

4. Summary

From EXCEL spreadsheet calculations, the maximum load-carrying capacity (M_{\max}) is:

$$M_{\max} = 2.0 \text{ MN-m}$$

and, for this pipe, the expected overload (M_{N+SSE}) is:

$$M_{N+SSE} = 2.25 \text{ MN-m.}$$

Since, $M_{\max} < M_{N+SSE}$, the pipe will not survive during the overload condition. Hence, this pipe should not be licensed for plant operation under LBB criterion.