



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

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

OFFICE USE ONLY

APPLICATION #: OSP-0185

HCAI Special Seismic Certification Preapproval (OSP)

Type: New Renewal

Manufacturer Information

Manufacturer: Global Power Components

Manufacturer's Technical Representative: Anthony McIntosh

Mailing Address: 6682 W. Greenfield Ave., West Allis, WI 53214

Telephone: (414) 475-3000

Email: amcintosh@globalpowercomponents.com

Product Information

Product Name: Components with Hazardous Content

Product Type: NA

Product Model Number: UL142 Stand Alone Day Fuel Tanks DT-50 to DT-1000 and Pump Stand See Table (1)

General Description: UL-142 stand-alone Fuel Day Tanks with integral pumping systems manufactured by the Global Power Components

Mounting Description: Rigid, Floor Mounted

Tested Seismic Enhancements: None

Applicant Information

Applicant Company Name: Panache Engineering Inc

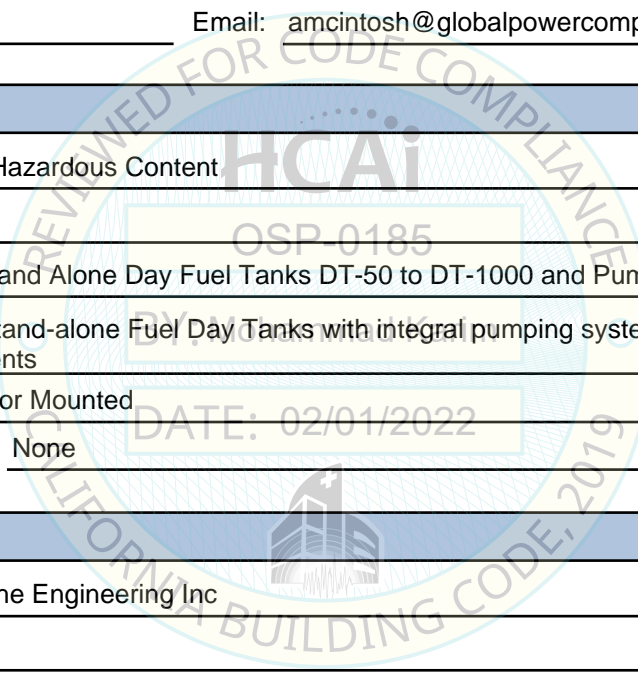
Contact Person: Ahmed Haider

Mailing Address: 150 N Santa Anita Ave Suite 300, Arcadia, CA 91006

Telephone: (626) 698-0784

Email: ahmed.haider@panacheg.com

Title: Panache Engineering Inc





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

Company Name: PANACHE ENGINEERING

Name: Eui Kim California License Number: S5138

Mailing Address: 150 N. Santa Anita Ave, Suite 300, Arcadia, CA 91006

Telephone: (626) 698-7844 Email: panacheg@gmail.com

Certification Method

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

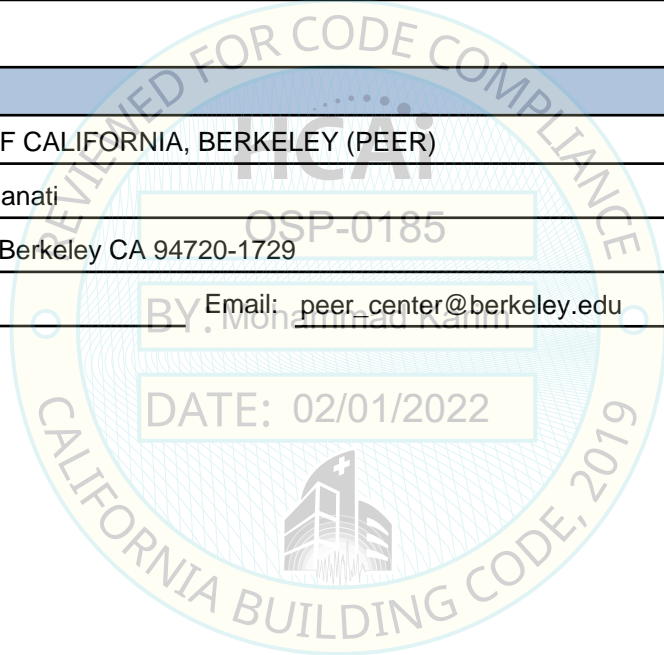
Testing Laboratory

Company Name: UNIVERSITY OF CALIFORNIA, BERKELEY (PEER)

Contact Person: Amarnath Kasalanati

Mailing Address: 325 Davis Hall, Berkeley CA 94720-1729

Telephone: (510) 642-6475 Email: peer_center@berkeley.edu





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Seismic Parameters

Design Basis of Equipment or Components (F_p/W_p) = 1.13

SDS (Design spectral response acceleration at short period, g) = 2.5

a_p (Amplification factor) = 1.0

R_p (Response modification factor) = 2.0

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 02/01/2028

Date: 2/1/2022

Name: Mohammad Karim Title: Supervisor, Health Facilities

Special Seismic Certification Valid Up to: SDS (g) = 2.5 z/h = 0

Condition of Approval (if applicable): DATE: 02/01/2022

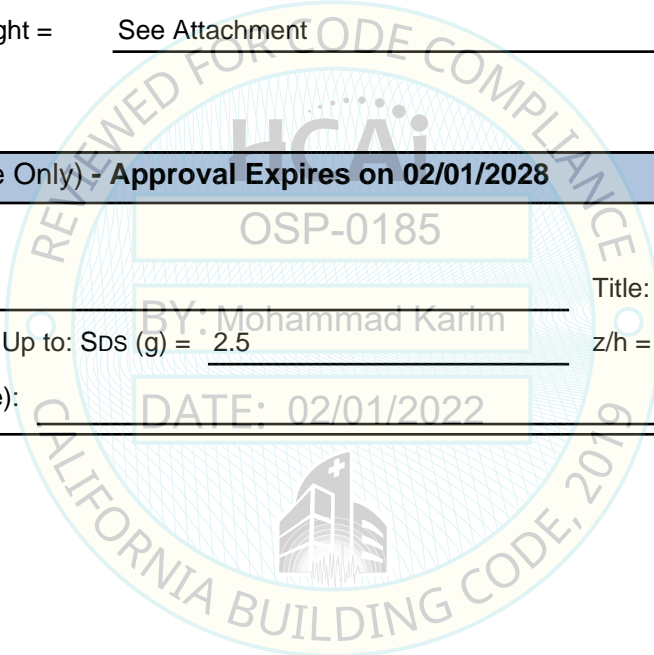


Table 1

Certified Components



Product Type: UL 142 Double Wall Fuel Day Tanks Manufacturer: Global Power Components

Product Function: Provide fuel to Emergency Power Systems

Certified Product Construction: Welded ASTM A36 Carbon steel plates and ASTM A36 steel C & L sections

Certified Options: * With top mounted pump rack
* Without pump rack

Mounting Descriptions: All Tanks are bolted down to support structure

Product Line	Model Number	Material Thickness	Size (Gal)	Empty Weight (lb.)	Operating Weight (lb.)	Dimensions (Inches)			Relative Size	Unit
						Length	Width	Height		
Fuel Day Tanks	DT-50	12 gage	50	450	825	38	24	32	Smallest	UUT1
	DT-50<To<DT-250	12 gage	50 TO 250	450 TO 1050	825 TO 2974	38 TO 42	24 TO 60	32 TO 42	Intermediate	
	DT-250	12 gage	250	1050	2974	42	60	42	Largest	UUT2
	DT-251	10 gage	251	1225	3152	42	60	42	Smallest	UUT3
	DT-25< TO< DT-999	10 gage	251 TO 999	1225 TO 2925	3152 TO 10245	42 TO 58	60 TO 120	42 TO 54	Intermediate	
Pump Station	DT-1000	10 gage with 7 gage top cover	1001	2925	10245	58	120	54	Largest	UUT4
	PS-2	10 gage with 14 gage cover	N/A	N/A	240	25	24.25	12.75	One Size	UUT5

