



# APPLICATION FOR PREAPPROVAL SPECIAL SEISMIC CERTIFICATION OF EQUIPMENT AND COMPONENTS

For Office Use Only

**APPLICATION NO.**

**OSP – 0066-10**

Check whether application is: NEW  RENEWAL

UP Systems, Inc.  
dba Chloride North America  
*Manufacturer*

Ken Brenner  
*Manufacturer's Technical Representative*

27944 N. Bradley Rd., Libertyville, IL 60048

1.0 *Mailing Address*

847-968-2101

Ken.Brenner@chloridepower.com

*Telephone*

*E-mail Address*

EDP70plus Model 80 Universal Power Supply configured for 80kVA, 65kVA, or 50kVA rating with either 480V-in/480V-out, or 480V-in/208V-out

Uninterruptible Power Supply

*Product Name*

*Product Type*

EP8080S44S

2.0 *Product model No (List all unique product identification numbers and/or serial numbers)*

*General Description:* EDP70plus Model 80 is a Uninterruptible Power Supply configurable to provide secure power solutions for requirements ranging from 50 to 80 kVA, 208 and 480 volts in and/or out. The unit tested included features specific for Seismic Qualification

3.0 **EQUIPMENTANCHORAGE.COM**

JONATHAN ROBERSON, S.E.

*Applicant Company Name*

*Applicant Company Name*

5877 Pine Ave, Suite 210, Chino Hills, CA. 91709

*Mailing Address*

(406) 541-EASE (3273)

(406) 541-EASE (3273)

*Telephone*

*Telephone*

I hereby agree to reimburse the Office of Statewide Health Planning and Development for the actual costs incurred by the department for review.

*Signature of Applicant*  
SENIOR ENGINEER

May 10, 2010

*Date*

**EQUIPMENTANCHORAGE.COM**



Registered Design Professional Preparing the Report

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|                                                  |  |                 |                           |
|--------------------------------------------------|--|-----------------|---------------------------|
| Jonathan Roberson, S.E.                          |  | Company Name    | S4197                     |
| 5877 Pine Ave, Suite 210, Chino Hills, CA. 91709 |  | Contact Name    | California License Number |
| 909-606-7622                                     |  | Mailing Address | jon@easeco.com            |
| Telephone                                        |  | E-mail Address  |                           |

California Licensed Structural Engineer Review and Acceptance of the Report

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|                                                  |  |                 |                           |
|--------------------------------------------------|--|-----------------|---------------------------|
| Jonathan Roberson, S.E.                          |  | Company Name    | S4197                     |
| 5877 Pine Ave, Suite 210, Chino Hills, CA. 91709 |  | Contact Name    | California License Number |
| 909-606-7622                                     |  | Mailing Address | jon@easeco.com            |
| Telephone                                        |  | E-mail Address  |                           |

Anchorage Pre-Approval

- 6.0  Anchorage is pre-approved under OPA- SEE ATTACHMENT 1  
(Separate application for anchorage pre-approval is required)
- Anchorage is not Pre-approved

Certification Method

70.  Testing in accordance with:  ICC-ES AC-156  Other (Please Specify):
- Analysis
- Experience data
- Combination of Testing, Analysis, and/or Experience Data (Please Specify):

Testing Laboratory (if applicable)

|                                            |                               |
|--------------------------------------------|-------------------------------|
| 8.0 Environmental Testing Laboratory, Inc. | Brady Richard, Vice President |
| 11034 Indian Trail, Dallas, TX 75229-3513  | Contact Name                  |
| 972-247-9657                               | brady@etldallas.com           |
| Telephone                                  | E-mail:                       |

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**Approval Parameters**

9.0 Design in accordance with ASCE 7-05 Chapter 13:  Yes  No

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

$S_{DS}$  (Spectral response acceleration at short period) = 2.00g

$a_p$  (In-structure equipment or component amplification factor) = 1

$R_p$  (Equipment or component response modification factor) = 2.5

$I_p$  (Importance factor) = 1.5

$z/h$  (Height factor ratio) = 1.0

Equipment or Component fundamental frequency(s) = 4.3 Hz (Front-Back) | 3.9 Hz (Side-Side) | 9.1 Hz (Vert.)

