

Z-013 Rev. 03 Annex G



Procedure for probabilistic explosion simulation

Annex G Participants

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Purpose

- Simplify the structure
 - Standardize the methodology
 - Define more precisely
 - Emphasize suitability for purpose
 - Enhance transparency & reproducibility
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The structure of the Annex

- G.1 Introduction and basic requirements
 - G.2 Explosion modelling overview
 - G.3 Leakage
 - G.4 Gas cloud formation
 - G.5 Ignition
 - G.6 Explosion
 - G.7 Calculation of response
 - G.8 Uncertainty
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Standardization and suitability

- Reporting of results
 - Influencing assumptions
 - Intermediate results
 - Final results
 - Cumulative distributions
 - Identification and presentation of dimensioning accidental scenarios
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Changes in methodology

- **Calculation of equivalent stoichiometric gas cloud**
 - Gas amount above UEL is treated differently
 - Highly enclosed modules is treated specifically
 - Ventilation governed modules/areas treated specifically
 - **Ignition modelling**
 - Transient modelling of the gas cloud
 - Treating gas amount >UEL specifically
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Changes in methodology

– Effect of deluge

- The effect on gas dispersion and cloud formation should be evaluated

– Structural response interface

- NORSOK N-004 is referred for response analysis
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