



OFFICE OF STATEWIDE HEALTH PLANNING AND DEVELOPMENT
FACILITIES DEVELOPMENT DIVISION

APPLICATION FOR OSHPD SPECIAL SEISMIC
CERTIFICATION PREAPPROVAL (OSP)

OFFICE USE ONLY

APPLICATION #: OSP – 0612

OSHPD Special Seismic Certification Preapproval (OSP)

Type: ☒ New ☐ Renewal

Manufacturer Information

Manufacturer: Cummins Power Generation

Manufacturer's Technical Representative: B.S. Raghukumar

Mailing Address: 1400 73rd Avenue, Fridley, MN 55432

Telephone: (763) 574-3302

Email: b.s.raghukumar@cummins.com

Product Information

Product Name: Arrow Gas Generator Sets

Product Type: Generator Sets

Product Model Number: See Attachments

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

General Description: Gas generators consisting of various engines, alternators, enclosures, chassis/skids and controllers. Seismic enhancements made to the test units and required to address anomalies observed during the tests shall be incorporated into the production units.

Mounting Description: Gas generators are rigid base mounted

Applicant Information

Applicant Company Name: The VMC Group

Contact Person: John Giuliano

Mailing Address: 113 Main Street, Bloomingdale, NJ 07403

Telephone: (973) 838-1780

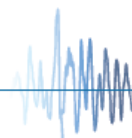
Email: john.giuliano@thevcmgroup.com

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: 06/7/2019

Title: President Company Name: The VMC Group

"Access to Safe, Quality Healthcare Environments that Meet California's Diverse and Dynamic Needs"





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

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

Company Name: The VMC Group

Name: Ken Tarlow California License Number: SE2851

Mailing Address: 113 Main Street, 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, Lab Manager

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

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

Company Name: UC Berkley, PEER Lab

Contact Name: Amarnath Kasalanati

Mailing Address: 1301 S. 46th Street, Building 420, Richmond, CA 94804

Telephone: (510) 643-6475 Email: amarnath1@berkley.edu



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) = 1.80

S_{DS} (Design spectral response acceleration at short period, g) = 2.50

a_p (In-structure equipment or component amplification factor) = 1.0

R_p (Equipment or component response modification factor) = 2.5

Ω_0 (System overstrength factor) = 2

I_p (Importance factor) = 1.5

z/h (Height factor ratio) = 1

Equipment or Component Natural Frequencies (Hz) = See Attachments

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

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) = _____

Ω_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, 2025

Signature: Timothy J. Piland Date: October 12, 2020

Print Name: Timothy J. Piland Title: SSE

Special Seismic Certification Valid Up to: S_{DS} (g) = 2.50 z/h = 1

Condition of Approval (if applicable): _____

"Access to Safe, Quality Healthcare Environments that Meet California's Diverse and Dynamic Needs"

