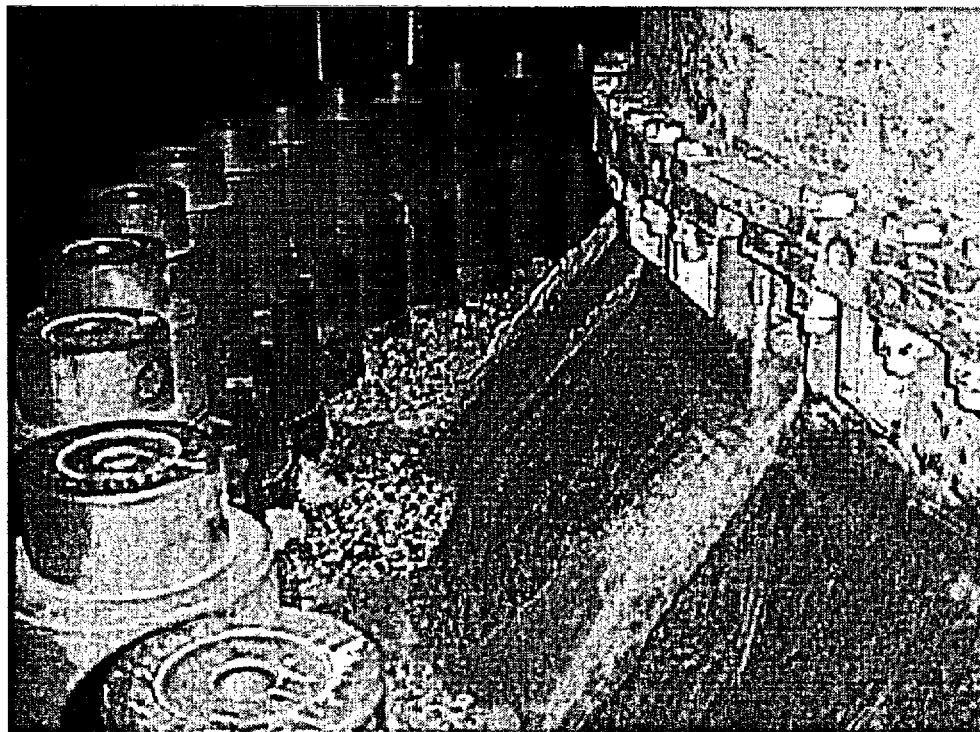


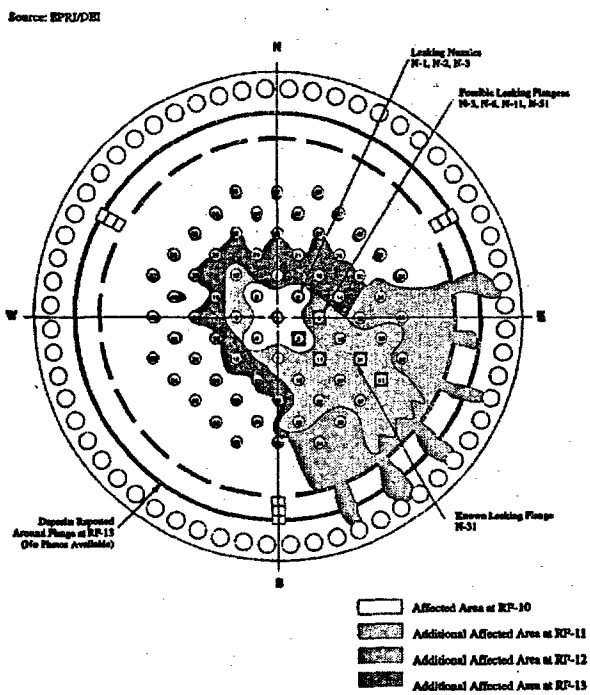
From: Adeline Saso > R-III
To: John Grobe
Date: 7/31/02 8:27AM
Subject: ANS Pres

