American Excelsior Company®
AN EMPLOYEE OWNED COMPANY

American Excelsior Company's Gulf Oil Clean Up Efforts, Activities, and Proposed Solutions

June 2010

Table of Contents

List of Figures

American Excelsior Company®
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Information and Contact Sheet

Corporate Offices: American Excelsior Company
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Arlington, TX 76011
(800) 777-7645

Wood Operations: American Excelsior Company
831 Pioneer Ave.
PO Box 391
Rice Lake, WI 54868

Other Locations: Norwalk, OH
Lombard, IL
Sheboygan, WI
Yakima, WA
Florence, AL
Arlington, TX
Atlanta, GA

Primary Contacts: Terry Sadowski – President/CFO
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tsadowski@americanexcelsior.com

Ken Starrett – Vice President Sales and Marketing
(682) 465-6878
kstarrett@americanexcelsior.com

Kurt Kelsey – Director of Technical Resources
kkelsey@americanexcelsior.com
(715) 236-5643

Employees: 315 Total Company (175 in Wisconsin)

Type of Company: Employee Owned

Business Start: 1888

Company Websites: www.AmericanExcelsior.com
www.curlex.com

White Paper Submitted to FedBizOpps

Research Opportunity Number: Broad Agency Announcement (BAA) HSCG32-10-R-R00019

Program Name: Interagency Alternative Technology Assessment Program (IATAP)

BAA Technology Gap: 3. Traditional Oil Spill Response Technologies

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June 16, 2010

American Excelsior Company was founded in 1888 and corporate headquarters is located in Arlington, TX. American Excelsior employees 315 people across eight nationwide locations. All of American Excelsior's natural Great Lakes Aspen excelsior wood fiber products are environmentally friendly, contain no additives or chemicals, and are manufactured in Rice Lake, WI. The Rice Lake plant is 120,000 ft^2, employees 130 full time associates, and can manufacture 23 miles of the proposed beach protection solution (16' wide) per day.

Curlex® is American Excelsior's brand name for its excelsior fibers. Curlex is thin, curled, and barbed biodegradable strands of wood. These fibers form a unique interlocking matrix, which provides beneficial properties that aid in removing and trapping petroleum based products. Curlex can be used to remove oil directly from water or the product can be used to cover beaches for landfall applications. Curlex is readily available in rolled "blanket" form, encased in tubular netting, or as bulk fiber in bale form.

Based on the U.S. EPA's review of Curlex (June 1, 2010), the product meets the definition of a "sorbent" as specified in Title 40 of the Code of Federal Regulations (CFR), sections 300.5 and 300.915(g) of the National Contingency Plan (NCP). Based on EPA's review, Curlex is not required to be listed on the NCP Product Schedule. American Excelsior hereby certifies that: Curlex is a sorbent material and consists solely of the materials listed in section 300.915(g)(1) of the NCP.

American Excelsior has shown through multiple demonstrations that Curlex fibers are effective at absorbing and trapping petroleum based products. Demonstrations include removing oil directly from water using Curlex fibers and simulating the proposed shoreline installation in a wave simulator. These effective demonstrations have been shown in person to U.S. Senator Russ Feingold, Wisconsin State Representative Mary Hubler, and various media outlets. Videos of these demonstrations have been shown on Fox News' Sean Hannity Show (June 11, 2010) and Fox News' On the Record with Greta Van Susteren Show (June 11, 2010), WQOW News (ABC affiliate on June 15, 2010), and over the Internet via YouTube at the following links: **http://www.youtube.com/watch?v=3YjZF_5Pn1Y** and **http://www.youtube.com/watch?v=HON1B3I-F2c**

We propose one oil spill response solution for protecting shoreline landfall locations and one solution for inland wetland areas that have already been contaminated by crude oil. Both solutions address "BAA Technology Gap: 3. Traditional Oil Spill Response Technologies."

Utilizing Curlex fibers stitched to netting in rolled blanket form in conjunction with Curlex fibers encased in tubular nettings is effective in oil mitigation efforts. The blankets (available in 8' or 16' widths by 300' long) would be rolled out either mechanically or by hand to a minimum application width of 16' starting at the high tide high water mark along the length of the shoreline to be protected, and then anchored. Following the installation of the rolled products, Curlex fibers encased in tubular netting (available in nominal diameters ranging from 6" to 20" and various lengths) would be installed and anchored in two rows along the same length (see Fig. 1).

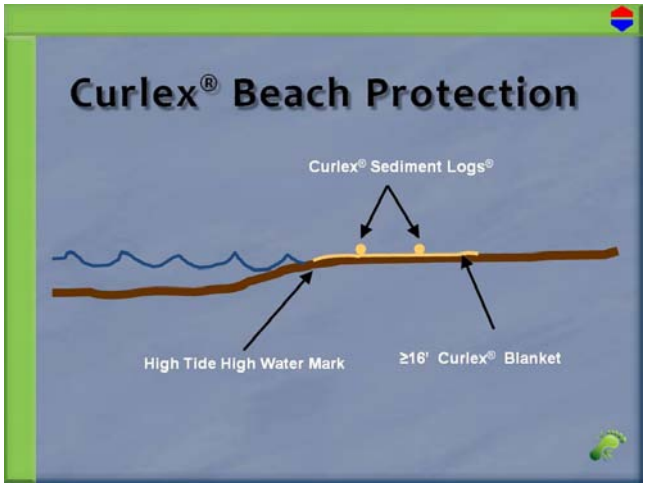

Figure 1. Proposed Curlex beach protection for oil spill response.

