

February 18, 2015

United States Coast Guard  
Sector – Ohio Valley  
600 Martin Luther King Jr. Place  
Louisville, Kentucky 40202

ATTN: Captain Richard Timme

SUBJ: Request for Investigative Action: GreenHunter LLC

Dear Captain Timme:

We are a coalition of grassroots and nongovernmental organizations which have long and actively opposed the allowance of barge shipments of oil and gas drilling wastes from hydraulic fracturing (fracking) - what the Coast Guard calls "shale gas extraction wastewater," or SGEWW - on inland waterways.

We filed comments in the Coast Guard rulemaking as directed, via Regulation.gov, and our members include persons imminently threatened with environmental and health hazards by the content of "SGEWW" which may leak or be volatilized or burned if barge shipment is permitted in your district. We are copying US EPA Region IV in Atlanta which has jurisdiction over the Ohio River. Emergency remediation and incident command control measures by the USCG and US EPA would be needed if this SGEWW is allowed to be shipped. No public notice has been given to first responders along the banks of the river that SGEWW shipments would be allowed to commence in order for first responders to be given the requisite training and response equipment to deal with the probable consequences of SGEWW release or ignition.

It is with growing concern that we have witnessed the unfolding controversy in the past three weeks, in which GreenHunter LLC has insisted during investor presentations that the firm has received Coast Guard permission to ship oil and gas drilling wastes via barge on the Ohio and Mississippi river systems. GreenHunter, which has been pursuing permission to ship fracking wastes for more than two years, has departed from its original scheme to add those wastes to the Coast Guard list of legal cargoes, and now insists that Captain Richard Timme has authorized "oilfield wastes" to be river-transported under the terms of Navigation and Inspection Circular 7-87. As you know, Dr. Cynthia Znati of the USCG HQ has publicly denied that SGEWW is a permitted cargo for Ohio River barge shipment, in part, because of the 70,000 comments received that must be reviewed, some that include evidence of the radioactivity in the sludge components which pose risks greater than that of classical "oilfield waste."

We're gratified that Dr. Znati's response to our concerns and news media questions, correctly communicated the meaning of Captain Timme's correspondence with GreenHunter, and that the agency is still deliberating the question of whether USCG would permit SGEWW to be shipped.

We were therefore surprised when GreenHunter LLC defied the USCG authority over SGEWW shipments by publicly stating its intention to ship these mixed radioactive and toxic chemical sludge wastes.

On February 6, 2015, Kirk Trosclair, COO of GreenHunter, told the Wheeling Intelligencer that, "GreenHunter Water will continue to transport 'oilfield waste' until such time as the Coast Guard ultimately decides on the proper definition of 'shale gas extraction waste water' and the rules under which such waste water can be transported. Once these rules are finalized, GreenHunter will comply with these rules and regulations."

(<http://www.theintelligencer.net/page/content.detail/id/624568/Radiation-Concerns-Coast-Guard.html>).

We read Trosclair's statement that GreenHunter "will continue to transport" to mean that the company is actively shipping drilling wastes now, with impunity and without legal authority. Regulation does not turn on semantic differences, but instead, on physical evidence. In the instance of transporting radioactivity-laced industrial toxins on public waterways, the lack of evidence of the true nature of GreenHunter's cargoes is of grave concern. Therefore, we ask that the Coast Guard Criminal Investigative Service be asked to examine the contents of the current shipments and the dockside tanks owned by GreenHunter. If these contain SGEWW as we believe they do, we ask the CGCIS to initiate an enforcement penalty proceeding or criminal information proceeding in consultation with the Office of the United States Attorney for the Southern District of Ohio.

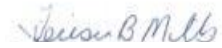
The Ohio and Mississippi rivers are a source of drinking water for millions of people. A January 2015 Pennsylvania Department of Environmental Protection study of the fracking waste stream in Pennsylvania showed that inadequate traceability and public protections are in place to handle the at-times highly-radioactive fracking emissions and wastes. That study, found at [http://www.portal.state.pa.us/portal/server.pt/community/oil\\_gas\\_related\\_topics/20349/radiation\\_protection/986697](http://www.portal.state.pa.us/portal/server.pt/community/oil_gas_related_topics/20349/radiation_protection/986697), has prompted reconsideration of Pennsylvania's weak regulations. Among other findings, fracking waste liquids (SGEWW) contained levels of radioactivity in excess of 26,600 pCi/L.1 (Copy of pages excerpted from study enclosed). The federal drinking water standard is 5 pCi/L. Leakage of GreenHunter cargoes into river waters in the present circumstances, where the company insists it need not test or characterize its "oilfield wastes" could be catastrophic, and at a minimum, could pose continuing environmental and health hazards which would stress public water supplies and various forms of wildlife.

For these reasons, we urgently request that the Coast Guard act immediately to initiate a criminal investigation of operations associated with GreenHunter LLC. Pending discovery of the contents of any barges and storage tanks, including records of contents of any barge shipments, to issue an immediate cease and desist order to GreenHunter to halt any shipments of "oilfield wastes" regardless of the origins claimed by GreenHunter LLC.

Given GreenHunter's impunity in asserting that they will not follow the USCG HQ Hazardous Materials Branch Directive, an immediate cease and desist order should accompany the USCG CGCIS to visit to this shipper's site and its barges to take evidence of the SGEWW movement that would be admissible in the courts.

Please respond immediately respecting the Coast Guard's planned response to GreenHunter's defiance of the USCG authority over SGEWW in current and past barge shipments.

