

Tacoma Startup Aquagga Launches PFAS Destruction Device

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Aquagga, Inc., a Tacoma, Washington-based startup that launched in 2019, recently released a pollution-fighting device which is said to destroy over 99% of per- and poly-fluoroalkyl substances (PFAS) in water. In 2019, Aquagga won the EPA's ["Innovative Ways to Destroy PFAS Challenge"](#) contest, and its co-founder and Chief Technology Officer, Dr. Brian Pinkard, [won first prize](#) for a "hydrothermal processing concept for the on-site disposal of PFAS-contaminated waste that may be potentially applicable for aqueous film forming foam (AFFF). Hydrothermal processing leverages the unique properties of high-temperature and high-pressure water to destroy PFAS compounds and minimize harmful byproducts. Following receipt of these awards, Aquagga built its prototype and has now deployed a unit for public use, "Eleanor," which occupies a 10' x 8' shipping container. The Eleanor device destroys PFAS by employing heat—up to 570 degrees Fahrenheit—and lye to break down the chemicals. Testing shows Eleanor can clean over 99 percent of PFAS in water. Presently, Eleanor is focused on cleanup of PFAS-contaminated sites as opposed to public drinking water, and its anticipated users consist of the 20,000 airports in the United States, as well as military bases, which utilize PFAS-containing AFFF.

PFAS are synthetic chemicals used in a variety of consumer products and industrial applications, as they are highly resistant to heat, water and oil. However, PFAS have come under scrutiny, largely in response to incidents of alleged water contamination, as they bear a long half-life, do not break down organically, and can linger in the environment for years. States across the nation have proposed legislation regulating the use of PFAS, and attorney general's offices in 26 states brought lawsuits against PFAS manufacturers. Additionally, the Environmental Protection Agency issued an [Advanced Notice of Proposed Rulemaking under the Comprehensive Environmental Response, Compensation, and Liability Act](#) (CERCLA), and requested public comment before it finalizes regulations that limit PFAS-levels in drinking water. While litigation and proposed legislation stemming from PFAS contamination continue to rise, Aquagga now offers a potential solution to destroy PFAS.