

The ageing in major risk process plant: review of the approaches with a glance to the Seveso III Directive

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A new Directive dated 24 July 2012 on the control of major accident hazards involving dangerous substances (known as 'Seveso III') was published on 24 July 2012 and will be written into domestic legislation which will come into force on 1 June 2015. It will amend and subsequently repeal the Seveso II Directive

Seveso III addresses the consequences to the regulation of major accident hazard sites from changes to EU legislation on the classification, packaging and labelling of chemical substances and mixtures (CLP).

It strengthens a number of areas such as public access to information and standards of inspection and will continue to ensure a high level of protection to human health and the environment from major accidents involving dangerous substances.

In particular, it forces the safety management system (SMS) safety management system to consider subcontracting and the ageing of equipment. This can obviously be considered from a procedural point of view, thus qualitatively, but since it has been demonstrated that the risk assessment is the design basis of the safety management systems, it is of major interest to identify a methodology to keep quantitatively into account the ageing of the equipment within the risk analysis of major risk installation.

This paper introduce a review of the available methodologies, till now developped and applied mainly for building and structures and nuclear power plants with a glance to their inclusion in the risk analysis of process plants.