The natural wave action, at high tide, would carry the crude oil onto the rolled Curlex products and through the Curlex fibers encased in tubular netting, thus absorbing and trapping the contaminant within and on top of the excelsior shoreline system. Crude oil will continue to be absorbed and trapped by the system with the natural back and forth wave action. The system would be removed and disposed of according to EPA guidelines after use.

Curlex fibers are also available in compressed bale form, individual pads encased in netting, and rolls of pads encased in netting for use in inland wetland areas that have already been contaminated by crude oil. The materials would be applied to the contaminated "pools" then removed and disposed of according to EPA guidelines.

These products would be successful in the oil spill response efforts. They contain Curlex fibers in usable forms that facilitate installation and removal and are effective at absorbing and trapping petroleum based products.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

JUN 01 2010

OFFICE OF
SOLID WASTE AND
EMERGENCY RESPONSE

Mr. Kurt Kelsey, M.S., CPESC, CPSWQ
Director of Technical Services
American Excelsior Company
831 Pioneer Avenue
Rice Lake, WI 54868

Dear Mr. Kelsey:

We have received and reviewed the information you submitted on your company's sorbent "Curlex®." Our review indicates that this product meets the definition of a "sorbent" as specified in Title 40 of the Code of Federal Regulations (CFR), sections 300.5 and 300.915(g) of the National Contingency Plan (NCP). Based on this review, "Curlex®" is not required to be listed on the NCP Product Schedule. Please note the product clarifications listed below.

So that you may be prepared to provide On-Scene Coordinators with a certification as referenced in section 300.915(g)(4) of the NCP, the following statement should be reproduced, dated, and signed on your corporate letterhead:

> [SORBENT NAME] is a sorbent material and consists solely of the materials listed in section 300.915(g)(1) of the NCP.

It is recommended that your product is not left in situ. It should be collected and disposed of after use. Enclosed for your review is a copy of section 300.915(g) from the NCP. If you any have questions, please contact me at the Office of Emergency Management at (202) 564-1974.

Sincerely,

Leigh E. DeHaven

Leigh E. DeHaven
NCP Product Schedule Manager
U.S. Environmental Protection Agency
Office of Emergency Management (OEM)
Regulation and Policy Development Division
1200 Pennsylvania Ave., NW (5104A)
Room: 6450EE
Washington, DC 20460

American Excelsior Company®
AN EMPLOYEE OWNED COMPANY

June 1, 2010

Subject: Certification of Curlex® as a Sorbent Material

Dear On-Scene Coordinator,

Based on the United States Environmental Protection Agency's (EPA's) review of Curlex, the product meets the definition of a "sorbent" as specified in Title 40 of the Code of Federal Regulations (CFR), sections 300.5 and 300.915(g) of the National Contingency Plan (NCP). Based on EPA's review, Curlex is not required to be listed on the NCP Product Schedule.

I hereby certify that: **Curlex® is a sorbent material and consists solely of the materials listed in section 300.915(g)(1) of the NCP.**

Curlex can be used to remove oil directly from water or the product can be used to cover beaches for landfall applications. Curlex is available in rolled "blanket" form in a variety of sizes, encased in tubular netting in nominal diameters ranging from 6" to 20", or as bulk fiber in bale form.

It is recommended that Curlex is not left in situ. It should be collected and properly disposed of after use.

Regards,

Kurt Kelsey, M.S., CPESC, CPSWQ
Director of Technical Services
American Excelsior Company
Direct Line: (715)-236-5643
kkelsey@erosionlab.com

Curlex Fibers Removing Oil from Water

Figure 2. Clean water before adding oil.

Figure 3. Oil added to water.

Figure 4. Turning Curlex over.

Figure 5. Clear water after removing Curlex.

Link to YouTube video of demonstration:

http://www.youtube.com/watch?v=3YjZF_5Pn1Y

Curlex Fibers Removing Oil from Water Using a Wave Simulator

Figure 6. Oil added to Wave Simulator.

Figure 7. Contaminated water at first Curlex Log.

Figure 8. Water at second Curlex Log.

Figure 9. Water after initial wave through simulator.

Link to YouTube video of demonstration:

http://www.youtube.com/watch?v=HON1B3I-F2c

Readily Available Curlex Product Configurations

(Oil spill response solution for protecting shoreline landfall locations)

Figure 10. Curlex blankets (16’ wide of Curlex fibers stitched between two layers of netting shown) with Curlex Sediment Logs (Curlex fibers encased in tubular netting) on top. Note in the upper left of the photo a “roll” of Curlex. Photo taken at ErosionLab®, which is owned and operated by American Excelsior Company. ErosionLab is the largest privately owned testing laboratory of its type.

Curlex blankets can be unrolled by hand or with the aid of equipment in the form of longer Curlex RoadRunner™ rolls to expedite installation.

Figure 11. Truckload of Curlex RoadRunners.

Figure 12. Mechanical installation of Curlex RoadRunner.

Link to YouTube video of Curlex RoadRunner Installation:

http://www.youtube.com/watch?v=wBFjo9h_FFM

(Oil spill solution for inland wetland areas that have already been contaminated by crude oil)

Figure 13. Bulk excelsior in bale form (75 lb bale shown).

Figure 14. Pad with Curlex fibers between two layers of netting.

Figure 15. Pad in rolled form.

American Excelsior Company's Rice Lake, WI Plant

Figure 16. Aerial view of largest excelsior mill in the U.S.

Figure 17. View from Pioneer Avenue.

Figure 18. Wood storage yard.

Figure 19. Stock trailers.

Figure 20. Curlex blankets in warehouse.

Figure 21. Curlex Sediment Logs in warehouse.