



Finite element analysis (FEA) of fractionator column “hot box”. Analysis included establishing thermal gradient (1050 F inside to 15 F outside) through the vessel and then analyzed the skirt-bottom head-vessel shell junction for a variety of conditions including wind load, gravity load, thermal, and internal and external pressure. Stress combinations per Appendix 4 of ASME Section VIII, Div. 2 were used.

### **“Hot Box” Thermal Stress Analysis**

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