



Transformational Challenge Reactor

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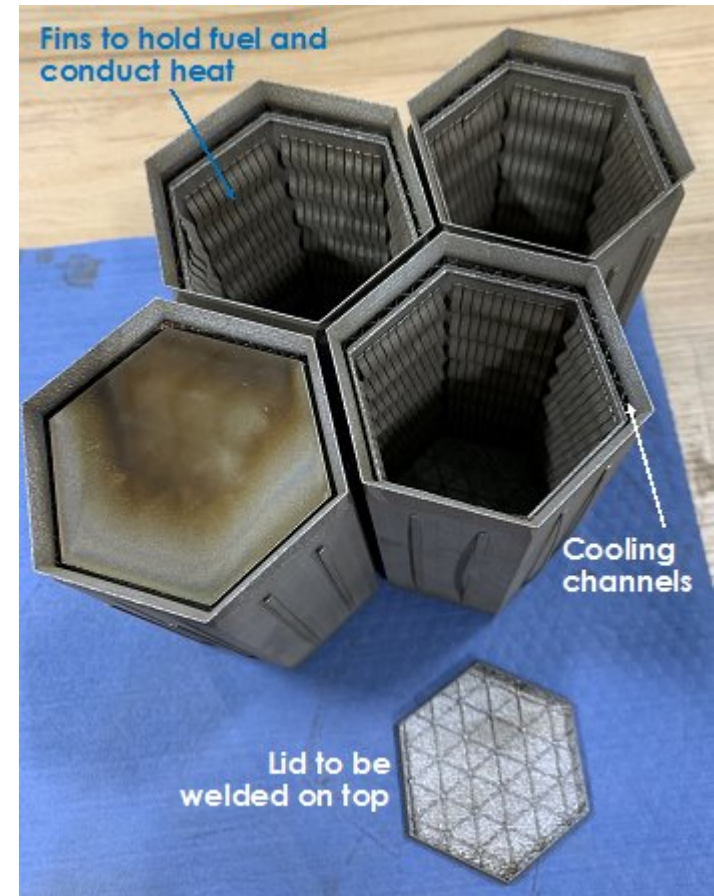
Transformational Challenge Reactor (TCR)

Vision:

- The TCR program will manufacture and operationally test a fueled microreactor core fabricated using additive manufacturing techniques. It will also create a digital platform for coupling data analytics with nuclear core design, manufacturing, and testing data to certify component performance.

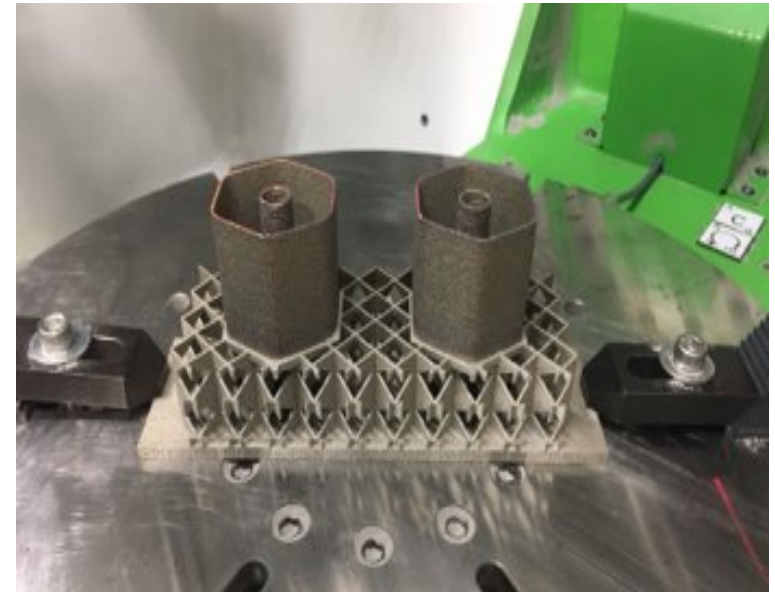
Goal:

- Reduce deployment costs and timelines for new nuclear technologies;
- Integrate digital data for rapid nuclear innovation; and
- Accelerate the adoption of advances in manufacturing, materials, and computational sciences for nuclear applications.



TCR R&D NE-3 FOA Technical Focus Areas

- The TCR program seeks proposals to provide validation of the approaches including application of quality assurance to artificial intelligence, automation of reactor control systems, and the expected performance of the novel reactor core design.
- Significant advancements are expected in these areas with the approaches taken including first-of-a-kind methodologies.





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