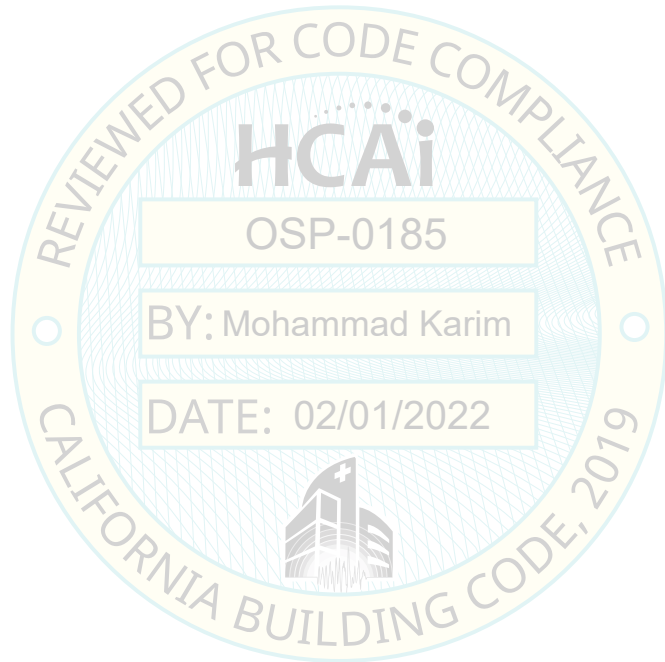


Table 2

Certified Subcomponents



Leak Sensor Probe

Part ID	Manufacturer Part Number	Manufacturer	Relative Size	Tested in Unit	Material
4300	L175 Sensor	Innovative Solutions	One Size	UUT1, UUT2, UUT3	A 240
4300F	TSP-ULS	Franklin Fueling Systems	One Size	UUT4	A 240

High Fuel Level Probe

Part ID	Manufacturer Part Number	Manufacturer	Relative Size	Tested in Unit	Material
1099-5	L500 Level Sensor	Innovative Solution	One Size	UUT1, UUT2, UUT3	A 240
1000	L175	Innovative Solution	One Size	UUT4	A 240
1010F	TSP-ULS	Franklin Fueling Systems	One Size	UUT1, UUT2, UUT3	A 240

Low Fuel Level Probe

Part ID	Manufacturer Part Number	Manufacturer	Relative Size	Tested in Unit	Material
1099-1	L500 Level Sensor	Innovative Solution	One Size	UUT1, UUT2, UUT3	A 240

Supply Pump #1 On Probe

Part ID	Manufacturer Part Number	Manufacturer	Relative Size	Tested in Unit	Material
1099-2	L500 Level Sensor	Innovative Solution	One Size	UUT1, UUT2, UUT3	A 240

Supply Pump #2 On Probe

Part ID	Manufacturer Part Number	Manufacturer	Relative Size	Tested in Unit	Material
1099-3	L500 Level Sensor	Innovative Solution	One Size	UUT1, UUT2, UUT3	A 240

Return Pump On Probe

Part ID	Manufacturer Part Number	Manufacturer	Relative Size	Tested in Unit	Material
1099-4	L500 Level Sensor	Innovative Solution	One Size	UUT1, UUT2, UUT3	A 240

Pump Off Probe

Part ID	Manufacturer Part Number	Manufacturer	Relative Size	Tested in Unit	Material
1099-5	L500 Level Sensor	Innovative Solution	One Size	UUT1, UUT2, UUT3	A 240

