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CROSS International

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Abstract

CROSS - Confidential Reporting on Structural Safety – has been operated since 2005 by the UK Structural-Safety group to help engineers learn from the experiences of others to avoid structural failures. Reports are submitted confidentially by practitioners and comments are added from a panel of industry experts. Anonymised reports with comments are added to a data base and published in Newsletters which are widely circulated and read by designers and contractors. Whilst the system is primarily for the UK there have been expressions of interest in expanding it to other countries from organisations in Europe, Australia, the USA and South Africa. The aim is to set up an International arrangement whereby countries with equivalent confidential reporting schemes would add reports to a central data base. Experience on preventing failures and structural collapses, some with catastrophic consequences, would be freely shared amongst both developed and developing countries in a confidential, independent, and expert way. The paper will present proposals for how this can be achieved and the benefits that would be obtained.

Keywords: CROSS; SCOSS; Structural-Safety; International; confidential; reporting; learning

1 Introduction

Failure can have many forms but a useful definition has been given by Ratay [1];
"Nonconformity with design expectations *or* Unacceptable difference between intended and actual performance." These range from complete collapse of structures through to local distress of members. The reasons for failure can generically be attributed to People, Process or Product, the three Ps, although ultimately most are related to the human factor. Causes usually include one or more of: incompetence, negligence, oversight/carelessness, greed, disorganisation, poor communication, misuse, and neglect.

A reduction in failures is an important objective and whilst there are no known statistics about the number of failures internationally the number is very significant. Many people die from the collapses of structures around the world but with changes in culture and regulation much can be achieved. In the UK construction industry, for example, between 1974 and 2015 fatal injuries to employees fell by 86% and non-fatal injuries fell by 77%.

A wider acceptance of the benefits of learning from the experiences of others would help to reduce structural failures so this paper is aimed at those who could make a difference by establishing confidential reporting schemes in their own countries.

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