UNH Engineering Researchers Publish Studies on Forever Chemicals

Researchers at the University of New Hampshire have conducted two of the first studies in New England to collectively show that PFAS end up in the environment differently after being processed through wastewater treatment facilities—making it more challenging to set acceptable screening levels, reports the NH Business Review. The researchers looked at the journey of 24 different PFAS through six New Hampshire wastewater treatment facilities.

The researchers found that short-chain PFAS ended up in effluent, while long-chain PFAS were more abundant in the sludge due to their higher affinity toward solids. They also found roughly 10% of the PFAS present in Great Bay could be traced back to the wastewater facilities. The second study found that 29 of the 39 biosolids reviewed in sludge waste had PFAS levels that exceeded screening levels set by the Maine DEP.

“State agencies across New England are all considering regulating PFAS in wastewater biosolids,” said an associate professor of civil and environmental engineering at UNH, “but there is still more we need to know about how the treatment of wastewater sludge influences these forever chemicals.”

Renewable Natural Gas Facility Is a New Hampshire First

Construction of a renewable natural gas processing facility is underway in Bethlehem—a first of its kind project in the state, according to Vermont Biz. Casella Waste Systems Inc., in partnership with Rudarpa Inc., broke ground on the facility on May 19 at its North Country Environmental Services disposal facility. The facility will capture the landfill gas, which is currently being flared, and separate it into marketable gases. Emphasis will be on methane and carbon dioxide. Once processed, the renewable natural gas will be transported by truck for injection into pipelines owned by Liberty Utilities. Converting the landfill gas into a transportation fuel will reduce annual greenhouse gas emissions by about 78,000 tons, equivalent
to taking more than 15,000 passenger cars off the road.

The number of RNG projects in the US increased by 42% from early 2019 through 2020, reports Natural Gas Intelligence. There are currently 157 RNG projects in operation in the US with 76 projects under construction and 79 in development. “I can tell you that we have identified 43,000 sites in the US and Canada where organic waste is aggregated today,” RNG Coalition CFO David Cox said. “So when we’re talking about around 300 RNG projects, we are just scratching the surface of potential.”

Stay up to date on legislative issues through the NSPE Advocacy Center.

Register for the 2021 Virtual PECon

Registration is now open for NSPE’s Virtual Professional Engineers Conference 2021 (August 3–5). The early bird registration rate deadline is July 15.

Attendees will have access to up to 14 unique and insightful PDH sessions (live and on-demand sessions) and will have the opportunity to collaborate with peers and experts from across the country through morning “coffee chats” and Mastermind sessions. In the Mastermind sessions, attendees will address their most pressing professional issues and tap into the knowledge, experience, and advice of their peers and PE experts to help workshop solutions. There will also be virtual engineering facility tours and a celebration of PE Day (August 4).

PECon at a Glance

- Bridging the Gap to Leadership: Connecting the Skills You Have with the Skills You Need (Shelley Row, P.E., CSP, Leadership and Decision-Making Expert)

- Florida International University Bridge Failure, A Study in Ethics (Susan Sprague, P.E., F.NSPE, Senior Associate, and Eric Tappert, P.E., Consultant)

- AI and the Evolving Role of the “Traditional” Engineer: An Engineer’s Perspective from NASA to Infrastructure and Beyond (Kimberly Johnson, P.E., Founding Principal)
**Registration Options**

A **Day Pass** for NSPE members is $99 until July 15 and $149 after July 15. The pass provides access to four PDH sessions, networking morning “coffee chat” roundtables of your choice each day, and evening post-session discussions.

The **All Access Pass** for NSPE members is $249 until July 15 and $299 after July 15. This pass provides access to 14 PDH sessions, access to daily networking morning “coffee chat” roundtables, and evening post session discussions.

Student members can register for a Day Pass or the All Access Pass for free until July 15. The rate for both passes is $50 after July 15. Nonmembers can join NSPE for $299 and receive member pricing.

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**Women in Engineering Event to Explore Gender and Racial Equity**

DiscoverE and the Congressional Women in STEM Caucus will co-host an event on **June 23**, in celebration of **International Women in Engineering Day**. The event will include a lively panel discussion exploring the factors that attract girls to engineering, why women persist in the field, and the role you can play in achieving gender and racial equity in engineering and technology.

NSPE Government Relations staff coordinated the participation of the Women in STEM Caucus for the event. The Women in STEM Caucus seeks to bring public and congressional awareness to policies, programs, and initiatives that support women in STEM fields, and develops the next generation of women leaders. Rep. Chrissy Houlahan (D-PA), Rep. Debbie Lesko (R-AZ), Rep. Haley Stevens (D-MI), and Rep. Jackie Walorski (R-IN) serve as caucus co-chairs.

NSPE recognizes the benefits of a diverse population of licensed engineers in shaping the future of engineering. Diverse backgrounds foster unique contributions and capabilities and create an inclusive community ultimately leading to a more creative, effective and technically respected community.

*Register here.*
2021–22 Call for Volunteers

NSPE needs your knowledge, expertise, and time to help the Society carry out its vision and mission and meet the goals of the strategic plan. Volunteer positions begin in mid-August and end at the 2022 Professional Engineers Conference.

There are three types of volunteer opportunities:

- **Level 1 (Highest Engagement) – Standing Boards and Committees**
  Often includes attending at least one in-person meeting. Most meetings held via video conference. Terms may be up to three years.

- **Level 2 (Intermediate Engagement) – Ad Hoc Committees and Task Forces**
  Activities primarily include online correspondence and video conference meetings.

- **Level 3 (Lowest Engagement) – Ad Hoc Volunteer**
  Volunteer on a project-by-project basis.

Submit forms by July 9 to be considered for a 2021-22 term.

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