Rel whole document

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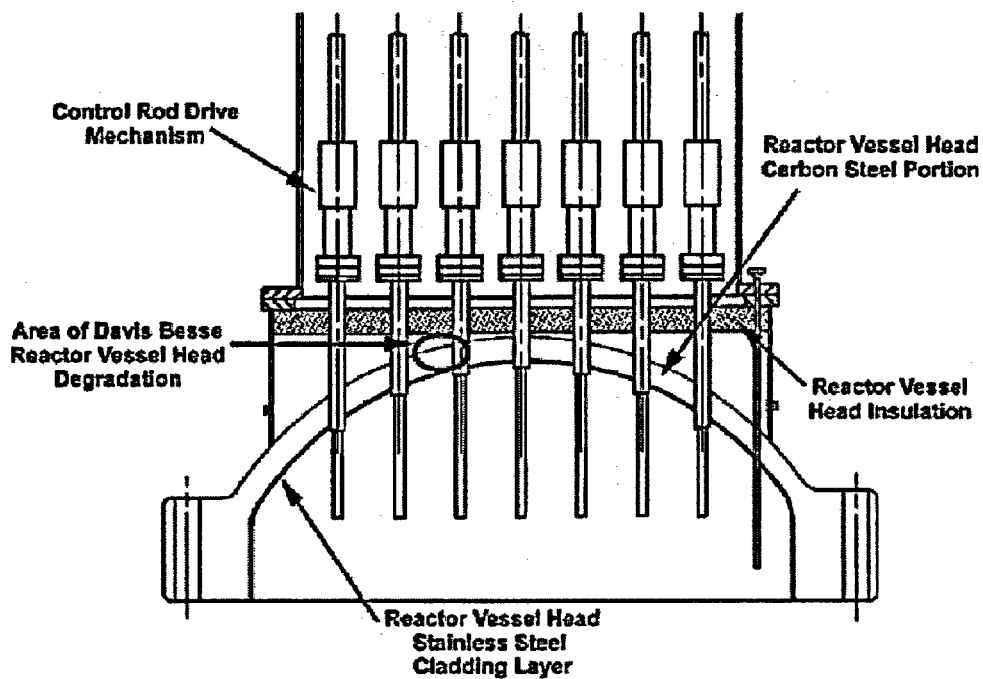


vg



VG

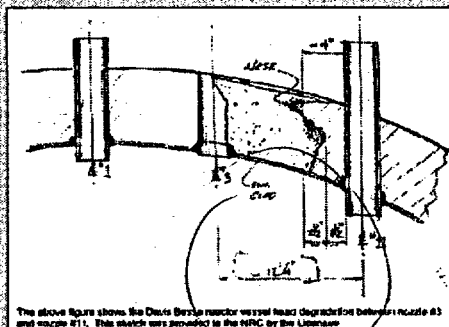
Reactor Vessel Head Degradation Location



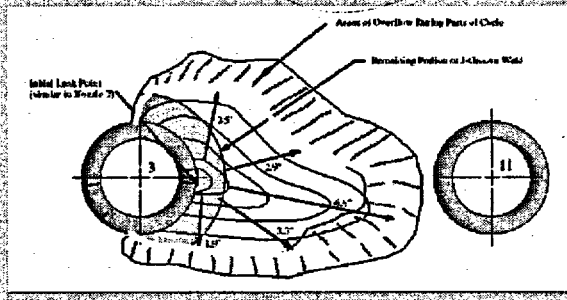
VG



Measurements Reported 15th April 2002 by Davis Besse Power Station



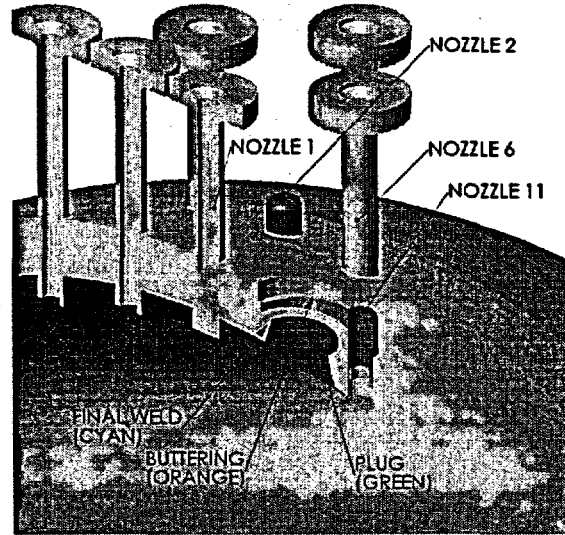
The above figure shows the Davis Besse reactor vessel head degradation between nozzle #3 and nozzle #11. This sketch was provided to the NRC by the licensee.



