

+ **ASTM E06.52.10 WK65259**
A MAXIMUM STRESS DESIGN
PROCEDURE FOR CERAMIC ENAMELED
GLASS UNDER UNIFORM WIND LOAD

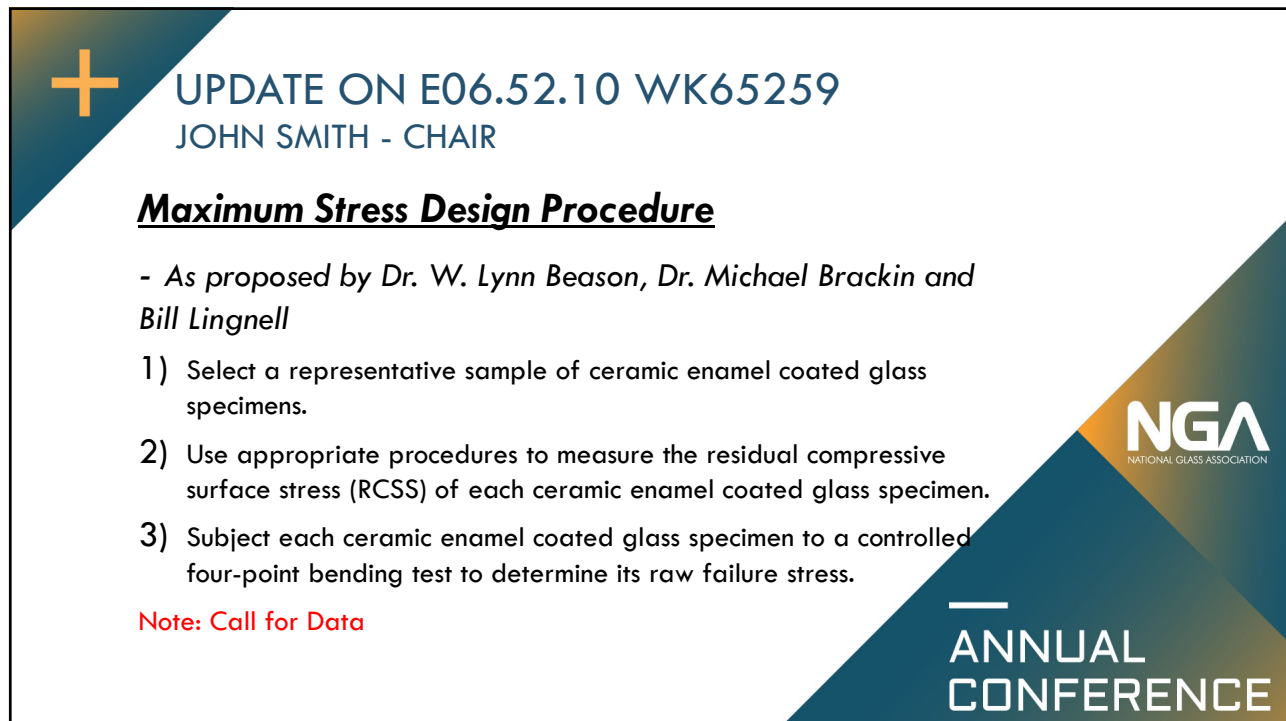
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JOHN SMITH - CHAIR

Maximum Stress Design Procedure

- *As proposed by Dr. W. Lynn Beason, Dr. Michael Brackin and Bill Lingnell*

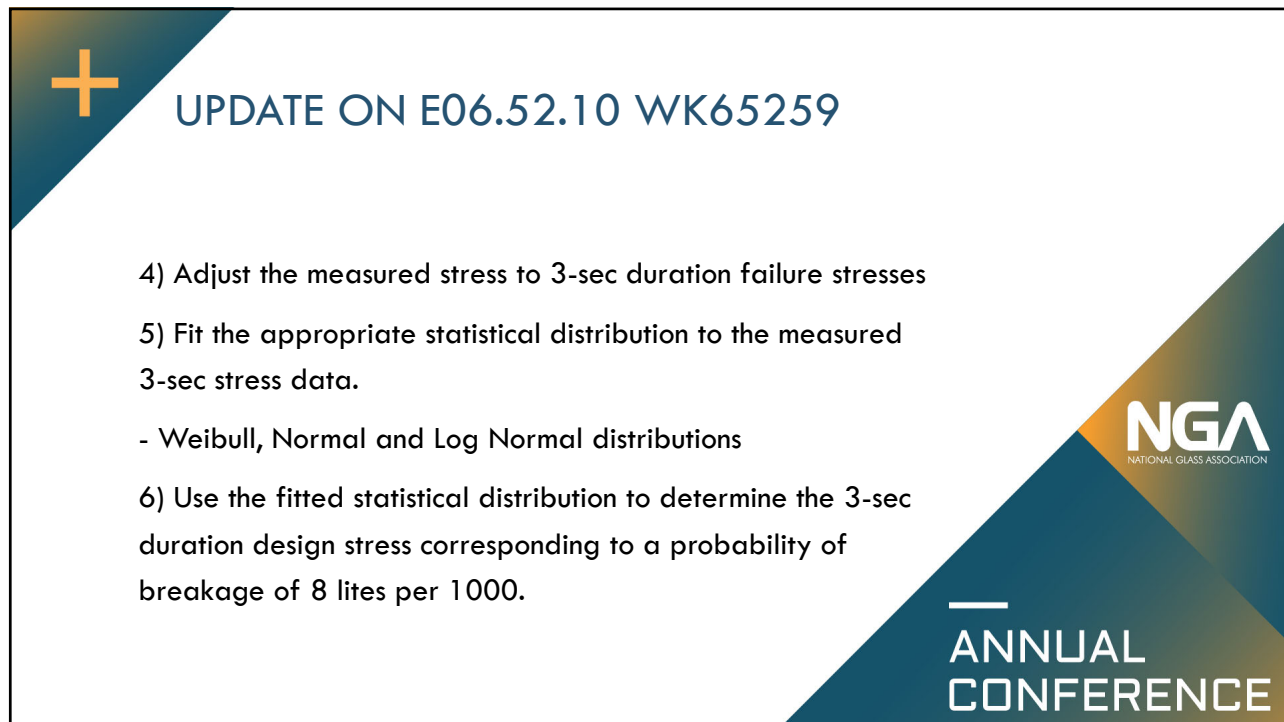
- 1) Select a representative sample of ceramic enamel coated glass specimens.
- 2) Use appropriate procedures to measure the residual compressive surface stress (RCSS) of each ceramic enamel coated glass specimen.
- 3) Subject each ceramic enamel coated glass specimen to a controlled four-point bending test to determine its raw failure stress.

