

State of Wisconsin  
DEPARTMENT OF NATURAL RESOURCES  
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February 7, 2013

DEBRA BAC  
REGIONAL MANAGER  
CETCO DRILLING PRODUCTS  
2870 FORBS AVENUE  
HOFFMAN ESTATES IL 60192

Subject: Approval for use of **SHORE PAC®**

Dear Ms. Bac:

Our Department of Natural Resources Bureau of Drinking Water and Groundwater has received and reviewed your application for approval for the use of **SHORE PAC®** polymer drilling fluid additive for use in drilled shafts, reverse rotary drilling and horizontal directional drilling. The literature you provided with your application indicates **SHORE PAC®** is a granular polymer viscosifying agent designed for the preparation of viscous earth-reinforcing fluids or slurries for a variety of drilling, trenching and walling applications in the geo-construction industries.

As explained in a previous correspondence to you, our State Well Construction and Pump Installation Code (Wisconsin Administrative Code, Chapter NR 812) does **not** require NSF Standard 60 Certification for drilling, rehabilitation and grouting products, nor does having NSF Certification for a product ensure approval for use for private systems in Wisconsin. Approval of these types of products is based on – but not limited to – possible toxicity, groundwater contamination potential and the expected effectiveness of the product.

Based on our review of the material safety data sheets and the product constituents, we have determined that **SHORE PAC®**, when appropriately used as a drilling fluid additive and adequately flushed from the a well or boring, will not pose a significant risk to health nor to the groundwater or the aquifers of Wisconsin.

Therefore, in conformance with ch. NR 812.09(1) and NR 812.11(2)(g), approval for **SHORE PAC®** is hereby granted for use as a drilling fluid additive for the construction of private water supplies and boreholes in Wisconsin, but subject to the following conditions:

1. That you understand that this product may be used as an additive in bentonite drilling mud, but that it may **not** be used as a replacement for drilling mud for rotary-mud circulation drilling methods as required by Wisconsin's State Private Well Construction Code (NR 812). Further, this product may be used as a drilling fluid additive for those drilling conditions where air or air/foam drilling methods are allowed by NR 812.
2. That your firm provides – with this **SHORE PAC®** product – written material containing appropriate use, instructions and precautions.

3. That you understand that because this product contains Polyacrylamides and questions remain regarding potential health risks from exposure to Polyacrylamides, this approval may be subject to review if future research shows a link between Polyacrylamides and adverse health affects.
4. That if your firm makes any change(s) to the composition of **SHORE PAC®**, such change shall be reported to this Department as soon as possible. Any such compositional change will require written approval from this Department prior to the continued use of this product in Wisconsin.

As authorized by Ken Johnson, Administrator, Water Division.

#### NOTICE OF APPEAL RIGHTS

If you believe that you have a right to challenge this decision, you should know that the Wisconsin statutes and administrative rules establish time periods within which requests to review Department decisions must be filed. For judicial review of a decision pursuant to sections 227.52 and 227.53, Wis. Stats., you have 30 days after the decision is mailed, or otherwise served by the Department, to file your petition with the appropriate circuit court and serve the petition on the Department. Such a petition for judicial review must name the Department of Natural Resources as the respondent.

To request a contested case hearing pursuant to section 227.42, Wis. Stats., you have 30 days after the decision is mailed, or otherwise served by the Department, to serve a petition for hearing on the Secretary of the Department of Natural Resources. All requests for contested case hearings must be made in accordance with section NR 2.05(5), Wis. Adm. Code, and served on the Secretary in accordance with section NR 2.03, Wis. Adm. Code. The filing of a request for a contested case hearing does not extend the 30 day period for filing a petition for judicial review.

Sincerely,



Steve Ales, P.G.  
Private Water Section Chief  
Bureau of Drinking Water and Groundwater

c: Mary Ellen Vollbrecht – DG/5  
Lee Boushon – DG/5  
Private Water Program Personnel

## TECHNICAL DATA

# SHORE PAC®

## VISCOUS SOIL STABILIZING POLYMER

### DESCRIPTION

SHORE PAC is an easy mixing, water soluble, polymer supplied as a granular powder. SHORE PAC is designed for preparation of viscous earth-reinforcing fluids or slurries for a variety of drilling, trenching, and walling applications in the geo-construction industry.

### RECOMMENDED USE

SHORE PAC is ideal for slurry trenching, diaphragm walls, drilled shafts/bored piles, and tunneling.

### CHARACTERISTICS

- ▶ Can be mixed directly in the borehole or excavation
- ▶ Stabilizes borehole while excavating; improves skin friction
- ▶ Non-gelling, even at high viscosities, facilitating settlement of fines, and maintenance of a clean fluid
- ▶ High cohesiveness to bind excavated soil and gravel
- ▶ Improves loading and removal of spoils
- ▶ Works well in both fresh and saltwater

### MIXING AND APPLICATIONS

SHORE PAC should be mixed by sifting carefully into a stream of water directed into the excavation or an agitator mix tank. Fanning the water stream over a sloping pan or across the blade of an auger facilitates lump-free mixing. If mixed directly in excavation, the tool should be reciprocated gently after product is added to distribute and homogenize the polymer. Make-up water should have a pH of 8-10; add 6 lbs SODA ASH per 1,000 gallons water.

### PACKAGING:

36 lb pails - 36 per pallet, 6-7.5 lb jugs - 45 lb case, 55 lb bags. - 36 per pallet, or 55 lb boxes - 36 per pallet



FORMATION	SHORE PAC DOSAGE RATE*		MARSH FUNNEL VISCOSITY
	Lbs/1,000 gal	Kg/m <sup>3</sup>	
Clay & Shale	3.4 - 4.0	0.4 - 0.5	35 - 50
Silt & Fine to Medium Sand	4.0 - 5.0	0.5 - 0.6	45 - 55
Coarse Sand to Pea Gravel	6.0 - 8.0	0.7 - 0.9	60 - 75
Gravel to Cobbles	9.0 - 12.0	1.0 - 1.3	80-125

\* In application where brackish, salt, or seawater contaminates slurry or is used as make-up water, SHORE PAC dosage should be increased

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IMPORTANT: The information contained herein supersedes all previous versions, and is believed to be accurate and reliable. For the most up-to-date information, please visit [cetco.com/dpg](http://cetco.com/dpg). CETCO accepts no responsibility for the results obtained through the application of this information. All weights are approximate. CETCO reserves the right to update information without notice. REV 8/12

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