

## State News for NSPE Members

### WVU Research Helps Power Plants Recycle Water

[EurekaAlert reports](#) that Simulations from West Virginia University researchers demonstrate their use of two kinds of industrial wastewater to decontaminate each other has the potential to slash a power plant's total water use.

The researchers from the WVU Benjamin M. Statler College of Engineering and Mineral Resources modeled various scenarios for using "cooling tower blowdown" and "produced water" to treat each other. Cooling tower blowdown is wastewater produced by thermoelectric power plants, while produced water is created by hydraulic fracturing mining for oil and gas. The cotreatment process yields valuable byproducts as well as water that's clean enough to be reused in power plant cooling operations. The study's findings were published in the journal *Desalination*.

According to lead author Hunter Barber, a doctoral student in chemical engineering from Fairchance, Pennsylvania, no other industry in the US uses as much water as thermoelectric power generation.

"Our cotreatment process reduces demand for chemicals to soften wastewater," Barber said. "The treated water also has very high potential for reuse — treated water can be directly reused after cotreatment to make up 99% to 100% of the original volume of blowdown water, and that's without optimizing or exploring different designs." [Read more.](#)

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### West Virginia Contest Challenges Students to Engineer Low-Cost Bridges

The 23rd annual West Virginia Bridge Design & Build Contest is now in progress, [WVNews reports](#).

This competition, organized by the West Virginia Department of Transportation (WVDOT), BridgeWalk, West Virginia Department of Education, and WVU Tech in Beckley, challenges middle and high school students to create the most cost-

Jennifer Dooley, a spokesperson from WVDOT, explained that the aim of the contest is to provide students with a fun and competitive opportunity to explore engineering. She also highlighted the abundance of career prospects available in engineering at WVDOT, stating that "engineers are always in demand." The competition has been running for over two decades to introduce students to potentially new experiences.

The primary purpose of the contest is to promote STEM education and inspire future engineers. [Read more.](#)

## Share Your Expertise: NSPECon24 Presentations



Proposals may address a number of topics in three key conference tracks that include leadership, issues and trends, and career assistance. Please consider sharing your expertise and insights by **submitting a presentation proposal by**

midnight, January 10.

To learn more about potential topic areas, how to prepare a submission, and the benefits of being selected to present, click on the button below.

[Submit Your Presentation](#)

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## NSPE Member Benefit: On-Demand Webinars

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The WORKability Wednesdays fall series wrapped up in November. Recordings of the presentations are available in the [PE Institute](#). Past webinars are also available for viewing in the [On-Demand Webinars](#) section of the website.

NSPE is always seeking great content and speakers. Those interested in presenting can submit ideas using the online [Call for Webinars form](#).

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## Enterprise Membership - Elevate Your Engineering Team



Is your organization looking to bring together a team of engineers, each committed to professional growth and staying up to date with the ever-evolving field of engineering? [Consider launching your NSPE Enterprise Membership!](#)

In today's rapidly changing engineering landscape, having a group of experts with diverse skills is essential. To rise to the challenges of this environment, engineers must commit to continuous upskilling and lifelong learning. The skills demanded by the profession in 2024 include critical thinking, problem-solving, active learning, resilience, stress tolerance, and flexibility.

*"NSPE Enterprise Membership has proven to be a valuable program for our engineering team at Huitt-Zollars. It streamlines our membership process; the ability to make a single payment for multiple employees simplifies our administrative tasks and reduces time. Our engineers appreciate the continuous*

*learning/professional development and networking opportunities provided by NSPE throughout the year.” — John Ho, P.E., F.NSPE, Vice President, Huitt-Zollars*

## Key Advantages of NSPE Enterprise Membership

- **Unite Your Engineering Team:** NSPE Enterprise Membership brings together five or more individuals from your organization into one cohesive group.
- **Streamlined Billing:** Enjoy unparalleled member benefits and simplify the billing process with a single consolidated invoice and one payment for the entire group.
- **Gain Access:** Reach a wide network of multidisciplinary engineers across local chapters, state societies, and NSPE.
- **Dedicated Member Services:** Access customized member services through a single point of contact at NSPE for membership servicing and any questions your team may have.
- **Enjoy Discounts with Benefit Partners:** NSPE membership entitles your employees to deep discounts on a wide variety of publications, tech, office needs, test prep, insurance, and more.

[Learn more about the benefits of Enterprise Membership.](#)

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**National Society of Professional Engineers | 1420 King Street | Alexandria, VA  
22314**