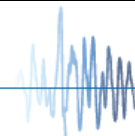


Table 1 - Certified Product Table - Gas Generator Sets

| Model | Power Rating [kW] | RPM | Maximum Dimensions [in] | | | Maximum Weight [lbs] ² | UUT |
|---------|------------------------|------|---------------------------|-------|-----------------|--|--------------|
| | | | Length ² | Width | Height | | |
| C20 N6 | 20 | 1800 | 82 | 34 | 46 | 1,110 | UUT-5 |
| C22 N6 | 22 | 1800 | 82 | 34 | 46 | 1,150 | Interpolated |
| C25 N6 | 25 | 1800 | 82 | 34 | 46 | 1,150 | Interpolated |
| C30 N6H | 30 | 3600 | 82 | 34 | 46 | 1,120 | Interpolated |
| C30 N6 | 30 | 1800 | 104 | 34 | 46 | 1,300 | Interpolated |
| C36 N6 | 36 | 1800 | 104 | 34 | 46 | 1,380 | Interpolated |
| C36 N6H | 36 | 3600 | 104 | 34 | 46 | 1,270 | Interpolated |
| C40 N6 | 40 | 1800 | 104 | 34 | 46 | 1,400 | Interpolated |
| C40 N6H | 40 | 3600 | 104 | 34 | 46 | 1,420 | Interpolated |
| C45 N6H | 45 | 3600 | 104 | 34 | 46 | 1,420 | Interpolated |
| C50 N6H | 50 | 3600 | 104 | 34 | 46 | 1,420 | Interpolated |
| C60 N6H | 60 | 3600 | 104 | 34 | 46 | 1,540 | UUT-6 |
| C45 N6 | 45 | 1800 | 136 | 40 | 58 ¹ | 2,580 | UUT-7 |
| C50 N6 | 50 | 1800 | 136 | 40 | 58 ¹ | 2,600 | Interpolated |
| C60 N6 | 60 | 1800 | 136 | 40 | 58 ¹ | 2,900 | Interpolated |
| C70 N6 | 70 | 1800 | 136 | 40 | 58 ¹ | 2,870 | Interpolated |
| C80 N6 | 80 | 1800 | 136 | 40 | 58 ¹ | 3,030 | Interpolated |
| C100 N6 | 100 | 1800 | 136 | 40 | 58 ¹ | 3,170 | UUT-8 |
| C125 N6 | 125 | 1800 | 160 | 40 | 72 | 3,767 | UUT-11 |
| C150 N6 | 150 | 1800 | 160 | 40 | 72 | 4,350 | UUT-12 |

Notes:

1. Maximum height with above-engine muffler configuration is 68 inches for the 45-100 kW generator sets.
2. Maximum length and weight assumes a Sound Level 2 (SL2) enclosure.

Table 2 - Certified Subcomponents - Enclosures

| Model Number | Sound Level Type | MFR | Material | Dimensions [in] | | | Weight [lbs] | UUT |
|-------------------|------------------|---------|--------------------------------------|-------------------|-------|--------|----------------|---------------------------|
| | | | | Length | Width | Height | | |
| GD02-P1-ENCL | SL1 | Cummins | 12 Gauge 5052-0 Aluminum and Plastic | 72 | 34 | 46 | 125 | Extrapolated |
| GG02-P1-ENCL | SL2 | | | 82 | 34 | 46 | 132 | UUT-5 |
| GD03C-P2-ENCL | SL1 | | | 94 | 34 | 46 | 145 | Extrapolated |
| GG02-P2-ENCL | SL2 | | | 104 | 34 | 46 | 152 | UUT-6 |
| GG03-P1-ENCL | SL1 | | | 94 | 40 | 46 | 150 | Interpolated ¹ |
| GG06-P1-ENCL-SND | SL2 | | | 104 | 40 | 46 | 160 | UUT-7 |
| GG06-P1-ENCL-WTHR | Weather | | | 94 | 40 | 46 | 120 | UUT-8 |
| GG09-P1-ENCL-WTHR | Weather | | 12 Gauge 5052-H32 Aluminum | 113 | 40 | 72 | 244 | UUT-11 |
| GG09-P1-ENCL-S1 | SL1 | | | 142 | 40 | 72 | 319 | Interpolated ¹ |
| GG09-P1-ENCL-S2 | SL2 | | | 166 | 40 | 72 | 352 | UUT-12 |

Notes:

1. SL1 enclosure type is identical to SL2 type, except SL1 deletes a sound attenuation baffle on the air inlet end. Weather type enclosure is similar to SL1 and SL2 types, but without sound insulation and without inlet and outlet attenuation ducts.