Thanking you in advance,



Teresa Mills  
2319 Parkridge Court  
Grove City, OH 43123

On behalf of the signatories that are provided on the following page.

cc:

RADM Kevin Cook, Commander,  
Eighth Coast Guard District, Hale Boggs Federal Building,  
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New Orleans, LA 70130

Office of Investigation, Coast Guard Criminal Investigative Service  
245 Murray Dr. - Bldg. 410 Stop 2600,  
Washington, DC 20528

James Giattina, US EPA Region IV,  
61 Forsyth St.  
Atlanta, GA 30303

Dr. Cynthia Znati  
U.S. Department of Transportation  
West Building, Ground Floor  
1200 New Jersey Ave SE  
Washington , DC 20590-0001

## Signatories

Concerned Citizens Ohio/Shalersville  
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Southeast Ohio Alliance to Save Our Water  
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Concerned Citizens of Medina County  
Kathie Jones  
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CCLT/Uniontown IEL Superfund Site& Stark  
County Concerned Citizens,  
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Guernsey County Citizens Support on Drilling  
Issues  
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Morrow County Power  
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Radioactive Waste Alert  
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Defenders of the Earth Outreach Mission  
Rev. Monica Beasley-Martin  
Youngstown, OH

Southeastern Ohio Fracking Interest Group  
Betsy Cook  
Lowell, OH Washington County

West Virginia Sierra Club  
Jim Sconyers  
Co-Chair, Marcellus Campaign  
West Virginia

Center for Health, Environment and Justice  
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Teresa Mills  
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Ohio Alliance for People and Environment  
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Buckeye Forest Council  
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Southwest Ohio No Frack Forum  
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Athens County Fracking Action Network  
Roxanne Groff, steering committee member  
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Licking County Concerned Citizens for Public  
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Licking County, OH

Jefferson County Ohio Citizens for  
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Cumberland Chapter Sierra Club  
Judy Lyons, Chair  
Lexington, KY

Frackfree America National Coalition  
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FaCT - Faith Communities Together  
Ron Prosek, Convener  
Ohio

Frackfree Mahoning Valley  
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Guardians of Mill Creek Park  
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Clean Water Action Pennsylvania  
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We Are Not Expendable  
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Ohio Valley Environmental Coalition  
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Communities United for Responsible Energy  
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Concerned Barnesville Area Residents  
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Northwest Ohio Alliance to Stop Fracking  
Leslie Harper

Wheeling Water Warriors  
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Wheeling, WV

Friends of Bell Smith Springs  
Sam Stearns  
Stonefort, IL

Food & Water Watch  
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Cincinnati, OH

People for Safe Water  
Marilyn Welker  
Springfield, OH

**TECHNOLOGICALLY ENHANCED  
NATURALLY OCCURRING  
RADIOACTIVE MATERIALS (TENORM)  
STUDY REPORT**

**Rev. 0**

**January 2015**

*Prepared for:*



**Pennsylvania Department of Environmental Protection  
Rachel Carson State Office Building  
400 Market Street  
Harrisburg, PA 17101**

*Prepared by:*



**Perma-Fix Environmental Services, Inc.  
325 Beaver Street, Suite 3  
Beaver, PA 15009**

*However, there is a potential for radiological environmental impacts from spills of produced water from unconventional natural gas well sites and from spills that could occur from the transportation and delivery of this fluid.*

Radium-226 concentrations were detected in produced water samples ranging from 40.5 – 26,600 pCi/L. Radium-228 concentrations were also detected ranging from 26.0 – 1,900 pCi/L. The Ra-226 activity in unconventional well site produced water is approximately 20 times greater than that observed in conventional well site produced water. The ratio of Ra-226 to Ra-228 in unconventional well site produced water is approximately eight times greater than that found in conventional well site produced water. (Sections 3.3.4 and 3.6.3)

- *There were no statistically significant differences observed between filtered and unfiltered liquid sample analytical results.*

Because the liquid samples were preserved by addition of acid prior to filtering, the radioactive particulates may have entered solution and were therefore not removed by filtering. (Section 3.6.2)

- *The Rn concentrations in natural gas sampled at Pennsylvania well sites during this study are consistent with the Rn concentrations in natural gas reported by the U.S. Geological Survey (USGS) for Pennsylvania, which range from 1 to 79 pCi/L with an overall median of 37 pCi/L.*

The Rn in natural gas measured ranged from 3.0 to 147.5 pCi/L, with a median Rn concentration of 40.8 pCi/L. (Section 3.4.2)

- *There is little potential for additional Rn exposure to workers and members of the public on or near natural gas well sites.*

The Rn concentrations in ambient air sampled at well sites during this study are consistent with the typical ambient background Rn concentrations of 0.2 to 0.7 pCi/L. (Section 3.4.1)

## 9.1.2 Wastewater Treatment Plants (Section 4.0)

### 9.1.2.1 Publicly Owned Treatment Works

- *There is little potential for internal radiation exposure to workers and members of the public from  $\alpha$  and  $\beta$  surface radioactivity at POTWs.*

Nine of the 566  $\alpha$  measurements and 68 of the 566  $\beta$  measurements of total surface radioactivity exceeded the RG 1.86 criteria. One of the 286 removable  $\alpha$  measurements and none of the 286 removable  $\beta$  measurements exceeded the RG 1.86 criteria. Fixed or removable  $\alpha$  and  $\beta$  surface radioactivity may present a potential inhalation or ingestion hazard if disturbed in the future. (Section 4.1.6.2)