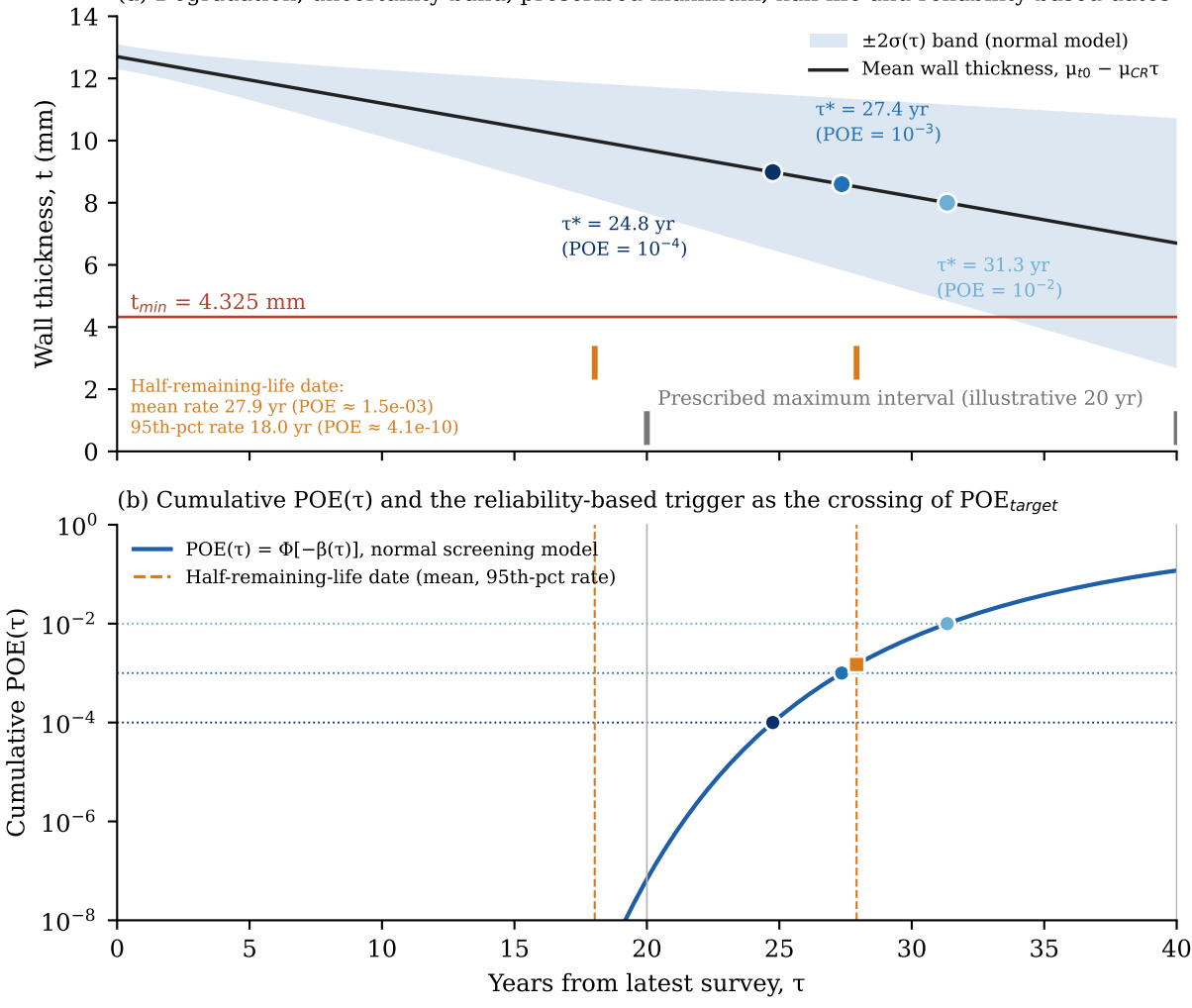
(a) Degradation, uncertainty band, prescribed maximum, half-life and reliability-based dates
±2σ(τ) band (normal model)
Mean wall thickness, μt0 − μCRτ
τ* = 27.4 yr
(POE = 10−3)
τ* = 24.8 yr
(POE = 10−4)
τ* = 31.3 yr
(POE = 10−2)
tmin = 4.325 mm
Half-remaining-life date:
mean rate 27.9 yr (POE ≈ 1.5e-03)
95th-pct rate 18.0 yr (POE ≈ 4.1e-10)
Prescribed maximum interval (illustrative 20 yr)
Wall thickness, t (mm)
(b) Cumulative POE(τ) and the reliability-based trigger as the crossing of POEtarget
POE(τ) = Φ[−β(τ)], normal screening model
Half-remaining-life date (mean, 95th-pct rate)
Cumulative POE(τ)
Years from latest survey, τ