Table 3 - Certified Subcomponents - Gas Engines

| Model Number | Manufacturer | Size | kW Range | Material | UUT |
|--------------|--------------|------|----------|-----------|----------------|
| 2.4L-NA | Cummins | 2.4L | 20-60 | Cast Iron | UUT-5 |
| 2.4L-T | | | | | Interpolated |
| 2.4L-NA+OC | | | | | UUT-6 |
| 2.4L-T+OC | | | | | UUT-7 |
| 5.9-NA | | 5.9L | 45-50 | | UUT-8 |
| 5.9-T | | | 60-100 | | UUT-11, UUT-12 |
| QSJ8.9G | | 8.9L | 125-150 | | |

Table 4 - Certified Subcomponents - Controls

| Model Number | Manufacturer | Material | Applicable kW Range | UUT |
|--------------|--------------|-------------------|---------------------|----------------------------|
| PCC1.1 | Cummins | Carbon | 10-100 | UUT-5, UUT-6, UUT-7, UUT-8 |
| PCC2.3 | | Steel and Plastic | 50-150 | UUT-11, UUT-12 |
| PCC3.3 | | | 125-200 | Extrapolated |

Table 5 - Certified Subcomponents - Alternators

| Model Number | Manufacturer | Material | Alternator Phase | | Max Weight [lbs] | UUT |
|--------------|--------------|--|--------------------|--------|--------------------|--------------|
| | | | Certified | Tested | | |
| CA115-D14 | Cummins | Copper Windings w/ Steel Lamination; Steel and Aluminum Frame | Single or Three | N/A | 203 | Extrapolated |
| CA115-H14 | | | | Three | 254 | UUT-5 |
| CA115-J12 | | | | N/A | 276 | Interpolated |
| CA115-J14 | | | | N/A | 276 | |
| CA115-M12 | | | | N/A | 309 | |
| CA115-L14 | | | | N/A | 315 | |
| CA115-P12 | | | | N/A | 331 | |
| CA115-P14 | | | | N/A | 331 | |
| CA115-R12 | | | | N/A | 340 | |
| CA115-R14 | | | | N/A | 353 | |
| CA115-S14 | | | | N/A | 353 | |
| CA115-T12 | | | | N/A | 386 | |
| CA115-V14 | | | | N/A | 401 | |
| CA125-G14 | | | | N/A | 463 | |
| CA125-J14 | | | | N/A | 485 | |
| CA125-L14 | | | | N/A | 522 | |
| CA135-E12 | | Copper Windings w/ Steel Lamination; Steel Frame | Single or Three | Three | 536 | UUT-6 |
| CA125-P14 | | | | N/A | 639 | Extrapolated |
| UC224D | | | | N/A | 627 | Extrapolated |
| UC224E | | | | Single | 684 | UUT-7 |
| UC224F | | | | N/A | 741 | Interpolated |
| UC224G | | | | N/A | 843 | |
| UC274C | | | | N/A | 893 | |
| UC274D | | | | N/A | 948 | UUT-11 |
| UC274E | | | | Three | 1,082 | |
| UC274F | | | | Three | 1,166 | UUT-8 |
| UC274G | | | | N/A | 1,276 | Interpolated |
| UC274H | | | | N/A | 1,378 | |
| UC274K | | | | N/A | 1,603 | UUT-12 |
| UC274J | | | | Single | 1,603 | |

Table 6 - Certified Subcomponents - Radiators

| Model Number | Manufacturer | Material | Dimensions [in] | | | Weight [lbs] | UUT |
|--------------|--------------|---------------------------------|-------------------|-------|-------|----------------|----------------|
| | | | Height | Width | Depth | | |
| A044D176 | Enterex | Tank: Nylon 6 Core: Aluminum | 25.9 | 21.3 | 2.6 | 20 | UUT-5 |
| A042V597 | | | 29.3 | 28.2 | 3.3 | 18 | Interpolated |
| A042V593 | | | 29.3 | 28.2 | 3.3 | 22 | UUT-6 |
| A048U087 | | | 42 | 30.4 | 3 | 36 | UUT-7, UUT-8 |
| A058F021 | | | 42 | 30.4 | 3 | 36 | UUT-11, UUT-12 |

