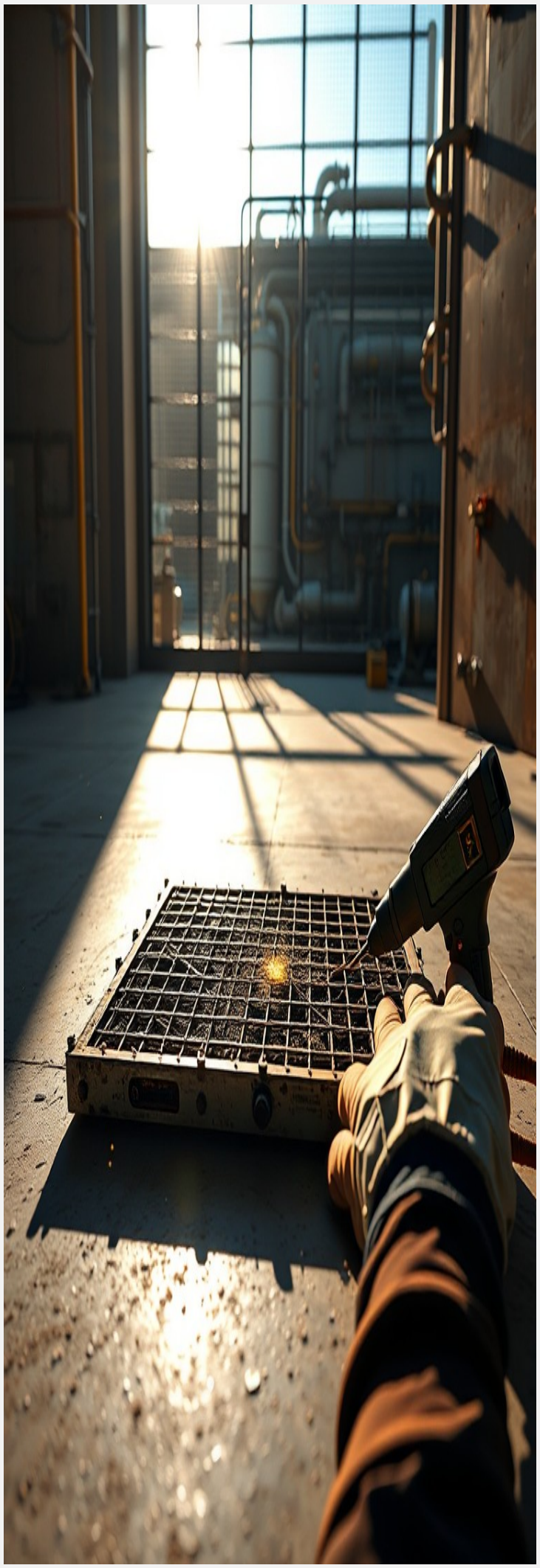


AI Can’t Fix What We Don’t Measure

The next super El Niño demands smarter ocean sensing — not just better algorithms.

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THE DATA



Ocean Observing System Coverage

The article highlights that current global ocean monitoring infrastructure is insufficient to detect the full scale of marine heatwaves and thermocline shifts tied to a super El Niño.

The authors warn that even with advanced AI models, predictive accuracy in climate forecasting is limited by the lack of real-time, high-resolution ocean data. Without a robust observational backbone, AI cannot reliably detect early-stage anomalies in sea surface temperature, salinity, or subsurface thermal structure — the very signals that precede extreme weather events.

Source: Nature · Published November 17, 2026
https://www.nature.com/articles/d41586-026-03744-2

01

Data Deficiency Is the Real AI Bottleneck

The nuclear community must recognize that AI’s role in climate preparedness is not as a solver, but as a dependency on better measurement systems.



02

AI Licensing Needs Real-World Validation

The lesson from ocean monitoring is clear: in high-stakes domains like nuclear energy, AI is only as safe as the data it consumes.

George Arnold Alexander III, MPA

Partner, ALEX Companies
Associate Broker, Alexander Tiffany Southwest, LLC
Licensed Broker in TX, CO, NC, AL

george@alex.realestate · +1 713.918.9951

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