Manual Hand Pump

Part ID	Manufacturer Part Number	Manufacturer	Relative Size	Tested in Unit	Material
700-1175	FR152	Fill-Rite	One Size	UUT2, UUT3	B 275

Standard Vent

Part ID	Manufacturer Part Number	Manufacturer	Relative Size	Tested in Unit	Material
3152	0401-01-2000	Clay & Bailey MFG. Co.	2"	UUT1, UUT2, UUT3	A 1056

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Table 2 (Continue)

Certified Subcomponents



Pressure Relief Vent

Part ID	Manufacturer Part Number	Manufacturer	Relative Size	Tested in Unit	UL Listing	Material
3162	1002	Global Power Components	24,058 CFH	UUT1	MH 46387	A 106
3163	1003	Global Power Components	63,633 CFH	UUT2, UUT3	MH 46387	A 106
3165	1005	Global Power Components	284,968 CFH	UUT4	MH 46387	A 106

Check Valve

Part ID	Manufacturer Part Number	Manufacturer	Relative Size	Tested in Unit	Material
700-1060	T-480	NIBCO	3/8" thru 2"	UUT3	B 584 Alloy C84400

Ball Valve

Part ID	Manufacturer Part Number	Manufacturer	Relative Size	Tested in Unit	Material
700-1050	s. 95 NPT	Rubinetteria Utensilerie Bonomi	3/8" thru 2"	UUT3	B 879

Scully Connector w/ Dust Cap

Part ID	Manufacturer Part Number	Manufacturer	Relative Size	Tested in Unit	Material
3350	Type F Adapter Male NPT	Dixon	2"	UUT4	B 108
3351	Type DC Dust Cap	Dixon	2"	UUT4	B 108

Pumps

Part ID	Pump Manufacturer	Manufacturer Part Number	Relative Size	Tested in Unit	Material
2 GPM	Oberdorfer Pump	N61K10G01	Smallest	UUT1, UUT2, UUT3, UUT4	B 584 Alloy C84400
4 GPM	Oberdorfer Pump	N992	Intermediate	Interpolated Component	B 584 Alloy C84400
7 GPM	Oberdorfer Pump	N993	Intermediate	Interpolated Component	B 584 Alloy C84400
10 GPM	Oberdorfer Pump	N994	Intermediate	UUT5	B 584 Alloy C84400
16 GPM	Oberdorfer Pump	N970	Largest	UUT3, UUT4	B 584 Alloy C84400

Motors

Part ID	Manufacturer	Horsepower	Relative Size	Tested in Unit	Material	Motor HP
2 GPM	Marathon, Dayton	1/3 HP	Smallest	UUT1, UUT2, UUT3, UUT4	A842	240 V / 2.7 A
4 GPM	Dayton	1/2 HP	Intermediate	Interpolated Component	A842	115 V / 5.8 A
7 GPM	Dayton	1/2 HP	Intermediate	Interpolated Component	A842	230 V / 2.3 A
10 GPM	Dayton	3/4 HP	Intermediate	UUT5	A842	230 V / 5.4 A
16 GPM	Baldor, Dayton	1 HP	Largest	UUT3, UUT4	A842	203 V / 5.2 A

Pump Control Box

Part ID	Manufacturer	Material	Relative Size	Tested in Unit	Material
1379	Global Power Components	Fiberglass reinforced	One Size	UUT1	D256
1380	Global Power Components	Polycarbonate	One Size	UUT2, UUT3	D256

Alarm Control Box

Part ID	Manufacturer	Material	Relative Size	Tested in Unit	Material
1060	Global Power Components	Fiberglass reinforced	One Size	UUT2, UUT3	D256
1050	Global Power Components	Fiberglass reinforced	One Size	UUT4	D256
1050R	Global Power Components	Polycarbonate	One Size	UUT4	D256

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Table 3

UUT Units Under Test Summary Sheet



Product Type: Fuel Day Tanks and Pump Stand Manufacturer: GLOBAL POWER COMPONENTS