Table 7 - Certified Subcomponents - Mufflers

| Model Number | Manufacturer | Location | Material | Dimensions [in] | | | Weight [lbs] | UUT |
|--------------|--------------|----------------------|--|-------------------|-------|-------|----------------|--------|
| | | | | Height | Width | Depth | | |
| A048F931 | Nelson | Above Engine | 18 Gauge Aluminized Carbon Steel | 20.5 | 7.9 | 5.1 | 35.3 | UUT-8 |
| A050B660 | | In Front of Radiator | 22 Gauge Dual Wall Aluminized Carbon Steel | 32.8 | 13.7 | 7.4 | 27.6 | UUT-7 |
| A053S158 | | Above Engine | 14 Gauge Aluminized Carbon Steel | 26.5 | 14.6 | 12 | 60 | UUT-11 |
| A053S148 | | In Front of Radiator | 22 Gauge Dual Wall Aluminized Carbon Steel | 31.1 | 20.5 | 16.1 | 70 | UUT-12 |
| A043T869 | Cummins | In Front of Radiator | 20 Gauge Aluminized Carbon Steel | 32.8 | 13.7 | 7.4 | 27.6 | UUT-5 |
| A043T871 | | | | 32.8 | 13.7 | 10 | 35.3 | UUT-6 |

Table 8 - Certified Subcomponents - Chassis

| Model Number | Manufacturer | Material | Dimensions [in] | | | UUT |
|---------------|--------------|--|-------------------|-------|-------|----------------|
| | | | Height | Width | Depth | |
| GD02-P1-SKID | Cummins | 10 Gauge Carbon Steel; Self Piercing Rivet Joints | 65.7 | 32.6 | 4.5 | Extrapolated |
| GG02-P1-SKID | | | 65.7 | 32.6 | 4.5 | UUT-5 |
| GD03C-P2-SKID | | | 87.6 | 32.6 | 4.5 | Extrapolated |
| GG02-P2-SKID | | | 87.6 | 32.6 | 4.5 | UUT- 6 |
| GG06-P1-SKID | | | 98 | 40 | 6.7 | UUT-7, UUT-8 |
| GG09-P1-SKID | | | 113 | 40 | 6.7 | UUT-11, UUT-12 |



UNIT UNDER TEST (UUT) Summary Sheet

UUT-5

DCL 77789-1301

| Model Line | Model Number | Manufacturer |
|--------------------|--------------|--------------|
| Gas Generator Sets | C20 N6 | Cummins |

Product Construction Summary

12 Gauge 5052-0 Aluminum and Plastic Enclosure, 10 Gauge Carbon Steel Skid with Self Piercing Rivet Joints

Options / Subcomponent Summary

Engine: Cummins; Radiator: Enterex; Chassis: Cummins; Alternator: Cummins; Muffler: Cummins; Enclosure: Cummins

UUT Properties

| Weight [lbs] | Dimensions [in] | | | Lowest Nat. Freq. [Hz] | | |
|-------------------|-------------------|-------|--------|--------------------------|-----|------|
| | Length | Width | Height | F-B | S-S | V |
| 1,090 | 82.0 | 34.0 | 46.0 | 9.5 | 7.8 | 19.3 |

UUT Highest Passed Seismic Run Information

| Building Code | Test Criteria | S _{DS} | z/h | I _p | A _{FLX-H} | A _{RIG-H} | A _{FLX-V} | A _{RIG-V} |
|---------------|---------------|-----------------|------|----------------|--------------------|--------------------|--------------------|--------------------|
| CBC 2016 | ICC-ES AC156 | 2.50 | 1.00 | 1.50 | 4.00 | 3.00 | 1.67 | 0.67 |

Test Mounting Details

UUT was mounted to the fixture using four (4) 5/8" grade 8 bolts.



All units were filled with contents and maintained structural integrity and functionality after AC-156 test.



