

JOHN KUTSCH ATTENDS NEXT LAB'S MSRR RIBBON-CUTTING AT ACU - TEAM MEMBERS WANTED FOR NEW THORIUM NUCLEAR - NEW QUESTION FOR TEA MEMBERSHIP FEEDBACK

TEA Attends NEXT LAB Research Reactor Facility Ribbon-Cutting at Abilene Christian University, September 1st 2023

John Kutsch, Executive Director of Thorium Energy Alliance, was on hand for the ribbon-cutting ceremony held at NEXT Lab's Test Reactor Facility in Abilene, TX earlier this month. Key members of NEXT Lab and Natura Resources LLC, including Rusty Towell and Doug Robison, spoke about the critical need to build the first university-based Molten Salt Research Reactor (MSRR) experiment for the opportunity of real world hands-on testing of systems and components. The MSRR will allow researchers and students alike to work on a molten salt cooled, 1 MW_{th}, graphite-moderated reactor. Natura Resources, along with their research partners are on track to:

- License the 1st-ever liquid-fueled Molten Salt Reactor (MSR) with the U.S. Nuclear Regulatory Commission
- License the 1st university research reactor in the last 30 years
- License the 1st-ever university advanced research reactor



MSRR Subterranean Reactor Vault

NEXT Lab is working in conjunction with Natura Resources LLC, and the NEXTRA consortium between four universities: ACU, Georgia Institute of Technology, Texas A&M University, and The University of Texas at Austin, with extensive experience in physics, chemistry, and engineering. Launched in Spring 2019, the consortium is well on its way to design, certify, license, and commission the first university-based molten salt research reactor in the United States; and the first new research reactor in over 30 years. This project represents the nearest term deployment of an advanced reactor in the west.



Grade-level Upper Reactor Hall. The reactor in the banner is at 100% Scale

The entire new laboratory went from ground breaking to ribbon-cutting in just 14 months, proving we can still do great work quickly. It is both exciting and hopeful to see such rapid progress being made on this project. In a field where excessive regulations can stagnate and effectively strangle a project, NEXT Lab has been able to push forward with the design and build phases while keeping within the anticipated budget. This project should give everyone in the nuclear field hope that domestic research projects can progress at a pace that fits the technology and not get overly burdened with regulations before they even start.



Graduate and Undergraduate Students of the nuclear engineering school pose with Rusty Towel and Faculty



The interior wall design representing the fission of atoms within the Dillard Science and Engineering Research Center. The labs explore uses for the reactor as a source of medical isotopes and process heat as well as nuclear energy



The interior view of one of the research labs within the Dillard Science and Engineering Research Center



Exterior of Dillard Science and Engineering Research Center

The lab is located in the heart of the campus, and residences are nearby. This world-class facility, along with 2 other existing molten salt research labs on campus, demonstrates that work in nuclear disciplines does not have to occur in the middle of a desert far away from population centers. The Dillard Science and Engineering Center is a tribute to knowledge and learning over fear mongering and excessive burdens placed on nuclear projects.



Dr. Charles Ivey, attending the NEXT Lab Ribbon-Cutting. Dr. Ivey, an ACU alumnus, has been integral in nuclear physics over his long career and one of the 4 founders who was instrumental in spearheading this project.





Dr. David Holcomb (INL) and Mr. Max Dillard address the assembly at the ribbon-cutting ceremony. Dr. Holcomb is a primary advisor to the design of the research reactor and facility. Mr. Dillard, along with his wife Gayle, were the prime benefactors for the construction of the NEXT Lab at ACU.



(*left to right*) John Kutsch, Doug Robison, and Rusty Towell stand on top of the cell where the new research reactor will be soon placed. It is because of Doug and Rusty's vision and their tireless efforts that this lab has come into existence.

More pictures of the MSRR ribbon-cutting ceremony can be found at the Thorium Energy Alliance's <u>website</u>.

Your Feedback is Needed:

We Have Been Asked by a Powerful Policy Influencer; The Thorium Energy Alliance would like to hear more from our membership via some posed questions we will include in upcoming newsletters. This month's question concerns market pricing:

We have been asked to think about the cost of Thorium.

Has anyone in the Thorium Energy Alliance thought about how to price Thorium? First, as a material used for metallurgical, manufacturing, or other (non-fuel) technical uses? Second, how would you price Thorium used as a nuclear fuel, in \$/kg?

What form would be the easiest to price it (pure Th Metal, Thorium Nitrate, Thorium Oxide, other)?

MEMBERSHIP FEEDBACK

WANTED - The Thorium Energy Alliance is working on behalf of the Government of El Salvador to find subject matter experts who want to take on a challenge and be on the team that will be the first to deploy Thorium Energy in the Western World.

Primary Areas of Interest Include:

- Regulatory & Nuclear Law
- Operations & Systems Integration
- Educators & Curriculum Designers
- Capacity Building Expertise

This is a rare opportunity, open to all, to help create a new public private partnership with no legacy burden. A clean start to deploy the next generation of New Nuclear Energy. If you have the desire it takes to be part of something new and bold, contact us today.

Support the TEA today!

The Thorium Energy Alliance just received another car donation! Thanks to another generous supporter for another much-needed vehicle donation. Let us know if you'd like to donate a car or other vehicle to the cause.

Your generous support keeps us going. You can help in many ways including:

- Donate or Become a Supporting Member
- Donate that old car
- Buy a shirt

So grateful to everyone who has made all of our successes a reality. 2023 is shaping up to be the best Thorium Year yet!

John Kutsch
Executive Director

Support the TEA







