

Containment/Penetration Analysis for the Protection of Aircraft Engine External Configuration and Nuclear Power Plant Structures

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Abstract : The authors have studied a method for analyzing containment and penetration using an explicit nonlinear Finite Element Analysis. This method may be used in the stage of concept design for the protection of external configurations or components of aircraft engines and nuclear power plant structures. This paper consists of the modeling method, the results obtained from the method and the comparison of the results with those calculated from simple analytical method. It shows that the containment capability obtained by proposed method matches well with analytically calculated containment capability.

Keywords : computer aided engineering, containment analysis, finite element analysis, impact analysis, penetration analysis

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