

**4. Avoid overdesigning:** Engineers strive for perfection and tend to overdesign. This can result in rabbit holes that divert valuable time and resources from the main objectives. It's critical to balance the desire for perfection with the practicalities of time and budget constraints.

**5. Embrace coaching and mentoring:** The value of coaching and mentoring in staying on mission cannot be overstated. These practices foster a team culture centered around learning, continuous improvement, and alignment with project objectives. By leveraging the experience and insights of seasoned professionals, younger team members can avoid common pitfalls and make significant contributions to the project.

With the MARVEL project, INL's researchers and engineers have blazed a trail, showing it is possible to develop small reactor systems rapidly and economically. This achievement is more than an accolade on the team's collective mantel. It's a beacon illuminating the path for the wider industry, proving that the traditional obstacles to nuclear reactor development are

not insurmountable. My sincere hope, as MARVEL's project lead, is that this spirit of innovation sparks a renaissance in reactor technology across the United States and beyond.

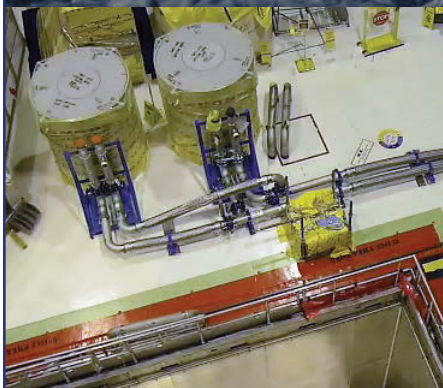
During this journey with MARVEL, the project team has been unafraid to push the envelope, to learn, to challenge, to iterate, and to improve. This continuous quest for excellence, as integral to our endeavor as the core to a reactor, is something I hope will inspire others.

Always keep in mind the shared responsibility we bear—a responsibility as profound as the legacy we leave behind for our children and their children. We stand on the precipice of irreversible climate change, a dire reality, and yet, I firmly believe we can counter this crisis through scalable, clean energy solutions like nuclear fission. And when it comes to our future, to the world that we leave to the next generation, it is this legacy, this era of transformative change and relentless pursuit of better, cleaner energy, that I hope we will be remembered for. ☒

*Yasir Arafat is the MARVEL chief designer and project lead at Idaho National Laboratory.*



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