CARBON REACTIVATION
How it makes cents!

For many years the low cost of carbon and the high cost of energy made reactivation less attractive than disposal. With carbon prices rising over 50% in the past couple of years reactivation has now become an economically sound option.

Here are just a few benefits to recycling your spent carbon:

COST SAVINGS:

**Reactivation:** Send your spent carbon back to our facility for regeneration, you save the disposal cost.

**Custom remanufacturing:** Send us your spent carbon for remanufacturing for your own reuse, you pay for the reactivation service.

The above programs require minimum quantities.

LEED CERTIFICATION:

Recycling your carbon by remanufacturing helps your clients with Leed Certifications by reducing the amount of waste they send to the landfill.

Now is the time to be environmentally and economically conscious. In many applications the use of remanufactured carbons will be as effective at molecular filtration as will a virgin carbon.

Please call or email at us to discuss setting up a reactivation program for your used carbons.
TO BE COMPLETED FOR EACH SHIPMENT OF SPENT HVAC CARBON

1. Customer Information:
   a. Company Name: _________________________________
   b. Company Address: _________________________________
   c. Representative’s Name: _________________________
   d. Representative’s Title: ________________________
   e. Telephone Number: ______________________________
   f. Fax Number: ___________________________________
   g. Anticipated Shipping Date: ________________________
   h. Purchase Order Number: _________________________

2. Spent Carbon Information:
   a. Quantity (by volume or weight): ________________
   b. Shipping container type: ________________________
   c. Number of shipping containers: _________________
   d. Number of Filters Spent Carbon Originated From: __________________________
   e. Number of Companies Generating Spent Carbon: __________________________
   f. Has the spent carbon been used in HVAC systems only? YES _____ NO______
   g. Has the spent carbon been used in air filters that are piped directly to any industrial or chemical process? YES _____ NO______
   h. Does the Spent carbon contain any chlorinated or toxic chemicals? YES _____ NO______
   i. Are there any known hazards associated with this spent carbon that CGL should consider in handling? YES _____NO______

3. Customer Certification

I hereby certify that to the best of my knowledge, all information submitted in this document is true and accurate and that all known or suspected chemical contaminants and potential hazards have been disclosed.

_________________________________   ______________ _________________
Signature       Title

_________________________________   ______________ _________________
Name (typed or printed)      Date
SPENT CARBON PROFILE FORM

A. Generator Information
1. Generating Facility:
2. Site Address:
   __________________________________________
   __________________________________________
   __________________________________________
   __________________________________________
   __________________________________________
Mailing Address:
   __________________________________________
   __________________________________________
   __________________________________________
   __________________________________________
3. EPA I.D. Number ________________________
   Is this a SUPERFUND site? YES________ NO____
4. Generator Technical Representative:
5. Phone No.: (_____)_______-_________ Title:______
   Fax No.: (_____)_______-_________
6. Generator Business Representative:
7. Phone No.: (_____)_______-_________ Fax No.: (_____)_______-_________

B. Cameron Great Lakes Distributor Information(if applicable)
1. Distributor Name:
2. Distributor Representative:
3. Phone No.: (_____)_______-_________ Fax No.: (_____)_______-_________
4. Who is Cameron Great Lakes to contact regarding this form?
   ( )A-4 above
   ( )B-2 above
   ( )Other Name:_______________________________________________________
   Company:____________________________________________________________
   Phone No.: (_____)_______-_________ Fax No.: (_____)_______-_________

REQUIRED: Ship Amt:_______________________Distributor PO#____________________

Generator Certification
I hereby certify that to the best of my knowledge, all information submitted in this and all attached documents is true and accurate, and that all know or suspected chemical contaminants and potential hazards have been disclosed.

Signature_________________________________________Date______________________________

Name (type or print)_________________________Title (type or print)______________________
C. **Spent Carbon Identification**

1. Describe the carbon treatment system and detail the source of, or process which created the contaminants that are on this carbon (examples; system filtering gasoline leaking underground storage tank, wastewater treatment for spent solvent used for degreasing printed circuit boards, ground water cleanup of spilled chemical from drum storage area, air filtration of office building, waste water treatment from a municipal sewage plant, etc.):

____________________________________________________________________________________
____________________________________________________________________________________
____________________________________________________________________________________
____________________________________________________________________________________
____________________________________________________________________________________