Certified Product Construction:	Tested Configurations:	Tested Mounting Descriptions:
Welded ASTM A36 Carbon steel plates and ASTM A36 steel C & L sections	Tank Empty & Tank Full	UUTS are bolted down to test Fixture

UUT Properties

Model Number	UUT	Lowest Natural Frequency (Hz)			Dimensions (Inches)			Operating Weight (lb.)
		X	Y	Z	Length	Width	Height	
DT-50	UUT1	12.45	8.8	11.09	38	24	32	825
DT-250	UUT2	19.76	12.45	17.6	42	60	42	2974
DT-251	UUT3	19.76	8.8	11.09	42	60	42	3152
DT-1000	UUT4	17.6	27.94	17.6	58	120	54	10245
PS-2	UUT5	12.45	8.8	15.68	25	24.25	12.75	240

Seismic Test Parameters

Building Code	Sds (G)	z/h	Ip	Aflx-H (G)	Arig-H (G)	Aflx-V (G)	Arig-V
CBC 2019	2.5	0	1.5	2.5	1	1.6	0.68

UUT1 Subcomponent Table

Part ID	Manufacturer Part Number	Pump Manufacturer
4300	L175 Sensor	Innovative Solutions
1010F	TSP-ULS	Franklin Feuling Systems
1099-1	L500 Level Sensor	Innovative Solution
1099-2	L500 Level Sensor	Innovative Solution
1099-3	L500 Level Sensor	Innovative Solution
1099-4	L500 Level Sensor	Innovative Solution
1099-5	L500 Level Sensor	Innovative Solution
3152	0401-01-2000	Clay & Bailey MFG. Co.
3162	1002	Global Power Components
2 GPM	N61K10G01	Oberdorfer Pump
2 GPM	1/3 HP	Marathon, Dayton
1379	Fiberglass	Global Power Components

UUT2 Subcomponent Table

Part ID	Manufacturer Part Number	Pump Manufacturer
4300	L175 Sensor	Innovative Solutions
1010F	TSP-ULS	Franklin Feuling Systems
1099-1	L500 Level Sensor	Innovative Solution
1099-2	L500 Level Sensor	Innovative Solution
1099-3	L500 Level Sensor	Innovative Solution
1099-4	L500 Level Sensor	Innovative Solution
1099-5	L500 Level Sensor	Innovative Solution
700-1175	FR152	Fill-Rite
3152	0401-01-2000	Clay & Bailey MFG. Co.
3163	1003	Global Power Components
2 GPM	N61K10G01	Oberdorfer Pump
2 GPM	1/3 HP	Marathon, Dayton
1380	Fiberglass	Global Power Components
1060	Fiberglass	Global Power Components

UUT3 Subcomponent Table

Part ID	Manufacturer Part Number	Pump Manufacturer
4300	L175 Sensor	Innovative Solutions
1099-5	L500 Level Sensor	Innovative Solution
1010F	TSP-ULS	Franklin Feuling Systems
1099-1	L500 Level Sensor	Innovative Solution
1099-2	L500 Level Sensor	Innovative Solution
1099-3	L500 Level Sensor	Innovative Solution
1099-4	L500 Level Sensor	Innovative Solution
1099-5	L500 Level Sensor	Innovative Solution
3152	0401-01-2000	Clay & Bailey MFG. Co.
3163	1003	Global Power Components
700-1060	T-480	NIBCO
700-1050	s. 95 NPT	R.U.B.
2 GPM	N61K10G01	Oberdorfer Pump
16 GPM	N970	Oberdorfer Pump
2 GPM	1/3 HP	Marathon, Dayton
16 GPM	1 HP	Baldor, Dayton
1380	Fiberglass	Global Power Components
1060	Fiberglass	Global Power Components

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Table 3 Continued

UUT Units Under Test Summary Sheet



Product Type: Fuel Day Tanks and Pump Stand Manufacturer: GLOBAL POWER COMPONENTS

