  = See Above

Condition of Approval (if applicable): \_\_\_\_\_



**Table 1: Certified Control Panels**

Part #	Description	Phase	Input Voltage (VAC)	FLA (A)	NEMA type	Height (in)	Width (in)	Depth (in)	Maximum Weight (lbs)	Manufacturer	Enclosure Construction	Installation Method	UUT
299990.20	Alarm panel	1	120	0.3	12	14.75	13	8	26	Bryan Steam	14 gauge Carbon Steel	Wall Mounted	UUT 1
91362.4282	Pump Panel	3	460	9	12	30	24	11	105	Bryan Steam	14 gauge Carbon Steel	Wall Mounted	UUT 2

**Table 2: Certified Alarm Control Panel Subcomponents**

Component	Component part #	Manufacturer	Material	UUT
Terminal Stop End Anchor	1492-EAJ35	Allen Bradley	Plastic	1
Terminal	1492-J3	Allen Bradley	Plastic	1
Ground Terminal	1492-JG4	Allen Bradley	Plastic	1
Terminal Center Jumpers	1492-CJLJ5-50	Allen Bradley	Plastic	1
Din Rail	199-DR1	Allen Bradley	Carbon Steel	1
Red Pilot Lamp	800FP-P4PN5R	Allen Bradley	Plastic	1
Selector Switch	800FP-SM22PX10	Allen Bradley	Plastic	1
Alarm Silencing Switch	800FP-F2PX10	Allen Bradley	Plastic	1
Markers	1492-MS10X17	Allen Bradley	Plastic	1
Terminal Block Markers	1492-MS5X12	Allen Bradley	Plastic	1
DPDT Relay	700-HLT12U1	Allen Bradley	Plastic	1
Jumpers	700-TBJ20R	Allen Bradley	Plastic	1
Terminal Strip Fuse Holder	1492-H6	Allen Bradley	Plastic	1
Stepdown Transformer	1497B-A1-M13-3-N	Allen Bradley	Carbon Steel	1
Alarm Sounder	855P-B10LE22	Allen Bradley	Plastic	1
Terminal Strip End Barrier	1492-N37	Allen Bradley	Plastic	1
5 Amp 250 V Fuse	MDL-5-R	Bussmann	Copper	1
3-2/10 Amp 250 V Amp Fuse	FNM-3-2/10	Bussmann	Copper	1
2½ Amp Fuse	LP-CC-2½	Bussmann	Copper	1
Panel Insert	A14P12	Hoffman	Carbon Steel	1
1" Wide Wiring Duct	F1X2LG6	Panduit	Plastic	1
1" Wide Wiring Duct Cover	C1LG6	Panduit	Plastic	1
Grounding Bar Kit	ECGB20	Siemens	Copper	1
Controller	RWF55.5	Siemens	Plastic	1