Building period limits (if any) = NO LIMIT

Overall dimensions and weight (or range thereof) = 35.4" W x 28.7" D x 63" H x 1800 lb. (Approx.)

Equipment or Components @ grade designed in accordance with ASCE 7-05 Chapter 15:  Yes  No

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

$S_{DS}$  (Spectral response acceleration at short period) =

$S_1$  (Spectral response acceleration at 1 second period) =

$R$  (Response modification coefficient) = 1.0

$\Omega_0$  (System overstrength factor) = 1.0

$C_d$  (Deflection amplification factor) = 1.0

$I_p$  (Importance factor) = 1.5

Height to Center of Gravity above base =

Equipment or Component fundamental period(s) = Sec

Overall dimensions and weight (or range thereof) =

Tank(s) designed in accordance with ASME BPVC, 2007:  Yes  No

**10.0 List of attachments supporting the special seismic certification of equipment or components:**

- Test Report
- Drawings
- Manufacturer's Catalog
- Calculations
- Others (Please Specify):

|                                                  |  |                                           |                    |
|--------------------------------------------------|--|-------------------------------------------|--------------------|
| <b>11.0 OSHPD Approval (For Office Use Only)</b> |  | 5/10/2010                                 | December 31, 2013  |
| <br>Signature & Date                             |  | Approval Expiration Date                  |                    |
| <b>Chris Tokas, SHFR</b>                         |  | $S_{DS}$ (g) = <b>2.0</b>                 | $z/h$ = <b>1.0</b> |
| Name & Title                                     |  | Special Seismic Certification Valid Up to |                    |
| Condition of Approval (if any):                  |  |                                           |                    |



