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# Application of risk-based inspection methods for cryogenic equipment

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Risk-based Inspection (RBI) is widely applied across the world as part of Pressure Equipment Integrity Management, especially in the oil and gas industry, to generally reduce costs compared with time-based approaches and assist in assigning resources to the most critical equipment. One of the challenges in RBI is to apply it for low temperature and cryogenic applications, as there are usually no degradation mechanisms by which to determine a suitable probability of failure in the overall risk assessment. However, the assumptions used for other degradation mechanisms can be adopted to determine, qualitatively and semi-quantitatively, a consequence of failure within the risk assessment. This can assist in providing a consistent basis for the assumptions used in ensuring adequate process safety barriers and determining suitable sizing of relief devices. This presentation will discuss risk-based inspection in the context of cryogenic safety, as well as present some of the considerations for the risk assessment input.

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