



NUCLEAR
RESEARCH
INSTITUTE

Experimental Workshop Department Integrity and Technical Engineering Division



Destruction of a heating element

FAILURE ANALYSIS OF ENGINEERING STRUCTURES

Value for customers

- Failure analysis performed on damaged components and structures allows determination of the root cause of the defect
- Knowing the principal cause of the failure enables to define and implement the appropriate corrective measures to prevent the defect from reappearing
- This proactive approach saves the operational costs, improves the safety and availability of the engineering systems

Applications

- Analysis of the root causes of damage is applicable to various systems, structures and components in both nuclear plants and other large engineering structures

What we offer

- Evaluation of damaged engineering structures failed during operation
- Failure analysis using multidisciplinary approach (optical microscopy, scanning electron microscopy, X-ray microanalysis, microhardness measurement, evaluation the role of environment etc.)

Contact details

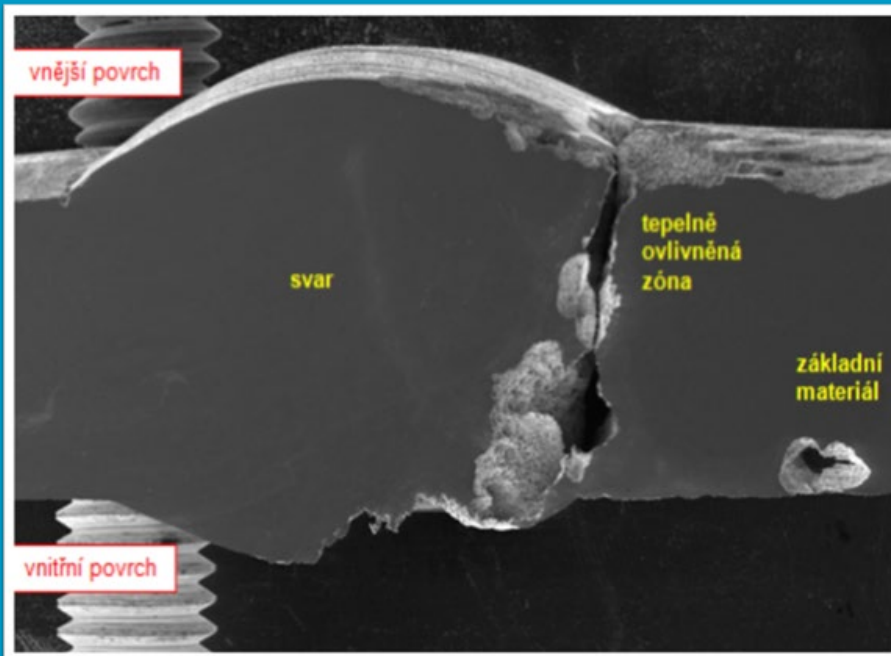
Marek Postler
Head of Operational Support
Of Power Facilities Department
phone: +420 607 622 177
e-mail: marek.postler@ujv.cz

ÚJV Řež, a. s., Hlavní 130, Řež, 250 68 Husinec,
Czech Republic
phone: +420 266 172 000, e-mail: sales@ujv.cz
Integrity and Technical Engineering Division
phone: +420 266 173 445, e-mail: integrity@ujv.cz
www.ujv.cz

- Determination of the root cause and proposal of the corrective measures preventing risk of repetitive failures
- Evaluation of non-radioactive as well as radioactive material
- Testing laboratory certified by the Czech national authority ČIA
- A quality assurance system according to ČSN EN ISO/IEC 17025 in accordance with ISO 9001 standards

Our references

- Failure analysis of different engineering structures at Dukovany and Temelin nuclear plants
- Fossil power plants (Opatovice plant)
- Chemical industry (Czech Refinery)



Microbiologically induced corrosion the piping from the austenitic stainless steel – SEM micrograph (left) and the defect on the outer surface (right)