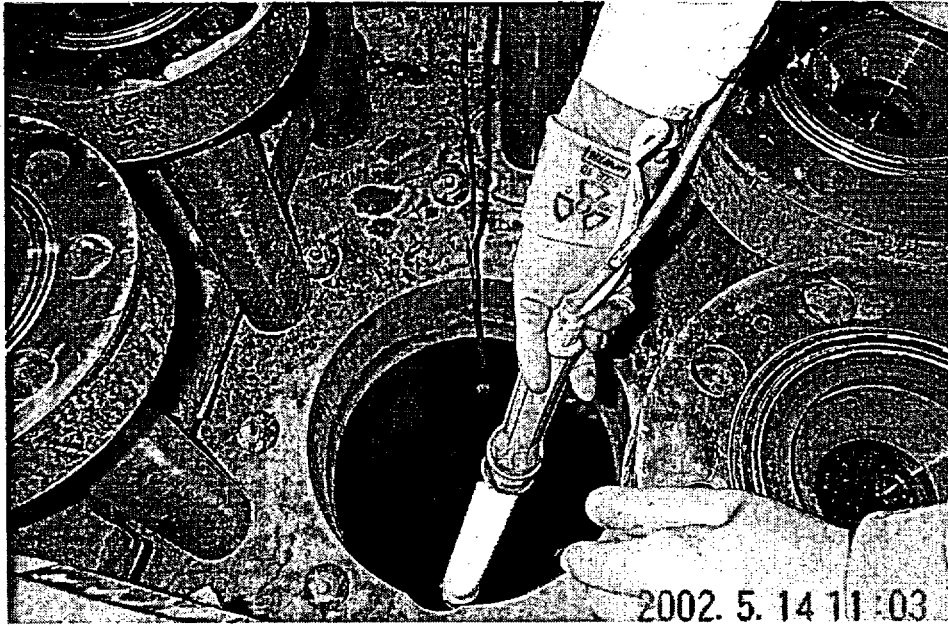
VG

65

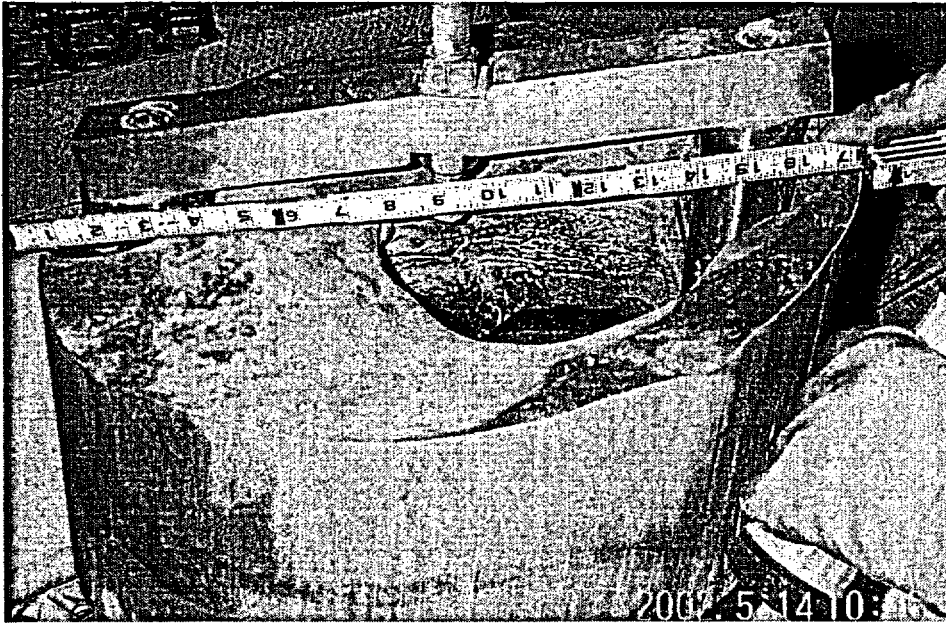




VG



VG

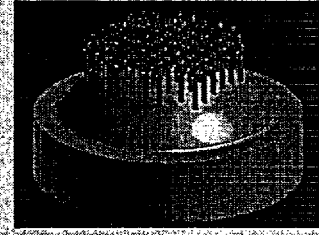


VG

Initial deterministic analysis
Probabilistic analysis

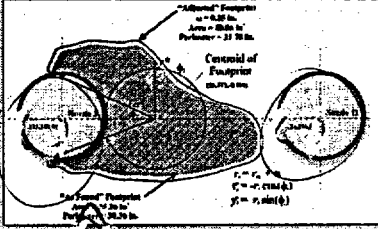
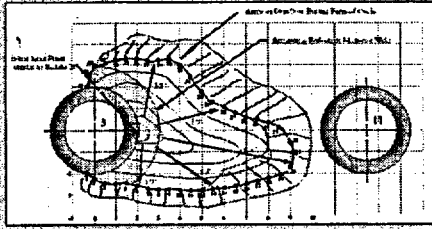
Cavity growth leading to cladding failure at pressures in the range of the operating pressure (2165 psi)
Estimates of the additional operation time needed to achieve failure at pressures in the range of the operating pressure (2165 psi)

