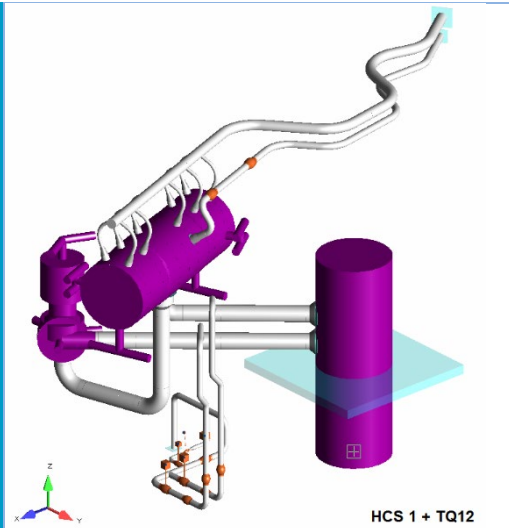




NUCLEAR
RESEARCH
INSTITUTE

Structural and Lifetime Assessment Department Integrity and Technical Engineering Division



BREAK PRECLUSION/ LEAK BEFORE BREAK

Model of piping evaluated for leak before break (LBB)

Value for customers

- Elimination of dynamic effects of the pipe ruptures from the design bases
- Possibility to remove protective hardware such as pipe whip restraints and jet impingement barriers
- The analysis as a part of a final safety analysis report (FSAR)

Application

- The evaluation involves evaluation of leak detection systems capability and postulated crack behaviour by deterministic fracture mechanic approach
- Analysis is applicable mainly on class 1 piping of diameters greater than 100 mm (4 inches)
- Analysis includes also piping seismic evaluation and may require seismic reinforcement

What we offer

- Application of the analysis
- Evaluation of installed coolant detection system and eventual proposal of new detection system
- Eventual proposal for seismic reinforcement
- Background for operational instructions

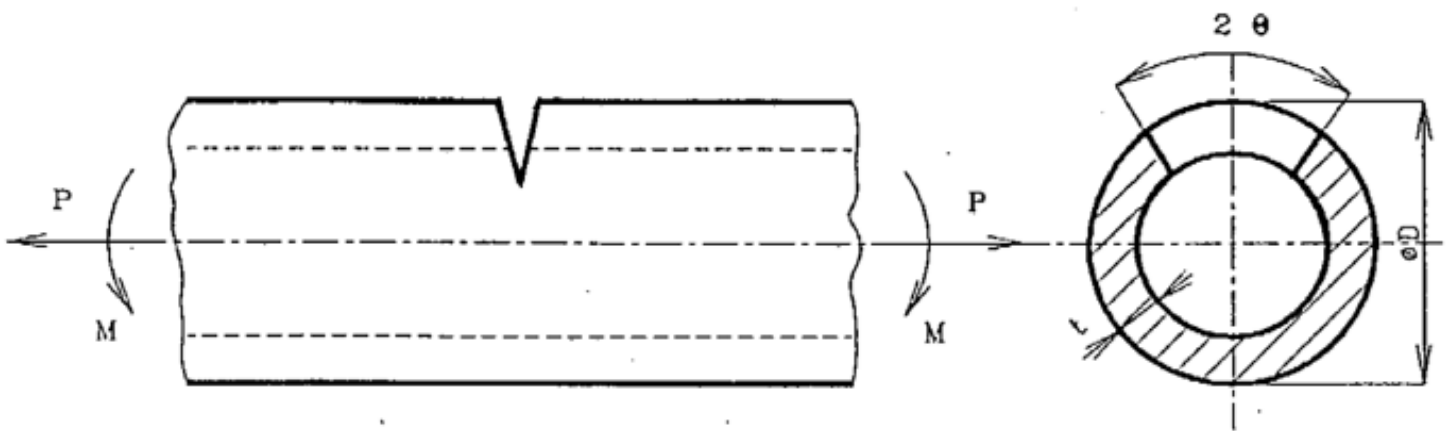
Contact details

Miroslav Zamboch
Head of Structural
and Lifetime Assessment Department
phone: +420 725 648 917
e-mail: miroslav.zamboch@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

Our references

- 1993-1995, LBB implementation for Bohunice NPP, units 1-4, Slovakia
- 1996, LBB implementation for Temelin NPP, units 1-2, Czech Republic
- 1998, LBB implementation for Kola and Novovoronezh NPPs, Russia
- 1997-1999, LBB implementation for Mochovce NPP, units 1-2, Slovakia
- 2000, LBB enhancement within REKON project for Bohunice NPP, units 3-4, Slovakia
- 2001-2004, LBB enhancement and extension for additional systems for Temelin NPP, units 1-2, Czech Republic
- 2001-2007, LBB implementation for Armenian NPP, Armenia



Postulated crack