



RHODE ISLAND MARINE TRADES ASSOCIATION
99 POPPASQUASH ROAD
BRISTOL, RI 02809
(401) 396-9619
WWW.RIMTA.ORG

Rhode Island Fiberglass Vessel Recycling (RIFVR) Pilot Project

THE CHALLENGE: Every year in the United States an increasing number of recreational fiberglass boats reach their end of life without a sustainable option for disposal. Some will be crushed and buried in landfills, where they will persist for many years, while others may become abandoned and derelict on land or in coastal areas where they can potentially harm the natural ecosystem.

Between 2003 and 2019, an estimated 3 million recreational craft were retired in the United States. This rate of accumulation is not expected to slow down, as many first generation fiberglass boats (launched 1970s-90s) have begun to reach their end-of-life status.

The growing 'legacy fleet' presents a series of interconnected environmental and economic challenges to boat owners, state governments, and the national marine trades industry.

THE PROJECT: Following research conducted by Rhode Island Sea Grant in 2016, RIMTA and Sea Grant proactively investigated cement kiln co-processing and its ability to utilize fiberglass boat hull material as an alternative resource in the production of new cement products. This use also has the potential to reduce gases that contribute to climate change. Based on experience in the European Union, the Rhode Island Fiberglass Vessel Recycling (RIFVR) Pilot Project was established and organized a network of partners. In the spring of 2019, the Pilot began deliveries of fiberglass boat hull "recyclate" collected in Rhode Island to cement industry collaborators. These efforts served as the basis for a large-scale trial that verified:

- ❖ The capability of local marine industry and waste management sector partners to collect, sort and prepare materials in an efficient and economical manner
- ❖ The applicability of the resulting fiberglass boat hull "recyclate" as an alternative material and thermal resource for cement kiln production.

The RIFVR network has continued to build on the momentum generated by initial findings in a second phase of the Pilot Project to further test and refine the logistic validity and financial feasibility of the cement kiln co-processing pathway. Ongoing Pilot objectives include:

- ❖ Streamlining boat dismantling and pre-processing procedures to improve efficiency and reduce cost
- ❖ Exploring opportunities for 'regionalized' boat recycling efforts in the Northeast and elsewhere



RHODE ISLAND MARINE TRADES ASSOCIATION
99 POPPASQUASH ROAD
BRISTOL, RI 02809
(401) 396-9619
WWW.RIMTA.ORG

- ❖ Identifying additional sources of fiberglass or composite material qualified for pre-processing
- ❖ Identifying operational conditions and funding sources that can establish financial feasibility and demonstrate value to key stakeholders
- ❖ Sharing 'lessons learned' and RIFVR partnership model with organizations in other parts of the country
- ❖ Educating and engage key target audiences (state/regional key influences, funders/industry, national organizations) about related goals and challenges

QUOTE FROM EVAN RIDLEY, PROJECT MANAGER: "We are continuing to answer critical questions surrounding the lifecycle of recreational boats and the sustainable reuse of fiberglass waste. Boats constructed with composite materials offer an incredible opportunity for our Ocean State to establish a new pathway for the collection and recycling of high-value scrap derived from thousands of other composite-based products currently being landfilled. These efforts stretch beyond the sustainability of recreational boating and provide a foundation for the expansion of our circular economy in Rhode Island."

FUNDING: The RIFVR Pilot Project has been made possible with support from 11th Hour Racing, The Brunswick Foundation, The Association of Marina Industries, BoatU.S. Foundation, and the Rhode Island Resource Recovery Corporation.

CONTACT: Evan Ridley, (401)-396-9619 / evan@rimta.org