UNIT UNDER TEST (UUT) Summary Sheet

UUT-6

DCL 77789-1301

| Model Line | Model Number | Manufacturer |
|--------------------|--------------|--------------|
| Gas Generator Sets | C60 N6H | Cummins |

Product Construction Summary

12 Gauge 5052-0 Aluminum and Plastic Enclosure, 10 Gauge Carbon Steel Skid with Self Piercing Rivet Joints

Options / Subcomponent Summary

Engine: Cummins; Radiator: Enterex; Chassis: Cummins; Alternator: Cummins; Muffler: Cummins; Enclosure: Cummins

UUT Properties

| Weight [lbs] | Dimensions [in] | | | Lowest Nat. Freq. [Hz] | | |
|-------------------|-------------------|-------|--------|--------------------------|-----|------|
| | Length | Width | Height | F-B | S-S | V |
| 1,530 | 104.0 | 34.0 | 46.0 | 8.3 | 6.5 | 16.8 |

UUT Highest Passed Seismic Run Information

| Building Code | Test Criteria | S _{DS} | z/h | I _p | A _{FLX-H} | A _{RIg-H} | A _{FLX-V} | A _{RIg-V} |
|---------------|---------------|-----------------|------|----------------|--------------------|--------------------|--------------------|--------------------|
| CBC 2016 | ICC-ES AC156 | 2.50 | 1.00 | 1.50 | 4.00 | 3.00 | 1.67 | 0.67 |

Test Mounting Details

UUT was mounted to the fixture using four (4) 5/8" grade 8 bolts.



All units were filled with contents and maintained structural integrity and functionality after AC-156 test.



UNIT UNDER TEST (UUT) Summary Sheet

UUT-7

DCL 31272-1501b

| Model Line | Model Number | Manufacturer |
|--------------------|--------------|--------------|
| Gas Generator Sets | C45 N6 | Cummins |

Product Construction Summary

12 Gauge 5052-0 Aluminum and Plastic Enclosure, 10 Gauge Carbon Steel Skid with Self Piercing Rivet Joints

Options / Subcomponent Summary

Engine: Cummins; Radiator: Enterex; Chassis: Cummins; Alternator: Cummins; Muffler: Cummins; Enclosure: Cummins

UUT Properties

| Weight [lbs] | Dimensions [in] | | | Lowest Nat. Freq. [Hz] | | |
|-------------------|-------------------|-------|--------|--------------------------|-----|------|
| | Length | Width | Height | F-B | S-S | V |
| 2,580 | 136.0 | 40.0 | 58.0 | 8.3 | 3.5 | 12.8 |

UUT Highest Passed Seismic Run Information

| Building Code | Test Criteria | S _{DS} | z/h | I _p | A _{FLX-H} | A _{RIg-H} | A _{FLX-V} | A _{RIg-V} |
|---------------|---------------|-----------------|------|----------------|--------------------|--------------------|--------------------|--------------------|
| CBC 2016 | ICC-ES AC156 | 2.50 | 1.00 | 1.50 | 4.00 | 3.00 | 1.67 | 0.67 |

Test Mounting Details

UUT was mounted to the fixture using four (4) 5/8" grade 8 bolts.



All units were filled with contents and maintained structural integrity and functionality after AC-156 test.



UNIT UNDER TEST (UUT) Summary Sheet

UUT-8

DCL 31272-1501b

| Model Line | Model Number | Manufacturer |
|--------------------|--------------|--------------|
| Gas Generator Sets | C100 N6 | Cummins |

Product Construction Summary

12 Gauge 5052-0 Aluminum and Plastic Enclosure, 10 Gauge Carbon Steel Skid with Self Piercing Rivet Joints

Options / Subcomponent Summary

Engine: Cummins; Radiator: Enterex; Chassis: Cummins; Alternator: Cummins; Muffler: Cummins; Enclosure: Cummins

UUT Properties

| Weight [lbs] | Dimensions [in] | | | Lowest Nat. Freq. [Hz] | | |
|-------------------|-------------------|-------|--------|--------------------------|-----|------|
| | Length | Width | Height | F-B | S-S | V |
| 3,110 | 98.0 | 40.0 | 58.0 | 7.8 | 6.8 | 13.0 |

UUT Highest Passed Seismic Run Information

| Building Code | Test Criteria | S _{DS} | z/h | I _p | A _{FLX-H} | A _{RIG-H} | A _{FLX-V} | A _{RIG-V} |
|---------------|---------------|-----------------|------|----------------|--------------------|--------------------|--------------------|--------------------|
| CBC 2016 | ICC-ES AC156 | 2.50 | 1.00 | 1.50 | 4.00 | 3.00 | 1.67 | 0.67 |

Test Mounting Details

UUT was mounted to the fixture using four (4) 5/8" grade 8 bolts.