| MODEL 80<br>EDP70plus UPS model 80       | 50 kVA                                                          |                     |               | 65 kVA                                                          |                     |               | 80 kVA                                                          |                     |               |
|------------------------------------------|-----------------------------------------------------------------|---------------------|---------------|-----------------------------------------------------------------|---------------------|---------------|-----------------------------------------------------------------|---------------------|---------------|
|                                          | 2x2                                                             | 4x2                 | 4x4           | 2x2                                                             | 4x2                 | 4x4           | 2x2                                                             | 4x2                 | 4x4           |
| Base unit part number                    | Plus80/50-2x2                                                   | Plus80/50-4x2       | Plus80/50-4x4 | Plus80/65-2x2                                                   | Plus80/65-4x2       | Plus80/65-4x4 | Plus80/80-2x2                                                   | Plus80/80-4x2       | Plus80/80-4x4 |
| Power rating @ 0.8 power factor (kVA/kW) | 50/40                                                           | 50/40               | 50/40         | 65/52                                                           | 65/52               | 65/52         | 80/64                                                           | 80/64               | 80/64         |
| Input voltage single input (VAC)         | 208                                                             | 480                 | 480           | 208                                                             | 480                 | 480           | 208                                                             | 480                 | 480           |
| Input voltage tolerance                  | ± 15%                                                           | ± 15%               | ± 15%         | ± 15%                                                           | ± 15%               | ± 15%         | ± 15%                                                           | ± 15%               | ± 15%         |
| Input frequency (Hz)                     | 60 Hz ± 5%                                                      | 60 Hz ± 5%          | 60 Hz ± 5%    | 60 Hz ± 5%                                                      | 60 Hz ± 5%          | 60 Hz ± 5%    | 60 Hz ± 5%                                                      | 60 Hz ± 5%          | 60 Hz ± 5%    |
| Input power factor                       | > 0.9 with filter                                               |                     |               | > 0.9 with filter                                               |                     |               | > 0.9 with filter                                               |                     |               |
| Input current (nominal/maximum) (A)      | 152/190                                                         | 65/81               | 65/81         | 198/248                                                         | 84/105              | 84/105        | 244/305                                                         | 103/129             | 103/129       |
| Input THDi                               | ≤ 10% with filter                                               |                     |               | ≤ 10% with filter                                               |                     |               | ≤ 10% with filter                                               |                     |               |
| Output voltage (VAC)                     | 208Y/120                                                        | 208Y/120            | 480Y/277      | 208Y/120                                                        | 208Y/120            | 480Y/277      | 208Y/120                                                        | 208Y/120            | 480Y/277      |
| Output voltage regulation                | ± 3%                                                            | 00% unbalanced load |               | ± 3%                                                            | 00% unbalanced load |               | ± 3%                                                            | 00% unbalanced load |               |
| Nominal output current (A)               | 139                                                             | 139                 | 60            | 180                                                             | 180                 | 78            | 222                                                             | 222                 | 96            |
| Voltage THD                              | < 3%, linear load<br>< 5% 100% non-linear load                  |                     |               | < 3%, linear load<br>< 5% 100% non-linear load                  |                     |               | < 3%, linear load<br>< 5% 100% non-linear load                  |                     |               |
| Output frequency (Hz)                    | 60 Hz ± 0.1%                                                    | 60 Hz ± 0.1%        | 60 Hz ± 0.1%  | 60 Hz ± 0.1%                                                    | 60 Hz ± 0.1%        | 60 Hz ± 0.1%  | 60 Hz ± 0.1%                                                    | 60 Hz ± 0.1%        | 60 Hz ± 0.1%  |
| System efficiency @ 100% load (%)        | 89                                                              | 91                  | 91            | 89                                                              | 91                  | 91            | 89                                                              | 91                  | 91            |
| Full load heat rejection (BTU/hr)        | 16,877                                                          | 13,506              | 13,506        | 21,944                                                          | 17,558              | 17,558        | 27,000                                                          | 21,609              | 21,609        |
| UPS dimensions HxWxD - in (cm)           | 63 x 35.1 x 28.7 (159 x 89 x 72)                                |                     |               | 63 x 35.1 x 28.7 (159 x 89 x 72)                                |                     |               | 63 x 35.1 x 28.7 (159 x 89 x 72)                                |                     |               |
| UPS net weight - lbs (kg)                | 2310 (1045)                                                     | 1800 (823)          | 1800 (823)    | 2310 (1045)                                                     | 1800 (823)          | 1800 (823)    | 2310 (1045)                                                     | 1800 (823)          | 1800 (823)    |
| UPS ship weight - lbs (kg)               | contact factory                                                 |                     |               | contact factory                                                 |                     |               | contact factory                                                 |                     |               |
| Inverter technology                      | IGBT PWM                                                        |                     |               | IGBT PWM                                                        |                     |               | IGBT PWM                                                        |                     |               |
| Overload capacity                        | 150 % for 1 min.; 125% for 10 min.                              |                     |               | 150 % for 1 min.; 125% for 10 min.                              |                     |               | 150 % for 1 min.; 125% for 10 min.                              |                     |               |
| Maximum acoustical                       | 52 dBA @ 3 feet                                                 |                     |               | 52 dBA @ 3 feet                                                 |                     |               | 52 dBA @ 3 feet                                                 |                     |               |
| Connectivity                             | RS-232 standard; SNMP/WEB optional;<br>LIFE.net free for 1 year |                     |               | RS-232 standard; SNMP/WEB optional;<br>LIFE.net free for 1 year |                     |               | RS-232 standard; SNMP/WEB optional;<br>LIFE.net free for 1 year |                     |               |
| Temperature                              | +18° F to +104°F (- 8°C to + 40°C)                              |                     |               | +18° F to +104°F (- 8°C to + 40°C)                              |                     |               | +18° F to +104°F (- 8°C to + 40°C)                              |                     |               |
| Relative humidity                        | 0-95% noncondensing                                             |                     |               | 0-95% noncondensing                                             |                     |               | 0-95% noncondensing                                             |                     |               |
| Altitude without derating - ft (M) ASL   | 5000 (1500)                                                     |                     |               | 5000 (1500)                                                     |                     |               | 5000 (1500)                                                     |                     |               |