Note: Call for Data

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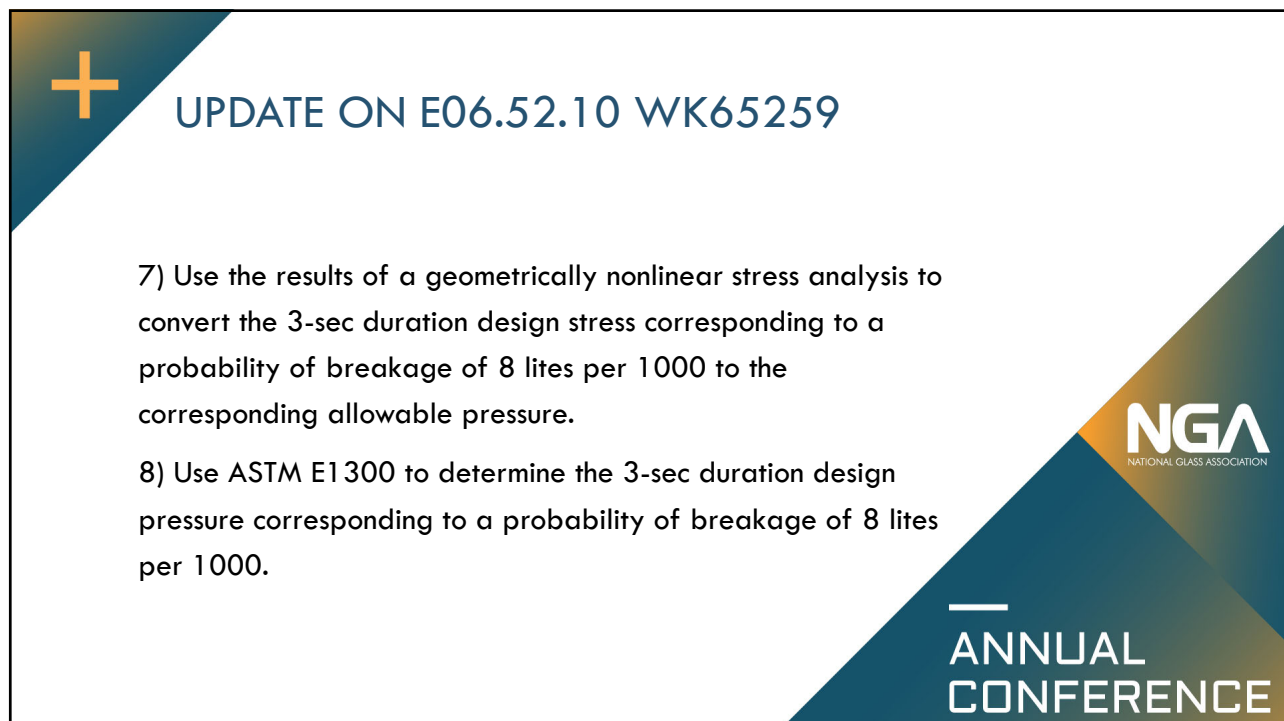


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- 4) Adjust the measured stress to 3-sec duration failure stresses
- 5) Fit the appropriate statistical distribution to the measured 3-sec stress data.
 - Weibull, Normal and Log Normal distributions
- 6) Use the fitted statistical distribution to determine the 3-sec duration design stress corresponding to a probability of breakage of 8 lites per 1000.

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- 7) Use the results of a geometrically nonlinear stress analysis to convert the 3-sec duration design stress corresponding to a probability of breakage of 8 lites per 1000 to the corresponding allowable pressure.
- 8) Use ASTM E1300 to determine the 3-sec duration design pressure corresponding to a probability of breakage of 8 lites per 1000.

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9) The 3-sec duration design pressure corresponding to a probability of breakage of 8 lites per 1000 shall be taken to be the smaller of the pressures from steps 7 and 8.

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