**Table 3: Certified Pump Control Panel Subcomponents**

Component	Component part #	Manufacturer	Material	UUT
Terminal Stop End Anchor	1492-EAJ35	Allen Bradley	Plastic	2
Terminal	1492-J3	Allen Bradley	Plastic	2
Ground Terminal	1492-JG4	Allen Bradley	Plastic	2
Terminal Center Jumpers	1492-CJLJ5-50	Allen Bradley	Plastic	2
Din Rail	199-DR1	Allen Bradley	Carbon Steel	2
Contactator	100-C09D10	Allen Bradley	Plastic	2
Overload	193-EECB E1	Allen Bradley	Plastic	2
Selector Switch	800FP-SM32PX20	Allen Bradley	Plastic	2
Selector Switch	800FP-SM22PX10	Allen Bradley	Plastic	2
Control Circuit Transformer	1497-G-BASX-3-N	Allen Bradley	Carbon Steel	2
Power Distribution Block	1492-PDM3141	Allen Bradley	Plastic	2
Power Distribution Block Cover	1492-PBC9	Allen Bradley	Plastic	2
Disconnect Switch	194R-J30-1753	Allen Bradley	Plastic	2
Disconnect Switch Handle	194R-PB	Allen Bradley	Plastic	2
Disconnect Switch Internal Operating Handle	194R-N1	Allen Bradley	Plastic	2
Green Pilot Lamp	800FP-P3PN5G	Allen Bradley	Plastic	2
SPDT Slim Line Relay	700-HK32A1	Allen Bradley	Plastic	2
8 Blade Based Minature Relay Socket	700-HN122	Allen Bradley	Plastic	2
On Delay Timing Relay	700-FEA1TU22	Allen Bradley	Plastic	2
Red Pilot Lamp	800FP-P4PN5R	Allen Bradley	Plastic	2
Terminal Block Markers	1492-MS5X12	Allen Bradley	Plastic	2
5 Amp Fuse	LP-CC-5	Bussmann	Copper	2
5 Amp Fuse	FNM-5	Bussmann	Copper	2
5 Amp Fuse	LPJ-5SP	Bussmann	Copper	2
Panel Insert	A30P24G	Hoffman	Carbon Steel	2
2¼" Wide Wiring Duct	F2X2LG6	Panduit	Plastic	2
2¼" Wide Wiring Duct Cover	C2LG6	Panduit	Plastic	2
Grounding Bar Kit	ECGB20	Siemens	Copper	2



## UNIT UNDER TEST (UUT) Summary Sheet

**UUT-01**

VMA-50812-01

Model Line	Model Number	Manufacturer
Control Panel	Pump Control	Bryan Steam

### Product Construction Summary

14 gauge carbon steel enclosure

### Options / Subcomponent Summary

Red Pilot Lamp, Selector Switch, Alarm Silencing Switch, DPDT Relay, Stepdown Transformer, Alarm Sounder: Allen Bradley  
Grounding Bar Kit, Controller: Siemens  
Component was full of content during test

### UUT Properties

Weight [ lbs ]	Dimensions [ in ]			Lowest Nat. Freq. [ Hz ]		
	Depth	Width	Height	F-B	S-S	V
26	8	13	15	N/A	N/A	N/A

### UUT Highest Passed Seismic Run Information

Building Code	Test Criteria	S <sub>DS</sub> (g)	z/h	I <sub>p</sub>	A <sub>FLX-H</sub> (g)	A <sub>RIG-H</sub> (g)	A <sub>FLX-V</sub> (g)	A <sub>RIG-V</sub> (g)
CBC 2016	ICC-ES AC156	2.00	1.00	1.50	3.20	2.40	1.67	0.67

### Test Mounting Details

UUT-01 was wall bolted directly to the wall mount fixture using (4) 1/4" Grade 5 bolts.



All units were filled with contents and maintained structural integrity and functionality after shake table test





# UNIT UNDER TEST (UUT) Summary Sheet

**UUT-02**

VMA-50812-01

Model Line	Model Number	Manufacturer
Control Panel	Alarm panel	Bryan Steam

## Product Construction Summary

14 gauge carbon steel enclosure

## Options / Subcomponent Summary

Red Pilot Lamp, Selector Switch, Alarm Silencing Switch, DPDT Relay, Stepdown Transformer, Alarm Sounder: Allen Bradley  
Grounding Bar Kit, Controller: Siemens  
Component was full of content during test

## UUT Properties

Weight [ lbs ]	Dimensions [ in ]			Lowest Nat. Freq. [ Hz ]		
	Depth	Width	Height	F-B	S-S	V
105	11	24	30	N/A	N/A	N/A

## UUT Highest Passed Seismic Run Information

Building Code	Test Criteria	S <sub>DS</sub> (g)	z/h	I <sub>p</sub>	A <sub>FLX-H</sub> (g)	A <sub>RIG-H</sub> (g)	A <sub>FLX-V</sub> (g)	A <sub>RIG-V</sub> (g)
CBC 2016	ICC-ES AC156	2.00	1.00	1.50	3.20	2.40	1.67	0.67

## Test Mounting Details

UUT-02 was wall bolted directly to the wall mount fixture using (4) 3/8" Grade 5 bolts.



All units were filled with contents and maintained structural integrity and functionality after shake table test