Certified Product Construction:	Tested Configurations:	Tested Mounting Descriptions:
Welded ASTM A36 Carbon steel plates and ASTM A36 steel C & L sections	Tank Empty & Tank Full	UUTS are bolted down to test Fixture

UUT Properties

Model Number	UUT	Lowest Natural Frequency (Hz)			Dimensions (Inches)			Operating Weight (lb.)
		X	Y	Z	Length	Width	Height	
DT-50	UUT1	12.45	8.8	11.09	38	24	32	825
DT-250	UUT2	19.76	12.45	17.6	42	60	42	2974
DT-251	UUT3	19.76	8.8	11.09	42	60	42	3152
DT-1000	UUT4	17.6	27.94	17.6	58	120	54	10245
PS-2	UUT5	12.45	8.8	15.68	25	24.25	12.75	240

Seismic Test Parameters

Building Code	Sds (G)	z/h	Ip	Aflx-H (G)	Arig-H (G)	Aflx-V (G)	Arig-V
CBC 2019	2.5	0	1.5	2.5	1	1.6	0.68

UUT4 Subcomponent Table

Part ID	Manufacturer Part Number	Pump Manufacturer
4300F	TSP-ULS	Franklin Fueling Systems
1000	L175	Innovative Solution
3165	1005	Global Power Components
3350	Type F Adapter Male NPT	Dixon
3351	Type DC Dust Cap	Dixon
2 GPM	N61K10G01	Oberdorfer Pump
16 GPM	N970	Oberdorfer Pump
2 GPM	1/3 HP	Marathon, Dayton
16 GPM	1 HP	Baldor, Dayton
1050	Fiberglass	Global Power Components
1050R	Fiberglass	Global Power Components

UUT5 Subcomponent Table

Part ID	Manufacturer Part Number	Pump Manufacturer
10 GPM	N994	N994
10 GPM	3/4 HP	3/4 HP

Table 3 Continued

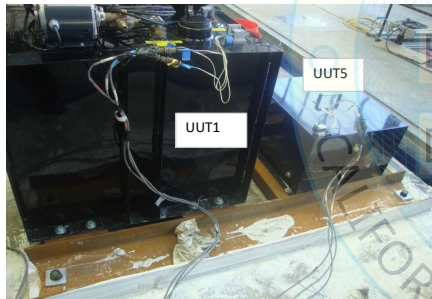
UUT Units Under Test Summary Sheet



Product Type: Fuel Day Tanks and Pump Stand		Manufacturer: GLOBAL POWER COMPONENTS
Certified Product Construction:	Tested Configurations:	Tested Mounting Descriptions:
Welded ASTM A36 Carbon steel plates and ASTM A36 steel C & L sections	Tank Empty & Tank Full	UUTS are bolted down to test Fixture



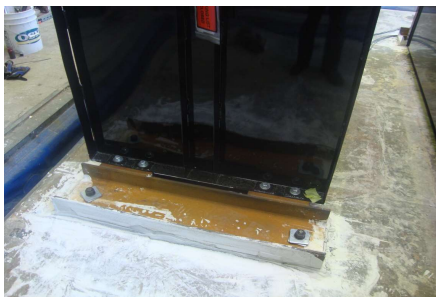
UUT1,UUT2,UUT3,UUT4 and UUT5 Test Layout



UUT1 & UUT5 Mounted to the Test Fixture by means of ASTM A325 Bolts (8) 3/4" and (4) 1/2" Diameter



UUT3 Mounted to the Test Fixture by means of (8) ASTM A325 Bolts 3/4" Diameter



UUT2 Mounted to the Test Fixture by means of (8) ASTM A325 Bolts 3/4" Diameter



UUT4 Mounted to the Test Fixture by means of (8) ASTM A325 Bolts 3/4" Diameter

Note: All units were tested empty and full of content, maintained structural stability and functionality after the test.

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