Design of the Head



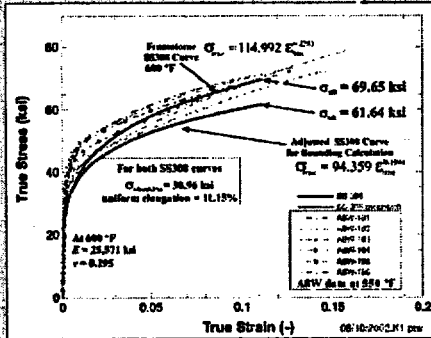
Wastage Geometry

(to be obtained from April 07 (2005) measurements)



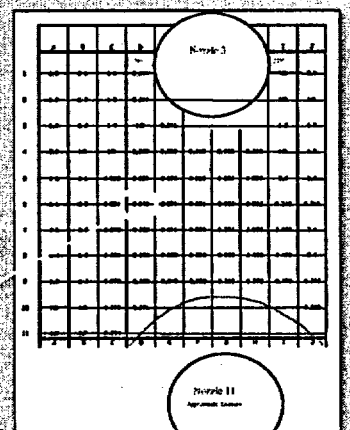
Cladding Tensile Properties

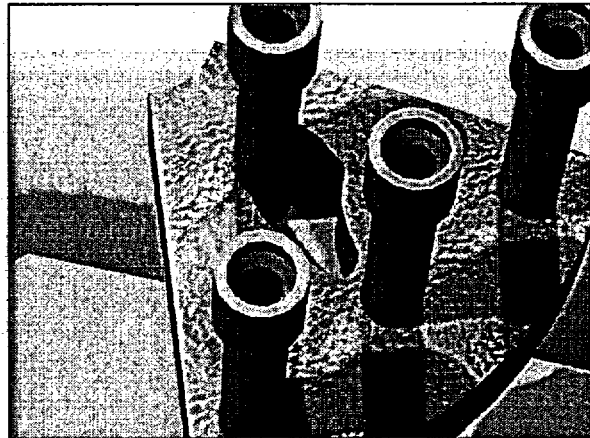
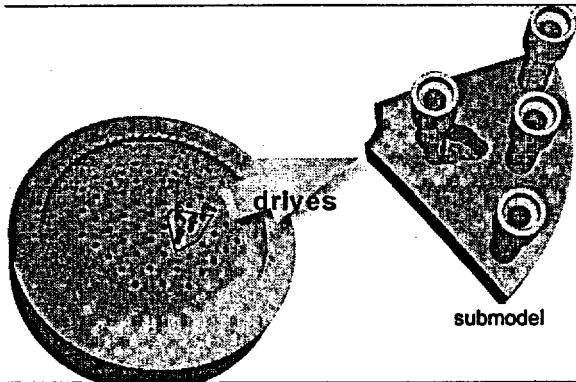
(to be obtained from available data)



Cladding Thickness

(to be obtained from available data)

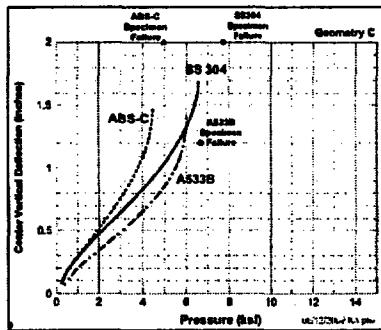
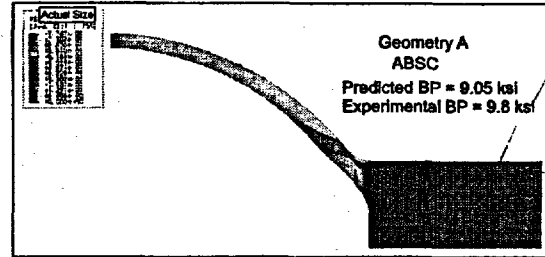




VG



- disc burst tests reported by P. Riccardella [ASME '72 PVP]
 - 6-in. diameter
 - 1/8 and 1/4-in. thick
- Experiments used to quantify uncertainty and bias in using FE analyses to predict rupture of an unsupported membrane subjected to pressure loading
- This statistical distribution is then used along with 3D FE model of Davis Besse cavity to assess probability of cladding rupture in the "as found" condition



VG