All units were filled with contents and maintained structural integrity and functionality after AC-156 test.



UNIT UNDER TEST (UUT) Summary Sheet

UUT-11

DCL 14849-1601

| Model Line | Model Number | Manufacturer |
|--------------------|--------------|--------------|
| Gas Generator Sets | C125 N6 | Cummins |

Product Construction Summary

12 Gauge 5052-H32 Aluminum and Plastic Enclosure, 10 Gauge Carbon Steel Skid with Self Piercing Rivet Joints

Options / Subcomponent Summary

Engine: Cummins; Radiator: Enterex; Chassis: Cummins; Alternator: Cummins; Muffler: Nelson; Enclosure: Cummins; Controller: Cummins

UUT Properties

| Weight [lbs] | Dimensions [in] | | | Lowest Nat. Freq. [Hz] | | |
|-------------------|-------------------|-------|--------|--------------------------|-----|------|
| | Length | Width | Height | F-B | S-S | V |
| 3,566 | 113.0 | 40.0 | 71.5 | 9.5 | 4.8 | 14.3 |

UUT Highest Passed Seismic Run Information

| Building Code | Test Criteria | S _{DS} | z/h | I _p | A _{FLX-H} | A _{RIG-H} | A _{FLX-V} | A _{RIG-V} |
|---------------|---------------|-----------------|------|----------------|--------------------|--------------------|--------------------|--------------------|
| CBC 2016 | ICC-ES AC156 | 2.50 | 1.00 | 1.50 | 3.20 | 3.00 | 1.67 | 0.67 |

Test Mounting Details

UUT was mounted to the fixture using six (6) 5/8" grade 8 bolts.



All units were filled with contents and maintained structural integrity and functionality after AC-156 test.



UNIT UNDER TEST (UUT) Summary Sheet

UUT-12

DCL 14849-1601

| Model Line | Model Number | Manufacturer |
|--------------------|--------------|--------------|
| Gas Generator Sets | C150 N6 | Cummins |

Product Construction Summary

12 Gauge 5052-H32 Aluminum and Plastic Enclosure, 10 Gauge Carbon Steel Skid with Self Piercing Rivet Joints

Options / Subcomponent Summary

Engine: Cummins; Radiator: Enterex; Chassis: Cummins; Alternator: Cummins; Muffler: Nelson; Enclosure: Cummins; Controller: Cummins

UUT Properties

| Weight [lbs] | Dimensions [in] | | | Lowest Nat. Freq. [Hz] | | |
|-------------------|-------------------|-------|--------|--------------------------|-----|------|
| | Length | Width | Height | F-B | S-S | V |
| 4,350 | 160.0 | 40.0 | 71.5 | 8.0 | 3.3 | 13.8 |

UUT Highest Passed Seismic Run Information

| Building Code | Test Criteria | S _{DS} | z/h | I _p | A _{FLX-H} | A _{RIg-H} | A _{FLX-V} | A _{RIg-V} |
|---------------|---------------|-----------------|------|----------------|--------------------|--------------------|--------------------|--------------------|
| CBC 2016 | ICC-ES AC156 | 2.50 | 1.00 | 1.50 | 3.20 | 3.00 | 1.67 | 0.67 |

Test Mounting Details

UUT was mounted to the fixture using six (6) 5/8" grade 8 bolts.



All units were filled with contents and maintained structural integrity and functionality after AC-156 test.