

Life Extension of Nuclear Power Stations



Image, Courtesy of EDF Energy

"The new understanding of weld repairs and refined life analysis methods, underpinned by Open University measurements, has allowed the lives of AGR power stations to be extended",
R N Thomson, Head of Research & Development, EDF Energy, 2013.



Challenges

Repair weld residual stresses promote reheat cracking that reduces the service life of nuclear power plant structures



How can I-SEC help?

Advanced stress measurements used to validate refined weld simulation models for safety case lifetime assessments of repaired weldments.



Benefits

Life extensions of 5 years were granted to 4 reactors generating an additional £5 billion worth of electricity.