Essential Checking of Finite Element Analysis

Appendix 2 – Data Checklist

FEA Data Checklist
Project Name:
Project No.
Variation No.
File Reference No.
Calculation Title:
Calculation No.
FEA Title:
FEA Reference No.
Computer Program(s) used:
Computer Identification No.

Step No.	Check the Following	Yes	Not Applicable
1	Title Data and Reference No.		
2	Error/ Warning messages		
3	Log into File Log		
4	Geometry, Units and key co-ordinates		
5	Geometry, Shrink plot		
6	Geometry, Superimposed elements		
7	Geometry, Connection of mixed element types		
8	Material Properties, Units		
9	Material Properties, Regions with different material properties		
10	Loading, Units		
11	Loading, Vector plot		
12	Loading, Mixed element types		
13	Loading, Harmonic simulation		
14	Boundary Conditions, Units and any prescribed non-zero displacements		
15	Boundary Conditions, Nodal positions and directions		
16	Boundary Conditions, Boundary indicator plot		
17	Boundary Conditions, Special boundaries, direction cosines, de-coupling		
18	Results, Load case title, error messages, Log into file log		
19	Results, Displacement results		
20	Results, Deflection plot		
21	Results, Boundary reactions		
22	Results, Temperature contour plots		
23	Results, Identification of highest stressed nodes		
24	Results, Von-Mises stress plot		
25	Results, Stress results against alternative theory and/or experimental tests		
26	Sign off this checklist		

Checked by: _____ Engineer	Date: