

INTRODUCTION TO MODELLING IN NDT

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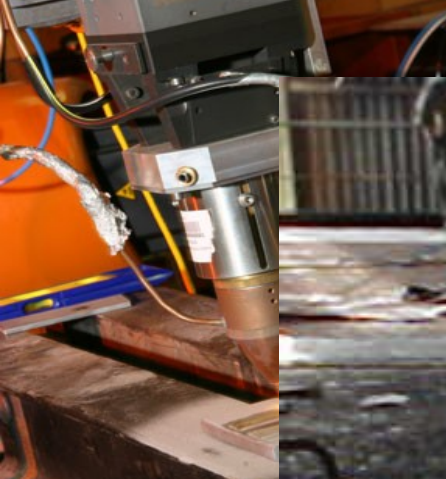




WHY THIS CONFERENCE?

- In RSA NDT is mainly performed to code
- NDT is performed because this mandated
- Problem:
 - PLANT STILL FAILS













Problem:

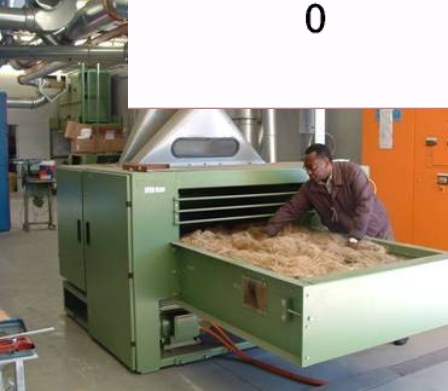
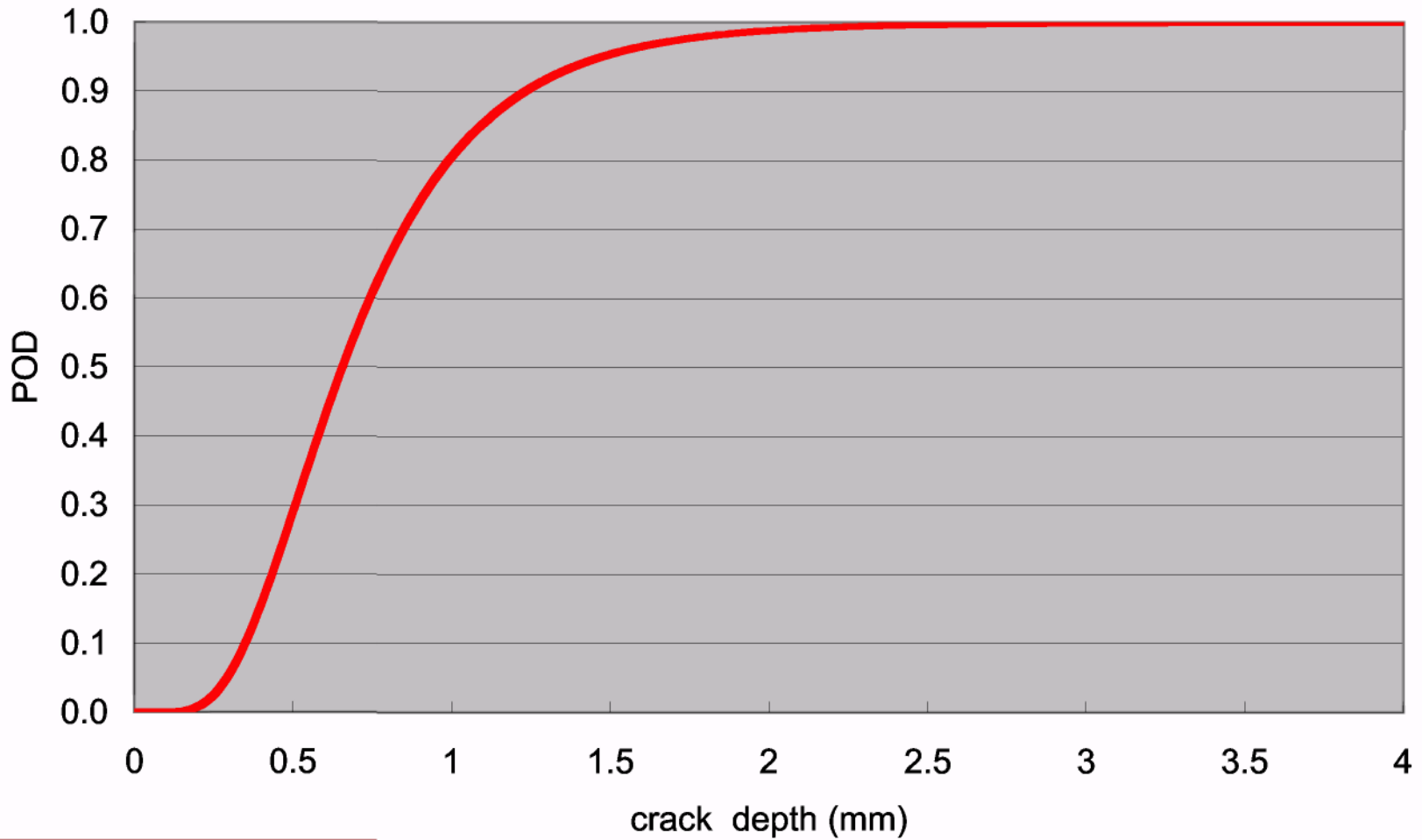
- **The first 2 scenarios happened in SA during last 10 years**
- **Rotor failed in Europe in spite of inspections being performed**
- **What must be done to prevent such failures?**



Inspection qualification

- **Normal code related NDT assumes a POD of 70%**
- **This is not good enough in-service-type degradation – fatigue**
- **Must assure that critical flaws are known – NDT forms part of the total engineering effort**
- **NDT must assure that the POD is increased to near 100% for target flaws**

POD for ET bolt hole inspection technique on CF-116 Specimen Set





Use Modelling in NDT

- **To determine how flaws can be detected – optimised inspection parameters**
- **Technical justification for NDT procedures**
- **Save time and money by assuring that “the right thing” is done i.e.**

- **Effectiveness of inspections increased.**



- **I trust that this conference will -**
 - **contribute to increased inspection capabilities in SA**
 - **make Universities aware of possibilities to become involved in NDT**
 - **show to industry that the bar can be raised, i.e. we still have a long way to go; we can render an improved service**

**May you all benefit from this
conference!**

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