

DESIGNCALCS NOZZLE Q&A

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If you use the UCS66(b) reduction to reduce your MDMT, is that excess material still available for reinforcement?

UCS66(b) is a calculation used to reduce the MDMT you can take without doing impact tests. Nozzle is a bit messy because you have to determine the governing thickness first to determine what your base exempt MDMT is, then you determine a coincident ratio to determine how much of a reduction to take.

My understanding of the Code is that it is fine to still use this material for reinforcement. After the webinar, the engineering team scoured 63 volumes of ASME Section VIII, Division 1 interpretations and did not find anything definitively answering this question. Next we went through the example manual ASME PTB-4 2013 and reviewed the impact test exempt MDMT calculation for a nozzle/shell assembly. In the example, the coincident ratio tr value doesn't take into account any reinforcement math (only shell stress math) and also doesn't make any note of having to penalize the reinforcement math for using the excess material to get a reduction in MDMT.

