

Hot Issues in Fire Engineering

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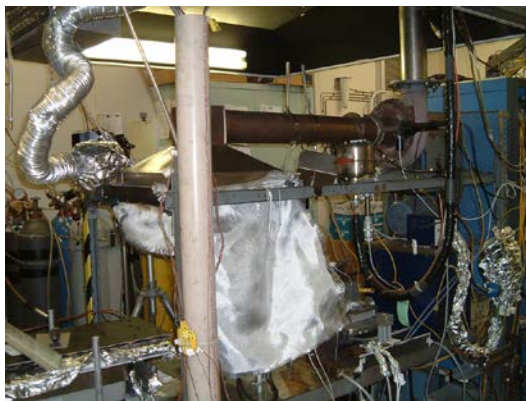
RSET/ASET, A Flawed Concept for Fire Safety Assessment

W.K. Chow

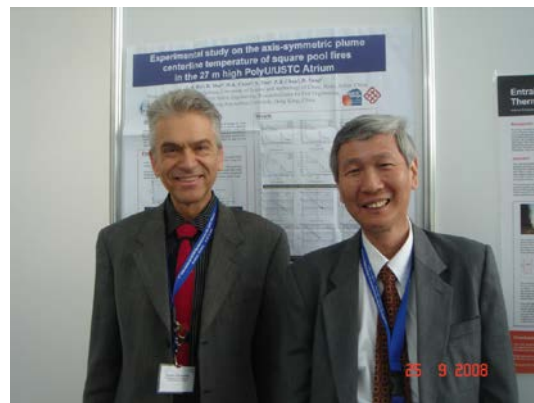
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Further to pointing out the concern on applying the timeline analysis with Available Safe Egress Time (ASET) and Required Safe Egress Time (RSET) in crowded subway stations [1,2], readers are drawn their attention to an article [3] introducing the flawed concept on RSET-ASET, if not used properly in fire safety assessment.

This article was published by Dr. V. Babrauskas, a renowned fire scientist who built up the first cone calorimeter in the World at the Center for Fire Research, National Institute of Standards and Technology (NIST), USA.



The first cone calorimeter at NIST



With Dr. V. Babrauskas at IAFSS 2008

Officers approving fire engineering approach (FEA) or performance-based design (PBD) projects are strongly recommended to read this article carefully, watch the concerns and request appropriate justification on all new and existing projects involving timeline analysis. This is particularly important in crowded underground subway stations [4] with ASET very near to RSET.

References

1. W.K. Chow, “Timeline Analysis with ASET and RSET” (2011). Available at: http://www.bse.polyu.edu.hk/researchCentre/Fire_Engineering/Hot_Issues.html
2. W.K. Chow, “Six points to note in applying timeline analysis in performance-based design for fire safety provisions in the Far East”, International Journal on Engineering Performance-Based Fire Codes, Vol. 10, No. 1, pp. 1-5 (2011). Available at: http://www.bse.polyu.edu.hk/researchCentre/Fire_Engineering/summary_of_output/journal/journal_EP.html
3. V. Babrauskas, J.M. Fleming and B.D. Russell, “RSET/ASET, a flawed concept for fire safety assessment”, Fire and Materials, Vol. 34, pp. 341-355 (2010).
4. C.L. Shi, M.H. Zhong, X.W. Tu, T.R. Fu and L. He, “Deep underground subway station fire experiment and numerical analysis”, Science Publisher, Beijing, China (2009) – In Chinese.

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