2. Treatment System:
   a. Total Carbon by volume or weight:_______________________________________
   b. No. of Filters:________
   c. Flow Rate:________( )GPM( )CFM
d. Service Duration between carbon changeouts:
   Number of Months
   Days used per month
   Hours used per day
e. Anticipated Spent Carbon Quantity Generated:
   Volume or Pounds (dry) per ____________(wk, mo, yr)

3. Type of Carbon: a. U.S. Mesh Size:__________________________
   b. Liquid or Vapor:__________________________

4. Shipping Container Type:_____________________________________________________

5. Spent Carbon Color:_________________________________________________________

6. Foreign Material Present (rocks, dirt, etc.)  ( )YES  ( )NO
   If yes, describe:_____________________________________________________________

7. A chemical analysis of the influent stream or spent carbon must be provided. Please attach. Please list organic contaminants and concentrations in ( ) Influent Stream, or ( )on spent carbon below.

<table>
<thead>
<tr>
<th>Chemical Component</th>
<th>Concentration(ppm/ppb)</th>
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<tbody>
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</tbody>
</table>

8. Does the Influent Stream ( ) or Spent Carbon ( ) Contain:
   Metals ______YES____NO  PCB’s ______YES____NO
   Radioactives ______YES____NO  Dioxins ______YES____NO
   If any item above is “yes” attach analysis and describe:
D. **Spent Carbon Hazardous Characterization**
Questions 1a, 2a, & 3, must be answered. If the answer to part (a) is “no” you need not complete the rest of that particular question.

1A. Is the spent carbon a Hazardous Waste as defined by U.S. EPA regulations under the Resource Conservation and Recovery Act (RCRA) as set forth in 40 CFR, Part 261?
   ______YES_______NO

1B. If “yes”, list U.S. EPA Hazardous Waste Code(s):
   _______________ ___________________ _______________ _______________

2A. Is the spent carbon a Hazardous Waste as defined by your State’s regulations?
   ______YES_______NO

2B. If “yes”, list Generator State’s waste code(s):
   _______________ ___________________ _______________ _______________

3. Generator’s State Agency Information:
   Agency Name:________________________________________________________________
   Agency Address:________________________________________________________________
   ____________________________________________________________

E. **Spent Carbon Handling Instructions**

1. Required personal protection equipment or special handling instructions?
   _____________________________________________________________________________

2. Do you have MSDS(s) for all contaminants in influent stream or on spent carbon?
   ______YES_______NO  Please attach to original copy of this form.

Call “Profile Form Assistance” at **800-777-4044** with any questions.

Mail Signed Original to:
Cameron Great Lakes
2335 NW 29TH Ave.
Portland, OR 97210

This form and lab analyses (without MSDS’s) may be faxed to 
503-225-0137
to expedite the approval process.
<table>
<thead>
<tr>
<th>Media Analysis Report</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Client</strong></td>
</tr>
<tr>
<td><strong>Installation Date</strong></td>
</tr>
<tr>
<td><strong>Sample ID</strong></td>
</tr>
<tr>
<td><strong>Butane Activity</strong></td>
</tr>
<tr>
<td>CTC number - calculated</td>
</tr>
<tr>
<td><strong>% Life Remaining</strong></td>
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<tr>
<td><strong>pH</strong></td>
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<tr>
<td><strong>% Life Remaining</strong></td>
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<tr>
<td><strong>KMnO₄ %</strong></td>
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<tr>
<td><strong>% Life Remaining</strong></td>
</tr>
<tr>
<td><strong>Life remaining, months (1)</strong></td>
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<tr>
<td><strong>Re test recommended</strong></td>
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</tbody>
</table>

Carbon is considered spent when CTC is 15, change out is recommended at 25.
Cl carbon is considered spent @ 7.5 in critical applications 8.5.
PA carbon is considered spent @ 6.5, in critical applications 5.0.
Permanganate is considered spent @ 1.2, change out is recommended at 1.6.
In the case of a blended media the remaining service time is calculated based
on the lowest percentage of life remaining between the two media.
Note (1) Calculated only when installation date is provided:

<table>
<thead>
<tr>
<th>Permanganate % by wt.</th>
<th>2.2 to 6.0</th>
<th>2.2 to 1.6</th>
<th>1.6 to 1.2</th>
<th>1.2 to 0.0</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Safe</td>
<td>Boderline</td>
<td>Change</td>
<td>Change Immediately</td>
</tr>
</tbody>
</table>