International J. of Engg. Research & Indu. Appls. (IJERIA).
ISSN 0974-1518, Vol.6, No. IV (November 2013), pp 143-148

DETERMINING STABILITY OF OVERHANG PRESSURE VESSEL USING FINITE ELEMENT ANALYSIS

ROHIT UPADHYAY[1], RAHUL BARJIBHE[1], PRASHANT BAJAJ[1] AND VINAY PATIL[2]
[1]Department of Mechanical Engineering,
SSGBCOET, Bhusawal, Maharashtra, India
[2]FEA Consultant, Vaftsy Cae, Hadapsar, Pune,
Maharashtra, India

Abstract

A Pressure vessel which is typically used in chemical company for large production of Nitrous Oxide. Due to operating conditions of pyrolysis process the required vessel is to be mounted on another inclined vessel. In this paper support structure for overhang vessel analyzes. This pressure vessel are typically susceptible to wind loads the supports is design keeping the following factors in mind i.e. wind loads, internal pressure and self weight. The stability of vessel is observed by FEA.

Keywords : FEA, pressure vessels, structural analysis.